84248

BCCRF
Bangladesh Climate Change Resilience Fund

annual report 2012

BANGLADESH CLIMATE CHANGE RESILIENCE FUND

BCCRF

Bangladesh
Climate Change
Resilience Fund

annual report 2012

Bangladesh Climate Change Resilience Fund (BCCRF)
101 Old Ban Bhaban
5th Floor
Mohakhali
Dhaka 1212
www.bccrf-bd.org

Ministry of Environment and Forests
Government of People's Republic of Bangladesh
Building no. 6, Bangladesh Secretariat
Dhaka, Bangladesh.
www.bccrf-bd.org

All BCCRF Annual Report publications are downloadable at: www.bccrf-bd.org

Standard Disclaimer:
This report has been discussed with the Government of Bangladesh and the BCCRF development partners but does not bear their approval for all its contents, especially where the Bank has stated its judgment/opinion/recommendations. The findings, interpretations and conclusions expressed in this report are based on staff analysis and recommendations and do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent.

Designed by Mohammad Inamul Shahriar and published by Progressive Printers Pvt. Ltd, Dhaka, Bangladesh.

Illustration Credits:
Front Cover: Arne Hoel

BANGLADESH CLIMATE CHANGE RESILIENCE FUND (BCCRF)

Annual Report 2012

(January - December 2012)

Prepared by

The World Bank

CONTENTS

ACRONYMS

AA	Administration Agreements
AAA	Analytical and Advisory Activities
ADB	Asian Development Bank
BCCRF	Bangladesh Climate Change Resilience Fund
BCCTF	Bangladesh Climate Change Trust Fund
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BWDB	Bangladesh Water Development Board
CCA	Climate Change Adaptation
CCCP	Community Climate Change Project
CDM	Clean Development Mechanism
DAE	Department of Agricultural Extension
DCC	Dhaka City Corporation
DRM	disaster risk management
DWASA	Dhaka Water and Sewerage Authority
ECRRP	Emergency 2007 Cyclone Recovery and Restoration Project
ERD	Economic Relations Division
FAO	Food and Agriculture Organization of the United Nations
GC	Governing Council
GCM	Global Climate Model
GoB	Government of Bangladesh
IDA	International Development Association
IDCOL	Infrastructure Development Company Limited
IPCC	Intergovernmental Panel on Climate Change
LCG	Local Consultative Group
LF	Logical Framework
LGED	Local Government Engineering Department
MC	Management Committee
MDG	Millennium Development Goals
MoA	Ministry of Agriculture
MoD	Ministry of Defense
MoE	Ministry of Education
MoEF	Ministry of Environment and Forests
MoFDM	Ministry of Food and Disaster Management
MoPME	Ministry of Primary and Mass Education
MoWR	Ministry of Water Resources
MOU	Memorandum of Understanding
NIEs	National Implementing Entities
OWP	Overall Work Plan
PKSF	Palli Karma Shohayak Foundation (Rural Activities Support Foundation)
RAJUK	Rajdhani Unnayan Kartipakkha (Dhaka City Development Authority)
ROM	Results Oriented Monitoring
Sida	Swedish International Development Cooperation Agency
SPARRSO	Bangladesh Space Research and Remote Sensing Organization
SPSP	Sector Policy Support Program
SRES	Special Report on Emissions Scenarios, IPCC
TA	Technical Assistance
TTL	Task Team Leader
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

1
OVERVIEW

1 OVERVIEW

1. Bangladesh is one of the most vulnerable countries in the world facing the potential impacts of climate change. To address this challenge, Bangladesh launched its first Climate Change Strategy and Action Plan (BCCSAP) in 2009 to build a medium-term to long-term program for enhancing resilience to climate shocks and facilitating low carbon and sustainable growth. BCCSAP identified six main pillars: (i) food security, social safety and health; (ii) comprehensive disaster management; (iii) infrastructure; (iv) research and knowledge management; (v) mitigation and low carbon development; and (vi) capacity building to address climate change impacts on various sectors of development.

2. To support the implementation of BCCSAP, development partners—United Kingdom Department for International Development (DFID), Denmark, Sweden and the European Union (EU)—established the Bangladesh Climate Change Resilience Fund (BCCRF). In May 2010, the Government of Bangladesh (GoB) and the development partners jointly signed a Memorandum of Understanding (MOU). Switzerland joined in as a development partner in December 2010, while the Australian Agency for International Development (AusAID) and United States Agency for International Development (USAID) joined in 2012. Together with supplemental contributions by Sweden and Switzerland, the total pledged amount as of end of 2012 was approximately US$188 million.

Key Dates

May 31, 2010	MOU signed
July 6, 2010	DFID & Denmark sign contribution to BCCRF
Nov 8, 2010	Sweden signs contribution to BCCRF
Dec 6, 2010	Switzerland signs contribution to BCCRF
Dec 15, 2010	EU signs contribution to BCCRF
Feb 23, 2011	1st MC meeting
April 13, 2011	2nd MC meeting
April 25, 2011	3rd MC meeting
May 19, 2011	1st GC meeting
Oct 13, 2011	4th MC meeting
Nov 16, 2011	5th MC meeting
May 1, 2012	AusAID signs contribution to BCCRF
May 3, 2012	USAID signs contribution to BCCRF
June 7, 2012	6th MC meeting
June 12, 2012	2nd GC meeting
July 5, 2012	7th MC meeting
Dec 12, 2012	MC members Vision Statement meeting

3. BCCRF is owned and managed by the GoB. The Governing Council (GC) comprising a core group of cabinet Ministers of the Government, civil society and donor representatives provides overall strategic guidance while the Management Committee (MC) led by the Secretary of the Ministry of Environment and Forests (MoEF) reviews grant requests, among others (See Annex 1 for BCCRF Governance and Roles). The BCCRF secretariat anchored in the MoEF works in close collaboration with the World Bank. On behalf of the contributing development partners and in consultation with the GoB, World Bank will be executing due diligence requirements for BCCRF (including fiduciary management, transparency and accountability) for a limited duration. BCCRF is designed such that all investment projects are recipient-executed grants, i.e. executed by the GoB and its designated agencies or other eligible institutions. The Bank will execute analytical and advisory activities (AAAs) as agreed jointly with the GoB.

4. During the current reporting period (January–December 2012), MC members met thrice, and the GC meeting was held once in June. During the latter half of 2012, there was a strong momentum to develop a vision statement for the BCCRF that would serve as the foundation for the results framework which is expected to get finalized by the end of the second quarter of 2013. Two investment projects under the BCCRF listed below started disbursements in 2012:

Projects	Total disbursement by December 31, 2012 (US$)
(i) BCCRF Secretariat project (first phase)	30,788
(ii) Climate Resilient Participatory Afforestation project	200,000

5. In June 2012, the MC approved three project proposals for further preparation, among which one was to be formulated as AAA. The two investment projects that are approved for further preparation are shown below:

Approved Projects	Committed Amount (US$ million)
(i) Modern Food Storage Facilities	25.0
(ii) Solar Irrigation	24.5

6. In addition to the two ongoing AAAs (as mentioned later in the report), the MC approved five proposals for new/modified AAAs. The BCCRF received media coverage through a number of national and international channels in 2012 that improved its visibility significantly. The details of achievements in 2012 are described in subsequent sections.

2
PROGRAM MANAGEMENT

2
PROGRAM MANAGEMENT

2.1 PROGRAM MANAGEMENT MISSION (JANUARY, 2012)

7. From January 8 to 19, 2012, a World Bank team led by the BCCRF task team leader (TTL) conducted a mission in Dhaka to follow upon the overall BCCRF program. The Bank team met representatives from AusAID, Embassy of Denmark, European Union, Swedish International Development Cooperation Agency (Sida), Swiss Embassy, UK DFID, and MoEF. An Aide Memoire was prepared (Annex 2), and was formally discussed at a wrap-up meeting on January 18, which was chaired by Mr. Mesbah Ul Alam (MoEF Secretary), and attended by the development partner representatives. The Aide Memoire included findings, recommendations and agreements listed below; section titles in brackets indicate corresponding sections in this Annual Report that describe how issues are being followed up:

- Updated status of contributions to BCCRF (2.7 Financial Reporting)
- Updated status of proposals approved by MC (2.7 Financial Reporting)
- Timeline for project development (3.2.2 Details of AAAs Approved by MC)
- Priority areas for AAAs (3.1.3 Details of Projects Approved by MC for Preparation)
- Updated status of the draft annual report, results framework (2.3 Results Framework)
- Updated status of the communications strategy (2.4 Communications)
- Updated status of establishing the BCCRF secretariat at MoEF (3.1.3 (2) Secretariat for BCCRF)
- Pipeline development (3.1.1 Review of Project Proposals)
- Extension of BCCRF closing date (paragraph below and 3.1.3 (5) Afforestation project)
- Program Manager recruitment (2.6 Staffing)
- Schedule of the MC meetings (1. Overview)
- Change of development partner representation (Annex 1 (i))

8. During this mission, development partners and MoEF agreed to extend the end disbursement date (June 30, 2015) in the BCCRF administration agreements (AAs). Legal agreements to amend the AAs between the seven development partners and the Bank were counter-signed during or before July 2012, and the disbursement date was extended until June 30, 2017.

2.2 CAPACITY BUILDING

9. At the heads of agencies meeting on September 6, 2012, the BCCRF Program Manager elucidated the functions currently performed by the Bank. She emphasized the importance of strengthening the capacity of the MoEF Secretariat to perform the secretariat functions currently carried out by the World Bank (See Annex 1 for details). The meeting is considered a milestone for stakeholders as it initiated the process of establishing consensus on the

future role of BCCRF in strengthening MoEF's capacity. The topics discussed at the meeting included the following: (1) MoEF secretariat should aim to handle multiple sources of climate change funds; (2) secretariat functions currently performed by the World Bank should be gradually transferred to the MoEF secretariat as capacity is built; (3) GoB should be provided support for well-informed decision-making to identify appropriate candidates as national implementing entities (NIEs); (4) once the scope of MoEF secretariat functions are clarified, a capacity building project may be considered to supplement and complement similar activities by other donors; and (5) the outcomes of the recent DFID consultancy (Lars Johannessen) should be incorporated into the MoEF secretariat capacity building project. Ever since the meeting, capacity building aspects have gained importance in the BCCRF program, and subsequently BCCRF's vision statement was deliberated upon with an understanding of the ongoing discussion on capacity building.

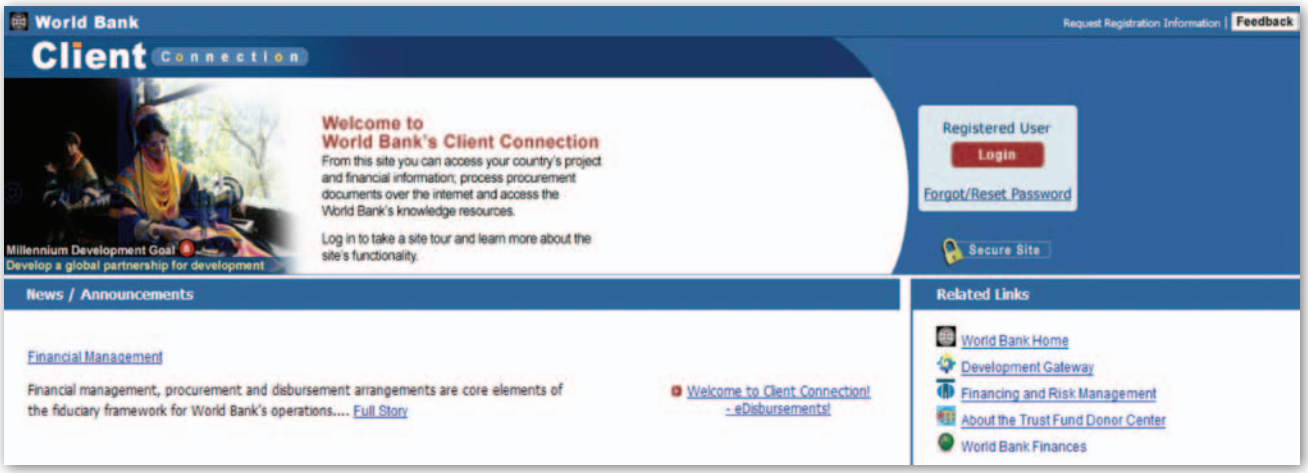
10. In addition to the capacity building project, there are a number of BCCRF-funded activities that contribute to capacity strengthening. Each of the sectoral projects under BCCRF has specific capacity building activities inherent to the project design that will benefit the sector departments that are implementing the projects. Further, as shown in the "Updated Status" section of the cyclone shelter project below, interaction through supervision is one of the measures to raise awareness of GoB staff for better project implementation. In addition, as a Bank rule, GoB staff engaged in projects under BCCRF will receive training to use the Bank's *Client Connection*, which is a web-based system for:

1) Instant access to real-time financial data;
2) Electronic submission of payment requests;
3) Procurement plan and document submission;
4) Instant access to bills, monthly disbursement summaries, payment advice.

2.3 RESULTS FRAMEWORK

11. The Implementation Manual (March 7, 2011) includes an indicative results framework in addition to the project-level results framework. There is a consensus that the World Bank team needs to revise/finalize the results framework to capture the programmatic nature of BCCRF. During 2012, there was a strong momentum among stakeholders to reach an agreement to finalize such a results framework. At the development partners meeting held on October 15, 2012, the Bank's Senior Monitoring and Evaluation Specialist presented a draft results framework for BCCRF. Subsequently, various options regarding the expected results framework were discussed. The development partners felt that to reach an agreement on the results framework, a consensus would need to be established on BCCRF's vision statement. For this the development partners, namely AusAID, Danida, DFID, EU and USAID, held a one-day workshop on October 21, 2012 and reached an agreement on BCCRF's vision statement.

12. Building on the outcome of the October workshop, a similar one-day workshop inviting MC members was held



on December 12, 2012 to finalize the vision statement. Prior to the workshop, the World Bank BCCRF core team and MC members held bilateral meetings to discuss the potential vision statement, where many issues were identified (e.g. of Bangladesh not having an NIE accredited by climate change global financial mechanisms). At the December workshop, MC members also agreed on BCCRF's vision statement (see box on next page):

> By 2020 the BCCRF will be a government led, owned and managed collaborative, and sustainable climate change financing mechanism, which is transparent and accountable, aimed at developing capacity and resilience of the country to meet the challenges of climate change.
>
> BCCRF will support the implementation of the BCCSAP through an institutional framework by:
>
> 1. Providing a platform for coordination of BCCRF stakeholders and acting as a catalytic agent for wider coordination
> 2. Serving as a climate fund, which also brings innovation, harmonization and added value to the GoB's climate change initiatives
> 3. Serving as a financing mechanism to bring global climate change funding to Bangladesh
> 4. Supporting implementation of prioritized, results-oriented climate change interventions that deliver sustainable outcomes particularly targeting the least resilient.

13. Subsequent to the December workshop, the results framework is being modified, and will possibly be finalized in early 2013.

14. EU Results Oriented Monitoring (ROM) mission. As part of the efforts to deepen discussions regarding the results framework and annual performance review of EU-funded activities, the EU invited a ROM specialist from September 16 to 20, 2012 to assess the performance of the BCCRF program based on the logical framework. The assessment document, which includes an interim performance assessment according to the five standard criteria (relevance, efficiency, effectiveness, impact, and sustainability), was circulated in early October among development partners, the Bank and GoB. Recommendations in the ROM Report are presented as Annex 3.

2.4 COMMUNICATIONS

15. Communications will play an even greater role for the BCCRF program, as it aims to become a nationally owned platform to coordinate climate change finance. BCCRF program's communication is focused on knowledge sharing, transparency, improved visibility, enhanced project effectiveness and attracting new donors. The target includes a wide range of stakeholders, such as government officials, NGOs, civil society members, climate change negotiators, development partners, academics, students, mass media, local level grass root organizations and target beneficiaries who are vulnerable to the effects of climate change. During 2012, BCCRF had a number of achievements in communications and outreach.


BCCRF
Bangladesh Climate Change Resilience Fund

Climate Action

Issue 2 □ November 2012

Solar panel drawing enough water daily to irrigate 40 acres of land in Sohagpur, Dhamrai

Affordable and Reliable Solar Irrigation

Happy farmer with a good harvest in Sohagpur, Dhamrai – thanks to solar pump

During the last season, I spent a large amount on diesel to irrigate my crops. Now with the solar irrigation pump, the cost has reduced by almost half.

"The irrigation pump will run with solar power, we thought it was too good to be true; but now this is a reality. With the solar pump installed, we are getting sufficient water with lower monthly bills than we spent on buying diesel to run the generator", said smallholder farmer Mamun, from the Sohagpur village in Dhamrai.

For farmers like Mamun, the subsidized solar photovoltaic (PV) panels provided by Infrastructure Development Company Ltd. (IDCOL), is like a dream come true. These have replaced traditional electric or diesel run irrigation pumps and can draw up to 400,000 liters of water daily, enough to irrigate 40 acres of land.

Bangladeshi farmers are facing many challenges from climate change. Variations in rainfall patterns and extreme temperatures have affected crop production severely. The situation only worsens without electrical grid coverage. Irrigation needs are always urgent: even a day without water could crack the land, damaging the quality and yield of crops. Till now, farmers have been mostly dependent on expensive and often scarce diesel fuel. The solar pump technology is ideal for the country's flat terrain which receives an abundance of sunshine. It is especially cost-effective in areas without electrical grid coverage, additionally reducing the government's fuel subsidy for the agriculture sector. *"During the last season, I spent a large amount on diesel to irrigate my crops. Now with the solar irrigation pump, the cost has reduced by almost half"* states Islam, a farmer from Sohagpur. The farmers are assured of irrigation for their crops, even on the most overcast days. The solar pumps enable an easy installation and transition from the traditional systems. They have no moving parts, function without noise or pollution and require virtually no maintenance.

By lowering their usual diesel costs by almost half, the impact of solar pumps is evident from the smiles of the farmers. *"This technology has attracted other farmers from the neighboring areas. They see that we are spending less and that our work has become simpler; now they are quite interested in accessing this system too"*, summarizes Farmer Hossain.

Popularizing the use of solar pump technology is one of many initiatives of the Bangladesh Climate Change Resilience Fund (BCCRF) to facilitate climate change

16. **Doha side-event (organized by Bangladesh and Maldives)**. During the 18th United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP18/CMP8) in Doha (November 26–December 8, 2012), a side-event was held at the EU pavilion on December 7, which improved BCCRF's visibility significantly. At the side-event, the Honorable Ministers of Environment of the GoB (Dr. Hasan Mahmud) and Government of Maldives (Dr. Mariyam Shakeela) discussed how their countries are prioritizing climate change issues as a key developmental challenge. In addition to the national programs such as the Bangladesh Climate Change Trust Fund (BCCTF), Dr. Hasan Mahmud elaborated on the achievements of BCCRF, and emphasized that Bangladesh is already a global hotspot for tropical cyclones and other climatic events. Mr. Michael Starbaek Christensen (EU Deputy Head of Cabinet) presented his viewpoint and Rachel Kyte (World Bank Sustainable Development Network Vice President) moderated the event. A press-release for this side-event was issued and key messages about BCCRF, such as GoB being at the helm of project selection were widely reported (Annex 4).

17. A BCCRF information package was prepared and circulated at the side event. The package, which included a newsletter (available at http://www.bccrf-bd.org) highlighting BCCRF's ongoing activities and MoEF/MoF Minister's interviews and a one-page fact sheet, provided useful background information to supplement the Honorable Minister's presentation. The information package was also circulated at the briefing session on November 12 in Dhaka, which intended to share BCCRF updates with the Bangladesh climate change delegation and mass media. The Honorable Minister of MoEF made a statement during the briefing session while the MoEF Secretary made opening remarks. H.E. Mr. William Hanna, Ambassador of the European Union to Bangladesh in his speech urged the GoB to play an even greater role in climate change negotiations. MoEF Joint Secretary (BCCRF Project Director) Dr. Mohammad Nasir Uddin moderated the question and answer session. The briefing session was reported by five television channels and eight newspapers, which included newspapers in China and New Zealand.

18. **Cost of Adapting to Extreme Weather Events** in a Changing Climate report released. The Cost of Adapting to Extreme Weather Events in a Changing Climate (a World Bank study conducted to identify AAAs to be prioritized under the BCCRF) report was released in Dhaka on March 1, 2012. The report stated that estimated adaptation costs from increased risks of cyclones and inland monsoon floods in a changing climate would be approximately US$5.7 billion by 2050. The media widely reported the event, together with the Honorable Minister's statement that, "Climate Change is no longer only an environmental issue; it is a development issue" (Annex 4).

19. **A signing ceremony for a grant agreement**. This ceremony was held on August 12, 2012 for the Community Climate Change Project (CCCP). Since this project plans to channel BCCRF resources to a large number of local non-government organizations (NGOs) for community-driven adaptation efforts, the signing ceremony served as an announcement for NGOs to be prepared for the up-coming project launch. Many contributing development partners attended the ceremony, and a DFID representative made a statement on behalf of all development partners contributing to BCCRF. A press release was issued for this ceremony (Annex 4).

20. **Independent website for BCCRF.** The BCCRF website is a crucial tool to ensure interactive communications for the program. The site was hosted temporarily on the World Bank site, but since November 22, 2012 an independent website for BCCRF has been made operational (http://www.bccrf-bd.org). The website is designed to provide details and formats for grant applications, disseminate analytical works and lessons learned, provide updated status of projects, improve visibility and also attract potential donors. The website will be jointly maintained by the MoEF BCCRF secretariat and the World Bank BCCRF core team.

21. **BCCRF communications strategy** is being prepared. This strategy will have a clear objective focusing on detailed communication activities targeting major stakeholders, and intends to outline BCCRF vision statement, map out major outreach materials and present key messages for each

audience group. The communications strategy is expected to be finalized shortly after finalization of the results framework.

2.5 COORDINATION WITH OTHER PROGRAMMES

22. A large number of development partners are assisting GoB's climate change efforts in many ways, and since BCCRF is the largest multi-donor trust fund program supporting such efforts, the World Bank team has been making efforts to coordinate the process.

23. **The Asian Development Bank (ADB)**. ADB is carrying out technical assistance (TA) to support the implementation of BCCSAP since 2009. The second phase of TA approved in 2011 had the following activities that are relevant to the BCCRF program.

- Preparation of country-specific 'climate proof' program and project guidelines for prioritized sectors in line with the BCCSAP;
- Facilitation of the formulation of sector-specific programs and projects and update of relevant policies;
- Preparation of the program for clean development mechanism (CDM) and Nationally Appropriate Mitigation Action (NAMA);
- Preparation of the program for knowledge management and enhancement of operational effectiveness.

24. The BCCRF Program Manager and responsible ADB officers held a meeting in August 2012, and both sides acknowledged that the two initiatives are complementary with potential for synergy.

25. **Deutsche Gesellschaftfür Internationale Zusammenarbeit (GIZ)**. A GIZ (Federal German Government's affiliate for official development assistance) mission visited Dhaka in September 2012 to explore the possibility of formulating a project to strengthen MoEF's coordinating capacity for implementing BCCSAP. Subject to the approval by the Federal German Government, the intervention areas proposed during the mission were:

- Strengthening policy coordination of MoEF;
- Access to and efficient management of climate financing;
- Technical capacity development for Climate Change Unit under MoEF and other public institutions.

26. GIZ held a meeting on September 19, 2012 to share the findings of the mission, and a number of development partners expressed concern that GIZ's proposed project has a possibility to overlap with ongoing efforts such as those by ADB and the BCCRF program. Because of the potential overlap, the progress of GIZ project formulation is being followed-up, and is expected to continue beyond January 2013.

27. **Food and Agriculture Organization of the United Nations (FAO)**. FAO performed an assessment of MoEF's needs for capacity building, and the findings were shared at the Local Consultative Group (LCG) working group meeting on September 26, 2012. Key findings include modest level

of staffing, inadequate coordination in climate change issues, inadequate monitoring and evaluation, and weak information technology capacity. Subsequently, based on the findings, FAO developed a project concept to support MoEF's policy, program, climate change coordination, and monitoring and evaluation. FAO presented the project concept note on October 14, 2012 in a meeting chaired by the MoEF Secretary, and as with GIZ, a number of development partners expressed concerns about the possible overlap. The progress of FAO project formulation is being followed-up as well, and is expected to continue beyond January 2013.

28. **Coordination in Early 2013**. In early 2013, the Bank team had a series of preliminary discussions with partner institutions, such as FAO, GIZ, United Nations Development Programme (UNDP) and ADB, to understand their ongoing capacity building initiatives. The discussions highlighted that strengthening BCCRF's secretariat in MoEF is an immediate priority. Other long-term capacity building options include policy strengthening, NIE accreditation, technical training of MoEF and the line ministries, knowledge management and monitoring/evaluation. The Bank team noted that current multiple initiatives require coordination and complementarities in support. The Bank team had discussions with the MoEF Secretary to stress the need for coordination from the Ministry's side. The Secretary expressed an interest to develop a coordinated capacity building plan that could become the foundation for all capacity building initiatives and projects by different donors. It was agreed with MoEF officials that the Local Consultative Sub-Group on Environment and Climate Change co-chaired by DFID and MoEF would organize a workshop in the near future for all donors interested in climate change-related capacity building with a view to coordinate efforts and develop an integrated capacity building roadmap. A coordinated capacity building plan is expected to help BCCRF identify the gaps and focus its activities to complement the ongoing initiatives. Subsequently, the Bank identified a team of staff and consultants that formulated a draft conceptual framework on capacity building based on secondary reviews and comprehensive consultations with partner institutions, development partners and GoB officials undertaken during March 10-31, 2013.

2.6 STAFFING

29. In March 2011, the MC approved the Implementation Manual (March 7, 2011) in which the roles and responsibilities of the World Bank BCCRF core team are stated. Until the MoEF BCCRF secretariat is staffed and becomes fully operational, the World Bank BCCRF core team will perform some of the secretariat functions. The World Bank BCCRF core team consists of a Program Manager, Senior Portfolio Monitoring and Results Specialist, Communications Specialist, Operations Analyst, and administrative support staff.

30. The World Bank has been making efforts to recruit a person for the Dhaka-based Program Manager position. The position was advertised in August 2009, but the selected candidate eventually took up another position. The second advertisement was made in December 2011, but the selected Program Manager who came on board in July 2012 returned to Washington DC in early December 2012 because of health issues. During such periods when the Program Manager position lay vacant, the World Bank made arrangements to have the position jointly held by a Washington-based TTL and a Dhaka-based senior monitoring and evaluation specialist. On January 1, 2013, Ms. Priti Kumar, Senior Environmental Specialist, World Bank Office, Delhi was appointed as BCCRF Interim Program Manager, and the recruitment process for a new Program Manager has been initiated in Washington DC.[1] World Bank staff who are currently engaged in the BCCRF program are listed below. In addition, the new interim program manager has brought in specialists and international consultants from the headquarters/region for the strategic results framework and capacity building aspects. Finally, the Bank's task team consists of a number

[1] After an internal search for candidates in early 2013, a job opening is scheduled to be posted in early April, 2013.

of competent technical staff covering multiple disciplines as TTLs of BCCRF projects and AAAs as given below:

World Bank BCCRF Core Team:[2]

- (Interim) Program Manager
- Senior Monitoring and Evaluation Specialist[3]
- Communications Specialist
- Operations Analyst
- Administrative support staff

Project TTLs:

- Cyclone Shelter Project: Lead Water Resources Specialist
- Community Climate Change Project: Environmental Specialist
- Climate Resilient Participatory Afforestation and Re-forestation Project: Senior Environmental Specialist
- Secretariat: BCCRF TTL and Senior Monitoring and Evaluation Specialist
- Agricultural Project: Lead Water Resources Specialist
- Modern Food Storage: Lead Water Resources Specialist

(In addition to the technical specialists as TTLs, all the task teams include specialists for environment/social safeguards, financial management, procurement, legal due diligence and administrative support)

Analytical Work TTLs:

- Water logging of urban areas: Lead Environmental Economist
- Health impacts of climate change: Senior Environmental Economist
- Urir Char Cross-Dam Preparation Study: Water Resources Specialist
- Eco-Engineering, Climate Adaptation and Innovations in Flood Risk Mitigation: Senior Environmental Specialist
- Human and Financial Resilience to Natural Hazards: Senior Disaster Risk Management Specialist
- Spatial and Temporal Downscaling: Lead Environmental Economist

[2] Except the Program Manager position whose limited duration is described in the paragraph above, all the other four positions in the core team had one person each assigned throughout the reporting period, among which M&E specialist, communications specialist, and operations analyst are BCCRF's dedicated staff.

[3] This specialist is on secondment from DFID to the World Bank.

2.7 FINANCIAL REPORTING

31. During the reporting period, AusAID (AUD7 million) and USAID (US$13 million) joined BCCRF as contributing development partners, and two contributing development partners—Sweden (SEK40 million, November 22) and Switzerland (CHF8 million, December 9)—pledged supplemental contribution of approximately US$14.6 million in total. The total pledged amount is approximately US$188 million, of which about US$98 million remains as unpaid contribution as of December 31, 2012.

Table 1: Development Partners' Contributions to BCCRF (as of December 31, 2012)

Development Partners	Pledges			Deposits in pledged currency (million)	Deposits converted to US$ (million)	Ratio of unpaid contribution (%)
	Currency	Amount in pledged currency (million)	Amount in US$ (million)			
AusAID	AUD	7.0	7.1	7.0	7.1	0%
Denmark	DKK	10.0	1.8	10.0	1.8	0%
DFID	GBP	60.0	96.9	18.0	28.4	70%
EU	EUR	28.5	37.6	14.25	18.5	50%
Sweden	SEK	130.0	19.3	130.0	19.3	0%
Swiss	CHF	11.4	12.5	5.4	6.0	53%
USAID	USD	13.0	13.0	9.0	9.0	31%
Total			**188.2**		**90.0**	

Note:

1. Numbers may not add up due to rounding off.
2. Funds are converted from pledged currencies to US dollars when deposited, and fully paid contributions in Table 1 above are shown converted at the exchange rate actually used. Pledges not fully paid are shown in US dollars as an indicative estimate, using the exchange rate on December 31, 2012.
3. In addition to the resources shown in Table 1 above, by December 31, 2012 BCCRF earned an investment income of US$554,326 since its inception. The entire investment income is correctly credited to BCCRF, and forms part of its current fund balance to be used for the purpose of BCCRF.

32. Activities approved by the MC are presented in Table 2 below, and details are shown in Section 3.

Table 2: Activities Approved by MC by December 31, 2012

Activities and Responsible Agencies	US$ million	Status
1. Multipurpose Cyclone Shelter Construction Project (LGED)	25.0	Grant Agreement signed in August 2011.Contracts awarded for 61 new shelters, which is 90% of allocated funds. Construction to be completed by June 2014.Disbursement rate 24.5%.
2. BCCRF Secretariat (MoEF)	0.2	Grant Agreement signed in November 2011. Recruitment is in progress. Disbursement rate 15.3%.
3. Community Climate Change Project (CCCP) (NGO window) (PKSF)	(17.0)	Grant Agreement signed in August 2012.Call for concept notes in November 2012.
4. Agricultural Adaptation in Climatic Risk Prone Areas of Bangladesh (DAE/MoA)	22.8	Proposal preparation at final stages. Approval expected in FY13.
5. Afforestation and Reforestation for Climate Change Risk Reduction in Coastal and Hilly Areas of Bangladesh (Bangladesh Forest Dept)	33.8	Project preparation complete. Grant Agreement signed in Q1 2013. Work in the field already started.
6. Solar Irrigation Project (IDCOL)	24.5	Project preparation complete. Grant Agreement signing expected in early Q3 2013.
7. Modern Food Storage Facility (MoFDM)	25.0	Project preparation complete. Board Approval pending. Grant Agreement signing expected in Q3 2013.
8. Analytical and Advisory Activities (AAA) (Bank-executed): (1) Vector-borne disease (US$0.3 million) (2) Urban flood (US$0.5 million) (3) Urir Char Cross Dam study (US$0.7 million) (4) Adaptation in flood risk mitigation (US$0.3 million) (5) Resilience to natural hazards (US$0.2 million) (6) Spatial and temporal downscaling (US$0.3 million)	3.2	(1) Inception workshop held in Dhaka in April 2012. (2) Inception workshop held in Dhaka in June 2012.Supervision mission conducted in December 2012. (3) Concept approved on June 10, 2012. Detailed proposal is being prepared. (4) Proposal approved in November 2012. (5) Proposal approved in November 2012. (6) Proposal approved in November 2012.
	151.5	**81% of total pledged amount**

Note:
1. Trust fund fee is calculated at US$1.88 million (1% of total contributions), and program and project management fee is estimated to be US$4.1 million.
2. US$3.2 million for AAA is an allocated amount, and not the total amount of approved AAAs listed above.
3. The GC approved to allocate US$12.5 million for CCCP, but also agreed to reserve US$4.5 million in BCCRF resources so that it may be allocated to CCCP as additional funding in the future, and thus, the fund allocation for CCCP in the table above is shown as US$17 million. Refer to section 3.1.3 (3) for details.

LGED: Local Government Engineering Department; IDCOL: Infrastructure Development Company Limited;PKSF: Palli Karma Shohayak Foundation (Rural Activities Support Foundation); MoA: Ministry of Agriculture; DAE: Department of Agriculture Extension; MoFDM: Ministry of Food and Disaster Management

3
THE BCCRF PORTFOLIO

3
THE BCCRF PORTFOLIO

3.1 INVESTMENT PROJECTS

33. BCCRF has been designed (except for AAAs which are Bank-executed) in a manner that all investments are recipient-executed grants, i.e. to be executed by GoB, its designated agencies or other eligible institutions. Ten percent of the recipient-executed grants will be allocated to CCCP (NGO window) and executed by PKSF (Palli Karma Shohayak Foundation (Rural Activities Support Foundation); an institution nominated by GoB); government institutions will execute the remaining 90 percent of the grants. Sections 3.1.1 to 3.1.3 describe the proposal review during the reporting period and project status as of December 31, 2012 for recipient-executed projects.

3.1.1 Review of Project Proposals

34. During 2011, the MC approved five proposals for further preparation (cyclone shelter, secretariat, CCCP, agriculture and afforestation). In 2012, 18 proposals from various government agencies were reviewed, and investment proposals were discussed and reviewed in the 6th MC meeting in June. The BCCRF Program has seven agreed upon criteria to screen proposals:

- **Criteria 1: Size of proposal** – Approximated at US$15–25 million, based on assumptions regarding the expected size of the total contributions to the BCCRF and on cost-effectiveness of carrying out the appraisal and supervision of individual grants.
- **Criteria 2: Consistency with BCCSAP objectives** – Project activities should be directly linked to one or more of the objectives of the six pillars of the BCCSAP, namely: (i) Food security, social protection and health; (ii) Comprehensive disaster management; (iii) Infrastructure; (iv) Research and knowledge management; (v) Mitigation and low carbon development; and (vi) Capacity building and institutional strengthening.
- **Criteria 3: Experience with development operations** – Priority is given to proposals that use existing project units of development-type operations to administer the grant and the use of existing delivery channels, as far as possible, over the creation of new ones. Institutional capacity of the implementing agency is critical in ensuring that projects are efficiently delivered.
- **Criteria 4: Readiness for implementation** – Given the short implementation period of the grants, projects proposed should be at a relatively advanced stage of preparation, i.e. feasibility studies, detailed designs, environmental impact assessment, and social impact assessments should be completed. This will ensure that project appraisal and grant approval can be expedited and implementation can be completed within the grant window period.
- **Criteria 5: Results targeted** – Is the intervention clear about results achieved and the impact? Is a clear

monitoring and evaluation framework already in place? Is it possible to assess value for money at this point?; and the change to which the intervention will contribute and the desired impact.

- **Criteria 6: Complementarities or overlap with other programs –** To ensure that synergies are maximized with existing programs and there is no duplication with existing activities managed by the implementing ministry.
- **Criteria 7: Social and Environmental Benefits –** To ensure that the there are no major negative environmental impacts and expected results include positive impacts on vulnerable groups and women.

35. The World Bank BCCRF core team screened each proposal based on the above seven criteria and prepared a screening report, which was submitted to the MC to select proposals that qualified for further preparation.

36. The MoEF held a workshop on March 20, 2012 chaired by Mr. Mesbah Ul Alam, MoEF Secretary and attended by participants from 21 ministries (Annex 5). The workshop provided updated status of BCCRF to potential applicants and discussed project concepts prepared by various ministries and agencies. The workshop helped participants deepen their understanding on the requirements of project proposals. Among the project concepts discussed, the food storage facility project proposal from the Ministry of Food and Disaster Management (MoFDM) was subsequently submitted to the MC meeting in June 2012 for approval.

Table 3: Proposals Reviewed during 2012

Proposal	Responsible Agency
1. (1) Detailed Design and Environmental Studies for Construction of Urir Char-Noakhali Cross-Dam, (2) Technical Feasibility Studies and Detailed Engineering Design of River Bank Improvement Program, (3) Feasibility Study for Remedial Measures for Strengthening Sirajganj Hard Point	Ministry of Water Resources (MoWR) Proposal (1) selected for further preparation
2. Enhancing community resilience to climate variability and natural disasters	Ministry of Food and Disaster Management (MoFDM)
3. Bangladesh Modern Food Storage Facilities Project (BMFSFP)	MoFDM; Selected for further preparation
4. Removal of Drainage Congestion from the Kobatak River Basin (Phase-1)	Bangladesh Water Development Board (BWDB), MoWR
5. Adoption of Climate Change Mitigation Curriculum at the Primary Education Level	Ministry of Primary and Mass Education (MoPME)
6. Tree Plantation at the Primary School Premises	MoPME
7. Imparting Education on Environment and Climate Change through Non-Formal Institutions	MoPME
8. Establishment of Space Technology based System for Surveillance on Disasters in Bangladesh	Bangladesh Space Research and Remote Sensing Organization (SPARRSO), Ministry of Defense (MoD)

Proposal	Responsible Agency
9. Strengthening Satellite-Based Crop Monitoring System of SPARSO for Food Security Application under Climate Change Vulnerabilities	SPARRSO, MoD
10. Study of Climate Variables due to Global Warning in relation to El-Nino and La-Nina Phenomena and its Impact on Coastal Ecosystem	SPARRSO, MoD
11. Impact of Climate Change on Coastal and Marine Environment of Bangladesh	SPARRSO, MoD
12. Integrated Approach to Social, Environmental and Economic Education for fostering ESD in respect to Climate Change in Selected Secondary Level Institutions of the Coastal Flood Prone Areas of Bangladesh	Ministry of Education (MoE)
13. Integrated Approach to Social, Environmental and Economic Education for fostering ESD in respect to Climate Change in Selected Secondary Level Institutions of the North-Western Drought Prone Areas of Bangladesh	MoE
14. Integrated Approach to Social, Environmental and Economic Education for fostering ESD in respect to Climate Change in Selected Secondary Level Institutions of the Earthquake Prone Areas of Bangladesh	MoE
15. Effect on Environment/Climate Change due to Emission of Carbon from Burnt and Unburnt Hydro-carbons	Titas Gas Transmission & Distribution Company Limited
16. Geological mapping for the characterization of Geomorphological units to Assess the Impact of Climatic Change of the Coastal Parts of Bangladesh	Geological Survey of Bangladesh
17. Hazard Assessment of the Coastal and Off-shore Areas of Bangladesh due to Geological and Climate Factors	Geological Survey of Bangladesh
18. Solar Irrigation Program – A Green Energy Initiative	Infrastructure Development Company Limited (IDCOL); Selected for further preparation

37. The MC approved proposals No. 3 and No. 18 listed in Table 3 for further preparation. The MC approved proposal No. 1 for the Urir Char-Noakhali Cross Dam study described below in AAA Section 3.2.2 (3).

3.1.2 Sites of Projects under Implementation and Preparation

38. Table 4 below shows the divisions and districts in which investment projects under BCCRF will be implemented.

Table 4: Sites of Projects under Implementation and Preparation

Project	Division	District
1. Multipurpose Cyclone Shelter	Barisal	Barguna, Pirojpur
	Khulna	Khulna, Patuakhali,Satkhira
2. BCCRF Secretariat	Dhaka	Dhaka
3. Community Climate Change Project (CCCP)	Barisal	Barisal, Patuakhali, Barguna
	Chittagong	Cox's Bazar
	Dhaka	Jamalpur, Mymensingh
	Khulna	Satkhira, Khulna, Jessore, Bagerhat, Chuadanga
	Rajshahi	Kurigram, Nilphamari, Rajshahi, Natore, Naogaon
4. Agriculture Adaptation		(Sites were not finalized by the end of the reporting period)
5. Climate Resilient Participatory Afforestation	Barisal	Barisal, Patuakhali, Barguna, Bhola
	Chittagong	Cox's Bazar, Chittagong, Feni, Noakhali, Lakshimipur
6. Solar Irrigation	Barisal	Barisal, Barguna, Jhalakhati, Patuakhali
	Chittagong	Bandarban, Chandpur, Chittagong, Comila, Cox's Bazar, Feni, Khagrachari, Noakhali
	Dhaka	Dhaka, Faridpur, Gazipur, Jamalpur, Kishoregonj, Mymensingh, Narsindi, Sherpur
	Khulna	Bagerhat, Chuandanga, Jessore, Jhenaidah, Khulna, Kushtia, Magura, Meherpur, Satkhira
	Rajshahi	Bogra, Naogaon, Pabna
	Rangpur	Dinajpu, Gaibandha, Kurigram, Lalmonirhat, Nilphamari, Panchagarh, Rangpur, Thakurgaon
	Sylhet	Habiganj
7. Modern Food Storage Facilities	(Dhaka)	(MC recommended Narayanganj. See 3.1.3 (7) for details)

3.1.3 Details of Projects Approved by MC for Preparation

MULTIPURPOSE CYCLONE SHELTER CONSTRUCTION PROJECT

Grant Amount: US$25 million

Responsible Agency: Local Government Engineering Division (LGED)

Background and Objectives

39. Coastal regions, e.g. Barguna, have always been prone to disasters such as tropical storms and tidal waves. From 1980 to 2000, nearly 60 percent of deaths worldwide from cyclones occurred in Bangladesh alone. With the effects of climate change likely to increase the frequency and severity of cyclones and other natural disasters, Bangladesh needs to adapt to increased uncertainty and be prepared for even the worst storms. To protect people from cyclones, Bangladesh has constructed a network of multi-purpose shelters (e.g. schools) and developed a community-based early warning system that has become a model for other countries throughout the world. Schools, hospitals and local government offices double-up as cyclone shelters and during cyclones and other natural disasters play a critical role in saving lives. Owing to the growing network of cyclone shelters and early warning system, the number of fatalities in 2007's Cyclone Sidr was around 3,500, which is a significant decrease from 140,000 fatalities in the 1991 cyclone.

40. BCCSAP calls for the repair, maintenance and construction of additional cyclone shelters throughout the coastal zones of Bangladesh, and estimates that 2000 to 4000 new shelters are necessary. At its first meeting in June 2011, the BCCRF GC approved a US$25 million grant for a project to address this issue, which was to be co-financed with an ongoing International Development Association (IDA) project called Emergency 2007 Cyclone Recovery and Restoration Project (ECRRP) (P111272). When the grant agreement (TF099305) was signed on August 8, 2011, the project planned to construct 55 new multi-purpose shelters, rehabilitate 40 existing shelters and construct 40 km evacuation routes. The GoB is currently improving the design of shelters to make them as functional and effective as possible. Built on one-story pillars, the shelters have a reinforced foundation to withstand the force of wind speed up to 260 km per hour. Livestock has space to gather on the ground during disasters. Shelters have tube wells, rainwater harvesting systems and separate rooms for pregnant women and for first-aid services. Solar panels are installed on the roof for efficient and reliable power. Sanitary blocks (with separate toilets for men and women) are on the upper level so that they remain accessible and untainted during disasters. Improved design has increased the lifespan and utility of the shelters while enhancing the shelters' usefulness during the non-emergency period.

Updated Status

41. The Bank's implementation review mission for ECRRP (which includes this BCCRF project) was conducted from February 20 to March 7, 2012, and an Aide Memoire was prepared in which LGED agreed to the following: (i) construction packages should be larger to expedite implementation; (ii) LGED shall mobilize all staff and consultants to expedite implementation; (iii) LGED's bid evaluation should be finalized within 20 days after bid submission; and (iv) LGED's field level meetings should

be held at least twice during project duration. In the BCCRF project, construction volume and scope were adjusted during the process of detailed design, and instead of including shelter rehabilitation, is focusing on constructing 61 new shelters. Road construction has been scaled down to an 11.57 km stretch to avoid land acquisition. As of December 31, 2012, 93 percent of the US$25 million allocated for this project is committed under seven contracts. Disbursements have started in January 2012 and the disbursement rate as of December 31, 2012 was 24.5 percent (i.e. US$6.139 million). LGED has been responding promptly to the Bank's requests such as those included in the Aide Memoire above, and overall, the project is being implemented according to the agreed schedule and construction is expected to be completed in June 2014.

SECRETARIAT FOR BCCRF

Grant Amount: US$0.2 million

Responsible Agency: Ministry of Environment and Forests (MoEF)

Background and Objectives

42. The MOU signed in May 2010 states that a secretariat be established at the Climate Change Unit of MoEF to support the BCCRF program. The secretariat's main functions would include day-to-day support to the MC and GC, proposal screening, advocacy, communications, donor coordination, program level monitoring and evaluation, and preparation and implementation of the eventual transfer of BCCRF secretariat functions from the Bank to MoEF.

43. On February 23, 2011 the MC approved the establishment of the secretariat at MoEF. On May 19, 2011 the GC approved this stand-alone project (P128445) of BCCRF resources of US$0.2 million for the establishment of the secretariat at MoEF. A grant agreement for US$0.2 million was subsequently signed between the World Bank and Economics Relations Division (ERD) on November 1, 2011.

44. Since the recruitment for MoEF secretariat staff was delayed, the World Bank BCCRF core team is currently performing a large part of the secretariat functions, but as the MoEF secretariat staff increase, the secretariat functions will be gradually transferred to the MoEF secretariat. To expedite the establishment of the MoEF secretariat, MoEF engaged a financial management specialist who is already working on an IDA project to work for the secretariat on a part-time basis. A procurement consultant, who is also working in a Bank funded project, is assisting the Secretariat on procurement matter.

Updated Status

45. The Bank's senior management approached the MoEF a number of times to expedite recruitment in the BCCRF secretariat. Dr. Md. Nasir Uddin, MoEF Joint Secretary was appointed as Project Director to lead the BCCRF secretariat as of July 1, 2012. The Project Director has been communicating and coordinating closely with the Bank secretariat team since his appointment, and project implementation has improved since then: recruitment for MoEF secretariat staff such as Project Management Advisor and Technical Advisor was initiated in July 2012, and a Program Management Advisor was appointed in November 2012. As of December 2012, the Technical Advisor post was under review by the Procurement Evaluation Committee. A financial management specialist has been engaged in the project since October 9, 2012, which is one of the withdrawal conditions under the grant agreement (The assignment of this financial management specialist

is until February 9, 2013 and withdrawal will become unavailable if another financial management specialist is not engaged before then). (The updated schedule for recruitment as of March 2013 is shown below as per the latest procurement plan shared by MoEF with the World Bank). Office space for MoEF BCCRF secretariat is secured at Old "Ban Bhaban" building in Mohakhali, Dhaka. Disbursement for this project started in October 2012; disbursement rate as of December 31, 2012 was 15.3 percent (i.e. US$30,788). Consultations are scheduled in 2013 to examine methods to further strengthen the MoEF secretariat capacity and the need to formulate the second phase of this project.

Title	(Indicative) Dates for Signing Contracts
1. Climate Change Technical Advisor	(March 15, 2013)
2. Climate Change Managerial Advisor	October 18, 2012
3. Financial Management Consultant (Part Time)	October 1, 2012
4. Financial Management Consultant (Full Time)	(May 1, 2013)
5. Junior Consultant (Administration)	(March 15, 2013)

COMMUNITY CLIMATE CHANGE PROJECT (NGO WINDOW)

Grant Amount: US$12.5 million

Responsible Agency: Palli Karma- Sahayak Foundation (PKSF)

Background and Objectives

46. The CCCP is an important window that allocates BCCRF grant funds to NGOs through a competitive process to support community-driven interventions for climate change adaptation. The BCCRF GC has designated PKSF as the agency responsible to oversee the CCCP.

47. The MC approved to allocate 10 percent of BCCRF resources, which was calculated at US$12.5 million. Of this amount, US$10 million was planned to fund sub-projects in the three most vulnerable zones in Bangladesh:

48. The sub-project proposals are also required to address at least one of the six pillars of BCCSAP. The sub-projects will range from US$20,000 to US$1 million, and all will be completed three months before the completion date of CCCP. The proposals will also be reviewed for social and environmental safeguards, including gender and social inclusion, as per Bank policy. Remaining funds of US$2.5 million will be allocated to monitoring, learning and sub-project refinement, through knowledge sharing and dissemination of lessons learned.

Honorable Minister of Environment and Forests of the GoB Dr. Hasan Mahmud making a statement at the launching ceremony of CCCP (November 17, 2012)

Saline-affected coastal zones	Satkhira, Khulna, Jessore, Bagerhat, Patuakhali, Barguna
Flood-affected areas and charlands	Barisal, Cox's Bazar, Jamalpur, Mymensingh, Bagerhat, Jessore, Khulna, Kurigram, Nilphamari
Drought-affected or rain-scarce areas in north-western Bangladesh	Chuadanga, Jessore, Naogaon, Rajshahi, Satkhira, Natore

Updated Status

49. Project formulation was completed by mid-2012, and GC on June 12 approved the project as a BCCRF stand-alone project. Upon approval, the GC members discussed the fund volume of CCCP: at the time when it was agreed upon to allocate 10 percent of BCCRF resources to CCCP, the total BCCRF resource was US$125 million, but at the time of this GC, BCCRF's fund volume reached US$170 million, and GC members considered whether to increase the fund allocation for CCCP. As a conclusion, it was recommended to approve the grant volume of US$12.5 million for the project, but also to reserve US$4.5 million in BCCRF resources so that it may be allocated to CCCP as additional funding in the future, depending on the progress of CCCP.

50. On August 6, 2012 a signing ceremony for the Grant Agreement was held (P125447), which was reported widely by the media (Annex 4). Since then, the project has been implemented within the overall agreed timetable, and all legal conditions for project effectiveness were satisfied during or before December 2012. Prior to project effectiveness, PKSF held a project launch ceremony on November 17, 2012 and called for project concept notes (Press release prepared by PKSF in Annex 4). After an initial screening, 490 concepts notes were short-listed, for which PKSF is expected to launch the call for proposals in early 2013.

Project website: http://www.pksf-cccp-bd.org/

AGRICULTURAL ADAPTATION IN CLIMATIC RISK PRONE AREAS OF BANGLADESH

Grant Amount: US$22.8 million

Responsible Agency: Department of Agriculture Extension (DAE)

Background and Objectives

51. Climate change is likely to cause significant negative impacts on Bangladesh's agriculture — a sector accounting for a fifth of Bangladesh's GDP and employing more than half of its workforce. Immediate attention therefore is necessary to address issues of food insecurity, rural poverty, climate-induced relocation and mass rural–urban migration, which are possible consequences of agriculture being affected by climate change.

52. The Ministry of Agriculture (MoA) has taken the approach of shifting the prevailing paradigm of response and relief modes to a proactive risk reduction approach. In this context, the DAE has been identifying, testing and validating respective climate change adaptation (CCA) and disaster risk management (DRM) options with the aim of integrating them into national food security strategies and policies.

53. This BCCRF project with US$22.8 million funds, and technical assistance from Food and Agriculture Organization (FAO) focuses on developing a working

approach, replication of validated agriculture CCA options and pilot testing for the development of viable local cropping adaptation practices in salinity-, flood- and drought-prone areas. The project facilitates "demand-driven" and "learning by doing" approaches through stakeholder capacity building, participatory adaptive research, adaptation technology dissemination, and field demonstration to identify and implement viable adaptation practices in close collaboration with local communities. The implementation process will draw largely on experiences from the successful implementation of previous pilot initiatives in the agricultural sector in Bangladesh,[4] where the extensive profiling of livelihood systems and training and capacity building elements were prototyped in the national context. The key objectives are:

- Validation and replication of agricultural CAA technologies and practices targeting resource-poor smallholder farmers in drought, flood and saline-prone areas.
- Strengthening the capacities of DAE and other stakeholders of agricultural CCA for climate change risk management and DRM.
- Development of community-based rural early warning systems in drought-, flood- and salinity-prone areas.
- Enhancement of awareness raising, knowledge sharing, communications and multi-stakeholder engagement in agricultural CCA.

Updated Status

54. The project was submitted to the June 2012 GC for approval where it was given conditional approval, requesting to clarify the roles, responsibilities and budget related to FAO. In response to this, the World Bank task team has been meeting regularly with the MoA and DAE on project component design and budget rationalization, but a final agreement could not be arrived at during the reporting period. Representatives from the World Bank, MoA, the Department of Agriculture Extension (DAE) and the FAO discussed and reached a final agreement on the revised proposal in January 2013. It was agreed that the revised proposal for the Agriculture Project to be funded from BCCRF would provide US$8.4 million for implementation to the DAE and US$14.4 million to FAO.

[4] For example, the UNDP-funded and DAE/FAO-implemented Livelihoods Adaptation to Climate Change Projects (LACC1 and LACC2) and the ongoing UNDP-funded and DAE-implemented Disaster and Climate Risk Management in Agriculture Project.

CLIMATE RESILIENT PARTICIPATORY AFFORESTATION AND REFORESTATION PROJECT

Grant Amount: US$33.8 million

Responsible Agency: Forest Department (FD)

Background and Objectives

55. Afforestation has both climate change mitigation and adaptation benefits. Forests can reduce the global stock of greenhouse gases through carbon sequestrating, and effectively act as a barrier against storm surges thus saving lives and protecting communities vulnerable to climate change.

56. In Bangladesh, the role of forests as an adaptation mechanism is highly significant. In coastal areas, foreshore afforestation is a proven cost-effective method to dissipate wave energy and reduce floods on embankments during storm surges. This was evident during the 1991, 2007 (Sidr) and 2009 (Aila) cyclones. The virtual absence of mangrove forests in coastal Chokoria and surrounding areas resulted in large damages to property and loss of lives in 1991. In contrast, even scattered and unplanned afforestation on the foreshore of embankments affected by the 2007 cyclone Sidr lessened the storm surge velocity substantially, reducing damages and losses.

57. Deforestation is also a major challenge in hilly areas of Bangladesh. Along with heavy rainfall, deforestation causes soil erosion and serious landslides. In 2007, during a landslide in Bangladesh's second-largest city, Chittagong, deforestation aggravated the impact, causing nearly 900,000 houses to collapse. Change in land-use patterns, encroachment of forest land, forest fires, uncontrolled and wasteful commercial logging, illegal felling of trees, conversion of forest land into grazing fields and fuel wood collection are considered major reasons for rapid deforestation.

58. Coordinated action is needed to counter deforestation trends. Planting in coastal zones protects against storm surges while afforestation in hilly areas improves soil stability, thus reducing the risk of landslides and erosion. On April 13, 2011 the MC allocated US$25 million to this project to afforest and reforest areas exposed to cyclones, storm surges and landslides. The aim is to afforest 16,000 ha and 2,500 km of strip plantations in seven coastal and hilly districts; and improve livelihoods of forest dependent communities by generating alternative activities. The fund also supports innovative studies to improve forest management in Bangladesh.

Updated Status

59. Project formulation was completed by mid-2012, and GC on June 12 approved it as a BCCRF stand-alone project. Upon approval, the GC members discussed the funding of this project: at the time of project concept approval, the estimated project cost was US$25.95 million, which included US$1 million contribution from GoB. However,

during project preparation, project budget increased to US$35 million (of which BCCRF's contribution is US$33.8 million). The reasons for the increase in budget were increased unit labor cost, increased travel cost due to remote project sites, and inclusion of an additional component to cover livelihood activities. As a conclusion, GC members approved a further grant volume of US$33.8 million for this project.

60. The GC members set an extended disbursement deadline for BCCRF's AA (June 30, 2015) noting the long time-frame of afforestation projects in general. As described in Section 2.1 above, all AAs between the World Bank and development partners were amended (during or before July 2012) to extend the disbursement deadline to June 30, 2017. Currently, this afforestation project is scheduled to close on December 31, 2016.

61. The grant agreement may be signed in early 2013; however preparation for afforestation was initiated through retroactive financing of US$200,000 before the end of the reporting period (December 31, 2012).

SOLAR IRRIGATION PROJECT

Grant Amount: US$24.5 million

Responsible Agency: Infrastructure Development Company Limited (IDCOL)

Background and Objectives

62. Rain-fed agriculture was dominant in Bangladesh for a long time, until mechanized irrigation was introduced in the 1970s to increase agricultural productivity and meet the demands of the growing population. Diesel-driven irrigation plays an important role since access to electricity in rural Bangladesh is currently 55 percent, but as irrigation schemes became popular, fuel costs became a burden on rural households as well as on the national economy. As a part of the GoB strategy to address the issue of off-grid electrification, and also as an effort to mitigate climate change and ensure food security, a solar irrigation project that replaces diesel-driven pumps was given approval by the MC in June 2012 for further project preparation.

63. This solar irrigation project is co-financed with an IDA project titled Rural Electrification and Renewable Energy Development II (RERED II) (P131263), which is expected to provide electricity to 2.5 million people and clean cooking solutions to over one million households. Such a co-financing arrangement with an IDA project expedited the formulation of this solar irrigation project, and appraisal was completed within two months after MC approval. Such a setting is also benefiting the solar irrigation project since the parent project will absorb over-head costs.

64. Infrastructure Development Company Limited (IDCOL) is the agency responsible to implement RERED II, and based on the current assessment for the solar irrigation project, IDCOL plans to finance 1,500 solar irrigation pumps. Of the US$24.5 million BCCRF funding, US$23 million is expected to be used for capital buy-down grant for the irrigation schemes, while US$1.5 million will be used for technical assistance which includes feasibility studies, site-specific

due diligence, inspection and monitoring, training and impact assessment (baseline, mid-term and final) for the irrigation schemes.

Updated Status

65. The Bank Board approved the RERED II project on September 20, 2012. The final listing of resources for RERED II is as follows: IDA — US$155 million; BCCRF — US$24.5 million; KfW — US$12.9 million; and USAID — US$7.6 million. BCCRF funds will be used solely for the solar irrigation component. The credit agreements for the IDA funds are already signed and grant agreements for BCCRF and USAID funds are currently being prepared. The Bank task team is awaiting GC's approval, immediately upon which the grant agreement for BCCRF can be signed.

MODERN FOOD STORAGE FACILITY

Grant Amount: US$25 million

Responsible Agency: Ministry of Food and Disaster Management (MoFDM)

Background and Objectives

66. Bangladesh is one of the most vulnerable countries in the world to natural disasters that are influenced by climate change. During the past 20 years, 60 percent of the worldwide deaths caused by disasters were in Bangladesh. In Bangladesh, cyclones generally travel from south-west towards north—north-east and may hit anywhere along the southern coastline. However, the severity of the cyclone depends on the depth of inundation and destruction, and if the storm hits the coastline during a high tide and a new moon or full moon, the depth of inundation may reach six meters causing colossal damages. Around 42 million people live in 19 vulnerable coastal districts, and they need food security especially after natural disasters.

67. The project proposal submitted to the MC in June 2012 planned to install a grain storage facility to provide food security to the most vulnerable 10 million people for three months after a natural disaster. The project proposal included three components (see below) requiring a total of US$50 million.

- Activity A: Construction of two modern rice silos with auxiliary facilities (US$38.46 million)

- Activity B: Rehabilitation of existing grain terminal facilities (US$4.89 million)
- Activity C: Construction/upgradation of silo yards, approach and internal roads (US$0.61 million)

68. At the June 2012 MC, the project proposal was approved for further preparation under the following conditions: (1) construct one silo instead of two, thereby reducing the total grant amount to US$25 million, and (2) consider establishing the facilities in Narayanganj.

Updated Status

69. This food storage project is currently being formulated to be co-financed with IDA. The final listing of resources for the project is as follows: IDA — US$275 million; BCCRF — US$25 million. BCCRF funds will be used solely for the public silos component. Detailed feasibility designs have been finalized. The environmental and social safeguards assessments are ongoing. The project is being prepared for appraisal and delivery by June 2013.

3.2 ANALYTICAL AND ADVISORY ACTIVITIES (AAAs)

70. The World Bank has taken responsibility to provide analytical support and address the knowledge gap in close collaboration with GoB and other stakeholders for the implementation of BCCSAP. Through a consultative process, the following six knowledge-gap areas in BCCSAP implementation were identified in 2010: (i) Impacts of climate change on vector-borne diseases and implications for the health sector; (ii) Natural disasters in a changing climate: Applicability of risk financing Instruments; (iii) Water logging of urban areas in a changing climate: Potential damage and adaptation; (iv) Coastal zone in a changing climate: Ingress of salinity frontier; (v) Assessment of the threat of climate-induced out-migration from vulnerable areas; and (vi) Economic assessment of ways to improve energy use efficiency and green growth in Bangladesh. The following sections present an overview of (i) the selection process; and (ii) the six AAAs that were approved by the MC and are under detailed preparation/implementation.

3.2.1 Review of AAA Proposals

71. **Selection in 2011.** The 4th MC Meeting held on October 13, 2011 approved the following two proposals (the updated status is described in the next section):

Date	AAA Proposals	US$ million
Approved in October 2011	Impacts of climate change on vector-borne diseases and implications for the health sector	0.2
Approved in October 2011	Water logging of urban areas in a changing climate: Potential damage and adaptation	0.5

72. The 4th MC Meeting also acknowledged the importance of the following two proposals, but agreed that preparation was necessary before initiating the AAA. During 2012, preparation was ongoing for the two proposals:

- Coastal zone in a changing climate: Ingress of salinity frontier.
- Assessment of the threat of climate-induced out-migration from vulnerable areas.

73. **The Process and Selection in 2012**. During the June 2012 meeting, the MC approved US$0.7 million funding for the Urir Char–Noakhali Cross Dam study. Since this proposal was considered in former MC meetings as an investment project, and not an AAA, the proposal was submitted to the June MC meeting, separately from other AAA proposals. Details and the status of this dam study are described in section 3.2.2(3). During 2012, the second round of proposals for AAAs were reviewed. After a 10-day virtual review within the MC members, the AAA proposals/modification below were approved on November 12, 2012. MC members made no objection to reviewing the proposals virtually, as the TTLs for the four AAAs are all based in Washington DC.

Date	AAA Proposals	US$ million
Approved in June 2012	Detailed Design of Environmental Studies for Construction of Urir Char–Noakhali Cross Dam	0.7
Approved in October 2011, Modified in November 2012	Impact of climate change on climate sensitive diseases and implications for the health sector	Original 0.2 Modified 0.3
Approved in November 2012	Eco-Engineering, Climate Adaptation and Innovations in Flood Risk Mitigation	0.3
Approved in November 2012	Scaling up Innovation in Disaster Risk Management in Bangladesh: A Proposal to Support Human and Financial Resilience to Natural Hazards	0.2
Approved in November 2012	Making Climate Data Relevant to Decision Making in Bangladesh: Spatial and Temporal Downscaling	0.3

3.2.2 Details of AAAs Approved by MC

(1) Impacts of Climate Change on Climate Sensitive Diseases and Implications for the Health Sector

Grant Amount: originally approved US$0.2 million, increased as US$0.3 million

74. **Background:** Climate change and increasing climate variability threaten the attainment of the Millennium Development Goals (MDG) in Bangladesh. Added to the climate risks are rapid population growth and fast and unplanned urbanization, water scarcity, inadequate safe water and sanitation facilities, high level of poverty and high prevalence of malnutrition. The impact of climate variability and extreme weather events on health is likely to become a major issue in Bangladesh the coming decades. The 2008 Human Development Report highlighted that changes in climate may alter the distribution and incidence of climate sensitive diseases, including vector-borne and water-borne diseases. For example, important vector species (e.g., mosquitoes) may increase the spread of vector-borne diseases, such as malaria, dengue fever, lymphatic filariasis, kalaazar, encephalitis and chickungunia to new and existing areas that lack a strong public health infrastructure. Climate change is also likely to increase the incidence of water-borne infectious diseases and bring additional stresses, such as dehydration, malnutrition and heat-related morbidity especially among children and the elderly. How the health system can effectively respond to deal with the changing health risks both in scale and spatial distribution is of high priority of policy planning in the coming decades.

75. **Objective and Expected Outcome:** To better understand the health implications of climate change, this component will first look at detailed data on rainfall, temperature and extreme weather events in Bangladesh and analyze the linkages between climate variability and incidence of climate sensitive diseases. The second part of the analysis will look at implications of this assessment for the design of prevention and treatment policies. As the GoB needs to plan some of the health-related public expenditures in advance, this type of analysis could influence policy options in the next 10–15 years. The analysis will also review existing health projects and studies on costs of health interventions (planned actions) to reduce disease incidence and related mortality and morbidity, with a specific focus on areas, which are expected to be most vulnerable to the health impacts of climate change. The study will test various methodological approaches for estimating health adaptation costs to deal with major climate sensitive diseases. The proposed research would make a major contribution to better public health policy-making in the context of climate change adaptation in the region.

76. **Methodology and Data:** The study will quantify the impact of climate variability and extreme events on incidence of climate sensitive diseases using econometric models. It will also project future health burden taking account of population growth and estimate the population at risk across space. The costs of health adaptation will be estimated using project information to perform a cost assessment based on unit values multiplied by the target population living in vulnerable areas and by incidence of diseases. Health adaptation costs include treatment costs of additional cases (reactive adaptation) and costs for preventive measures to reduce the incidence of disease (proactive adaptation). The cost of health adaptation will depend on the health outcome, the intervention type (e.g. treatment or prevention), the expected reduction in the incidence of mortality and morbidity in relation to all identified vector-borne diseases and finally on the geographical region where the impact is expected. Economic tools of cost–benefit analysis (CBA) and cost-effectiveness analysis (CEA) will be used to assess whether these costs are reasonable. The data sources will come from national health surveys, weather station data and various time series disease monitoring data.

77. **Updated Status:** The concept note was reviewed virtually by MC members in January 2012. The initial consultation workshop took place in Dhaka on April 17, and the second mission visited Dhaka during late September–early October. Partnerships were established between the Climate Change unit in the Ministry of Health and ICDDR,B. Through the activities in 2012, the team acknowledged the issue of data quality in this area. To ensure the quality of this AAA, the team requested the MC for an additional budget of US$0.1 million to undertake selective primary data collection. As indicated in the previous section, the MC approved this request on November 12. The study should be completed in June 2013, and results disseminated thereafter.

(2) Water Logging of Urban Areas in a Changing Climate: Potential Damage and Adaptation

Grant Amount: US$0.5 million

78. **Background:** Projections by the Intergovernmental Panel on Climate Change (IPCC) and the World Meteorological Organization (WMO) suggest an increase in the frequencies and intensities of climate extremes in the 21st century using various emission scenarios (WMO 2010; IPCC 2007). Heavily urbanized cities in low-lying deltas of Asia have been identified as "hotspots", especially vulnerable to climate risks (ADB 2008; IPCC 2007). In many such cities, flooding and water logging during the rainy season is already a recurrent annual feature. Furthermore, poor inhabitants of these urban centers are among the most vulnerable as large and densely populated conglomerations of slums and shanties are invariably located in areas of unplanned and unregulated development (World Bank 2010a, UNFCCC 2008).

79 It is anticipated that future flood vulnerability of a number of major urban centers in Bangladesh will be aggravated due to climate change (GoB 2008; Alam 2004). However, only two studies Alam and Rabbani (2007), Huq and Alam (2003) have been conducted and a joint study by the Collaborative Research on Flood Resilience in Urban Areas and the Institute of Water Modeling is under discussion to address the vulnerability of Dhaka city and flood management.[5,6] Hence, there remains a knowledge gap in understanding the impacts of climate change on other urban centers, especially implications for their marginalized segments of society from economic, social and environmental viewpoints; and adaptation alternatives.

80. **Objectives and Expected Outcome:** To assess the capacity of major urban centers (e.g., Chittagong city and Sylhet where water logging is already a periodic

[5] It is expected that the World Bank Urban Flood Mitigation and Sanitation project will improve Dhaka's storm water drainage systems and pumping stations to alleviate serious flooding in the capital (World Bank, 2006).

[6] Literature survey also identified a number of studies discussing the possibilities and constraints for urban centers in adapting to climate change which may be applicable to Bangladesh (Huraera 2009, McGranahan et al. 2007, Satterthwaite et al. 2007).

phenomenon) to address current climate variability, predict climate change induced consequences for flooding/water logging, and forecast changes in the depth and duration of location-specific water logging and estimate potential damage. It will also identify adaptation options and define key policy priorities for decision-makers to deal with the threat of climate change impacts.

81. **Methodology and Data:** The analytical work will require: (1) Evaluation of current knowledge base, including historical climate information, coping strategies and local capacity to deal with natural disasters (especially those related to flooding); (2) Analysis of the adequacy of existing infrastructure to current climate variability; (3) Assessment of climate change scenarios and their consequences; (4) Quantification of the likely magnitude of social, environmental and economic damages expected because of climate change and variability; (5) Identification of most vulnerable areas — infrastructure and communities — to impacts of climate change and variability; (6) Identification and assessment of appropriate alternative intervention scenarios, and prioritization of suitable interventions according to effectiveness in terms of reducing vulnerability to threats from climate change and variability, as well as associated cost and implementation potential within the institutional setting of the city; and (7) Analysis of the capacity of the city's government to deal with natural disasters (emergency prevention and preparedness capacity, early warning system, emergency evacuation system, notification procedure and its effectiveness, etc.) vis-à-vis international best practices, and provide appropriate recommendations.

82. Geo coded data on assets and activities, digital elevation model, as well as data on rainfall and drainage will be the basis of the analysis. This analytical work will be conducted by various agencies and think-tanks of Bangladesh in consultation with international experts.

83. **Updated Status:** The concept note was reviewed virtually by MC members in January 2012. A technical workshop for stakeholders was held on June 5th at the Bank Dhaka office where consultants presented detailed methodology of the analysis. A total of 42 participants from 18 organizations contributed through discussions. In early December, the TTL visited Dhaka to confirm/discuss the progress of work allocated to Dhaka-based experts.

(3) Detailed Design of Environmental Studies for Construction of Urir Char–Noakhali Cross Dam

Grant Amount: US$0.7 million

84. **Background:** Cross dams are structures between naturally accreted *chars* (or islands) or a char and the mainland. They are meant to accelerate the natural accretion process and increase land areas. The BWDB proposal to construct Urir Char–Noakhali Cross Dam was submitted for the first round of review. While the MC acknowledged the dam's potential development impact, it noted that environmental impacts need to be further studied. A study initiated in August 2010 (with Professor Mead Allison, Associate Director, Institute for Geophysics, University of Texas), revealed a considerable level of uncertainty inherent in the results from the critical model. While a number of recommendations were provided to improve the modeling, the project still carries substantial risks. During subsequent discussions and further consultation with Professor Ainun Nishat (Vice Chancellor of BRAC University), it was agreed that BWDB should submit a request to BCCRF to fund preparatory studies for this dam rather than request for construction investment; the MC approved the proposal for such studies in June 2012.

85. **Objectives and Expected Outcome:** The main objective of the study is to update and finalize the detailed feasibility level of the Uri Char–Noakahli Cross Dam and tender designs in the first phase, and provide a detailed design and implementation plan. The detailed feasibility report should include necessary aspects covering technical, institutional and economic analysis, social/environmental impact assessment, procurement and financial management, etc. required for project approval by GoB.

86. **Methodology and Data:** The study will take place over a period of nine months. The study will involve an overall

plan covering review of technical feasibility; economic analysis; updating the environmental management plan; development of social impact assessment and resettlement policy framework if needed; development of procurement, operation and maintenance, monitoring and evaluation framework; financial management; and packaging of contracts and preparation of detailed design. In particular, the study will investigate: (i) connectivity to be created between Urir Char Island and mainland; (ii) future accretion of new land to accommodate increasing population; (iii) climate resilient infrastructure and livelihood opportunities of island communities; (iv) project benefits such as increased land for dwelling and production, direct over-land road communications for islands dweller; and (v) negative impacts such as water logging in the Noakhali coast.

87. **Updated Status:** Consultation for the study's Terms of Reference (TOR) involved experts within and outside the Bank as well as with the BWDB. The call for Expressions of Interest (EOIs) for consultancy is scheduled to be uploaded on United Nations Development Business website in January 2013.

(4) Eco-Engineering, Climate Adaptation and Innovations in Flood Risk Mitigation

Grant Amount: US$0.3 million

88. **Background:** According to the recent coastal city flood vulnerability index (CCFVI), Dhaka is amongst the most climate vulnerable megacities in the world (Balica et al., 2012). Some of the main risks associated with climate change in Dhaka include increase in heat wave, increased exposure to tropical cyclones and increase in the frequency, extent and duration of flooding. Study (2) listed above aims to assess the extent of increase in flooding in the greater Dhaka area under different climate scenarios (Dasgupta, 2012). Vulnerability of the city is exacerbated because of high population densities and vital infrastructure that are affected due to inundation. The urban poor (living in slums and shanty towns often situated in low-lying areas, working in the informal economy and with few assets) are amongst the most vulnerable populations (BCCAP, 2009; World Bank, 2010a). With rapid and unplanned urbanization, their vulnerability is likely to increase unless appropriate adaptation measures are put in place.

89. **Objectives and Expected Outcome:** The main objective of the proposed activity is to build upon the results of Study (2) and provide recommendations to the GoB (particularly, Dhaka City Corporation (DCC), Dhaka Water and Sewerage Authority (DWASA), BWDB and the Dhaka City Development Authority (RAJUK)) for using innovative eco-engineering approaches for flood risk mitigation and climate adaptation in the greater Dhaka area. This will be based on an in-depth analysis of the ecological and hydrological characteristics of the broader delta, peri-urban area and urban area, analysis of strategies and interventions for flood risk mitigation that are being currently used with the goal of developing an innovative pilot activity that is cost effective and sustainable. Deliverables of this AAA include interim outputs such as cost–benefit analysis of conventional approaches versus innovative flood risk management, and a final output.

90. **Methodology and Data:** The analysis will focus on the following methodological areas:

i. *Assessment of urban flood risks in a delta context:* Based on a review of existing literature, extensive field visits and stakeholder consultations, the study will assess the main ecological and hydrological characteristics of the area at the level of the delta, peri-urban area and city.
ii. *Analysis of the existing system for flood protection, ecosystems management and governance:* This component will undertake an in-depth assessment of infrastructural and non-infrastructural approaches currently being used for managing floods at the city level, the extent to which they have been effective, challenges in existing flood management infrastructure network, and assess associated costs for these interventions.
iii. *Design of eco-engineering pilot:* Based on the above analysis and extensive discussions with stakeholders, the study will propose a pilot demonstrating how flood risks can be reduced through a combination of (a) infrastructural and eco-systems based interventions, including modification of existing structures (e.g.

repositioning embankments) to improve the capacity of river systems; (b) identify interventions that should be undertaken at different scales—at the city level, in the peri-urban areas and at the broader delta level; (c) assess impacts (in terms of reduced flood risks and other co-benefits) of proposed innovative interventions; and (d) determine costs and associated implementation arrangements of the proposed interventions and feasibility of carrying them out in the current institutional context.

iv. *Analysis of the cost-effectiveness of conventional infrastructure approaches vs eco-engineering approaches:* A cost–benefit analysis will be undertaken to assess the relative costs and benefits of conventional primarily infrastructural approaches vs eco-engineering approaches proposed by the pilot to show whether or not the proposed options are cost-effective over a 20–25-year time horizon. This analysis will provide the basis for making recommendations for the study.

91. **Updated Status:** The MC approved the proposal in November 2012, and a concept note will be presented to the MC in 2013.

(5) Scaling up Innovation in Disaster Risk Management in Bangladesh
A Proposal to Support Human and Financial Resilience to Natural Hazards

Grant Amount: US$0.2 million

92. **Background:** GoB has not sufficiently managed fiscal risks associated with natural disasters and climate change because of the following issues relating to the quality and type of information available to decision-makers:

- Direct/indirect economic and social costs of disasters are not properly accounted for in fiscal policy because losses are not measured accurately. This means that inaccurate calculations of costs and benefits are used.
- Complexity and uncertainty of risk analysis means that it is difficult for decision-makers to use information.
- Lack of such data further compromises the development of risk financing strategies, including reserve funds, contingent loan agreements and affordable insurance.

93. **Objectives and Expected Outcome:** To analyze a number of institutional and financial aspects for creating a disaster risk financing and insurance strategy for Bangladesh. The study will discuss a series of complementary options for a national disaster risk financing strategy, based on a preliminary fiscal risk analysis and a review of the current budget management of natural disasters in Bangladesh. The results of this study will serve as a tool for GoB as it develops comprehensive risk management practices for the long term.

94. **Methodology and Data:** The proposed study plans to include the following four components.

Component A: Natural disaster risk management data

- Assess National Disaster Risk Management Strategy: What are the challenges around the existing strategy?
- Legal framework for emergency declaration
- National disaster response: What is the GoB's response to natural disasters?
- Risk assessment and modeling: Has any risk assessment and modeling been done in Bangladesh?
- Post-disaster needs assessment: How are post-disaster needs assessed, and by which GoB entity?

Component B: Fiscal risk management of natural disasters

- Contingent liability of the GoB: GoB's legal, stated contingent liabilities associated with disasters.
- Fiscal risk assessment of natural disaster shocks: Is the GoB required to assess its fiscal exposure to natural disasters in its fiscal risk assessment?
- Ex-post emergency budget reallocation: What is GoB's ex-post budget reallocation process?
- Annual contingency budget: What portion of GoB's annual budget is allocated to its contingency budget for unforeseen events/other contingent budget lines?
- Ex-post external assistance: Level of GoB's dependency on external donors to finance natural disasters.
- Ex-ante natural disaster financing: Is there a dedicated budget line for natural disasters?
- Ex-ante contingent debt: Does the GoB use any contingent debt instruments?
- Ex-ante insurance for public assets: Does the GoB purchase any insurance for public assets?

- Risk transfer through capital markets: Does the GoB utilize any instruments to transfer risk directly to the capital markets?

Component C: Institutional roles and responsibilities at federal and local government levels

- Institutional framework: The legal financial responsibilities of central/local governments associated with natural disasters?
- Budget execution: Is there a special (streamlined) budget execution system in case of disasters?

Component D: Domestic catastrophe insurance market

- Property catastrophe insurance market: For what perils/ market segments are catastrophe insurances available?
- **Regulatory environment:** Are insurance regulations set domestically, or is there a regional regulatory body?
- Agricultural insurance: Is agricultural insurance (crop, livestock, forestry, and aquaculture) offered?

95. **Updated Status:** The MC approved the proposal in November 2012, and a concept note will be presented to the MC in 2013.

(6) Making Climate Data Relevant to Decision Making in Bangladesh: Spatial and Temporal Downscaling

Grant Amount: US$0.3 million

96. **Background:** Climate change is a serious global threat. Initial experiences with adaptations in various countries show that early adaptation is effective for avoiding damage, provided the projections of future climate change are sufficiently accurate. Delayed adaptation, perhaps due to uncertainty, has the possibility to lead to greater subsequent costs. Hence, integration of climate risk information in planning is now a priority for policymakers, public investment planners, environmental agencies and donors. However, there is also broad recognition that despite significant technical advances in forecasts of global mean temperatures for the next two to three decades, uncertainties about future climate variability at sub-continental, country and sub-national scales are still significant (IPCC Fourth Assessment Report, 2007). Direct uses of Global Climate Model (GCM) outputs are often not appropriate for adaptation planning due to their coarse spatial and temporal resolution of GCMs. Hence, bridging the gap between the resolution of climate models and regional and local scale processes represents a major problem. In recent years, as policy makers are calling for more information on local climate change scenarios, various statistical downscaling methods, for example, pattern-scaling, weather generation and empirical downscaling are in use to provide finer resolution climate scenarios for impacts modeling. These downscaling methods are founded on statistical methods for characterizing present and future climate behavior at regional scale, and depend on GCM outputs to run future scenarios.

97. **Objectives and Expected Outcome:** To better understand the implications of climate change, this AAA will draw on a partnership among the World Bank, The Nature Conservancy, Climate Central and Santa Clara University to produce statistical downscaled GCM projections for temperature and precipitation for Bangladesh on a spatial grid of 0.5° in latitude by 0.5° of longitude (approximately 50 km by 50 km) for the time periods 1961–1999, 2046–2065, and 2071–2100. To capture the uncertainty of the extent of climate change, nine different GCMs, some with multiple runs among three different greenhouse gas emission scenarios (Special Report on Emissions Scenarios (SRES) A2, A1b, B1) will be considered.

98. **Methodology and Data:** The daily timescale Bias-Corrected Spatial Disaggregation (BCSD) downscaling method will be used. Wood et al. (2002 and 2004) presents a description of the monthly version of this method. A daily variant of the BCSD similar to that of Abatzoglou and Brown (2011) will be used. The downscaling, bias correction and trend preservation would use historically observed daily meteorological observation. The scope of study will include Average (average climate value during future time change), Departure (difference between the historic baseline average climate value and future average climate value) and p-value (statistical significance of change between the historic baseline average climate value and future average climate value):

A. Temperature-based climate metrics:

- Monthly mean of daily maximum/minimum temperatures
- Maximum/minimum temperature for the month and year
- Maximum temperature exceeding the hottest 10 percent of all days per year
- Very warm/cold days percent
- Very warm/cold nights percent
- Heat wave duration index

B. Precipitation-based climate metrics:

- Total precipitation for the month and the year
- Largest number of consecutive dry days (with precipitation <1 mm) per year
- Number of dry periods per month and year
- Percent of wet days per year
- Precipitation percent per year
- Maximum 5-day precipitation total per year
- Simple daily precipitation index (the mean daily precipitation on wet days)

99. **Updated Status:** The MC approved the proposal in November 2012, and a concept note will be presented to the MC in 2013.

4

FUTURE ACTIVITIES IN 2013

4
FUTURE ACTIVITIES IN 2013

100. Although the results framework and milestones for BCCRF were yet to be finalized, during 2012, the institutional weaknesses of GoB to address climate change were identified, and the BCCRF program showed significant progress. During the latter half of 2012, there was strong momentum among stakeholders to reach consensus on the ultimate objectives and milestones for BCCRF, which evolved into a series of activities to develop the capacity building project and results framework in early 2013. Such a progress was largely a result of increased human resources for BCCRF such as Dhaka-based Program Manager, and subsequently, in 2013, Delhi-based Interim Program Manager, Results Specialist from Bank Headquarters, and Bank retirees as consultants. Building on the achievements in 2012, BCCRF will focus on the following activities in 2013.

(i) Program Management

- Finalization of the results framework
- Finalization of the communications strategy
- Finalization of a capacity building roadmap
- Recruitment of a Program Manager to be based in Dhaka
- Ongoing review of new proposals
- Mid-term review

(ii) Project Management

- Multipurpose Cyclone Shelter Project
- BCCRF Secretariat
- Community Climate Change Project
- Agricultural Adaptation in Climatic Risk Prone Areas
- Afforestation and Reforestation Project
- Solar Irrigation
- Modern Food Storage Facility Community Climate Change Project (preparation and appraisal)

(iii) AAA preparatory activities: Concept notes for newly approved AAAs to be submitted to MC in 2013.

- Eco-Engineering, Climate Adaptation and Innovations in Flood Risk Mitigation
- Scaling up Innovation in Disaster Risk Management in Bangladesh: A Proposal to Support Human and Financial Resilience to Natural Hazards
- Making Climate Data Relevant to Decision Making in Bangladesh: Spatial and Temporal Downscaling

101. A proposed Annual Work Plan for 2013 is shown below.

4.1 PROPOSED ANNUAL WORK PLAN (2013)

Activity	Q1	Q2	Q3	Q4
I. Program Management				
1. MC Meetings		1 meeting	1 meeting	1 meeting
2. GC Meetings	1 meeting in Q1 (approval for solar irrigation)		1 meeting	
3. Capacity Building	Development partners consultations	LCG consultation and BCCRF capacity building plan developed		
4. Results Framework		Results framework finalized	Implementation plan for Results Framework developed	Activities as per the implementation plan are initiated
5. Communications		Communications strategy finalized	Activities as per strategy	Activities as per strategy
6. Quarterly Reports	Report in January for 2012 Q4	Report in April for 2013 Q1	Report in July for 2013 Q2	Report in October for 2013 Q3
7. Annual Report	2012 Annual Report			
8. Mid-term Review			Consultations with MoEF and development partners to finalize scope, field visits, discussions	Mid-term review mission and aide memoire
9. Trusteeship	**Fund management (e.g. issuance of Call of Funds, receipt of payments, investment)**			

Activity	Q1	Q2	Q3	Q4
II. Project Management	**(two site-visits per year for projects in this category)**			
1. Multipurpose Cyclone Shelter Project	Construction of 8 shelters completed by the end of March. Road construction completed in February	Construction of 29 shelters completed by the end of June	24 remaining shelters being constructed (to be completed in March 2014)	24 remaining shelters being constructed (to be completed in June 2014)
2. BCCRF Secretariat	Technical Advisor recruited. Other consultants and specialists are hired	Goods and equipment are purchased	Secretariat is staffed and trained	Secretariat is staffed and functioning
3. Community Climate Change Project	Project operational	Project operational	Project operational	Project operational
4. Agricultural Adaptation Project	Project Proposal presented to MC GC approval	Grant agreement signed	On the ground operations start	Project operational
5. Afforestation and Reforestation Project	Grant agreement signed Project becomes effective	Project operational	Project operational	Project operational
6. Solar Irrigation	Grant agreement signed Project becomes effective	Project operational	Project operational	Project operational
7. Modern Food Storage		Appraisal completed		
III. AAA				
	Concept notes of newly approved AAA circulated	Climate change and vector borne diseases AAA completed, report disseminated		Eco-engineering AAA completed

ANNEXES

ANNEXES

Annex 1. BCCRF Governance and Roles

1. BCCRF is an innovative partnership of the GoB, development partners and the World Bank to address the impacts of climate change. Leadership in implementing BCCRF rests with the GoB, in collaboration with the development partners and the World Bank. The multi-donor partnership is designed to generate optimum impact with minimum transaction costs, and enables the GoB to channel grant funds to millions of Bangladeshis to help build their resilience to the effects of climate change.

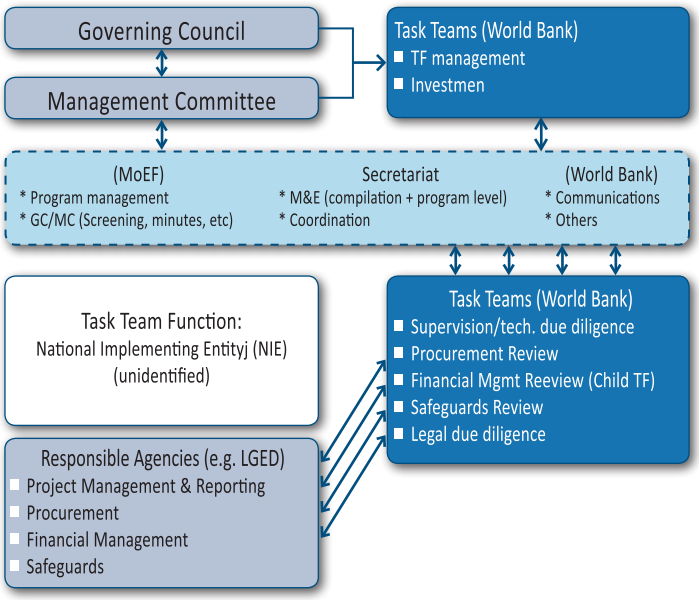
2. BCCRF's governance structure consists of three tiers: (i) Governing Council (GC); (ii) Management Committee (MC); and (iii) Secretariat (Figure 1).

(i) Governing Council

3. The Governing Council (GC) provides overall strategic direction and guidance to BCCRF and ensures its alignment with the BCCSAP. It is a high level committee chaired by the MoEF, and comprises the respective Ministers from the Ministries of Agriculture, Finance, Food and Disaster Management, Foreign Affairs, Water Resource and Women's and Children Affairs; Secretaries from the Prime Minister's Office, MoEF, ERD of the Ministry of Finance, and Ministry of Planning; two representatives from the contributing development partners; two representatives from civil society; and the Country Director of the World Bank Dhaka Office as an observer. As of December 2012, the initial two representatives of development partners, i.e. DFID and EU, remained as development partners representatives.

4. GC's primary responsibility is to provide advisory guidance on the program's strategic goals, and it includes approval of project proposals, ensuring alignment with GoB's climate change strategy, setting grant criteria, and providing guidance on the eventual transfer of BCCRF secretariat function to the MoEF.

Figure 1. BCCRF Governance Structure and Roles



(ii) Management Committee

5. The MC is a small technical committee chaired by the Secretary of MoEF and the members include: two other representatives from MoEF (Joint Secretary, Development and Deputy Secretary, Environment); one representative from ERD (Additional Secretary) and one from the Planning Commission (General Economic Division); two representatives from contributing development partners; one representative from the World Bank; and one representative from civil society.

6. The MC's primary responsibilities are to: (i) carry out detailed reviews of grant requests submitted by the secretariat; (ii) ensure that grant requests submitted are in line with the agreed Implementation Manual; and (iii) recommend projects for preparation to the GC. The MC also reviews and endorses the Implementation Manual, the work program and budget allocations as well as the reports prepared by the secretariat for submission to the GC prior to public dissemination. If funding is required for project preparation, the MC issues its recommendation on the amount needed to the GC.

(iii) Secretariat

7. On February 23, 2011, the MC approved the establishment of a BCCRF secretariat at MoEF to support the administration of BCCRF activities. The GC subsequently approved an allocation of US$0.2 million on May 19, 2011 for the establishment of the secretariat. As of July 1, 2012, MoEF Joint Secretary was appointed as BCCRF Project Director to lead the BCCRF secretariat, and a consultant came on board in November 2012 as the first dedicated staff for MoEF BCCRF secretariat.

8. The BCCRF secretariat's main functions include day-to-day support to the MC and GC, advocacy, communications, donor coordination, program level monitoring and evaluation, and preparation and implementation of the eventual transfer of BCCRF secretariat functions from the Bank to the GoB. Since the recruitment for MoEF BCCRF secretariat staff was delayed, the World Bank BCCRF core team is currently performing a large part of the secretariat function, but as MoEF secretariat staff increase, the Bank team would build capacities in the MoEF secretariat to carry out its functions. Among the secretariat functions listed in Figure 1, proposal screening, pipeline projects coordination and improved coordination of GC/MC meetings are the functions that may be performed by the MoEF BCCRF secretariat as soon as staffing is completed.

(iv) Roles of the World Bank

9. The World Bank is responsible to satisfy due diligence requirements for BCCRF. The World Bank ensures BCCRF resources for project implementation and other activities are utilized with attention to the principles of: (i) economy – costs are kept low; (ii) efficiency – BCCRF is getting the most out of the expenditures; and (iii) effectiveness – monies are used for the intended purposes and toward targeted results. To pursue the above principles, the World Bank is currently performing three functions as shown in Figure 1: (i) secretariat function, as described in the paragraph above, (ii) trustee function, and (iii) task team function, which is performed by task teams led by technical specialists (e.g. agriculture, energy, environment) as TTLs, and team members such as procurement specialists, financial management specialists, safeguard specialist and lawyers.

10. The World Bank was selected to perform these functions because of its extensive experience in managing trust funds. As of June 30, 2012, the World Bank Group held US$29.2 billion of funds in trust, which is about the same level as end-FY11 and up 41 percent since end-FY08. Among IBRD/IDA's active trust funds, multi-donor trust funds such as BCCRF account for roughly 50 percent. In addition, the World Bank is well positioned to share its analytical and technical advisory experience on international best practices in development. Hence, it is also providing analytical work, knowledge management and technical assistance for the implementation of the BCCSAP via BCCRF.

(v) National Implementing Entities

11. As shown in Figure 1, Bangladesh currently does not have institution(s) that can directly access financial resources from the Adaptation Fund established by the Parties to

the Kyoto Protocol and/or oversee the development and approval of projects and monitor their results. In climate change finance, such institutions are called national implementing entities (NIEs), and as of December 2012, 14 countries had their NIEs accredited under the Adaptation Fund of the Kyoto Protocol, and four countries had their NIEs reviewed under GEF's direct access modality. GoB needs to choose a NIE candidate because this approach will increase the level of ownership, oversight and involvement in adaptation activities and create stronger accountability of the country to funds such as BCCRF, and greater flexibility in utilizing global financial mechanisms such as the Adaptation Fund, GEF and Green Climate Fund. However, global financial mechanisms such as the Adaptation Fund and GEF's direct access modality require a sufficient track record of normally a few decades, and thus, establishing a new institution is not a viable option but existing government and non-government institutions that meet NIE criteria could become potential candidates for consideration. Furthermore, institutions that qualify as NIEs under the Adaptation Fund may not automatically qualify for direct access under any new Funds, such as the Green Climate Fund.

12. BCCRF's Secretariat functions could be transferred eventually from the World Bank BCCRF core team to the newly established MoEF BCCRF secretariat. Such a transfer needs capacity building in a wide range of areas (e.g., fiduciary, reporting, monitoring and evaluation) and has to be coordinated with MoEF's capacity building initiatives supported by other donor partners, including the process of GoB's NIE identification.

Annex 2. Aide Memoire

Government of the People's Republic of Bangladesh

Bangladesh Climate Change Resilience Fund (BCCRF)
TF071208

Aide Memoire
January 8 - 19, 2012

1. A World Bank team comprising Maria Sarraf (Task Team Leader), Sayeeda Tauhid (Sr. Monitoring and Evaluation Specialist, and BCCRF Trust Fund Coordinator), Faria Selim (Communication Specialist), Omar Farook (Operations Analyst) and Angie Harney (Program Assistant) conducted a mission in Bangladesh from January 8-19, 2012 for the Bangladesh Climate Change Resilience Fund (BCCRF).

2. The **objectives** of the mission were to follow up on overall BCCRF progress, in particular the establishment of the secretariat, the status of projects recommended for funding by the Management Committee, the creation of a pipeline of projects and the status of various communications activities.

3. The Bank team met representatives from Aus AID, Embassy of Denmark, European Union, Swedish SIDA, Swiss Embassy, UK DFID and the Ministry of Environment and Forests (MoEF). A list of participants met is provided in Annex 1. This Aide Memoire records the findings of the mission, recommendations on key issues and understandings reached with the ministries and agencies.

4. This Aide Memoire was formally discussed at a wrap-up meeting on Thursday 18 January, 2012 chaired by Mr. Mesbah Ul Alam (Secretary, MoEF). The meeting participants also included representative from the Development Partners (DPs).

Summary of Findings and Recommendations

5. Contributions to the BCCRF. As of today, total contributions to the BCCRF are estimated at US$125 million. Aus AID is planning to join with a commitment of AUD$ 7 million, and to sign an Administration Agreement (AA) by February 2012. The European Union is increasing its initial contribution of Euros 8.5 million by an additional Euros 20 million, and intends to sign an amendment to its AA by February 2012 (after signing its financing agreement with the

Government). This will raise the total contributions to around $160 million.

6. Commitments under the BCCRF. A $25 million Grant Agreement (GA) for building Cyclone Shelters was signed with GOB in August 2011. Two contracts to build 8 new shelters and one contract to rehabilitate 11 shelters have already been signed and the project is under implementation by LGED. A $0.2 million GA to establish a Secretariat at the Ministry of Environment and Forests was signed in November 2011. Grant Agreements for the Community Climate Change Project ($12.5 million to be implemented by PKSF), the Afforestation and Reforestation Project ($25 million to be implemented by DOF) and the Agricultural Adaptation Project ($22.8 million to be implemented by DAE) are expected to be signed by June 2012. When these are signed, total commitments under the BCCRF will reach 75% of current contributions ($125 million.)

7. Project Timeline. The proposed timeline for processing the above three projects is indicated in the table below. In addition, the Bangladesh Water Development Board is preparing a proposal to fund the feasibility study, detailed project design and all required environment and social studies for the construction of the *Urir Char–Noakhli cross Dam*. The proposal should be submitted for approval prior to the next Management Committee (MC) meeting.

Project	Timeline
Community Climate Change Project	▪ Decision Meeting Jan 23, 2012 ▪ Appraisal/Negotiation February 2012 ▪ GC approval/Grant Signing March/April 2012
Afforestation and Reforestation Project	▪ Decision Meeting February 2012 ▪ Appraisal/Negotiation April 2012 ▪ GC approval/Grant Signing June 2012
Agricultural Adaptation Project	▪ Amending Agreement with FAO March 2012 ▪ DPP preparation March 2012 ▪ GC approval/Grant signing June2012

8. **Analytical and Advisory Activities.** After completing a rapid needs assessment for analytical work to support the *Bangladesh Climate Change Strategy and Action Plan*, the following areas were identified as priorities:

- Impacts of climate change on vector-borne diseases and implications for the health sector,
- Water logging of urban areas in a changing climate; Potential damage and adaptation;
- Assessment of the threat of climate-induced out-migration from vulnerable areas

The Concept Notes for the first two studies have been drafted and will be circulated to the Management Committee and World Bank management in January 2012. In addition, a Migration Workshop is planned for later this year.

9. **Reporting and Communications.** The draft Annual Report for the BCCRF was prepared and shared with DPs and Gob. The final version will be issued shortly. In addition, a *Results Framework* and a *Communications Strategy* has been prepared and will be shared with DPs and GOB shortly. As part of BCCRF communications, a package of outreach material was prepared and distributed in Durban at the 17th Conference of the Parties (COP 17) of the United Nations Framework Convention on Climate Change. A request was made to distribute the outreach materials to all embassies in Dhaka to ensure wide dissemination of information regarding BCCRF and to raise interest among other DPs. The Bank team agreed to distribute these materials by January 31, 2012.

10. **Secretariat.** The mission discussed the lack of progress in establishing the Secretariat. A detailed action plan was agreed with MoEF and is presented below. To speed up implementation of the Secretariat, the Procurement Specialist (PS) and Financial Management Specialist (FMS) working on the Clean Air and Sustainable Environment Project (funded by the World Bank and implemented by MoEF) will support the initial setting up of the BCCRF Secretariat.

Activity	Timeline
Bank Account:	
1. MoEF will write to the Ministry of Finance for permission to open the account	12 January
2. Permission from Ministry of Finance will be sought by	31 January
3. The FMS will collect relevant forms for account opening and send to MoEF	19 January
4. New account will be opened by	6 February
Finalization of recruitment of CASE FMS for BCCRF:	
1. The PS will prepare the contract and ToR for the FMS and send it to MoEF	12 January
2. MoEF will clear, finalize and issue the contract	23 January
Recruitment of two Administrative Officers:	
1. Two AOs, already working with MoEF and hence familiar with the internal system, have agreed to work additional hours to support the FMS and PS with administrative work. They will be compensated for their additional time worked.	12 January
Recruitment of messengers:	
Two messengers will be recruited on an ad hoc basis. The contracts will be processed and cleared by MoEF.	31 January
Recruitment of two Climate change Consultants, an FMS and an Administrative Assistant:	
1. The PS will draft REOIs and send to MoEF	19 January
2. MoEF will clear the REOIs	23 January
3. The PS will process the REOIs to be published	31 January
4. The recruitment Committee will review the CVs and select applicant.	15 March
Issuance of permanent passes:	
MoEF will request the Ministry of Home Affairs to issue permanent passes for the PS and FMS to facilitate entry into MoEF.	31 January
Preparation of TAPP:	
TAPP drafted and processed by MoEF.	30 January

11. **Pipeline of Projects**. The mission held discussions with MoEF and DPs on the development of a pipeline of projects given the budget still available under the BCCRE. It was agreed that (i) a brainstorming session will be organized on February 7, 2012 between the BCCRF team, MoEF and key ministries (possible Food and Disaster Management and Water Resources) to suggest sectors where BCCRF intervention is needed; and (ii) projects already recommended by the MC can be scaled up it there is a good rational to do so.

12. **Extension of BCCRF closing date.** The current closing date of BCCRF is December 31, 2014 and the end disbursement date is June 30, 2015. Typically World Bank financed projects in Bangladesh have an implementation period of at least 5 years. To enable the World Bank to sign Grant Agreement for projects that have an implementation period beyond the current closing date, it is proposed to extend the closing date to December 31, 2017 and he end disbursement date to June 30, 2018. This extension will apply to projects approved by the Governing council by the current trust fund closing date (i.e. December development partners will assess the feasibility of making alternative arrangements for channeling donor funds directly to the Government (or a newly designated entity). If the outcome of the assessment recommends a satisfactory alternative arrangement, then the Bank will, as per its commitment with the developments a satisfactory alternative arrangement, then the Bank will, as per its commitment with the development partners, return all uncommitted amounts to development partners, who may then proceed to channel funds to the Government in accordance with their own procedures, guidelines and legal arrangements. Furthermore, even when the Government (or the newly designated entity) starts administering new projects, it will remain the responsibility of the World Bank to continue managing on-going projects until the end of their project cycle. The proposed extension was discussed and agreed with MoEF and DPs during the mission. The request for extension and all relevant legal amendments will be submitted to World Bank management for approval.

13. **Program Manager.** The position of the PM for BCCRF in the Bank team has been recently re-advertised with a closing date of January 15, 2012. The shortlist, evaluation and selection of candidates will be done in the coming weeks.

14. **Next Management Committee Meeting.** It was agreed that the next MC meeting should be schedule in mid February. Items for discussion will include; the pipeline of projects and the replacement of the civil society member of the MC.

15. **Change in DP representation to the MC.** Almost a year has passed since the first MC meeting; development partners have therefore agreed that for the second year, DFID will represent the DPs as a voting member at the MC and the EU act as an observer.

List of People Met by the Mission[7]

Ministry of Environment and Forests, MoEF

Mr. Mesbah Ul Alam, Secretary in charge

Dr. Mohammed Nasiruddin, Joint Secretary (Dev)

Dr. Munzurul Hannan Khan, Deputy Secretary (Env)

Mr. Zahid Hossain Munshi, Senior Assistant Secretary (Env)

DFID

Ms. Joanne Manda, Climate Change & Environment Adviser

European Union

Mr. Koen Duchateau, First Secretary and Head of Section

Mr. Jorge Nieto Rey, Second Secretary

Embassy of Sweden

Mr. Tomas Bergenholtz, First Secretary

Embassy of Denmark

Ms. Wahida Anita Musarrat, Programme Officer

AusAID

Ms. Amanda Jennings, Second Secretary

Mr. Shahriar Islam, Program Officer

Swiss Embassy

Mr. Gabriele Derighetti, Deputy Head

[7] The list does not include all attendees in meetings with the mission

Annex 3. Recommendations in the Results Oriented Monitoring (ROM) Report

Recommendations

EU Delegation (EUD)

1. Comment on the annual work plan structure and progress report outline to ensure logical framework (LF) results progress is monitored and quality is reported on.

2. Suggest the use of an Overall Work Plan (OWP) and that the establishment phase ends on the date when the secretariat is fully staffed. An inception report (IR) should then be demanded within six months of this date.

3. List EUD requirements and collate those of other development partners as issues to be dealt with in the IR and suggest a report outline at least three months before the report is due.

4. Mobilize a Sector Policy Support Program (SPSP) key area assessment mission as soon as possible in order to address deficiencies raised in this report and to identify how progress can be made (to overcome conditions) towards budget support using the treasury or Ministry of Planning as the key agency.

5. Propose a venue and program for informal contact between partners to discuss issues of mutual interest and concern.

GoB

6. The ToR for the MoEF Project Director to include (a) need for skills in direction, vision and leadership; and (b) clear roles in: (i) monitoring, evaluation and reporting, (ii) overall and global work planning, (iii) providing guidance on priority of actions based on cost–benefit analysis, and (iv) provision of support to key actors on proposal and progress report writing.

7. Reformulate the results to give more focus to GoB adopting best practices, e.g. GoB adopts practice policy X to achieve Y by date Z.

World Bank

8. ToR for the Program Manager to be checked for items that undermine GoB ownership with duties listed as (a) roles in relation to the WB, (b) roles in relation to development partners, and (c) roles in relation to GoB. Any special skills of the current incumbent should be included in a way that shows any value added.

9. Produce working papers on: (i) how to improve efficiency using ex-post evaluation of other relevant projects to contribute to the result; (ii) identifying indicators and baselines for GoB competence in climate change adaptation and mitigation; (iii) improving the carbon footprint and renewable energy output of shelters; (iv) how the project could enable the WB and development partners to become more carbon smart; (v) impact pathways connected to previous GoB success, negotiation skills and key economic drivers; (vi) achieving greater voice from beneficiaries and support from the private sector; and (vii) a skills set for a carbon smart advisor to the Program Manager.

10. Produce a shelters video; how they can be used to improve the effectiveness of the Government at national and local levels in order to help the vulnerable through climate change instruments.

Annex 4. Communications

DOHA, December 7, 2012: Two of the most vulnerable nations to climate change impacts, Bangladesh and Maldives, are becoming front runners in adaptation. At a high level event organized during the annual United Nations Climate Summit convened at Doha, the Ministers of Environment of the Governments of Bangladesh and Maldives discussed how their nations are prioritizing climate change issues as a key developmental challenge


English Español | Fr

THE WORLD BANK
Working for a World Free of Poverty

Search

ABOUT | DATA | RESEARCH | LEARNING | NEWS | PROJECTS & OPERATIONS | PUBLICATIONS

News & Views

This page in: English

PRESS RELEASE

Bangladesh and Maldives Respond to Climate Change Impacts

December 7, 2012

Like Tweet SHARE

Two of the most vulnerable nations pave the way for climate compatible development through national programs and global climate finance

and embracing actions aimed at increasing climate resilience of people and infrastructure through strategic national investments and innovative national climate financing.

The high level event was organized to show-case the proactive responses of extremely vulnerable nations toward climate resilience as the nations are beginning to experience the early impacts of global climate change. The experiences and lessons shared by the top government officials at the event echoed the findings of the recent released World Bank Report *"Turn Down The Heat: Why a 4°C Warmer World Must be Avoided"* that summarizes a range of climate consequences on development against a global path of emissions reductions that could lead to 4°Cincreasing in warning.

"Bangladesh is already a global hotspot for tropical cyclones and other climatic events and is highly vulnerable to increased intensity of storms and droughts that will result from climate change," said **Dr. Hasan Mahmud, Honorable Minister, Ministry of Environment and Forests, Government of Bangladesh.**" *Two thirds of the country is less than 5 m above sea level and vulnerable to coastal inundation and salinity intrusion, which we are already experiencing."*

According to recent estimates, 14.6 million people in the coastal areas of Bangladesh are vulnerable to inundation due to increased cyclonic surges, and this number will increase to 18.5 million by 2050 under moderate climate change scenarios. Over the last decades, the Bangladesh government has invested more than US$10bn to make the country less vulnerable to natural disasters. Measures as strengthening river embankments, building emergency cyclone shelters, and developing world class community based early warning system have significantly reduced the loss of life and livelihoods and property damages caused by extreme weather events.

To supplement its national programs, Bangladesh has successfully aligned its development partners to address the climate change challenge and established an innovative financing mechanism—the Bangladesh Climate Change Resilience Fund (BBCRF). So far, the BBCRF has channeled US$170 million in grant funds from

seven development partners, namely Australia, Denmark, EU, Sweden, Switzerland, UK and the USA to strengthen the resilience to climate change. The Government of Bangladesh is in the driver's seat and the authority of choosing projects to fund and implementing them. On an interim basis, the World Bank is playing the role of trustee – that is, conducting fiduciary transparency and accountability due diligence of the BCCRF.

The Government of Bangladesh has also created a separate "Bangladesh Climate Change Trust Fund" and allocated US$ 350 million from its own resources for the last four years consecutively—2009 to 2012. Bangladesh has been implementing 106 projects to address climate change including better adaptation and mitigation.

"We agreed for a second commitment period in Durban. But, there is a clear lack of ambitious emission reduction targets by parties under the second commitment period," said **Dr. Mariyam Shakeela, Honorable Minister of Environment and Energy, Government of Maldives**. "What about those countries who have not committed to this second commitment period? Are we giving them a license to pollute till 2020 and at the expense of millions and millions of lives, until the new agreement comes!"

Maldives has a Strategic Plan of Action (2009-2013) also known as the National Framework for Development and National Adaptation Programme of Action (2006) that provides a solid policy foundation to environmental sustainability, climate change adaptation and low carbon development.

The European Union (EU) and Australian Agency for International Development (AusAID) have contributed EUR 6.5 million and AUD 1.0 million to the multi-donor Maldives Climate Change Trust Fund (CCTF), which the World Bank will administer until March 31, 2015. The CCTF is implementing pilot projects to promote low carbon growth and build climate resilience in key sectors such as coastal protection, biodiversity conservation, water security and solid waste management.

Maldives is also ready to launch the Scaling Up Renewable Energy Program (SREP), an initiative which promotes indigenous renewable energy sources and energy efficiency improvements, which will reduce Maldives' dependence on fossil fuels and enhance energy security. Cost of fossil fuel imports to the Maldives currently represent imports 20% of its GDP. Maldives is seeking USD 30 million SREP funding to design and implement projects to support the transformation of the energy sector by scaling up renewable energy resources and facilitating private sector participation in the sector through a combination of policy support, risk mitigation instruments and investments.

"Bangladesh and the Maldives are among the most vulnerable countries to climate change. Both have long recognized that they must take on climate change adaptation to meet their development objectives." said **Rachel Kyte, World Bank Vice President for Sustainable Development, World Bank**. "Both countries,have tried a new innovative approach to climate finance: they have established a multi-donor trust fund to channel international climate finance to domestic priorities. Early indications are that this approach is a success."

MEDIA CONTACTS

In Washington
Robert Bisset,
Tel : (202) 458-9646; rbisset@worldbank.org

In Dhaka
Mehrin Mahbub
Tel : (880) 2 8159001; mmahbub@worldbank.org

In Colombo
Sandya Salgado
Tel : 0777256076; ssalgado@worldbank.org

Bangladesh, Maldives front runners in adapting to climate change impacts: WB

As the most vulnerable nations to climate change impacts, Bangladesh and the Maldives are becoming front runners in adapting to climate change impacts.

The ministers of Environment of Bangladesh and the Maldives at a high-level event organised during the annual United Nations Climate Summit convened at


The Daily Star

HOME | BUSINESS | SPORTS | ARTS & ENTERTAINM

Today's paper Front Page | Editorial | Metropolitan |

LATEST NEWS Bishwajit's a_

Saturday, December 8, 2012

Doha discussed how their nations are prioritising climate change issues as a key developmental challenge and embracing actions aimed at increasing climate resilience of people and infrastructure through strategic national investments and innovative national climate financing.

According to recent estimates, 14.6 million people in the coastal areas of Bangladesh are vulnerable to inundation due to increased cyclonic surges, and this number will increase to 18.5 million by 2050 under moderate climate change scenarios, said a World Bank press release.

Over the last decades, the Bangladesh government has invested more than US$10bn to make the country less vulnerable to natural disasters. Measures as strengthening river embankments, building emergency cyclone shelters, and developing world class community based early warning system have significantly reduced the loss of life and livelihoods and property damages caused by extreme weather events.

The release said the high level event was organised to show-case the proactive responses of extremely vulnerable nations toward climate resilience as the nations are beginning to experience the early impacts of global climate change.

It said the experiences and lessons shared by the top government officials at the event echoed the findings of the recent released World Bank Report "Turn Down The Heat: Why a 4°C Warmer World Must be Avoided" that summarises a range of climate consequences on development against a global path of emissions reductions that could lead to 4°C increasing in warning.

"Bangladesh is already a global hotspot for tropical cyclones and other climatic events and is highly vulnerable to increased intensity of storms and droughts that will result from climate change," said Environment and Forests Minister Dr. Hasan Mahmud.

He said that two-thirds of the country is less than 5 m above sea level and vulnerable to coastal inundation and salinity intrusion, which we are already experiencing.

To supplement its national programs, Bangladesh has successfully aligned its development partners to address the climate change challenge and established an innovative financing mechanism - the Bangladesh Climate Change Resilience Fund (BCCRF).

So far, the BCCRF has channeled US$170 million in grant funds from seven development partners, namely Australia, Denmark, the EU, Sweden, Switzerland, the UK and the USA to strengthen the resilience to climate change.

The government of Bangladesh is in the driver's seat and the authority of choosing projects to fund and implementing them. On an interim basis, the World Bank is playing the role of trustee—conducting fiduciary transparency and accountability due diligence of the BCCRF, the release added.

The government of Bangladesh has also created a separate "Bangladesh Climate Change Trust Fund" and allocated US$350 million from its own resources for the last four years consecutively - 2009 to 2012. Bangladesh has been implementing 106 projects to address climate change including better adaptation and mitigation.

Meanwhile, the Maldives has a Strategic Plan of Action (2009-2013) also known as the National Framework for Development and National Adaptation Programme of Action (2006) that provides a solid policy foundation to environmental sustainability, climate change adaptation and low carbon development.

NEW AGE
THE OUTSPOKEN DAILY
| Online Edition

CLIMATE CHANGE'S IMPACTS

Govt wants dev partners to give more money to BCCRF

Staff Correspondent

The environment and forests minister, Hasan Mahmud, addresses a seminar on climate refugees organised by Equitybd at the National Press Club on Monday. — New Age photo

Environment and forest minister Hasan Mahmud on Monday requested the country's development partners to provide more money to the Bangladesh Climate Change Resilience Fund to enhance the country's capacity to fight the adverse impacts of climate change.

Bangladesh needs $10 billion to take the necessary steps to offset the adverse impacts of climate change, but there is only $170 million available in the BCCRF, which is much too little, he said while briefing Bangladeshi delegates to the Conference of the Parties — COP 18 — to be held in Doha from 26 November to 7 December.

The CCRF organized the briefing at the Pan Pacific Sonargaon Hotel.

At the briefing, Hasan said the Bangladesh Climate Change Resilience Fund is an innovative partnership between the government, development partners and the World Bank.

'Bangladesh is being badly affected by all negative impacts of climate change. If the money, assistance or required technologies are provided to this country, more people will be benefited,' he said.

European Union's ambassador William Hanna, who was present at the briefing, praised Bangladesh for its leading role in the climate change issue internationally and globally.

'We encourage Bangladesh to become a role model as a vulnerable developing country pursuing low-carbon development as well as building resilience,' he said.

The World Bank's country director, Ellen Goldstein, presented a paper titled 'Progress of Bangladesh Climate Change Resilience Fund' in which she discussed the progress so far made by the BCCRF.

She said the trust fund set up by the development partners for the BCCRF stands at about $170 million at present. Out of this, Denmark contributed $1.2 million, the European Union $37 million, Sweden $13 million, the United Kingdom $95 million, Switzerland $3.4 million, AusAID $7 million and USAID $13 million.

The BCCRF plans to build a total of 61 multipurpose cyclone shelters in 5 districts — Patuakhali, Pirojpur, Barguna, Satkhira and Khulna — and the construction of 37 shelters has already started and is expected to be completed by the end of June 2013.

Moreover, the BCCRF will revive forests on about 17,000 hectares of land and plants trees by the roadside for 1,672km through the participatory afforestation and reforestation project.

Ellen said trees would be planted on around 7,000 hectares to stabilize the land and lessen the impact of cyclones.

Environment secretary Shafiqur Rahman Patwari, Bangladesh Bank's governor Atiur Rahman, Palli Karma Sahayak Foundation's chairman Qazi Kholiquzzaman, environmental scientist Atiq Rahman and BRAC University's vice-chancellor Ainun Nishat were present at the briefing.

DHAKA, August 06, 2012: The Government of Bangladesh today signed a US$12.5 million grant agreement with the World Bank for the Community Climate Change Project (CCCP) to support communities in increasing their resilience to the impacts of climate change. The project will channel funds to NGO-implemented sub-projects to build the capacity of communities to increase their resilience to flood, drought and saline water intrusion risks through the implementation of community-based climate change adaptation activities in poor and vulnerable upazillas. This is the first stand alone project to be financed by the Bangladesh Climate Change Resilience Fund (BCCRF).

"Bangladesh is one of the most densely populated, climate-vulnerable countries in the world," said **Christine Kimes, Acting Head of World Bank Dhaka Office**. "This project has the potential of fundamentally changing the lives of thousands of people by reducing their vulnerability to climate change risks."

The BCCRF has two windows – 90% of its funds are allocated to public sector projects, while 10% of the funds will be channeled through NGOs. The Governing Council of BCCRF designated Palli Karma-Sahayak Foundation (PKSF) to be the implementing agency for the NGO window, and it will manage the US$12.5 million grant for the Community Climate Change Project.

"The project directly contributes to the Government's climate change adaptation vision," said **Mr. Arastoo Khan, Additional Secretary, Economic Relations Division, Government of Bangladesh**. *"CCCP would protect the climate vulnerable people by enhancing their adaptability to drought, flood, and saline water intrusion risks. The communities will share the lessons learned with other vulnerable communities as well."*

The project will establish a grant financing mechanism within PKSF to channel funds directly to NGOs to fund community-based climate change adaptation activities. To be eligible for CCCP funding, the sub projects must address at least one of the six thematic pillars of the Government's Bangladesh Climate Change Strategy and Action Plan 2009. The first call for proposals is expected by October 2012.

The Bangladesh Climate Change Resilience Fund supports implementation of Bangladesh's Climate Change Strategy and Action Plan 2009. This is an innovate partnership between the Government, Development partners and the World Bank to address the impacts of climate Change. The country-led mechanism will channel $170 million in grant funds to strengthen the country's resilience to climate change. AusAID, Denmark, DFID, the European Commission, Sweden, Switzerland, and USAID have provided financial contributions. The World Bank supports the Government to ensure that the projects are implemented with due regard to economy, efficiency and effectiveness and that due diligence requirements are performed.

MEDIA CONTACTS

In Dhaka
Mehrin Ahmed Mahbub
Tel : (880) 2 8159001; mmahbub@worldbank.org

In Washington
Gabriela Aguilar
Tel : (202) 473-8955; gaguilar2@worldbank.org

World Bank supports Bangladesh project for climate resilience

Souce:Xinhua Publish By Daisey Stodola Updated 12/10/2012 1:47 pm in Technology / no comments

TAGS

bangladesh project, financial contributions, kimes, vulnerable areas, water intrusion

RELATED

- U.S. congress urged to take actions on IMF reform package

DHAKA, Aug. 6 (Xinhua) — The Bangladeshi government signed a 12.5 million U.S. dollars grant agreement with the World Bank Monday for a project to support rural communities in increasing their resilience to the impacts of climate change.

The Community Climate Change Project will channel funds to NGO (Non-governmental Organization)-implemented sub-projects to build the capacity of communities to increase their resilience to flood, drought and saline water intrusion risks through the implementation of community-based climate change adaptation activities in poor and vulnerable areas.

Arastoo Khan, additional secretary of Bangladesh's Economic Relations Division, and Christine Kimes, World Bank acting country director for Bangladesh, signed the financing agreement on behalf of their respective sides Monday in capital Dhaka.

According to a statement of the bank, this is the first stand alone project to be financed by the Bangladesh Climate Change Resilience Fund (BCCRF), a partnership between the Bangladeshi government, Development Partners and the World Bank to address the impacts of climate change.

The BCCRF supports implementation of Bangladesh's Climate Change Strategy and Action Plan 2009, it said.

The country-led mechanism will channel 170 million U.S. dollars in grant funds to strengthen the country's resilience to climate change, said the bank in the statement. It said AusAID, Denmark, DFID, the European Commission, Sweden, Switzerland, and USAID have provided financial contributions.

The World Bank supports the government to ensure that the projects are implemented with due regard to economy, efficiency and effectiveness and that due diligence requirements are performed, it added.

March 1, 2012, DHAKA: Bangladesh will require climate-smart policies and investments to make itself more resilient to the effects of climate change, says a new World Bank report 'The Cost of Adapting To Extreme Weather Events in a Changing Climate'. The report estimates that adaptation costs from increased risks of cyclones and inland monsoon floods in a changing climate will be approximately US$5.7 billion by 2050.


English Español

THE WORLD BANK
Working for a World Free of Poverty

Search

ABOUT | DATA | RESEARCH | LEARNING | NEWS | PROJECTS & OPERATIONS | PUBLICATIONS

News & Views

This page in: English

PRESS RELEASE

Bangladesh needs to climate-proof critical infrastructure to reduce the impact of extreme weather events says World Bank report

March 1, 2012

The report estimates that monsoon floods will affect an additional 2 million people by inundating new areas due to climate change. For cyclonic storm surges, currently 8 million people in the coastal area are vulnerable to inundation depths greater than 3 meters and this number will increase to 13.5 million by 2050. In addition, another 9 million people are expected to be exposed to inundation depths above 3 meter due to climate change.

Bangladesh already has extensive infrastructure to protect coastal residents from cyclones and tidal waves. To avert further damage and loss from cyclonic storm surges in a changing climate an additional US$2.4 billion will be required to climate-proof critical infrastructure by the year 2050. For inland monsoon flood, the cost of adaptation for the railways, road network, embankments and drainage infrastructure to offset additional inundation due to climate change alone is estimated at US$3.3 billion.

"Climate Change is no longer only an environmental issue; it is a development issue," said **Dr. Hasan Mahmud, Minister for Environment and Forests and Chief Guest at the launching**. *"We have invested billions in adaptation measures such as flood management schemes, coastal embankments, cyclone shelters and others. However, the journey is far from being over. This study will help us better understand the additional risks caused by natural disasters in a changing climate."*

At present, a severe cyclone strikes Bangladesh every three years, and the country faces serious monsoon inland flooding that may submerge over 60% of the country every 4 to 5 years. In a changing climate, Bangladesh is likely to experience higher-intensity cyclonic storm surges and heavier, more erratic monsoon flooding.

"Adaptation to increased risks from climate-induced weather events is essential for development worldwide, but particularly in Bangladesh," said **Ellen Goldstein, Country Director, The World Bank Bangladesh**. *"This study provides an analytic framework for understanding the challenge ahead. It is building block within the World Bank's broader technical and financial commitment to support a climate-resilient future in Bangladesh."*

The World Bank conducted the study in collaboration with the Institute of Water Modeling and the Center for Environmental and Geographic Information Services with financial support from the Government of the Netherlands, and the Bangladesh Climate Change Resilience Fund (supported by Denmark, the EU, Sweden, Switzerland and the UK).

MEDIA CONTACTS

In Washington
Alison Reeves
Tel : (202) 473-8955
areeves@worldbank.org

In Dhaka
Mehrin A. Mahbub
Tel : (880) 2 8159001
mmahbub@worldbank.org

Bangladesh needs about $5.7 billion as adaptation cost to face the increased risks of cyclones and inland monsoon floods in a changing climate by 2050, says a World Bank report.

The adaptation cost for railways, road networks, embankments and drainage infrastructure to offset additional inundation due to inland monsoon flood alone is estimated at $3.3 billion.

The rest amount of $2.4 billion is to avert further damage and loss from cyclonic storm surge in a changing climate.

The World Bank (WB) report titled "The cost of Adapting to Extreme Weather Events in a Climate Change" was released at a function in the capital yesterday.

Bangladesh will require climate-smart policies and investments to make itself more resilient to the effects of climate change, the report said.

It also said the country needs climate-proof critical infrastructure to reduce the impact of extreme weather.

Environment and Forests Minister Hasan Mahmud, who addressed the function as chief guest, said climate change is no longer only an environmental issue; it is a development issue.

Describing intensity and frequency of calamities, the minister said, over $10 billion will be required for Bangladesh to face the onslaught of climate change as millions of people had been displaced due to climatic disorder.

"We have invested billions in adaptation measures such as flood management schemes, coastal embankments, cyclone shelters and others. However, the journey is far from being over. This study will help us better understand the additional risks caused by natural disaster in a changing climate," he said.

Currently, eight million people in the coastal area are vulnerable to inundation depths greater than 3 metres and this number will increase to 13.5 million by 2050, the WB report said.

The Daily Star

HOME | BUSINESS | SPORTS | ARTS & ENTERTAINM

Today's paper | Front Page | Editorial | Metropolitan | N

LATEST NEWS Hearing of jail killing acquittal appeal

Friday, March 2, 2012

Climate Change Impacts

Bangladesh needs $5.7b for adaptation

Bss, Dhaka

World Bank Country Director Ellen Goldstein, who chaired the function, said "Adaptation to increased risks from climate-induced weather events is essential for development worldwide, but particularly in Bangladesh."

Goldstein also said this study provides an analytic framework for understanding the challenge ahead. It is building block within the World Bank's broader technical and financial commitment to support a climate resilient future in Bangladesh.

Noted climate expert Ainun Nishat, who was present at the function, laid importance on full implementation of the report.

He also requested the WB to update their report in phases considering intensity and frequency of natural calamities. The WB conducted the study in collaboration with the Institute of Water Modeling and the Centre for Environment and Geographic Information Services with financial support from the government of Netherlands, and the Bangladesh Climate Change Resilience Fund.

Launching Ceremony of "Community Climate Change Project (CCCP)" has been held

The Community Climate Change Project (CCCP) under Bangladesh Climate Change Resilience Fund (BCCRF) is a project that aims to enhance the capacity of selected communities to increase their resilience to the adverse impacts of climate change. Palli Karma-Sahayak Foundation (PKSF), the implementing organization of CCCP, has organized the Launching Ceremony of CCCP on Saturday 17 November 2012, at 10:00am at the PKSF Auditorium.

Dr. Hasan Mahmud, MP, Hon'ble Minister, Ministry of Environment and Forests (MoEF), Government of the People's Republic of Bangladesh graced the event as the Chief Guest while *Ms. Christine Kimes*, Acting Country Director, World Bank Bangladesh was present as the Special Guest. *Dr. Qazi Kholiquzzaman Ahmad*, Chairman of PKSF chaired the ceremony and *Dr. Quazi Mesbahuddin Ahmed*, Managing Director, PKSF delivered the welcome speech. *Dr. Fazle Rabbi Sadeque Ahmed*, Project Coordinator, CCCP, PKSF presented an overview of the CCCP. Over four hundred participants including government officials, representatives from the development partners, civil society, NGOs, academia, researchers, PKSF officials, journalists and allied stakeholders took part in the event.

Realizing the nature and magnitude of the adverse impacts of climate change and the required efforts for enhancing resilience, the Government of Bangladesh (GoB) adopted Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2009. A multi-donor trust fund, BCCRF was established for implementing the strategy and action plan. The BCCRF is an innovative and coordinated financing mechanism and GoB is in lead of implementing through the Ministry of Environment and Forests (MoEF). On behalf of the contributing Development Partners and in consultation with the GoB, the World Bank ensures for a limited duration the performance of due diligence requirement for BCCRF (including fiduciary management, transparency and accountability). BCCRF has attracted US$125 million as of December 2011 from several donor agencies (United Kingdom, European Union, Sweden, USA, Australia, Switzerland and Denmark). During the planning phase, it was decided that 90 percent of the available fund would be allocated to public sector projects, while 10 percent will be channeled through NGOs for community level climate actions. The Governing Council of BCCRF designated PKSF as the implementing agency for the CCCP. The amount of fund currently available under the CCCP is US$12.5 million.

The Community Climate Change Project will provide sub-grants to NGOs for implementing sub-projects focused on community-based climate change adaptation activities. Concepts submitted for initial review should provide few information such as brief description of the sub-project, how it addresses at least one of the six thematic pillars of the BCCSAP, location must be one of the three vulnerable zones: saline-affected coastal areas, flood-affected char-lands and river basins, and drought-affected or rainfall-scarce areas. The applicant NGO must provide evidence that it has been active in similar activities for last five years and has an annual budget of at least US$150,000 (approximately 1 crore taka) for last three years. The NGO must provide detailed information on its organizational structure and capacity.

PKSF has established a separate Project Management Unit (PMU) for the overall implementation and operations of CCCP. The PMU will periodically hold orientation sessions to provide guidance to the NGOs for preparing detailed proposals. Once an NGO has passed the Concept Review Phase, it will be requested to prepare detailed sub-project proposal. The guiding principle in the design of the grant award system is "simplicity with transparency," so that award decisions are made in the shortest time possible, and activities are carried out efficiently and meet all safeguard requirements including Grievance Redress Mechanism (GRM), Environmental Management Framework (EMF), and Social Management Framework (SMF) without compromising the quality of outputs. Proposals will be evaluated in order of receipts, and sub-projects will be selected and sub-grants awarded until funds in the CCCP are fully committed. The budgetary limits of the sub-projects would be between US$20,000 to US$1 million. *Dr. Qazi Kholiquzzaman Ahmad* in his

remarks alluded to the uniqueness of the project. "The vulnerable communities in geographically and climatically relatively more disadvantaged areas of the country are the most affected people. Adaptation activities under this project will target these communities, which will be implemented by the NGOs with active participation of the concerned communities," said *Dr Q.K. Ahmad*. He thanked the development partners for their contribution to BCCRF and the Governing Council of BCCRF for selecting PKSF to implement the NGO-Civil Society Window.

The Chief Guest, *Dr. Hasan Mahmud*, MP mentioned, "Bangladesh is one of the most vulnerable countries to climate change, and the present government have been taking various steps to address the impact of climate change. Under the preview of Climate Change Trust Fund Act, 2010 the government has established a Climate Change Unit, a Trust Fund in MoEF, and has so far allocated the equivalent of US$350 million from its own budget to implement the BCCSAP." It is one of the landmark examples for an LDC to allocate such an amount of fund from its own budget and this reflects the seriousness of Bangladesh to address the climate change impacts, he added. So far, the development partners have pledged an amount of US$ 200 million for BCCRF while US$ 170 million has already been received. However, Bangladesh needs at least US$ 5 billion for the coming five years to deal with the issue, he remarked. As a least developed country, Bangladesh is very insignificant emitter of GHGs and is not obliged to take mitigation action, yet Bangladesh is keen to work with the international community to arrest the menace of worsening climate change. The minister also expressed his views on the importance of the CCCP, as it will involve NGOs and vulnerable communities to implement the adaptation activities at the grassroots. He thanked the development partners for their contribution to BCCRF, and PKSF for undertaking the responsibility of implementing the CCCP.

"The Community Climate Change Project is a US$12.5 million grant financing which will help communities to increase their resilience and ability to adapt to the impacts of climate change. The CCCP is an important window for financing from the BCCRF which will provide grant financing to non-government organizations to implement community-driven interventions for building resilience to climate change impacts," said *Ms. Christine Kimes*, Acting Country Director, World Bank Bangladesh.

Mr. Aparup Chowdhury, Additional Secretary, MoEF chaired the technical session of the ceremony. *Professor Ainun Nishat*, Vice Chancellor, BRAC University made a presentation on "Adaptation options in flood-prone areas of Bangladesh"; *Dr. M. Asaduzzaman*, Ex-Research Director, BIDS talked on "Agricultural adaptation in drought-prone areas"; *Professor Ansarul Karim*, *PhD*, Environmentalist and Educationist shared his thoughts on "Impact of climate change on salinity and probable remedial measures"; and *Dr. Atiq Rahman*, Executive Director, Bangladesh Centre for Advanced Studies delivered a lecture on "Adaptation in relation to climate-induced displacement" at the technical session of the ceremony.

The CCCP will increase the adaptive capacity of the communities affected by climate-induced risks while directly contributing to the government's climate change adaptation vision.

Annex 5. March 20 Workshop and Minutes

Bangladesh Climate Change Resilience Fund (BCCRF) Consultation
Workshop on Sector Priorities

Ruposhi Bangla Hotel, Dhaka | 20th March 2012

Draft Minutes

1. Objective and Attendance

The **objective** of this workshop was to provide an update on the status of BCCRF and to solicit priority project ideas from various ministries and agencies. The meeting was organized by the Ministry of Environment and Forests

(MoEF) and chaired by Mr. Mesbahul Alam, the Honorable Secretary of MoEF. A **full list of people** who attended is provided in Annex 3. The meeting was **attended** by representatives from the following Ministries:

Ministry of Agriculture	Ministry of Water Resources
Ministry of Environment and Forests	Ministry of Housing and Public Works
Ministry of Local Government and Rural Development	Ministry of Defense
Ministry of Food and Disaster Management	Ministry of Health and Family Welfare
Ministry of Fisheries and Livestock	Ministry of Industries
Ministry of Information	Ministry of Land
Ministry of Science and Technology	Ministry of Posts and Telecommunication
Ministry of Social Welfare	Ministry of Communications
Ministry of Finance	Ministry of Power, Energy and Mineral Resources
Ministry of Women and Children Affairs	Ministry of Textile and Jute
Ministry of Shipping	

2. BCCSAP Presentation

Mr. Hannan (Deputy Secretary for the MoEF) made a presentation on *Bangladesh Climate Change Strategy and Action Plan* (BCCSAP). Participants greatly appreciated the way in which the presentation set out the context of Climate Change and what it means in Bangladesh. The presentation also gave a clear picture of the BCCSAP and how it relates to respective ministries/agencies. The Honorable Secretary presented the methodology on how particular activities sit within a set of programs, which sit within different themes. The audience expressed that it was very useful. Though the BCCSAP was circulated in 2008 and 2009, most of the participants agreed that this workshop gave them a more precise understanding about how to use it better.

3. BCCRF Presentation

Ms. Faria Selim (World Bank) made a presentation on the status of BCCRF. According to the participants, it was an eye opening presentation as it provided a clear idea about the objective of BCCRF. Moreover, participants felt they can now differentiate which project proposal to submit to BCCRF and BCCTF. Participants found the criterion of selection, readiness and other project examples very helpful.

In response to the health study that is proposed via the Analytical and Advisory Assistance (AAA) window, Mr. Iqbal from Ministry of Health expressed that the Climate Change Unit of the Ministry has already conducted extensive research on vector borne diseases. As such, they would like to be a part of the proposed AAA by World Bank. A World Bank mission to discuss the health study will be in Dhaka April 16-20 and will follow up extensively with the Ministry of Health to ensure full collaboration.

4. Ministry ideas for BCCRF proposals:

Ministries were asked to prepare 3 to 5 ideas for discussion in the workshop. Most of the ministry representatives explained that their ideas required revision now that they had learnt more about the BCCSAP and BCCRF criteria in this event. Thus not all ministries put ideas to the audience – but it was anticipated that Ministries would send through revised proposals in due course. However, some ideas were discussed, which are set out in **Annex 1**. For instance, the MoFA representative suggested a point based system which favored proposals that had synergies with existing work. To that effect it was important to clarify that one of the seven criteria for selecting proposal for funding under BCCRF was the synergy with existing programs.

5. Accessing BCCRF:

Participants asked a series of queries regarding how to access the BCCRF grants. These broadly were around whether project proposals constituted as sufficiently 'climate relevant':

- Ministry of Agriculture—regarding research proposals, particularly those that are longer term.
- Ministry of Communications—regarding road repairs and construction on the embankment in coastal areas.
- Bridge Division—regarding the robust embankment design for the Padma Bridge.
- Ministry of Fisheries & Livestock—regarding livestock water intake and health risks facing poultry.

The Secretary responded by referring to the grant proposal system of BCCRF. He emphasized that the proposals should be made as relevant as possible to BCCSAP's Theme, Program and Action structure as set out in the 2009 document, and that the BCCRF grant proposal system should also be referred to. The presentation on the BCCRF also included explanation of how the grant criteria and selection process worked. The presentation was circulated to the participants after the workshop.

6. End Note

The Honorable Secretary, Mr. Mesbah UlAlam, expressed gratitude to all participants spending their valuable time at this workshop. The participation was very open, valuable and thought provoking, and the BCCRF will be expecting very strong proposals from respective ministries.

Annex 5A: Ideas for BCCRF proposals from respective Ministries

Ministry	Ideas	Discussion
Ministry of Social Welfare (MoSW)	1. Including PWD during planning prepared phase of disaster management 2. Focus on Prevention/Mitigation 3. Build strategic alliances DPOs/experts on including disaster preparedness, mainstreaming DRR 4. Pilot on inclusive disaster mgt solution 5. Promote disability as cross cutting-water/food distribution centers 6. DRR methodology	▪ MoSW representative emphasized the importance of having an inclusive approach that will ensure PWD as a cross cutting issue. ▪ Mr. Arup (MoEF) said that in Page 41 of BCCSAP, and endorsement was made for PWD inclusion
Ministry of Works	1. Mapping of potentially affected area's urbanization strategies (19 coastal districts) 2. Feasibility study on ecology due to the increased pressure on urban areas	▪ Ministry has a department called UDD. This Urban Development Department prioritizes areas for urbanization related to housing ▪ Studies fund is currently too small for a BCCRF proposal, but relevant studies will definitely be helpful to address the upcoming urban issues that are caused by Climate Change ▪ Drainage is a challenge, a project around this issue can come from UDD

Ministry	Ideas	Discussion
Ministry of Food	1. Food Storage Facilities – 8 warehouses (elevated) and 1 silo at 8 districts in southern areas	▪ Next management committee will review this silo issue and communicate MC decisions to all relevant stakeholders
Ministry of Defense	1. T2: there are possibilities to develop ideas around this theme.	▪ The representative asked whether potential M of Defense proposals (from SPARSO) would be considered under the BCCRF, in the context of the sensitivities of the department. ▪ MoEF Secretary said they would raise this issue at next Management Committee [However the Ministry of Defense is on the World Bank exclusion list and funds cannot be channeled to this ministry.]
Ministry of Textile/Jute (Ashraf)	1. Jute is a natural, biodegradable fiber. Through its promotion, this could help reduce Bangladesh's carbon footprint. MoT is planning to finance few jute mills. 2. Through the diversification of Jute products: pulp and paper production, pressure on forestry is reduced. 3. Jute Genome Sequence decoded: through further research saline/drought/ pest resistant variety development	The respective ministry will send their proposals to BCCRF
Ministry of Communication		The representative from the ministry has highlighted that T5 has relevance to their ministry and as such some proposals could be made to the BCCRF.
Food Division	1. The Silo proposal was also reiterated by the Food Division 2. Haor (motor boat) project: to help ensure food transportation during flood/ flash flood 3. Waterlogged area: OMS/Food card	
Bridge Division	1. Additional cost for Navigation Clearance of Padma Bridge (.4 meter adjustment)- 31 million dollars	
Ministry of Information	1. Awareness Project. 2. T6P4 – we would like to fine tune some ideas.	The representative from the Ministry of Information expressed that the success of a project depended on awareness building, which is a key role of their office. The Ministry has been building awareness through use of television and radio programmes.

Annex 5B:Detailed Record of Discussion

■ **Water Resources:** Mr. Altaf said that this workshop would have added more value if it had been held much earlier. Priorities should include:

- Life saving projects should have the highest priority.
- Coastal areas, along with areas affected by other natural disasters.
- Shelters, Embankments and Polders.

Mr. Altaf called for greater investment in human health and agricultural research. After being given greater explanation of the BCCSAP, his Ministry will likely submit relevant proposals to the Fund.

■ **Climate Change and Health Promotion Unit (Ministry of Health):** Dr. Iqbal Kabir said that the Unit was already implementing a BCCTF project. The Unit has access to relevant data on Vector Borne diseases as well as the resources to conduct studies. Dr. Kabir suggested that any further research on this topic should be conducted through the Unit. Funding would be more efficiently used if the BCCRF wanted to conduct further research jointly with the Unit. He added that signs pointing to the spread of vector borne diseases are evident. [Since the workshop, Dr. Kabir has been put in contact with the World Bank project team working on this study.]

■ **Department of Food:** The representative has said that Food division is implementing 6 projects in increasing food production. The Department has submitted a $21.3 million project to build a food warehouse [to the BCCRF]. Further issues included the following:

- Flash-floods will occur in late April at Haor. The representative asked whether the BCCRF could support a project on motor boats needed for shipments.
- The Department has designed a project that costs $15 million around waterlogged area (e.g. Jessor) where they have planned to distribute food through OMS/ Fare Card (food).
- Following the workshop, it is proposed for the World Bank to work closely with the Department of Food to revise and strengthen the original proposal submitted and possibly even scaling it up.

■ **Ministry of Foreign Affairs:** The representative said that after today's workshop it will be challenging to develop competitive projects as he anticipates very strong proposals coming through in the near future. He suggested that project scoring should be introduced for only adaptation, adaption + mitigation, innovation, new technology and that these areas should be prioritized based on scores. He suggested that the BCCRF needed to capture life and livelihood impacts as new criteria for approving proposals (Section 17, 18 of grant request form). He added that the GoB needed to prioritize proposed projects which had synergy with approved projects or existing. The representative added that the BCCSAP mentioned a periodic review, and that the Water Sector should be considered for having its own pillar under the BCCSAP.

■ **Ministry of Disaster Management Relief:** The representative was concerned that $85 million had already been disbursed from the BCCRF (or promised), meaning that there was not much resource left. It was explained by the workshop conveners that additional donors were already considering joining the fund. He suggested that the World Bank needed to source additional funds. He requested that all thematic areas should be covered by the prioritization exercise. He acknowledged there was an urge to review work – but there were not yet visible results from the projects. The representative pointed to the CDMP project, through which capacity is being built in 15 agencies of 12 ministries. He indicated the Ministry would like to submit no. 19 of CDMP which covers early warning. As additional funds are being committed to BCCRF from new donors (USAID and AusAID), it is proposed as a follow up to the workshop that the World Bank works closely with the Ministry of Disaster Management Relief to further develop a strong proposal.

Climate Change Unit: The representative explained that 28 projects out of 70 projects under the GoB's Bangladesh

Climate Change Trust Fund related to the Water Resources Ministry, and that 420 crore taka had been allocated for Water Resources Ministry. The concern is that good quality projects are not coming through from other ministries. There is confusion over whether or not the Ministry of Communication should be making proposals to the funds on coastal belts and embankments

■ **Rural Development:** The Secretary said that all sectors will be affected due to climate change, that Bangladesh is densely populated and has a greater risk. Bangladesh's rich ecosystems are still supporting 160 million people and therefore deserve priority through protection which involves communities. The Secretary thanked the MoEF for including 'joint management' in the Forest Protection Law.

The Secretary emphasized that Bangladesh needed to protect the country's common resource pool and strengthen co-management of ecosystems rather than trying to save forests with guns and security forces. The Ministry is developing groups for sustaining these ecosystems (e.g. Tangoa Haor), and has the opportunity to develop participatory forestation. The Secretary emphasized the need to address natural and physical capital, to invest on Buffer Land and use the opportunity provided by the Hill Tracts to reforest those areas.

In relation to food security, The Secretary suggested that 9 million hectors of agricultural land should be more productive.

- Short maturity rice variety should be developed,
- 100 days rice production could be introduced,
- Climate modeling needed to be improved,
- Individual crop modeling is necessary as climate change will have different affects on different crops,
- Super tropical varieties should be introduced,
- Community participation on these is a key,
- Flora and fauna survey is needed,
- Climate induced displacement should be addressed at rural areas.

■ **Ministry of Women and Children:** The representative explained that a 3 crore proposal had been submitted to the Bangladesh Climate Change Trust Fund for Deep Tube well, Water supply and access. Women and Children are affected differently due to Climate Change. The representative said that the Ministry would be submitting proposals to the BCCRF now that the criteria and process had been made clearer.

■ **Ministry of Education:** The representative explained that if the Government didn't let the population know about the impacts of climate change, adaptation could not work. Ideas relating to this education based approach included:

- Booklets for students that explain Climate Change impacts easily.
- MoE has developed a curriculum on Hazard/Disaster/ Climate Change, under life skill development. However, the Ministry needed to improve teacher's skills.
- Converting 410 schools in coastal areas into MP Shelters.

Relating to the last point – the MoEF referred to the approved project of construction and repair of cyclone shelters, and it was noted that this was a continued priority.

When the representative was the DG for Social Welfare, there was a committee on Dhaka river pollution reduction. A report on from this Committee is currently with the MoEF. He emphasized that to clean Buriganga, the Government needs to have a separate authority under PMO. The Government would also need to have a long term Buriganga river development plan.

■ **Ministry of Power:** The representative said that new CDM technologies had been made available by the Japanese and that Bangladesh should be taking advantage of these.

Annex 5C: List of Workshop Attendees

Name	Designation	Organization
Monzur Hossain	Secretary	M/o Agriculture
Mihir Kanti Majumdar, Ph.D	Director	Rural Development and Cooperation
Mosharraf Hosaain		M/o Fisheries and Livestock
Md. Hafizur Rahman		M/o Information
Dilip Kumar Basak	Additional Secretary	M/o Science and Technology
Ranjit Kumar Biswasndc	Secretary	M/o Social Welfare
Tariq-ul-Islam		M/o Women and Children Affairs
Mir Mashiur Rahman		Titas Gas T&D Co. Ltd.
Nowshad Islam		Titas Gas T&D Co. Ltd.
Md. Sajjadul Islam		M/o Shipping
Md. A. Khaleque Mallick		M/o Information
Shah Mohammad Mahboob		Food Division
Aparup Chowdhury		M/o Environment and Forests
Md. Alauddin		Bridges Division
Md. Golam Sarwar		Department of Environment
Md. Ashraful Moqbul		M/o Textile and Jute
Saaikh Altaf Ali		M/o Water Resources
Dr. Khondoker S. Hossain		M/o Housing and Public Works
Dr. K.Z. Hossain Toufiqur		M/o Housing and Public Works
M.A.N. Siddique		Roads Division
Khondaker M. Asaduzzaman		Ministry of Defense
Zillar Rahman		M/o Housing and Public Works
Md. Yunus Ali		Forest Department
Md. Sharafat Hossain		BWDB
Ahammad Shah		Climate Change Unit
N.S.M. Muzzamel Huq		M/o Information
Dr. Iqbal Kabir		CCHPU, MoHFW
Dr. M Nasiruddin	Joint Secretary	M/o Environment and Forests
A. Awal Hawlader		Food Division
Md. Humayun Kabir	Senior Secretary	M/o HFW
Md. Monwar Hasan Khan		Power Division
Zahid Hossain Munshe		M/o Environment and Forests
Md. Didarul Ahsan		CCU
A.B.M. Khorshed Alam	Additional Secretary	M/o Industries

Name	Designation	Organization
Kamaluddin Ahmed	Additional Secretary	M/o ICT
A.N. Shamsuddin Azad Chowdhury		M/o Environment and Forests
Md. Fazlur Rahman		M/o Land
P. Chowdhury		M/o Land
S.M. Shawkat Ali		M/o PT
Md. Shah Kamal		M/o Primary Education
Rownaq Jahan	Joint Secretary	ERD
Md. Golam Sarwar		Titas Gas T&D Co. Ltd.
Md. Anisur Rahman		Titas Gas T&D Co. Ltd.
Md. Khairul Islam		GSB
Sufiur Rahman		M/o Foreign Affairs
Md. Abul Hossain		Bangladesh Bridge Authority
Md. Rafiqul Alam Siddique		M/o Environment and Forests
Monowar Islam	DG	DoE
Ahmed Hossain		Food Division
M.A. Wazed	Additional Secretary	Disaster Management and Relief Division
T. Islam		Disaster Management and Relief Division
Md. Hasanuzzaman		Disaster Management and Relief Division

BCCRF benefits from the generous financial support of the Australia, Denmark, European Union, Sweden, Switzerland, United Kingdom, USA and technical support of the World Bank