





State, Trend, Opportunities and Challenges of Climate Finance Flow in Bangladesh

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Executive Summary

International flow of climate finance is associated as one of the most cardinal subjects of discussion at the global climate change desks. To address both climate change adaptation and mitigation, a clean-accessible and transparent mechanism is a prerequisite to ensuring mutual accountability, learning and integrity and also support coordination for high-level targets and commitments. Currently the information system on climate finance is very intricate with inter-connectivity between sectors that is hard to dismantle. It is evident that a clear transparency tool is needed to break the tightly knotted political debates around the issues how new and additionality of climate finance is ensured. The Climate Finance Transparency Mechanism (CFTM) is an initiative to address these complexities as a common language to decentralize the publishing of climate data about the international and local funding flows and investments. It lends itself to serving the needs of various users of this information, including local, international and multi-stakeholders to access and understand the funding available for climate finance activities from different sources. From this study, some important numbers emerged which gives an understanding of the current state and trend of climate finance in Bangladesh. Through the analysis, it has been calculated that total money invested for climate change related projects in Bangladesh is about US\$ 5.5. Billion from 2010 to May 2017, of which US\$1073.30 million is grant money, US\$ 3224.39 million is loan, \$923.26 million is co-financing and the rest is the GOB's own contribution through BCCTF (i.e. US\$ 275.91 Million during 2010-2016). Assessment of the percentage contribution show that the donor countries or the development partners contributed only 21 % (as grant) of the total investment, while the GOB contributed the rest through co-finance (17 %) and loan (62 %). From July 2010 to February 2017, 67 projects related to climate change have been approved by the Economic Relations Division (ERD) whereas the data provided by the NGO Affairs Bureau from July 2016 to February 2017 indicates that they approved 38 climate change related projects with a total cost of US\$ 12.64 million. According to the CPEIR (2012) of the GOB, 1.1% of the GDP is invested on climate sensitive activities. This means an amount of US\$ 1.29 billion of the total GDP was invested in climate sensitive activities for FY 2010/11 and according to the Climate Protection and Development (2017) of the Ministry of Finance,

0.7% of the GDP is invested in climate sensitive activities in the last four years. This gives an amount of US\$ 0.82 billion. Hence, if the entire six years is considered, the total domestic funds from development and climate sensitive activities remains from about US\$ 7 billion to US\$ 11 billion according to these two government's documents. The study has assessed the fund information of eight (8) funding windows that invested in different sectors for addressing climate sensitivity in Bangladesh. The assessment showed that majority of the money has been invested on adaptation, less than half of the investment is on mitigation and a very small portion has gone to a combination of adaptation and mitigation (AdMit) projects. The report also shows that in the last six years, the annual average climate change investment of the GOB was about US\$ 1.2 Billion. This is more than six times higher than that of the external (donors/development partners contribution) climate change investment (\$179 Million). It is also seen that the total annual average investment from domestic and external sources in climate change related activities in the last six years was about US\$ 1.3 billion. Most of the projects implemented through the funding windows are seen to be in the form of loan money and the total loan amount (62%) is higher than the summation of the grant and co-finance money. The study also reviews the climate change financial investment gap. It so accounts that the total requirement for adaptation and mitigation in key sectors/areas per year is US\$ 4.15 billion (INDC, 2015). So, the annual climate change investment gap in key sectors remains about US\$ 2.85 billion, which is a difference between the required US\$ 4.15 billion (INDC Bangladesh, 2015) and the current US\$1.3 billion. Therefore, Bangladesh needs more funds to meet its needs both in terms of adaptation and mitigation. Therefore, the report includes the outline of the tools and approaches developed to break through the aid transparency process to ensure the potential avenues to ensure accountability and accessibility of climate finance information. The tools and approaches mentioned in the report will help to understand the aid transparency opportunities to strengthen the availability of useful and robust data. The report also provides the challenges and opportunities entailed in this endeavour to further delineate the scopes, and trends of this study. Hence, this is a comprehensive report to overview the state, trend, challenges and opportunities of climate finance flow in Bangladesh to understand current and future avenues of the field

State, Trend, Opportunities and Challenges of Climate Finance Flow in Bangladesh

1. Introduction

Climate change and its variability are one of the most challenging predicaments for the human race at today's date. Great concern is governs around how to protect the vulnerable communities who are susceptible to the impacts of climate change. The future of the global ecosystem is a cardinal issue of debate at the international platform of climate change. Especially at global negotiations between developed and developing countries, where Parties make important decisions under United Nations Framework Convention on Climate Change (UNFCCC) negotiation process.

The Paris Agreement is one of the major achievements in climate discourse. In the presence of about 150 heads of the states, the 21st session of the Conference of Parties (COP 21) to UNFCCC achieved a great diplomatic success in bringing all parties to a common platform and agree on major building blocks including mitigation, adaptation, loss and damage, finance, technology development and transfer, capacity building among others. The Paris Agreement states that developed countries shall provide continued support to the developing countries in implementing mitigation and adaptation actions. On that note, it becomes important to track the financial flow in between the systems in line with the promise made at these global premises.

1.1 Climate Finance: UNFCCC, Global/International Context

The United Nations Framework Convention on Climate Change (UNFCCC) acknowledges the climate change induced risks and vulnerabilities and calls for special efforts to reduce the impacts. The article 3.1, 4.3, 4.4, 4.5 and 4.9 (of the consolidated version of the convention text including amendments to Annex I & II) of the convention mentioned about the responsibilities of the developed country Parties towards the developing countries those are particularly vulnerable to the adverse effect of climate change (UNFCCC 1992).

Some milestones regarding climate finance under UNFCCC process are highlighted below (UNFCCC, 2001; 2009; 2015):

- a) In **2001**, during the **COP 7 in Marrakech**, some key decisions were taken for the following funds to address climate change:
- Special Climate Change Fund (SCCF): The SCCF complements other funding
 mechanisms and exists to finance projects relating to capacity-building,
 adaptation, technology transfer, climate change mitigation and economic
 diversification for countries highly dependent on income from fossil fuels.
- Least Developed Countries Fund (LDCF): LDCF is to support a special work programme to assist the LDCs.
- Adaptation Fund (AF): The AF is to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change (UNFCCC, 2014)
- Bilateral and multilateral sources: According to Article 11.5 of the Convention, developed country parties may provide the developing country Parties financial resources, which are related to the implementation of the Convention. This is to be channelled through bilateral, regional and other multilateral channels. They include multilateral financial institutions e.g. Asian Development Bank (ADB) and some bilateral development cooperation agencies, e.g. The Australian Aid from Australia, Canadian International Development Agency (CIDA), Department for International Development (DFID), and United States Agency for International Development (USAID) etc.
- b) In 2009, during the COP 15 in Copenhagen, some notable decisions include the following:
- It referred to a collective commitment by developed countries for new and additional resources through international institutions that will approach US\$ 30 billion for the period 2010–2012 with balanced allocation between adaptation and mitigation.

- Developed countries commit to a goal of mobilizing jointly US\$ 100 billion a year by 2020 to address the needs of developing countries.
- A significant portion of such funding should flow through the Green Climate Fund.

Green Climate Fund (GCF):

- Fast start finance (2010-2012) to mobilize US\$ 30 billion from the developed countries for the period 2010-2013 to reduce greenhouse gas emissions and to adapt to the inevitable effects of climate change in developing countries.
- Long-term finance (post 2020) to mobilize long-term finance of a further US\$100 billion a year by 2020 from a variety of sources.
- c) In 2010, during the COP 16 in Cancun, a notable decision was an agreement adopted by the states' parties that called for the US\$ 100 billion per year "Green Climate Fund" to provide financing to projects, programmes, policies and other activities in developing countries via thematic funding windows.
- d) In 2015 during the COP 21 in Paris, outstanding decisions included the following:
- Adopting Paris Agreement which states that, "As part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources,... taking into account the needs and priorities of developing country Parties".
- It also mentions that, "The provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation".

In addition, the Sendai Framework on Disaster Risk Reduction (DRR) (2015) mentions that "to enhance access of States, in particular developing countries, to finance,through existing mechanisms, namely bilateral, regional

and multilateral collaborative arrangements, including the United Nations and other relevant bodies" (Sendai Framework on DRR, 2015).

1.2 Bangladesh Climate Finance

The Government of Bangladesh (GoB) considers climate change as a very important issue and has made national and international commitments to address climate change induced risks and vulnerabilities. As one of its major outputs, the GoB has developed Climate Change Strategy and Action Plan (BCCSAP) in 2009. Bangladesh also established the Bangladesh Climate Change Trust Fund (BCCTF) with its national resources and is operating since 2010. With support from the United Nations Development Program (UNDP), it also conducted Climate Public Expenditure and Institutional Review (CPEIR) in 2012 which found that "the Government spends about US\$1 billion annually on climate-sensitive activities, which represents 6-7 percent of its annual budget and roughly 1.1 percent of GDP" (Bangladesh CFF, 2014). In 2014, the GoB approved the Climate Fiscal Framework (CFF) to ensure effective use of domestic and external climate finance within the national budget process.

In 2015, Bangladesh submitted the Intended Nationally Determined Contributions (INDC) to UNFCCC where the country has committed to reduce 5% emission from business-as usual level by FY 2030 (INDC, 2015). In 2016, within the framework of BCCSAP, the Country Investment Plan for Climate Change (CIPCC) was developed for a better coordination of the domestic and external investments for the environment, forestry and climate change (EFCC) sectors in Bangladesh. This document also reflects the government's actions and targets towards pursuing Paris Agreement. In June 2017, Ministry of Finance has published a report on 'Climate Protection and Development: Budget Report, 2017-18' which shows the climate expenditures of six key sector ministries, i.e. i) water resource, ii) agriculture, iii) disaster management and relief, iv) environment and forests, v) local government division and vi) primary and mass education. The report specifically indicates that average climate relevant allocation was about 0.7 percent of GDP during FY 2014-15 to FY 2017-18 in above-mentioned six ministries (MoF, 2017).

1.3 Concept of Climate Finance

There is no official and agreed definition of "climate finance". However, there are several definitions proposed by different organizations. For example, The World Resources Institute (WRI) proposes that 'Climate finance' is used to refer to the flow of funds toward mitigation — i.e. activities aimed at reducing GHG emissions — or at adaptation — i.e. helping societies to develop resilience in adapting to negative effects of climate change.

UNFCCC recently mentions, "Climate finance refers to local, national or transnational financing, which may be drawn from public, private and alternative sources of financing (UNFCCC, 2017).

In the context of Bangladesh, this study modified the UNFCCC definition and proposes that "Climate finance refers to **new and additional finance** from local, national and international sources to implement nationally prioritized adaptation and mitigation actions in accordance with UNFCCC processes" (adapted from UNFCCC, 2017).

2. Objective of the Study

The main objective of the study is to improve the understanding on the state and trend of climate finance flow through various international and domestic funds in Bangladesh. It also explored the domestic and international contribution/investment (based on the available data) to address climate change in last few years the country.

2.1 Scope, Approach and Methodology of the Study

The Government of Bangladesh (GoB) has direct or indirect access to a number of climate change dedicated international funds and examples of these include the Least Developed Countries Fund (LDCF) and Global Environment Facility (GEF). The country is also trying to have direct access to some other global funds e.g. Green Climate Fund

(GCF) and the Adaptation Fund (AF). The GoB established its own special climate change dedicated fund, i.e. the Bangladesh Climate Change Trust Fund (BCCTF). It also created another fund called Bangladesh Climate Change Resilience Fund (BCCRF) with contribution from different development partners/donor countries. Some other multi-lateral funds established by international organizations/institutions also contributed to address climate change in Bangladesh. For instance, Pilot Programme on Climate Resilience (PPCR)- supported by the World Bank, Asian Development Bank and International Finance Institutions (IFC). In addition, Economic Relations Division (ERD) and NGO Affairs Bureau (NGOAB) of the GoB approve donor/development partners supported climate change related projects/programmes in Bangladesh.

This is a comparatively new study trying to assess the finance flow on climate change related projects in Bangladesh. The climate change related projects are categorized as 'adaptation', 'mitigation' and 'adaptation & mitigation' also known as- AdMit.

The data on the climate change related projects are collected from the six funding windows, i.e. PPCR, BCCTF, BCCRF, GEF, GCF and LDCF and two approval authority i.e. AIMS/ERD and NGOAB. BCAS study team developed a "Climate Change Project Database for Bangladesh" based on available data from above mentioned six funding windows and two projects approval authority e.g. AIMS/ERD and NGOAB of the GoB. It is worth mentioning that the database contains available basic information of the projects approved for implementation in the last six years. Of these, PPCR, BCCTF, BCCRF, GEF, GCF and LDCF show the fund received or allocated which directly can be labelled as climate finance flow. AIMS/ERD and NGOAB show the fund data for both climate finance and Overseas Development Assistance (ODA). As these data sources do not contain any particular markers to distinguish between climate finance and ODA, it is difficult to label funds as climate finance or ODA received through AIMS/ERD or NGOAB. The study team reviewed the project database including the title of the projects, the project brief and broad objective of the projects to segregate all projects into three categories e.g. adaptation projects, mitigation projects and AdMit projects. The common keywords used in LDCF, GEF Trust and GCF fund supported projects

also helped the research team to segregate AIMS/ERD and NGOAB approved projects into three categories. For this study, funds received or allocated from 2010-2017 for all climate change related projects have been taken into account from the aforementioned funding windows, regardless of it being climate finance or ODA by origin. Since some of the data were not available, the study made the best of all the data that was available in the funding window.

2.2 Climate Finance Sources/Funding Windows/Climate Change Project Approval Authority

2.2.1 Pilot Program for Climate Resilience (PPCR)

This was a separate fund from the World Bank in Washington D.C., as it was managed by the Asian Development Bank (ADB) in Bangladesh. It involved the International Finance Corporation (IFC) to bring in the private sector to tackle climate change. The task of involving private sector in mitigation is relatively easy but bringing them into adaptation is not. So it has not been easy to find private sector interest here.

2.2.2 Bangladesh Climate Change Trust Fund (BCCTF)

The setting up of this fund under an Act of Parliament and the GoB funding it from its own resources over a number of years was a ground breaking and laudable initiative. It also set up systems of reviewing proposals and allocating resources to projects. Over the last six years or so, it has disbursed several hundred million US dollars to over four hundred projects in different ministries of the government as well as to NGOs.

2.2.3 Bangladesh Climate Change Resilience Fund (BCCRF)

This fund was set up alongside the BCCTF but with international funds from development partners such as the United Kingdom, the European Commission, Denmark, Sweden, Switzerland and Australia. It had a different governance structure with the donors represented in its governing board.

2.2.4 Global Environment Facility (GEF)

This fund was established in the Rio Earth Summit. GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements. GEF support is

provided to government agencies, civil society organizations, private sector companies,

research institutions, among the broad diversity of potential partners, to implement projects and programs in recipient countries.

2.2.5 Global Climate Fund (GCF)

This is the new fund set up under the United Nations Framework Convention on Climate Change (UNFCCC) for the vulnerable countries to help tackle climate change. Bangladesh will have to compete with other countries in order to get funds

From NGOAB and AIMS/ERD databases, the projects which are related to climate change were considered, regardless the fact that whether those received funds for climate change or for development (ODA).

from the GCF. Fortunately, Bangladesh was among the first few countries to be allocated funding by the GCF.

2.2.6 Least Developed Countries Fund (LDCF)

The LDCF was established under UNFCCC to support the least developed countries to prepare and implement their National Adaptation Programmes of Action (NAPA).

2.2.7 Aid Information Management System (AIMS)/Economic Relations Division (ERD)

Aid Information Management System (AIMS) is a database developed by the Economics Relations Division (ERD) of the Ministry of Finance of the of GOB. **AIMS is not a funding source** but stores data on all foreign assistance in Bangladesh. AIMS database is developed to facilitate the management of the foreign aid flow, increase aid transparency and accountability.

2.2.8 Non-Government Organization Affairs Bureau (NGOAB)

The NGOs of Bangladesh receive funds to implement climate change related projects. The NGOs need to register with the NGOAB. NGOAB is not a funding source but approves and monitors NGOs activity and finance.

2.3 Detailed Methodology

2.3.1 Data on climate finance: Funding window
As mentioned above, a database has been developed from the investment on the climate change related projects in Bangladesh from 2010 to 2017. The data were collected from the 8 funding data windows which are AIMS/ERD, NGOAB, PPCR, BCCTF, BCCRF, GEF, GCF and LDCF. Data were not available for all funding windows for all the years from 2010 to 2017. Hence, only available in the funding windows within the selected time period for this study i.e. 2010 to 2017 were considered.

As mentioned above that the title of the projects, the project brief and broad objective of the projects were primarily examined to segregate the projects into three categories e.g. adaptation projects, mitigation projects and AdMit projects. In addition, 35 common key words such as adaptation, mitigation, climate change, disaster risk reduction, resilience/climate change resilience, adaptive capacity, climate proofing, climate smart actions, CBA, climate services, river bank erosion, disaster preparedness, salinity, drought, flood, low emission energy, clean energy, energy efficiency, green transport etc. available in LDCF, GEF and GCF supported projects helped in segregating the projects into three categories. The adaptation projects were primarily identified by finding the key words such as adaptation, disaster risk reduction, resilience to climate change, water logging, disaster preparedness, capacity building, rehabilitation, food security, etc. Mitigation projects were identified by looking for keywords including: mitigation, renewable energy, solar plant, GHG emission reduction, low carbon development, etc. The projects, which consist both adaptation and mitigation key words were considered as AdMit projects.

Data on opportunities and challenges BCAS research team conducted national level consultations and Key Informant Interviews (KIIs) to gather relevant information to enrich the study output. The workshops and interviews helped to discuss relevant issues including challenges and opportunities. Some details are given below:

2.3.2 Consultation Workshops

Consultation workshops were conducted in Dhaka with NGO officials and civil society on 30 March 2017 and with the government officials and donors on 31 May 2017. The aim of the consultations was to share preliminary findings among the multi-stakeholders, especially the government organizations and development partners and validate the findings. The consultations also captured the opinions/views on climate finance flow and related opportunities and challenges from the participants.

2.3.3 In-depth Interview

A total of 11 in-depth interviews were carried out during June to July 2017. In depth interviews were conducted with government officials (n=6) from Department of Environment (DoE), Department of Agricultural Extension (DAE), Local Government and Engineering Department (LGED), Bangladesh Water Development Board (BWBD), BCCTF and Polli Karma Shohayok Foundation (PKSF); donors (n=2) from Department for International Development (DFID) and German Development Cooperation (GIZ); NGO officials (n=2) from BRAC and Christian Commission for the Development of Bangladesh (CCDB) and academicians (n=1) from North South University. The interviews mainly focused on the climate change portfolio of the organization, flow of climate fund of the organization, opportunities to receive climate fund and the challenges to receive climate fund.

2.4 Limitations of the study:

Climate finance architecture is very complex with a number of overlapping issues, resulting in problems like double, and triple or even quadruple counting of climate funds. One of the aims of this study was to narrow the overlapping problems and resulting gaps which again, was difficult to attain because of the nature of climate funds channels and finance flow. This section will outline some of the challenges and limitations of the study.

Due to the nature of the information provided by the portal used for this project, many information were not straight-forward and needed analysis before categorization. Projects were categorized based on some basic information including title, project brief

and objective of the projects. Also, at some points, the study team had to fully depend on the secondary data on the climate change related projects from the available sources to assess state and trend of climate finance flow in last few years in Bangladesh. Results would have been better if the categorization of the projects' information were more clearly distinguished. Also, AIMS database is not an exhaustive one for the project inclusions, particularly, for the projects prior to 2014.

Data unavailability was a major constraint during data analysis of the project. If any funding window did not have data for a particular year, it was not clear whether it is due to missing data or there were no fund flow at that time. Also, some climate finance data were not available for some of the years between the years 2010 to 2017 in the information portal. This is why only available data were used from the funding data window, which left inadequacies in the research.

In terms of data analysis, the study considered the approved amount for project implementation. Therefore, actual expenses are not reflected in this assessment. Also, as stated earlier, the NGOAB and AIMS/ERD database do not show whether the money is received as climate finance money or as ODA money. This made it difficult to label development and adaptation projects. Also, it was not possible to identify on which sector (adaptation, mitigation or AdMit) the public expenditure on climate change has and is being used.

There is no stated information on the source of some projects, which are co-financed by the GOB. Bangladesh government is co-financing with the GCF and German Government by investing \$25 million of a project of \$80 million. The source of the money is unclear as there is no information available on whether the money is coming from the public expenditure on climate change or BCCTF or from other source.

3. Findings on State, trend, Opportunities and Challenges on Climate Finance Flow in Bangladesh

3.1. Climate change related investments from specific funding windows/fund approval authority during 2010 to May 2017

This section demonstrates the total climate change investment from specific domestic and international sources in the last six fiscal years in Bangladesh from available sources (Table 1). The climate change funds or the fund approval organizations have been divided into the following categories:

- (a) Climate change dedicated funds
- (b) Government organizations

Climate change dedicated funds i.e. GCF, LDCF are the funds that are specifically established to implement climate change related projects. The government organizations i.e. ERD, NGOAB also approve donor funded climate change related projects in Bangladesh.

During the analysis of the AIMS/ERD and NGOAB databases, it was difficult to distinguish climate change projects and development projects. This is why the term climate change 'investment' has been used. The table shows the project approval period against each of the funding windows, number of projects approved and the total cost of the project (in millions). In terms of the project approval period, 2010 has been considered as the base year. Bangladesh Climate Change Strategy and Action Plan (BCCSAP) was developed in 2009 and the GoB developed a budget to implement the BCCSAP from the following year. particular

A. Climate Change Dedicated Funds (Global and Domestic) (Table 1 for details):

- ➤ Least Developed Countries Fund (LDCF): From 2010-2016, five (5) projects have been approved under this fund with a total cost of US\$ 168.46 million.
- ➤ **GEF Trust Fund (Climate change focal area):** From 2010-2016, five (5) projects have been approved under this fund with a total cost of US\$ 310.48 million.

- ➤ Green Climate Fund (GCF): From 2016-17, one (1) project has been approved with a total cost of US\$ 80 million.
- ▶ Pilot Programme on Climate Resilience (PPCR): From 2011-15, six (6) projects have been approved with a total cost of US\$ 109.75 million.
- ➤ Bangladesh Climate Resilient Fund (BCCRF): From 2010-2016, 10 projects have been approved with a total cost of US\$ 146.90 million. The whole of this is US\$ 146.90 million.
- ➤ Bangladesh Climate Change Trust Fund (BCCTF): From 2011-16, 346 projects have been approved with a total cost of US\$ 275.91 million. Although they have funded roughly over 400 projects but data is only available for the 346 projects on the above-mentioned period (Table 1).

Table 1: Total Climate Change Investment from Specific Domestic and International Sources in the last six Fiscal Years in Bangladesh (from available sources)

Category	Climate Change Funds/Fund	Project	No of	Total Cost
	Approval Organizations	Approval	Approved	(in Million
		Period	Project	US\$)
Α	Climate Change Dedicated Funds			
1	Least Developed Countries Fund (LDCF)	2010 - 2016	4	159.46
2	GEF Trust Fund (Climate	2010 -	5	310.48
	Change Focal Area)	2016		
3	Green Climate Fund (GCF)	2016-2017	1	80.00
4	Pilot Programme on Climate	2011 -	6	109.75
	Resilience (PPCR)	2015		
5	Bangladesh Climate	2010-2016	10	146.90
	Resilience Fund (BCCRF)			
6	Bangladesh Climate Change	2011-	346	275.91
	Trust Fund (BCCTF)	2016		
В	Government Organizations that			
	approves donor/DP funded			
	projects/programmes related to			
7	climate change in Bangladesh Economic Relations Division	2010-2016	51	4357.08
	(ERD)	2010 2010		1007.00
8	NGO Affairs Bureau	2016-2017	38	12.64
	Allano Baroad	2010 2011	461	5452.22
Total			401	0-102.22
Total				
Courses OFF	LDCE GCE AIMS/ERD NGOAR (access	ad to official wa	haita of all those as	

Source: GEF, LDCF, GCF, AIMS/ERD, NGOAB (accessed to official website of all these organizations during June/July 2017)

From Table 1, data analysis of the climate funds show that the total money invested for climate change related projects in Bangladesh is about US\$ 5.5. Billion from 2010 to

2017 (till May). Of this, US\$ 1028.66 million is grant money, US\$ 3224.39 million is loan, \$923.26 million is co-financing and the rest is the GOB's own contribution through BCCTF (i.e. US\$ 275.91 Million during 2010-2016) (Table 2). The donor countries or the development partners contributed only about 19 % (as grant) of the total investment as indicated in table 2.

Economic Relations Division (ERD): From July 2010 to February 2017, 67 projects related to climate change have been approved and received US\$ 4357.08 million.

NGO Affairs Bureau: It provided data from July 2016 to February 2017 which indicates that they approved 38 climate change related projects with a total cost of US\$ 12.64 million, entirely which was grant money, with no loans or co-finance.

From 2010 to 2017 (till May), the grant money has been invested for 114 projects, loan money invested for 22 projects and co-finance money for 13 projects. However, there are some projects, which have been funded using a combination of grant and co-finance together. Some have been funded by grant and loan, combined. An example of this is a GCF funded project, where GCF provided US\$40 million grant of US\$80 million, where Bangladesh government and German government are co-financing US\$25 million and US\$15 million respectively.

Table 2.Total money invested (including BCCTF money)on climate change related projects through the funding windows [Million US\$].

	Adaptation	Mitigation	AdMit	Total
Grant	\$878.33	\$85.00	\$65.33	\$1028.66
Loan	\$1977.54	\$1190.55	\$56.30	\$3224.39
Co-finance	\$826.66	\$49.60	\$47	\$923.26
BCCTF	\$213.61	\$26.66	\$35.64	\$275.91
Sub-Total	\$3896.14	\$1351.81	\$204.27	\$5452.22

B. Government organisations that approves donor/development partners funded projects/programmes related to climate change in Bangladesh

In Bangladesh there are several institutions that approve projects as channels. Government projects are approved by the Economic Relations Division (ERD), NGOs through NGO bureau, academic institutions need to come through the University Grants Commission (UGC). Other organisations like the CBOs or CSOs have to come through such respective organisations too for getting approval from UGC and Joint Stock Company but the data is only available for ERD and the NGO Affairs Bureau.

4. Domestic investment from development and non-development budget on climate sensitive activities

4.1 Total domestic investment assessment

Table 3 below shows the total domestic investment from development and non-development budget on climate sensitive activities in the last six fiscal years in Bangladesh. According to the CPEIR (2012) of the Ministry of Finance, GoB, 1.1% of the GDP was invested on climate sensitive activities. This means an amount of US\$ 1.29 billion of the total GDP was invested in climate sensitive activities for FY 2010/11.

According to Climate Protection and Development (2017) of the Ministry of Finance, 0.7% of the GDP (on an average) is found to be invested in climate sensitive activities in the last four years. This gives an amount of US\$ 0.82 billion for FY 2010/11.

So if the entire six years is considered, the total domestic funds from development and climate sensitive activities remains from about US\$ 7 billion to US\$ 11 billion (Table 3) according to the government's document, i.e. Climate Public Expenditure and Institutional Review (CPERI) and Climate Protection and Development, 2017.

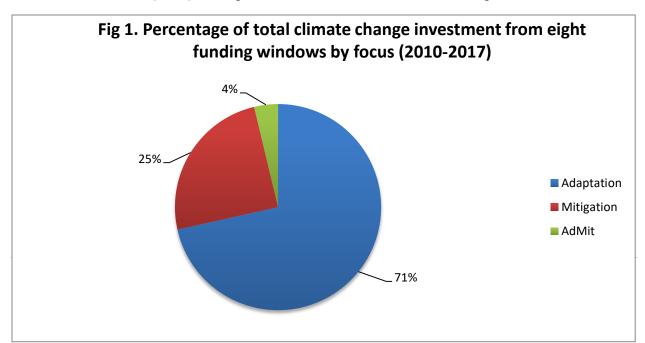
Table 3: Total domestic investment from development and non-development budget on climate sensitive activity in last six years in Bangladesh

FY	Total GDP at Current Market Price (BDT in Crore)	Total GDP at Current Market Price (US\$ in Billion)	` ' '	0.7 % of GDP (Billion US\$ (According to Climate Protection and Development, 2017)
2010-11	915829	117.41	1.29	0.82
2011-12	1055204	135.28	1.49	0.95
2012-13	1198923	153.71	1.69	1.08
2013-14	1343674	172.27	1.89	1.21
2014-15	1515802	194.33	2.14	1.36
2015-16	1732864	222.16	2.44	1.56
			10.95	6.97

Source: Bangladesh Economic Review, 2016; CPEIR, 2012; Climate Protection and Development, 2017

4.2. Focus of Funding

Table 1 shows the data from eight (8) funding windows that invested in different sectors for addressing climate sensitivity in Bangladesh. It is observed that, majority of the money has been invested on adaptation, less than half of the investment is on mitigation and a very small portion is on AdMit¹ (Figure 1). It is also observed that, most of the projects implemented through the funding windows are from loan money and the total loan amount (62%) is higher than the summation of the grant and co-finance



money (Figure 2)

4.3. Details of specific climate funds and fund approval authority in Bangladesh

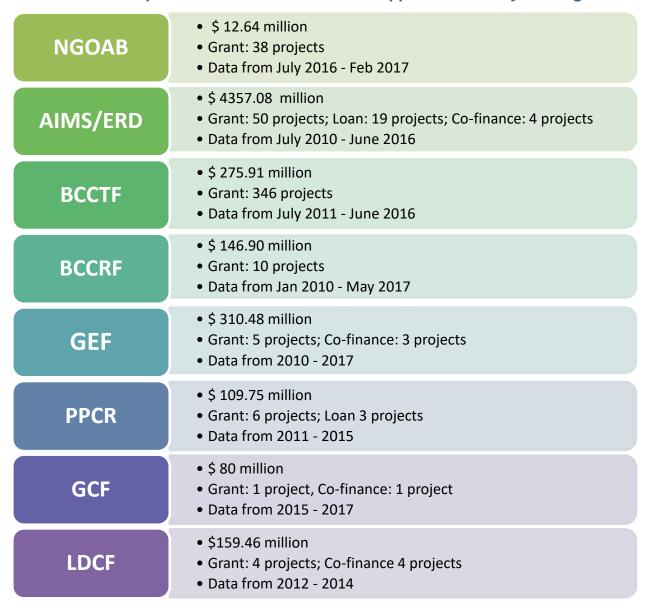


Figure 2. Details of the funding windows. [The total number of projects implemented through the funding windows is lesser than the summation of all the projects as some of the projects are implemented by multiple funding sources such as grants and co-finance or grants and loan].

NGOAB: Funding data in the NGOAB window is available only for 8 months i.e. from July 2016 to February 2017 (<u>Figure 2</u>). Within this period, \$12.63 million has been invested as external grant money for adaptation projects and \$0.02 for mitigation. There is no report of loan or co-finance money. This money has been invested on 38 projects.

AIMS/ERD: The AIMS/ERD provides data from July 2010 to June 2016 (Figure 3). Within this period, \$4357.08 million has been invested for 51 projects of which \$753.27 million as grant, \$3164.39 million as loan and \$439.42 million as co-finance. It is also found that, \$2979.63 million has been invested for adaptation, \$1271.46 million for mitigation and \$105.98 million for AdMit (Figure 3). Grant and loan money have been invested for adaptation, mitigation and AdMit, however, no co-finance money has been invested for mitigation or AdMit.



Figure 3. AIMS/ERD data on adaptation, mitigation and AdMit invested from different funding category [the amounts are in million].

BCCTF: Bangladesh Climate Change Trust Fund is the only domestic fund dedicated to address climate change. From the BCCTF funded 346 projects from June 2011 to July 2016 (Figure 2). Within this period, BCCTF has invested \$275.91 million for adaption, mitigation and AdMit (Figure 4).

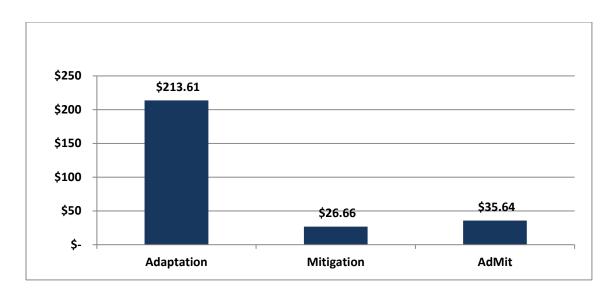


Figure 4. BCCTF's investment on adaptation, mitigation and AdMit from 2010 to 2016 [the amounts are in million].

BCCRF: Within the selected time period for this study, BCCRF funding data window provides data for 10 projects from January 2010 to May 2017. It reveals that \$146.9 million has been invested for these projects on adaptation (Figure 2). There is no loan or co-finance money; or investment on mitigation or AdMit.

GEF Trust Fund: The window total of GEF funding data is \$310.48 million. This money has been invested from 2010 to 2017 through 5 projects as grant and co-finance for adaptation and mitigation projects (Table 4)

Table 4. GEF window data on adaptation, mitigation and AdMIt from different funding categories [the amounts are in million].

GEF Funding data window							
Grant Loan Co- Total							
			finance				
Adaptation	\$5.75	0	\$251.06	\$256.81			
Mitigation	\$4.08	0	\$49.6	\$53.68			
AdMit	0	0	0	0			
Total	\$9.82	0	\$300.66	\$310.48			

PPCR: The window total of PPCR is \$109.75 million (<u>Figure 3</u>). This money has been invested as grant money and loan money for adaptation and AdMit from 2011 to 2015 (Table 5).

Table 5. PPCR window data on adaptation, mitigation and AdMIt from different funding categories [the amounts are in million].

PPCR Funding data window							
	Grant	Loan	Co-	Total			
			finance				
Adaptation	\$49.75	\$50	0	\$99.75			
Mitigation	0	0	0	0			
AdMit	0	\$10	0	\$10			
Total	\$49.75	\$60	0	\$109.75			

GCF: Bangladesh received grant only for 1 project from GCF. This data has been collected from GCF funding data window (Figure 2). It shows that for an adaptation project GCF provides \$40 as grant, where Bangladesh government and the German government are co-financing \$25 million and \$15 million respectively (Table 6).

Table 6.GCFwindow data from different funding categories [the amounts are in million].

GCF Funding data window							
	Grant	Loan	Co-finance		Total		
			Domestic	External			
Adaptation	\$40	0	\$25	\$15	\$80		
Mitigation	0	0	0	0	0		
AdMit	0	0	0	0	\$10		
Total	\$40	0	\$40		\$80		

LDCF: The LDCF funding data window provides data from 2012 to 2014 within the selected timeframe of this study (i.e. 2010 – 2017). It shows that \$159.46 million has been invested (Figure 2). This money has been for adaptation and AdMit as grant and co-finance (Table 7).

Table 7. LDCF window data on adaptation, mitigation and AdMit from different funding categories [the amounts are in million].

LDCF Funding data window								
Grant Loan Co-finance Total								
Adaptation	\$10.62	0	\$96.18	\$106.8				
Mitigation	0	0	0	0				
AdMit	\$5.65	0	\$47	\$52.65				
Total	\$16.28	0	\$143.18	\$159.46				

It indicates that the highest investment on climate change related projects in last six years came through AIMS/ERD. Among all the funding windows, data on loan has been observed in AIMS/ERD and PPCR only. Data on co-finance is available in AIMS/ERD, GEF and GCF windows.

4.4. Domestic and External Investments on climate change related activities

The annual average climate change investment of the GOB was about \$ 1.2 Billion and it was more than six times higher than that of the external (donors/development partners contribution) climate change investment (\$171 Million) in last six years (Table 8). The following table also specify that the total annual average investment from domestic and external sources (from available data) in climate change related activities in last six years was about \$ 1.3 Billion (Table 8)

Table 8. Estimated domestic and external investment on climate change related projects in last six years in Bangladesh (based on selected sources)

Source of investment	Total Amount (\$ Million)	Period (2010/11- 2015/2016)	Annual Average (\$ Million)
Domestic Investment*	6970.00	6	1161.67
External Investment	1028.66	6	171.44
(Through selected climate			
dedicated funds/fund approval			
authority)			

^{*} According to recent Climate Protection and Development Budget Report (2017) of the Ministry of Finance, on an average 0.7% of the GDP is invested in climate sensitive activities in last four years in Bangladesh. This rate has been considered to estimate the domestic climate change investment for last six years (Please see table 3 for details)

4.5 Climate Change Investment Gap in Bangladesh

According to the available sources, the total climate change investment in the last six years in Bangladesh is about **US\$ 8.0 billion**. This includes investments from climate change dedicated funds (excluding BCCTF), donor/development partners supported projects through ERD and NGOAB, domestic investment from development and non-development budget on climate sensitive activities.

Of this US\$ 8.0 billion, only about 13 % came from the external sources or the donors/development partners. However, this estimate does not include BCCTF fund as it may be covered in the calculation of Climate Protection and Development Budget Report (2017). According to INDC Bangladesh (2015), the country needs about US\$ 42 Billion for adaptation and US\$ 27 billion for mitigation in key sectors/areas by 2030 to meet its needs (Table 9). It also shows that Bangladesh annually needs about US\$2.8 billion for adaptation and US\$1.35 billion for mitigation in key sectors (INDC Bangladesh, 2015).

Thus, the total requirement for adaptation and mitigation in key sectors/areas per year is US\$ 4.15 billion. So, the annual climate change investment gap in key sectors remains about US\$ 2.85 Billion, which is a difference between the required US\$ 4.15 Billion (INDC Bangladesh, 2015) and the current US\$1.3 Billion (Table 8)

Table 9. Climate Change Investment required by 2030 (in key sectors) in Bangladesh (INDC, 2015)

Adaptation Invest Needs in Key Sectors/Areas	Amount (USD- Billion)	Mitigation investment needs in key sector/areas	Amount (USD-Billion)
Food security and livelihood and health protection (incl. water security)	8	Switching to 100% super-critical coal power generation	16.5
Comprehensive disaster management	10	Developing utility-scale solar energy	1.3
Salinity intrusion and coastal protection	3	Scaling up wind energy	0.6
River flood and erosion protection	6	Repowering steam turbine with CCGT	0.63
Building climate resilient infrastructure	5	Expanding the Solar Homes Programme and other solar actions	2.42
Rural electrification 3	3	Scaling up biomass production from sugar	0.2
Urban resilience	3	Building an Elevated Express Highways in Dhaka for decongestion of the main urban traffic arteries	2.65
Ecosystem based adaptation (incl. forestry co-management)	2.5	Dhaka mass rapid transit system	2.7
Community based conservation of wetlands and coastal areas	1		
Policy and institutional capacity building	0.5		

4.3 Opportunities

A number of opportunities emerged from the consultations and the in-depth interviews; following are some of the opportunities to access climate funds. There are stringent evaluation criteria set by the Green Climate Funds (GCF) for the development of any project. From the CFTM experience, future projects can be developed using the experiences and lessons learned to meet the requirements of the GCF. Technical assistances from international agencies can also be taken while using national funds. Also, national expertise can be utilized for better outcomes, as the national consultants are better aware of the country setup. Concerted efforts from different sectors can be made to develop a good coordination mechanism starting from development of projects to implementing them. Also, national committee on climate change, headed by the PM should be there and that, the Planning Commission, ERD, DoE and others can coordinate through this platform. Capacity building of the planning and development wing of the key relevant ministries/agencies on climate change related project development is also extremely important to expedite the process of accessing climate funds. It could also help to find local fund at Upazilla level, which will include contributions from all ministries and other recipients of funds.

Another opportunity is to keep multiple windows open instead of centralizing the channels and make the ministries aware of the global scenario of CF opportunities and that they are available. Thereby, online payment systems can be used for distributing funds to beneficiaries.

4.4 Challenges

As one of the most vulnerable countries due to climate change it is Bangladesh's right to get climate finance for adaptation and mitigation practices. However, Bangladesh is experiencing many challenges in getting climate finance due to many technical and administrative issues. The institutional capacity to receive international climate funds is a big challenge in terms of meeting the requirements for submitting project proposal. Moreover, the requirements for getting funds for an institution do not match with the Bangladesh government's institutional system. For example, GCF requires 3 types of

auditing system, which does not exist in Bangladesh government system. The donors also require many documents, which are not available or need long period to prepare for the government. The institutes also need training specifically on proposal development to meet donor's requirements and standards. Not only there are scopes for improvement in proposal development but also there are funding opportunities which Bangladesh is not availing. For example, Adaptation Fund primarily allocated USD 10 million for each country but Bangladesh has not applied for it yet. However, a project proposal has been prepared that will be sent out through UNDP and will be implemented by DoE. Among the other challenges in financing climate change related projects is that, within the ministries the finance flow according to the ministries' priority. Sometimes ministries are also unaware of the available funding opportunities. Ministries often rely on 1 or 2 projects. It is essential to submit funding proposals continuously so that other projects can be in the pipeline.

5. Conclusion

Bangladesh has made great strides in formulating climate change related strategies and action plans and established two dedicated funding for undertaking adaptation as well as mitigation measures but it has now become an issue of governance and effectiveness of management and utilization of the funds. These are new sets of challenges for Bangladesh to handle development aid and climate finance in a comprehensive manner. Therefore, scaling up governance and setting up strong monitoring system become obvious to ensure effective utilization of the funds. The approach of the CFTM project includes a data survey from eight funding data window including Aid Information Management System (AIMS), Non-government Organization Affairs Bureau (NGOAB), Pilot Program for Climate Resilience (PPCR), Bangladesh Climate Change Trust Fund (BCCTF), Bangladesh Climate Change Resilience Fund (BCCRF), Global Environmental Facility (GEF), Green Climate Fund (GCF) and Least Developed Countries Fund (LDCF). Among all the funding data windows, PPCR, BCCTF, BCCRF, GEF and GCF provide data for climate change relates projects. AIMS/ERD and NGOAB funding windows show data for climate change related projects and also for development projects. All the funding data windows/approval authority were

also categorized as adaptation project, mitigation project or both (adaptation + mitigation) hereafter, AdMit. The study included consultation workshops which were conducted in Dhaka with NGO officials and civil society and with the government officials and donors with an aim to share preliminary findings among the multistakeholders especially the government organizations and development partners. From 2010 to 2017 (till May) the total money invested for climate change related projects is about \$ 5.5. Billion. This statistics leaves a scope for further scrutiny whether Bangladesh is getting its fair share of climate finance. Bangladesh's external finance related to climate change is only ¼ of the national finance, so it calls for great attention for the government to act upon this difference. National activities should include training on expertise to get more climate change related projects. Enhanced capacity building is a roadmap to attaining greater access to climate funds in case of Bangladesh. Hence, the domain of climate finance in light of fairness of flow dynamics is going to be better planned out and opportunities to stem from the existing situation of fund disbursement can emerge.

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