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Assessing Synergy between Climate and Development Projects: Which One is More Effective, Efficient and Transparent?

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List of Acronyms

DAC	Development Assistance Committee
ECNEC	Executive Committee of the National Economic Council
GCF	Global Climate Fund
GHG	Greenhouse Gas
GNP	Gross National Product
HIC	High Income Countries
IMED	Implementation, Monitoring and Evaluation Division
KIIs	Key Informant Interviews
LDCs	Least Developed Countries
LIC	Low Income Countries
LMIC	Lower-middle Income Countries
NDC	Nationally Determined Contributions
NGOs	Non-governmental Organizations
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD	The Organisation for Economic Co-operation and Development
SLR	Sea Level Rise
UMIC	Upper-middle Income Countries
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

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Abstract

This study was designed to understand whether projects funded through development window of finance in Bangladesh like the Annual Development Programme (ADP) is different or similar to that of climate window of finance like Bangladesh Climate Change Trust Fund (BCCTF). The BCCTF is managed primarily by the Ministry of Environment, Forests and Climate Change whereas the ADP is managed by the Ministry of Planning and Ministry of Finance. It was, therefore, studied also to understand whether the new window of financing climate projects is more efficient, effective and sustainable. On the contrary, if they are both similar in nature then a pertinent question is whether there is a need to have separate windows?

The study concludes that projects financed through the ADP window are relatively (a) more effective to stakeholders and (b) better aligned to meet DAC criteria. As such, BCCTF projects may benefit from following the project implementation and monitoring process of ADP projects. Finally, since many of ADP projects have also climate components, there is also a need to carefully segregate climate activities of the development projects in order to access global climate funds.

Assessing Synergy between Climate and Development Projects

1.0 Introduction

The Paris Agreement was signed in 2016 with a pledge by the developed countries to provide financial support to the developing countries (hereafter, including the least developed countries (LDCs)) and a total 100 billion US dollar to be provided by 2020 by the rich countries (Gray, 2016).The agreement further stipulated the LDCs to 'volunteer' reduction of greenhouse gas (GHGs) emission. Many of the developing countries have also pledged their willingness to reduce GHG emissions through their submission of nationally determined contributions (NDC)to the United Nations Framework Convention on Climate Change (UNFCCC).

The agreement is a game changer because it has created a two-level game (Putnam, 1988) between developed and developing countries and their domestic political milieu. In this context, Keohane and Oppenheimer pointed out that "this successful negotiation outcome was achieved at the price of vagueness of obligations and substantial discretion for governments" (Keohane & Oppenheimer, 2016). Haque*et al.,* (2019) observed that there are broad agreements between domestic stakeholders and their governments in South Asia towards the NDC pledges made by their respective governments (Haque *et al*., 2019). However, whether a similar agreement exists between the governments and their domestic stakeholders in developed or rich countries to pay for the reduction of emissions is unclear. Nonetheless, one can hypothesize that given the vagueness built into the text of Paris Agreement it is likely that these governments (from developed countries) are still not fully aware of the mindset of their constituencies and hence the agreement was deliberately made ambiguous.

There are also arguments that countries might try to substitute official development assistances (ODAs) for their pledge towards the global climate fund (GCF). Probably keeping this in view, Ayers and others have suggested to mainstream climate information, policies and measures into ongoing development planning and decision-making. And, thus, make it more sustainable, effective and efficient in terms of use of resources than designing and managing climate policies separately from ongoing development activities (Ayers *et al.,* 2014). This advocates for an integrated approach towards climate proofing of development efforts.

At the same time, there are many overlaps between activities carried under development and climate projects (includes both adaptation and mitigation projects).As such, there is an argument that ensuring sustainable development in a country may also reduce the vulnerability of its citizens to climate risks(Ayers & Dodman, 2010) and at the same time promote the

reduction of GHG emissions. Kok and others have argued that since the focus of national development priorities are poverty reduction, reduce the risk of disasters, rural development, energy supply, and transportation etc.; integrated approaches by making use of existing policy frameworks for development and that going beyond the UNFCCC framework would create significant co-benefits for addressing climate change(Kok*et al.,*2008).Ayers further suggested that distinguishing climate funds from development funds are often difficult because climate change can affect the efficiency of utilization of development resources(Ayers, 2009).

On the other hand, ODAs have a long history as it began in the 1940s after the end of colonial rules in many parts of the world. Overtime it also went through multiple changes both in composition and in its administration and management. In 1961, the United Nations (UN) General Assembly adopted a resolution in which it had urged rich industrialized countries to contribute 1% of their Gross National Product (GNP) as ODAs (Government of Korea, 2012). Although none of the industrialized countries has ever allocated funds near to 1% of their respective GNP, many did commit funds regularly under ODA.

Existing global literature further suggests that there are synergies between development assistance, adaptation and mitigation expenditure which may lead to potential win-win solution(s) albeit a high degree of variability between and among sectors (Ayers & Huq, 2009; Klein, Schipper, & Dessai, 2005; Kok *et al.*, 2008). However, most such claims are argumentative in nature and are not based on statistical evidence. This particular research is attempted to address this gap in the literature by using field data from development and climate projects in Bangladesh.

1.1 Bangladesh Scenario

Bangladesh is at the footstep towards graduating out of the LDC status as it met the eligibility criteria for graduation in 2018 (Risse, 2018) and expected to graduate by 2024 (Rahman & Bari, 2018). While this is a great success story for Bangladesh, it has led many non-governmental organizations (NGOs) into worry as it might end up drying the pipeline of ODAs. The apprehension led many NGOs to diversify their portfolio into microcredit, and environment and climate change related issues. Similarly, threats of climate change have also led to reorient development activities where projects are designed to reduce poverty and a clean environment are also taken as a part of the strategies for poverty reduction and low carbon growth. This resulted in even more confusion between activities completed as a part of a development projects versus activities completed as a part of climate projects.

Government of Bangladesh as a part of their national commitments in 2009 created the BCCTF to promote investment for building resilience through both adaptation and mitigation projects

(BCCTF, 2019).While the fund is designed to pool global funds into Bangladesh, the Government of Bangladesh also allocated nearly 400 million US dollars from its own resources and funded projects under this (Khan, Huq, & Shamsuddoha, 2012). The BCCTF is a separate window of finance for climate change related activities from Bangladesh's regular development window of finance. Clearly, the government is keeping development activities geared towards reducing poverty separate from that of climate change related projects. Implicitly, it has, therefore, either assumed that – (a) the separation is possible and hence can be implemented and managed separately or(b) the global communities need a fully separate book-keeping of climate fund to maintain transparency and efficiency.

In terms of developed projects, the standard budgetary procedure required in Bangladesh is that the government allocates funds through the ADP where projects are designed by the respective agencies and are finally approved through the Executive Committee of the National Economic Council (ECNEC) which is headed by the honorable Prime Minister. The funds needed for projects under ADP come from both its own resources and donor countries who pledged funds for Bangladesh under ODA.

1.2 Background

As mentioned earlier, ADP projects are implemented through the Ministries of the Government as they seek funds through ADP to implement their respective goals set in the national five-year plan document. In this research, 7 ministries which also received funds for projects under the climate window of the financing were selected. These ministries are: a) Ministry of Local Government, Rural Development and Cooperatives (includes Local Government Division and Rural Development and Cooperatives Division), b) Ministry of Water Resources, c) Ministry of Environment, Forest and Climate Change, d) Ministry of Agriculture, e) Ministry of Disaster Management and Relief, f) Ministry of Power, Energy and Mineral Resources (including Power Division), g) Ministry of Women and Children Affairs and h) Ministry of Fisheries and Livestock. The focal ministry for projects under the BCCTF is the Ministry of Environment, Forests, and Climate Change and under ADP is the Ministry of Planning of the Government of Bangladesh.

Table 1: Allocation of funds in selected Ministries under ADP and BCCTF

Ministry	ADP* allocation	Climate-Relevant Fund in ADP*	BCCTF** Fund	% of climate-related fund in ADP	Share in BCCTF Total (%)
	In Crore BDT			In percentage	
Local Government Division, MoLGRD	95,658	6,055	499.68	30	42
Ministry of Water Resources	19,933	6,565	464.89	32	39
Ministry of Environment, Forests and Climate Change	2,370	570	135.15	3	11
Ministry of Agriculture	8,948	2,641	32.52	13	3
Ministry of Disaster Management and Relief	13,834	2,770	20.64	13	2
Ministry of Power, Energy and Mineral Resources (including Power Division)	-	-	20.30	0	2
Ministry of Women and Children Affairs	1,285	132	5.00	1	0
Rural Development and Cooperatives Division, MoLGRD	6,232	971	3.00	5	0
Ministry of Fisheries and Livestock	4,208	818	0.00	4	0
Total	**152,468**	**20,522**	**1,182.19**	**100**	**100**

Note: MoLGRD – Ministry of Local Government, Rural Development.* Five years average from FY 2015-16 to FY2018-19** Ongoing projects under BCCTF up to February 2018.

Table 1 shows that while 152,468crore taka are allocated under ADP for projects (per year on average) in these seven ministries, BCCTF projects allocated only 1,181.2 crore taka. This alternatively informs that the average size of development projects are more than 125 times larger than that of BCCTF projects. However, many of the development projects are implemented for the whole of Bangladesh and hence the amount are not compatible. The Table 1 further shows that a significant portion of 13.4% ADP projects funds is also allocated for climate-related activities under these ministries.

The pattern of distribution of allocation within ministries for development projects and climate projects are similar

On the other hand, in terms of the proportion of allocation, distribution of funds across different ministries are similar when compared with the climate-related portion of the total funds under ADP and BCCTF projects with the exceptions of the Ministry of Environment, Forests and Climate Change (which is the host of the BCCTF fund) and the Ministry of Agriculture (which is the most vulnerable sector due to climate change).

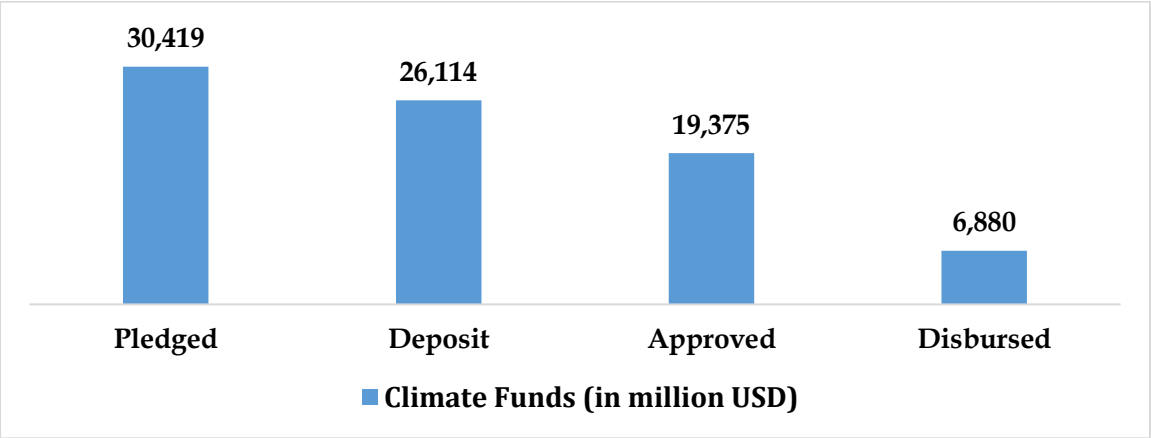
In terms of implementation of projects, BCCTF projects were implemented exclusively by the Ministry of Environment, Forest and Climate Change whereas development projects are implemented through the respective ministries (known as the line ministry) and monitored through the Implementation, Monitoring and Evaluation Division (IMED) of the Ministry of Planning. This provides a unique opportunity to examine these projects using the lens of impact, transparency, accountability, and efficiency from the perspective of local stakeholders and see if there exists any difference in these projects as the implementation mechanisms are different for each of these two implementing and monitoring agencies. While examining the effects, the study also used the framework suggested by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) countries to evaluate the effectiveness of donor assisted projects.

1.3 Global Trends of GCF and ODA Funds

1.3.1 Status of Global Climate Funds

The GCF was aimed by the international community to raise at least 100 billion US dollar per year to manage adaptation and mitigation programs in developing countries (Steckel *et al.,* 2017). However, data from the overseas development institute (ODI) secretariat suggests that so far it has been able to receive a pledge from the rich countries equivalent of 30.4 billion US dollars while actual deposit to the fund is only 26.1 billion US dollars. From this, 19.3 billion US dollars has been approved for various projects but real disbursement is only 6.8 billion US dollars (Figure 1). This is an appalling picture as it took many rounds of negotiations to agree to the Paris Agreement in 2016.

Figure 1: Current Status of Global Climate Finance (in million USD)



Source: Climate Funds Update (2019)

Moreover, in the global climate finance architecture, there are three windows under which these funds are disbursed: mitigation, adaptation and mixed projects. Table 2 shows that only

13.6% of the pledged amount is earmarked for adaptation projects while nearly 37.1% are for mitigation projects. The rest 49.4% are for mixed projects (both adaptation and mitigation projects). As such, Dang*et. al*, pointed out that mitigation actions to reduce GHG emissions have always received relatively higher priority than adaptation measures in global climate financing mechanism (Dang, Michaelowa, & Tuan, 2003).

Table 2: Global climate finance architecture by project categories (in million USD)

Types of Climate Funds	Pledged	Deposited	Approved	Disbursed	% of Pledged Amount	% Gap between Pledged and Disbursed Amount
Adaptation	4,125	4,013	3,395	1,558	13.6	63.2
Mitigation	11,281	10,177	8,189	3,079	37.1	72.7
Mixed	15,013	11,924	7,791	2,243	49.4	85.1
All	30,419	26,114	19,375	6,880	100.0	77.4

Source: Authors calculation from Climate Funds Update (2019).Note: Retrieved from https://climatefundsupdate.org/data-dashboard/#1541245664232-8e27b692-05c8

Of the total approved projects under global climate funds, nearly 77% are allocated to non-LDC countries while in terms of disbursement, it is about 79% of total disbursed funds.Share of LDC countries is only 23% of the total pledged amount; of which, more than three-fifth of funds are allocated for low-income LDCs (Table 3). The Non-LDCs mostly received commitments from multi-country, regional and global funds. Upper-middle income LDCs, low-incomenon-LDCs, and high income-LDCs have received the least of the climate funds.

Table 3: Global climate finance architecture by country groups

	LDCs			Non-LDCs			Total		
Country Group	Approved	Disbursed	Disbursed/ Approved (in percent)	Approved	Disbursed	Disbursed/ Approved (in percent)	Approved	Disbursed	Disbursed/ Approved (in percent)
LIC*	2,758.9	894.6	32.4	252.9	51.6	20.4	3,011.8	946.2	31.4
LMIC*	1,595.8	549.6	34.4	5,549.3	2,062.2	37.2	7,145.1	2,611.8	36.6
UMIC*	103.8	26.1	25.1	5,538.6	2,306.7	41.6	5,642.4	2,332.5	41.3
HI*	-	-	-	676.8	155.0	22.9	670.8	149.0	22.9
Rest**	-	-	-	2,904.9	840.5	28.9	2,904.9	840.5	28.9
Total	4,458.5	1,470.3	33.0	14,922.5	5,416.0	36.3	19,375.0	6880.0	35.5

Source: Authors calculation from Climate Funds Update (2019).

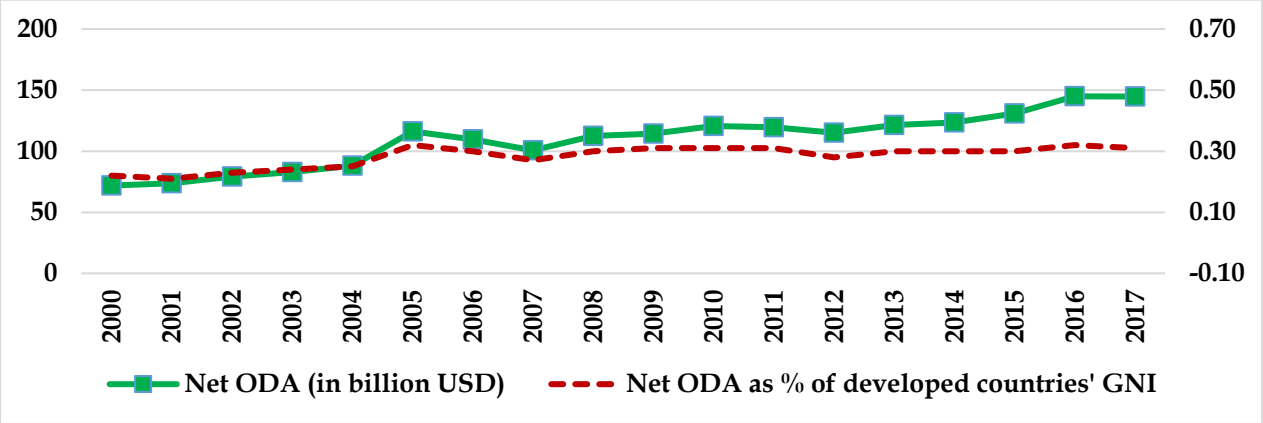
Note: * As of 1 July 2018, Low Income (LIC): countries with per capita GNI USD 995 or less; lower-middle Income (LMIC): between USD 996 and USD 3,895; upper middle-income: between USD 3,896 and USD 12,055; high-income (HI): countries with a GNI per capita of USD 12,055 or more.

** Rest of the funds is multi-country, regional and global funds.

1.3.2 Status of ODA funds

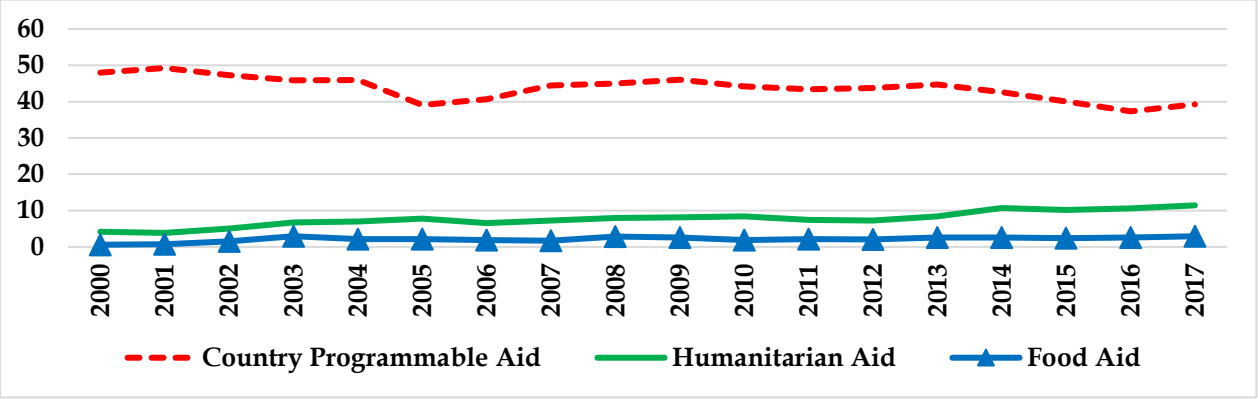
So farDAC countries have been providing 0.3% of their gross national income (GNI) as ODA funds (Figure 2) and total ODA funds available per annum is around 140 billion US dollar. ODA funds are channeled in three categories: programmable aid, food aid, and humanitarian aid. Trends in these funds show that while programmable aid is falling as a percent of total ODA, humanitarian aid is rising in proportion and food aid is somewhat stagnant (Figure 3). This led to two hypotheses in the mind of the critics. First, are development aid weaning? Second, is there any substitution happening between development aid and climate fund?

Figure 2: Net ODA inflow to developing countries from DAC countries



Source: Authors calculation from OECD database 2019

Figure 3: Aid flow by categories from DAC countries (as % of net ODA)



Source: Authors calculation from OECD database 2019

While global literature has been documenting an ongoing debate on an integrated approach towards implementing development and climate funds and also highlighting that the share of development funds is falling, it is imperative to examine whether projects implemented through the development window perform better in achieving its objectives than that of climate window. In this regard, Bangladesh provides a unique opportunity as it has implemented

hundreds of projects under a climate window known as BCCTF, and between 800 to 1000 projects per year under development window, known as the ADP.

1.4 Objectives

Based on the discussion above, the research objective of this study is to examine projects funded through the BCCTF window of the Government of Bangladesh and see if these projects are significantly different from that of projects financed through the ADP window. Specific objective is to identify whether the impacts of two types of projects are significantly different from each other as perceived by the stakeholders. Also to assess whether a significant difference exists in terms of the perception among stakeholders based on DAC evaluation criteria and based on transparency and accountability of projects.

2.0 Study Method

2.1 Selection of Projects and Study Area

To achieve the objectives of the study, projects under BCCTF and ADP schemes were selected. Since a large number of BCCTF projects were implemented in coastal districts which are vulnerable to several disasters including sea level rise (SLR), projects database of the BCCTF were used to select projects for the study. The Climate Fund database of TIB provides data on a list of 402 BCCTF projects. It shows that of the 11 Ministries receiving BCCTF, 7 Ministries had 164 projects related to a) adaptation, b) mitigation, c) capacity building (adaptation/mitigation) and d) Research and Development and Technology Transfer (adaptation/mitigation) (Table 4). The rest of the projects are from Ministry of Shipping, Defense, Chattogram Hill Tracks, and Power & Energy. Most of their expenditure are institutional in nature and so excluded from this analysis.

Table 4: Number of Projects and Allocated Amounts by Ministries and by Purpose

Ministries and Focus of the Projects	Number of Projects	Approved in BDT (Million)
Ministry of Agriculture	**10**	**2,762.90**
Adaptation	8	2,468.30
Research and development and technology transfer	2	294.60
Ministry of Environment and Forests	**41**	**9,011.56**
Adaptation	14	3,233.17
Capacity building and institutional strengthening	5	330.21
Mitigation	21	5,398.68
Research and development and technology transfer	1	49.50
Ministry of Food, Disaster Management and Relief	**4**	**2,682.34**
Adaptation	4	2,682.34
Ministry of Fisheries and Livestock	**2**	**517.64**
Adaptation	1	497.64
Capacity building and institutional strengthening	1	20.00
Ministry of Local Government and Rural Development	**96**	**23,472.53**
Adaptation	92	22,930.41
Mitigation	4	542.12
Ministry of Women and Children Affairs	**2**	**80.00**
Adaptation	2	80.00
Ministry of Water Resources	**1**	**246.63**
Adaptation	1	246.63
Grand Total	**156**	**38,773.60**

Source: Climate Fund Database, TIB, 2018.

Note: In this study climate fund database from TIB website has used for sampling (following two-stage sample stratification)as it stores/records disaggregated project information by various project types. This

database also includes completed BCCTF projects. However, the earlier numbers presented in Table 1 were calculated from the ongoing project list that is available in BCCTF website.

Based on the above information 18 projects were to be selected initially for this study where stakeholders will be surveyed for the purpose of this study. Of these 18 projects (planned disaggregation: 6 adaptation, 6 mitigation and 6 mixed projects) were initially selected randomly (using a random number table in excel) for the study. However, at the end, one of the selected mitigation project was dropped from the study as its location in the field could not be traced by our survey team. As such 17 projects under BCCTF were studied. In addition, the research team also selected similar 14 projects which were implemented in these upazilas from the list of ADP projects for this study after consulting with the local implementing agencies in the respective Upazila offices. This is shown in Table 5.

Table 5: Number of Projects studied by project type

Project Type	Expected Number of Projects for the study	Number of Selected Projects in the study
Adaptation	6	6
Mitigation	6	5
Adaptation and Mitigation	6	6
BCCTF projects (total)	18	17
ADP projects (total)	-	14
Total projects in the study		31

Source: TIB-ACD Study 2019

2.2 Data Collection

Once the projects under BCCTF and ADP were selected for study, the study team used Key Informant Interviews (KIIs) to collect in-depth information on the location, purpose and activities of the projects. A total of 10 KIIs were completed with resulted in pin-pointing the location of the projects and project activities. At the end, a total of 47 different types of activities were listed from the KIIs and a detailed questionnaire was designed for the structured survey on the perception of the stakeholders. Stakeholders include: a) beneficiaries, b) local community members (non-beneficiaries), and c) project personnel.

The questionnaire was pretested and enumerators for data collection were appointed and trained for the survey. The research team used Kobo toolbox to administer the survey using mobile devices. A total of 390 responses were, thus, collected from the stakeholders of the 17 BCCTF and 14 ADP projects (see details in Annex B Table 10). The opinions of the stakeholders relevant to these projects was collected in this study to understand how they perceive these

projects in terms of its impacts. Of 390 responses from various stakeholders, 225 are from climate projects and 165 are from development projects. All survey responses and KIIs were collected from coastal districts of Barguna, Bhola, Cox's Bazar and Satkhira (see details in Annex B).

2.3 Analytical Method of the Study

The present study employed a mixed method of analysis using both quantitative and qualitative techniques. Project activities were classified into four key categories to organize the projects related information for comparison. These are: a) adaptation activities, b) mitigation activities, c) mixed climate activities (both adaptation and mitigation), and d) development activities.

The originally listed 47 activities are categorized in these types to group projects. Adaptation activities include activities related tocyclone shelter, early warning system, embankment or polder repair, first aid or emergency relief, fisheries project, flood control, flood shelter, input distribution, livestock farming, fish culture in pond, poultry farming, relief and rehabilitation, resilient home, road repair or construction, tourism or eco-tourism, tourism development, training for income generation, water logging reduction, and canal rehabilitation.

Mitigation activities include activities like developing biogas production, improved cooking system, organic fertilizer, solar home service, solar irrigation, and solar mini-grids. Mixed activities include activities like training for environmental care, afforestation and waste management.

Development activities include activities to promote access to work or job, crop diversification, reduce early marriage, expand electricity connection, encourage family planning, facilitate hospital development, informal education, irrigation, literacy program, market development, organic food production, pond maintenance or development, primary education, primary health care facilities, religious buildings, sanitation improvement, school improvement, secondary education, seedlings in poly bags, training for health and hygiene, tube-well installation, reduce violence against women, women participation in society or decision making, and improving water supply.

Since the objective of the study is to analyze the synergies between BCCTF and ADP projects, the analysis collated the responses collected in the structured survey (on the respective stakeholders of the projects) using cross tabulation and frequency analysis. To draw conclusion, STATA (a statistical software) were used and differences in responses were tested using t-test by a) the source of fund e.g. funded under BCCTF and ADP, and b) by project activities e.g. development activities and climate activities. The analysis, therefore, are based on differences in responses from respective stakeholders in these categories.

Differences in the impact of the projects were estimated and tested using statistical tools based on perception about a) economic impacts, b) poverty impacts, c) social impacts, and d) resilience building impacts. Perceptions on these impacts are derived using the Likert scale on aforementioned categories from the stakeholders of respective projects. Furthermore, both types of projects (ADP and BCCTF) were also tested based on perception of their stakeholders on the basis of DAC criteria and on the basis of transparency and accountability criteria.

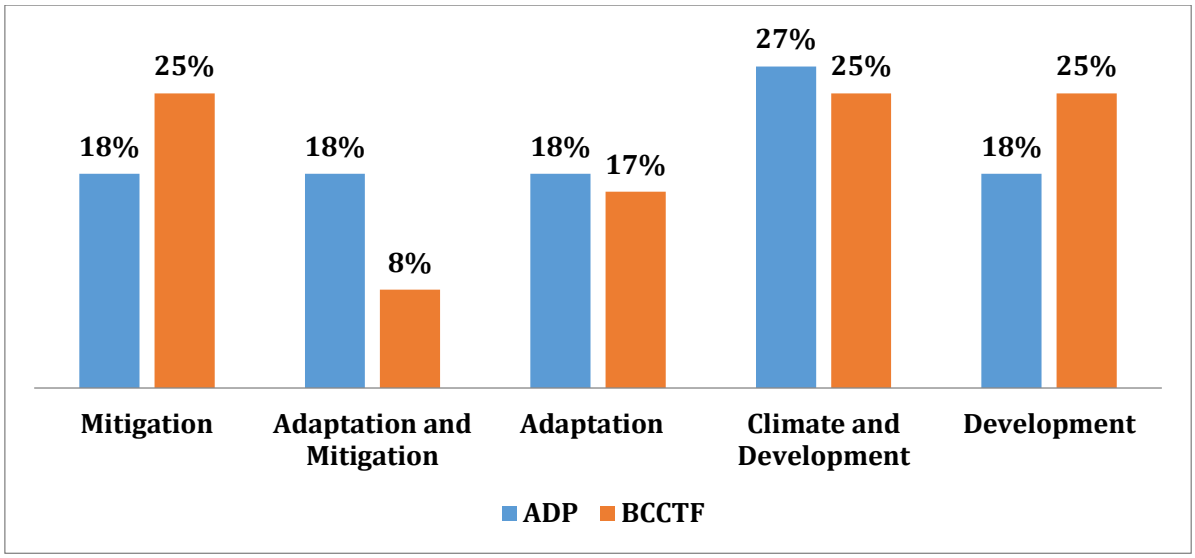
3.0 Findings from the Survey

3.1 Similarities between ADP and BCCTF projects

It has been mentioned earlier that project activities were classified in four categories: a) adaptation activities; b) mitigation activities; c) climate activities (adaptation and mitigation together); and d) development activities. These four categories can be divided into five distinct sets: Set 1: adaptation activities; Set 2: mitigation activities; Set 3: adaptation and mitigation activities labelled as climate activities; Set 4: climate and development activities; and Set 5: development activities.

Based on this classification Figure 4 shows that different type of activities performed by projects under ADP and BCCTF. It shows that of the activities of selected 31 funded projects, 18% activities of the ADP projects and 25% of the BCCTF projects are purely mitigation activities, another 18% activities in ADP and 8% in BCCTF projects are mix of both mitigation and adaptation activities. Another 18% of ADP and 17% of BCCTF projects have served pure adaptation activities. Besides, 27% of ADP and 25% of BCCTF projects activities have had both climate and development activities simultaneously. Finally, only 18% of activities in the ADP projects and 25% in BCCTF projects are of pure development activities.

Figure 4: Classification of projects by source of funding and by activities



Source: TIB-ACD survey data 2019

As such, the similarity in percent of activities between ADP and BCCTF projects are simply stunning. BCCTF projects which are primarily designed to build resilience and to promote green growth and whereas ADP projects are primarily designed for poverty alleviation and to promote social inclusion could not keep their activities distinct from each other. Despite the fact that these projects were funded from two different windows to achieve different objectives (one with development objectives and others with climate objectives in mind), the activities listed in these projects seem to overlap significantly.

Many climate projects fulfills development objectives and *vice versa*

3.2 Impacts of development and climate projects

Stakeholders' response on the impacts of the projects were analyzed in four categories: (a) economic impacts – related to overall changes in the economic conditions of the locality; (b) poverty reduction impacts – related to impacts of the projects in terms of reducing poverty through enhanced access to resources for the poor; (c) social impacts – related to improved access to health and education, and facilitating women empowerment; and (d) environment and resilience impacts – related to reducing risks to disasters and environmental quality deterioration.

Table 6 (presented in column i and ii) shows that on economic impacts, perception of the stakeholders for projects under BCCTF and ADP are similar meaning that both groups of stakeholders think that projects have helped to improve the economic conditions of the locality. Five separate indicator statements were used to measure economic impacts. These are impacts on: (i) improving the economic condition of the locality, (ii) increasing income to the poor, (iii) diversifying economic activities in the locality, iv) improving access to markets, and (v) benefitting the local Upazila. Responses of the stakeholders on the impacts in all five indicators show that they are not statistically different for BCCTF and ADP projects. In terms of poverty reduction impacts, stakeholders' perception is also similar for both projects. Seven different indicators (i) improved transportation facilities in the project area, (ii) facilitated microfinance activities, (iii) improved open access fisheries for the community, (iv) improves culture fisheries for the community, (v) improved access to water for irrigation for farmers,(vi) improved access to electricity and (vii) improve tourism facilities were used to measure perception of stakeholders to evaluate an individual project's impact on poverty reduction. The analysis of responses shows that on all these indicators stakeholders' perception on impacts of the projects are statistically similar across ADP and BCCTF projects.

Table 6: Perception of local stakeholders on impacts

Statement on project impacts	Percent of stakeholders in agreement			
	BCCTF	ADP	Climate	Development
	Impacts of the project by funding source		Impacts of the projects by activities	
	(i)	(ii)	(iii)	(iv)
Economic impacts				
Improved the economic condition of the locality	78	84	69	100*
Increased income of the poor in the community	76	81	68	95*
Diversified economic activities in the area	83	79	72	96
Improved access to a market for local people	84	75	76	100
Benefited the Upazila as a whole	95	79	84	100
Poverty reduction impact				
Improved transportation facilities in the area	85	83	76	100
Facilitated microfinance activities in the community	52	29	29	98**
Improved open access fisheries for local people	61	86	65	99
Improved culture fisheries for local communities	78	50	55	98
Improved access to water for irrigation for farmers	56	43	32	98[NA]
Improved access to electricity to local communities	67	67	60	100
Improved tourism activities in the area	64	74	58	100
Social impacts				
Facilitated women empowerment	93	87	92	96
Improved access to education	91	78	78	100
Improved access to health	53	69	59	100 [NA]
Improved sanitation services/facilities in the community	67	39	52	100
Improved access to safe water	40	20	29	98 [NA]
Environmental / resilience building impacts				
Improving the environment	75*	33	28	100 [NA]
Improved biodiversity in the area	78	83	65	100*
Creating the ability of the people to deal with disasters	77	87	72	98
Reduced the risk of flooding	78	75	61	100*

Source: TIB-ACD survey on stakeholders 2018. Note: * significant at 10%, ** significant at 5%, and *** significant at 1% level. [NA] means not enough data to do statistical tests.

Table 6 further illustrates that in terms of social impacts, these projects also had similar impacts. This is true for all the five indicators (i) facilitated women empowerment, (ii) improved

access to education, (iii) improved access to health, (iv) improved sanitation facilities in the community, and (v) improved access to safe water used for analyzing the social impacts of the projects.

Development activities in both BCCTF and ADP funded projects had similar results

Finally, in terms of building resilience, four indicators (i) improving the environment, (ii) improved biodiversity in the area, (iii) created the ability of people to deal with disasters, and (iv) reduced the risk of flooding were used to measure stakeholders' perception. Results show that except for improving the environment, the impacts are similar. Stakeholders perceived that BCCTF projects had significantly better impacts on improving the environment than that of development projects. However, in terms of building resilience against flood, disasters, and conserving biodiversity perception of the stakeholders did not vary significantly across ADP and BCCTF projects. Consequently, it can be concluded that according to the perception of the stakeholders, both ADP and BCCTF projects had similar impacts except for BCCTF projects have significantly higher impacts on improving environment.

3.3 Impacts by Activity Types

Analysis of the perception of the impacts by stakeholders for project activities is also presented in Table 6 (in column iii and iv). It shows that of the five indicators of economic impacts, stakeholders think that development activities have performed better in improving overall economic conditions and improving the income of the poor in the locality while in terms of diversifying economic activities, access to market and benefitting the whole Upazila, development and climate activities have contributed very similarly.

Development activities are better performed in terms of improving economic conditions of the locality and income of the poor.

Table 6 also elaborates the results for economic impacts of the projects byits activities. It shows that the majority of stakeholders think that in case of improving economic condition and increasing income of the poor development activities had more impacts than that of climate activities under both types of projects. In other words, irrespective of project finance, of the five different impact areas, in three areas namely diversifying economic activities, improving market access, and benefit to local Upazila both climate and development had similar impacts.

Table 6 also illustrated that among seven different indicators (mentioned earlier) for poverty reduction, development activities and climate activities are perceived to have similar impacts except for facilitating microfinance activities.

Development and Climate projects equally reduce poverty thereby fulfills both development and resilience building objectives.

Development projects are also designed to reduce exclusions in the society and hence often facilitate women empowerment, increase access to education, health services, water and sanitation services in the community. In many climate projects, stakeholders also observed that project activities also contribute to fulfilling these social objectives. Table 6 presents that in all these indicators, activities under BCCTF and ADP financed projects had similar impacts according to stakeholders.

In addition, projects were examined in terms ofits resilience building capacity which is the major objective of adaptation projects. Table 6 shows that in terms of resilience building, stakeholders think that development activities carried out in both types of projects did perform better to reduce flood risks and to increase biodiversity compared to climate-related activities in these projects. Also, climate activities regardless of the ADP or BCCTF projects could not create significantly higher coping mechanism or ability of the people to deal with disasters than that of conventional development activities.

Development and Climate projects are similar in terms of their social impacts according to the perception of the stakeholders

3.4 Evaluation of project impacts using DAC criteria

The OECD's DAC evaluation criteria gives a standard measurement for evaluating performance of development projects. These criteria includes (a) relevance of the projects with development priorities of the host nation, (b) effectiveness of the project in fulfilling the objectives of the project, (c) efficiency of the projects in terms of cost, timely completion and management, (d) impacts of the project, and (e) environmental and financial sustainability of the project (OECD, 1991).The objective of using these criteria is to evaluate projects whether the aided-projects conform to national priorities, are managed efficiently and are

DAC evaluation criterion uses relevance, effectiveness, efficiency, impacts, timely completion and sustainability lens to understand projects.

effective and sustainable. It has been used by donor agencies to ensure alignment of aided-projects with national plans and also to reduce duplication of projects. In addition to the DAC criteria, the research team also added transparency of the project as a criterion of evaluation. Table 7 presents the results from analyzing stakeholders perception in relevant to questions that have merit to evaluate projects both from DAC criteria and transparency and accountability criteria.

Table 7: Percent of stakeholders in terms of project impact evaluation criteria

Criteria of Evaluation	By Source of Fund		By Activities	
	BCCTF	ADP	Climate	Development
	(i)	(ii)	(iii)	(iv)
DAC Criteria				
Relevance	96	98	96	100
Effectiveness	88	97**	87	100**
Efficiency	64	93***	67	100**
Timely implementation	70	82	65	100**
Continue to generate benefit(s) - sustainability	75	89	75	90
Transparency and Accountability Criteria				
Financial transparency	86**	57	62	100*
Acceptable Quality of work	63	94***	72	90
Targeted the right group of people	87	92	83	100**
Transparent to local communities	80	88	73	100**
Local recruitment in project jobs	61	85*	68	80

Source: Authors calculation from TIB-ACD field Survey 2019. Note: * significant at 10%, ** significant at 5%, and *** significant at 1% level.

As mentioned, DAC evaluation criteria is used to evaluate projects, Table 7 shows that when stakeholders were asked to use DAC evaluation lens to evaluate the projects, they think in terms of relevance, both type of projects are similar. In terms of effectiveness and efficiency criterion, development projects financed through ADP are perceived to be performed better than that of BCCTF projects while in terms of sustainability and timely completion of projects both type of projects are similar according to the stakeholders. Similarly, analysis of the impact of activitiesthrough these lenses shows that in terms of effectiveness and efficiency, development activities perceived to be significantly better contributed than that of climate activities.

3.5 Transparency and Accountability

In terms of transparency and accountability of the projects, stakeholders' opinion were collected on five aspects: a) financial transparency, b) accountability in terms of quality of work, c) appropriate beneficiary targets, d) local level transparency; and e) local recruitment in jobs. Table 7 presents a mixed result. According to the perception of the stakeholders, BCCTF projects are more transparent financially and quality of work is not acceptable. On the other hand, in terms of local recruitment ADP projects were perceived to be better. In terms of targeting appropriate beneficiary groups, and local level transparency both types of projects are very similar. However, in the activity level development activities targeted local communities better as well as engaged communities more. This is also true for local level transparency of project activities.

Climate projects are financially more transparent but the quality of work is not acceptable.

4.0 Concluding remarks

This study was undertaken to understand whether there exist significant differences for projects adopted under the regular development window of financing as opposed to projects adopted under the climate financing and if there are differences, then what policy shifts are warranted to ensure efficient and effective management of activities.

In terms of the process, development projects funded by the Government of Bangladesh with or without support from the donor(s) are channeled through the Ministry of Planning and through the ECNEC. The process is often lengthy and requires time. As such, the Government of Bangladesh, in 2009, decided to use a short-cut route and allowed the Ministry of Environment, Forest and Climate Change to be the focal point and fund climate projects using a different window, which also allowed NGOs to participate in providing services and civil society oversight on public funds. It was expected that such a strategy will be more effective not only in terms of outcomes but will also be efficient and effective and hence will be more transparent and accountable. This, if true, would be an important starting point to access global climate funds.

This study reveals that in terms of four major impact categories – (a) economic impact, (b) poverty reduction impact, (c) social impact and (d) resilience building impact, BCCTF projects are not much different from that of ADP projects. It was also observed that while ADP projects had climate components and BCCTF projects also had development components and so activity-wise they are not significantly different.

Results from stakeholder perceptions reveal that while in most of cases the impacts of the projects are perceived to be similar, development components are perceived better than that of climate components in terms of (a) increasing economic condition, (b) generating income for poor, (c) facilitating microfinance, (d) improving biodiversity and (e) reducing flood risks. Development projects are supposed to do better by design in these aspects as these are the core components of development for reducing poverty.

Furthermore, in terms of DAC evaluation criteria, ADP financed projects are perceived to be better than that of BCCTF financed projects in terms of effectiveness (measured in terms of rendering benefits to the communities) and efficiency (measured in terms of being managed well) by their stakeholders. Both types of projects are perceived to be similar in terms of other DAC criteria such as relevance to the communities, timeliness of completion and sustainability.

On the question of financial transparency, stakeholders were asked to respond to the statement that the project handled financial transactions efficiently, 86% of stakeholders from BCCTF projects and 57% of the stakeholders from ADP projects agreed to this statement. The difference in their responses is statistically valid at 5% level of significance. It suggests that to

BCCTF stakeholders the financial transactions in the projects were financially more transparent. On the other hand, when they were asked to respond to the statement whether "the quality of work is acceptable", 94% of the stakeholders from ADP project and only 63% of the stakeholders from BCCTF project were agreed to this. The difference is also statistically significant at 1% level of significance. These two results apparently contradict each other because while stakeholders of BCCTF thought that the project was financially transparent, they also thought that the quality of work was not acceptable to them. While it was not studied in this research, it could also be due to size of projects as an ADP project is found to be more than double the size of an average BCCTF project. Another possible explanation is that while BCCTF projects handled financial matters efficiently it may not have been efficient in managing the tasks performed under the project. This requires further investigation.

With regard to targeting the right beneficiaries, and transparent to local communities (in terms of activities), results show that stakeholders perceive these two types of projects as very similar. There is no significant difference in their perceptions.

Finally, this study informs with evidence that many of the development projects have climate components and many of the climate projects have development components. This means these two components are not easy to separate.

Considering these, the study concludes that projects financed through the ADP window are relatively (a) more effective to stakeholders and (b) better aligned to meet DAC criteria. As such, BCCTF projects may benefit from following the project implementation and monitoring process of ADP projects. Finally, since many of ADP projects have also climate components, there is also a need to carefully segregate climate activities of the development projects in order to access global climate funds.

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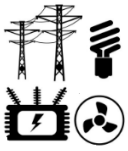
Annex A

Figure 5: Percent of stakeholders agreed on economic impacts of the projects and of its activities

Economic Impacts	Financing window		Activity Type	
Improved Economic Condition	78% BCCTF	84% ADP	69% Climate	100% Development*
Improved income of the poor	76% BCCTF	81% ADP	68% Climate	95% Development*
Diversified economic activities	83% BCCTF	79% ADP	72% Climate	96% Development
Improved access to market	84% BCCTF	75% ADP	76% Climate	100% Development
Benefited the Upazila	95% BCCTF	79% ADP	84% Climate	100% Development

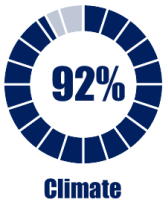
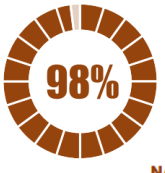
Source: Authors calculation from ACD field Survey 2019. Note: * means significantly (statistically) different at 10%.

Figure 6: Percent of stakeholders agreed on improving access to resources by the projects and by their activities

Poverty Impacts	Financing window		Activity Type	
 Inproved transportation facilities	85% BCCTF	83% ADP	76% Climate	100% Development
 Facilitated Microfinance	52% BCCTF	29% ADP	29% Climate	98% Development **
 Improved Open Access fisheries	61% BCCTF	86% ADP	65% Climate	99% Development
 Improved culture fisheries	78% BCCTF	50% ADP	55% Climate	98% Development
 Improved access to water for irrigation	56% BCCTF	43% ADP	32% Climate	98% Development NA
 Improved access to electricity	67% BCCTF	67% ADP	60% Climate	100% Development
 Facilitated tourism activities	64% BCCTF	74% ADP	58% Climate	100% Development

Source: Authors calculation from ACD field Survey 2019. Note: * means significantly (statistically) different at 10%. Note: N/A means not enough data to test statistical difference in perception

Figure 7: Percent of stakeholders agreed on social impacts of the projects and of their activities

Social Impacts	Financing window		Activity Type	
 Women empowerment	 93% BCCTF	 87% ADP	 92% Climate	 96% Development
 Improved access to education	 91% BCCTF	 78% ADP	 78% Climate	 100% Development
 Improved access to health	 53% BCCTF	 69% ADP	 59% Climate	 100% Development NA
 Improved sanitation facilities	 67% BCCTF	 39% ADP	 52% Climate	 100% Development
 Improved access to safe water	 40% BCCTF	 20% ADP	 29% Climate	 98% Development NA

Source: Authors calculation from ACD field Survey 2019. Note: N/A means not enough data to test statistical difference in perception

Figure 8: Percent of stakeholders agreed on environmental and resilience impacts of the projects and of their activities

Relience building and environmental impacts	Financing window		Activity Type	
 Improving the environment	75% BCCTF ★	33% ADP	28% Climate	100% Development NA
 Improved biodiversity in the area	78% BCCTF	83% ADP	65% Climate	100% Development ★
 Created ability to deal with disaster	77% BCCTF	87% ADP	72% Climate	98% Development
 Reduced the risk of flooding	78% BCCTF	75% ADP	61% Climate	100% Development ★

Source: Authors calculation from ACD field Survey 2019. Note: * means significantly (statistically) different at 10%. N/A means not enough data to test statistical difference in perception

Figure 9: Perception of stakeholders using DAC evaluation criteria

DAC criteria	Financing window		Activity Type	
Relevance to local needs	96% BCCTF	98% ADP	96% Climate	100% Development
Effectiveness	88% BCCTF	97% ADP**	87% Climate	100% Development**
Efficiency	64% BCCTF	93% ADP***	67% Climate	100% Development**
Timely implementation	70% BCCTF	82% ADP	65% Climate	100% Development**
Continued to generate benefit(s)	75% BCCTF	89% ADP	75% Climate	90% Development

Source: Authors calculation from ACD field Survey 2019. Note: * means significantly (statistically) different at 10%, ** at 5%, *** 1%.N/A means not enough data to test statistical difference in perception

Figure 10: Perception of stakeholders using Transparency and Accountability Criteria

Transparency and Accountability criteria	Financing window		Activity Type	
Financial transparency	86% BCCTF**	57% ADP	62% Climate	100% Development*
Accountability in terms of quality of work	63% BCCTF	94% ADP***	72% Climate	90% Development
Targeted the right group of people	87% BCCTF	92% ADP	83% Climate	100% Development**
Transparent to local communities	80% BCCTF	88% ADP	73% Climate	100% Development**
Local recruitmentin project jobs	61% BCCTF	85% ADP*	68% Climate	80% Development

Source: Authors calculation from ACD field Survey 2019. Note: * means significantly (statistically) different at 10%, ** at 5%.

Annex B: Technical Note on Sampling

A multi-stage random sampling procedure has followed to identify projects. To select the projects a public dataset was accessed from the website of Transparency International Bangladesh. The dataset contains information on 402 projects – of which 307 were adaptation projects, 57 were mitigation projects and rest were capacity development and research projects. About 90% of the projected listed there were initiated under BCCTF and rest by other development partners and organizations. The process of identification of projects is described systematically in the followings.

Multi-stage sampling

Stage 1: Ministry Wise Selection of Projects

First, from the 402 climate projects listed in the dataset 164 projects under 7 Ministries(including Ministry of Agriculture, Food, Disaster Management and Relief, Water Resources, Environment and Forests, Fisheries and Livestock, Women Affairs,Local Government, Rural Development and Co-operatives) listed for the study. The projects were classified under four categories and are shown inTable 8. These ministries are working with vulnerable population in coastal areas.

Table 8:List of Projects by Type of Project

Types of project	Number of Projects
Adaptation	126
Mitigation	28
Research and development and technology transfer	4
Capacity building and institutional strengthening	6
All	164

Source: Authors calculation from Transparency International Climate Database 2018

Stage 2: Selection of Coastal District Wise Selection of Projects

At the second stage, projects were selected based on the coastal districts that are exposed severely to the climate shocks. According the coastal map of Bangladesh, 19 coastal districts were identified – of which 5 districts lies within exposed coast alongside part of another 3 districts. Other coastal districts have interior coast. Keeping in mind the objective of this study, projects which have implemented in the districts of exposed coast were selected. With this criterion, 64 climate projects were selected of which 8 projects were related to research and development and capacity building. Leaving out the research and capacity building projects, 56 projects which have components of adaptation and mitigation were primarily selected from the 8 exposed costal districts.

Stage 3: Streamlining of Project Classification

The 56 projects selected in the stage 2 were classified into three groups (i) only adaption projects; (ii) only mitigation projects and (iii) mixed projects which have both adaptation and mitigation components by analyzing their activities

Table 9: Classification of Projects by Climate Interventions

Types of project	Number of Projects
Adaptation	35
Mitigation	10
Mixed	11
All	56

Source: Transparency International Climate Database 2018

Stage 4: Selection of Study Districts

At this stage, four districts were selected by ensuring geographic distribution across the coast of Bangladesh from the 8 exposed coastal districts for the study. These are: Barguna, Bhola, Cox's Bazar and Satkhira.

Stage 5: Selection of Climate Projects for Study

At this stage, the 56 projects were mapped in 4 selected districts. Since there are 35 adaptation projects in adaptation category, every third projects in this category were listed for selection. This means a total of 33 projects (12 + 10 +11 = 33) were finally listed for study. As per the TOR 6 projects from each category shall be studied. As such, 6 projects under each category were chosen randomly in the 4 coastal districts. In the process, there are at least 4 projects from each district.

Stage 6: Selection of Stakeholder Sample

The appropriate sample size at the project level is determined mainly by three factors: (i) the estimated prevalence rate; (ii) the expected level of confidence in the results and (iii) the acceptable margin of error. The following formula has been used to find the sample size required to capture impacts of these selected projects on the ground. Given that the climate projects benefits both targeted and non-targeted population, we have assumed equal weight for both groups.

Sampling Equation

$$n = \frac{t^2 \times p\,(1-p)}{m^2}$$

Where,

n = required sample size
t = confidence level at 95% (standard value of 1.96)
p = estimated prevalence rate is assumed to be 50%

m = margin of error at 5% (standard value of 0.05)

Using the above formula the required number of sample size has been identified as 384. At the end of survey, a total 390 responses were collected. Of which, 57.7% responses were collected from pre-identified climate projects initiated or completed under BCCTF or other dedicated climate projects. Other responses were collected from corresponding climate projects that initiated or completed through government's ADP budget.

Table 10: Sample for the Study

Project Type	Number of Projects	Responses
Adaptation	6	94
Mitigation	5	33
Mixed	6	98
Development	14	165
Total	**31**	**390**

Source: ACD field study 2019

Annex B – The Questionnaire