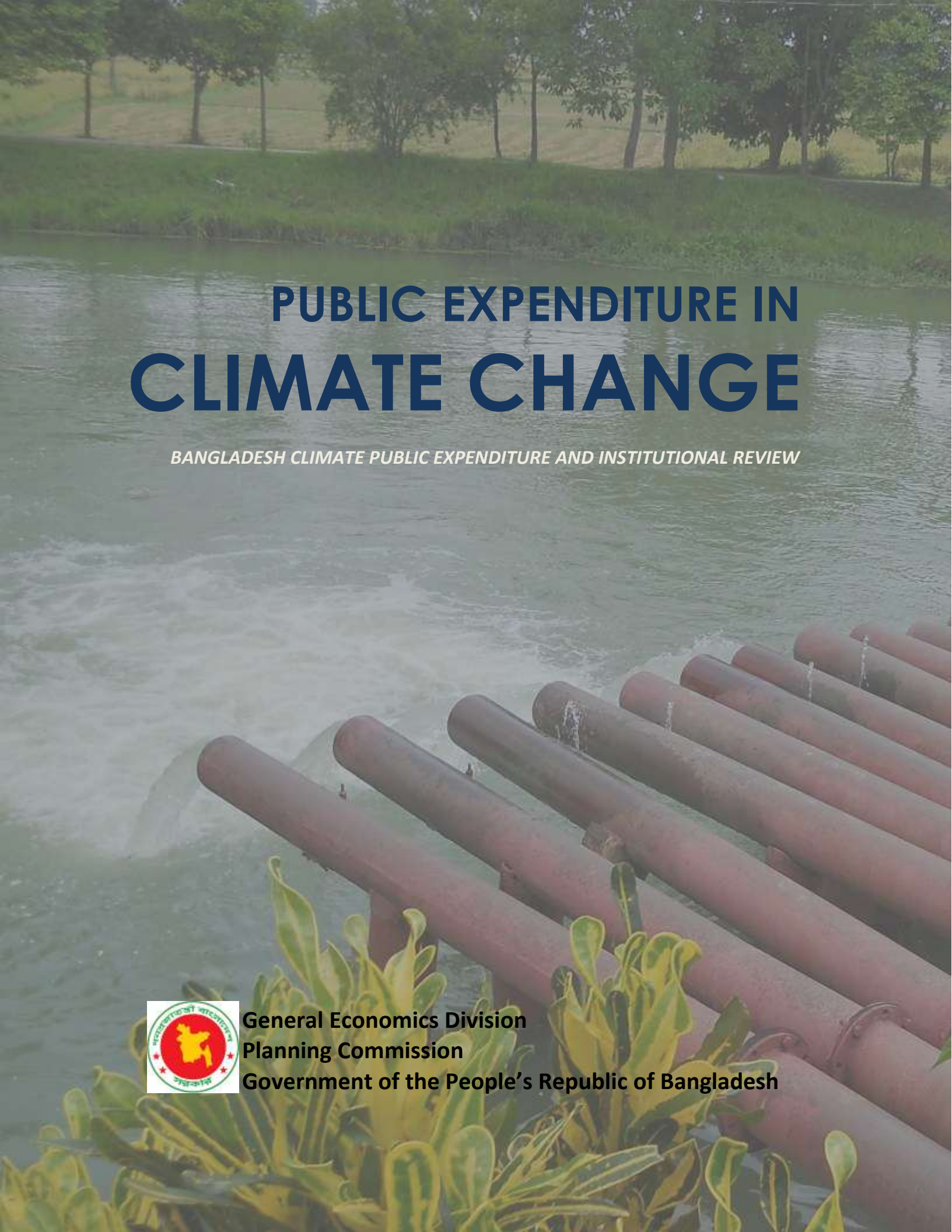
Bangladesh

Climate Public Expenditure and Institutional Review



PUBLIC EXPENDITURE IN CLIMATE CHANGE

BANGLADESH CLIMATE PUBLIC EXPENDITURE AND INSTITUTIONAL REVIEW

General Economics Division
Planning Commission
Government of the People's Republic of Bangladesh

Public Expenditure for Climate Change

Bangladesh Climate Public Expenditure and Institutional Review (CPEIR)

General Economics Division
Planning Commission
Ministry of Planning
Government of the People's Republic of Bangladesh

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Responsibility for the content of this paper rests with the authors alone . and any errors remain the responsibility of the authors.

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Acronyms & Abbreviations

AAA	Accra Agenda For Action
AEU	Aid Effectiveness Unit
AMS	Aid Management Strategy
ADP	Annual Development Plan
ADB	Asian Development Bank
BAP	Bali Action Plan
BCCRF	Bangladesh Climate Change Resilience Fund (Donor Fund)
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BCCTF	Bangladesh Climate Change Trust Fund (Government Fund)
BSPCR	Bangladesh Special Programme for Climate Resilience
BASIC	Group of countries: Brazil, South Africa, India and China
CCA	Climate Change Adaptation
CCTF	Climate Change Trust Fund
CCU	Climate Change Unit
CIF	Climate Investment Fund
COFOG	Classification of the Functions of Government
COP	Conference of the Parties
CDMP	Comprehensive Disaster Management Plan
CRMP	Community Risk Management Planning
CPEIR	Climate Public Expenditure and Institutional Review
CSP	Country Strategy Programme
DANIDA	Danish International Development Agency
DP	Development Partners
DMB	Disaster Management Bureau
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
EDC 2020	European Development Cooperation to 2020
ERD	Economic Relations Division
ETF	Environmental Transformation Funds
FSF	Fast Start Funding
FTF	Feed the Future
FYP	Five Year Plan
GCCA	Global Climate Change Alliance
GCF	Green Climate Fund
GED	General Economic Division
GEF	Global Environment Facility
GFSM 2001	Government Finance Statistics Manual (2001)
GCCA	Global Climate Change Alliance
GHI	Global Health Initiative
GoB	Government of Bangladesh
GTZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (01-01-11)
UNAGF	High Level Advisory Group
HDI	Human Development Index
INC	Initial National Communication
IWM	Institute of Water Modelling
IPCC	Intergovernmental Panel on Climate Change

IFC	International Finance Centre
JCS	Joint Coordination Strategy
LCG	Local Consultative Group
LDC	Least Developed Countries
LDCF	Least Developed Countries' Fund
LEDS	Low Emission Development Strategies
MDTF	Multi Donor Trust Fund
MIC	Middle Income Country
MoEF	Ministry of Environment and Forests
MoFDM	Ministry of Food and Disaster Management
MRV	Monitoring, Reporting and Verification
MBF	Ministry Budget Framework
MTBF	Medium Term Budget Framework
NAARI	National Alliance for Risk Reductions and Response Initiatives
NAPA	National Adaptation Program of Action
NPDM	National Plan for Disaster Management
NSAPR	National Strategy for Accelerated Poverty Reduction
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OPPV	Outline Perspective Plan Vision
PRDI	Participatory Research and Development Initiative
PRSP	Poverty Reduction Strategy Paper
RDE	Royal Danish Embassy
RNE	Royal Netherlands Embassy
SPCR	Strategic Programme for Climate Resilience
SIDA	Swedish International Development Agency
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNAGF	United Nations High level Advisory Group on Finance
UNLDC	United Nations Least Developed Countries
UNMDG	United Nations Millennium Development Goals
WBCD	World Bank Country Director
PPCR	World Bank's Pilot Programme for Climate Resilience

Executive Summary

Introduction

This Climate Public Expenditure and Institutional Review (CPEIR) reviewed the policy, institutional and financial management arrangements of the agencies involved in climate sensitive activity in Bangladesh. Due primarily to time constraints, the review focused mainly on Government – both central and local government – but some data has been collected on private sector, non-governmental organisations and households.

The study developed an initial methodology to identify and assess the financial scale of climate sensitive activity carried out by the Government. This methodology was applied to generate initial indicative figures and analysis of budgets and spend from the past three financial years. The figures were set in a national context by comparing the budgets and spend to both GDP and the Government budget as a whole. Public Financial Management systems were also reviewed. Analyses of the international arrangements for financing climate actions, the current roles of NGOs, the private sector and households in Bangladesh were also considered. The study sets out evidence and conclusions from these reviews and presents twenty next stage recommendations for consideration by the Government and development partners.

In summary, the study comprised:

- An assessment of current policy priorities and strategies as these relate to climate change at national and local levels.
- A review of the institutional arrangements for promoting the integration of climate change policy priorities into budgeting and expenditure management.
- A review of the integration of climate change objectives within the budgetary process, including as part of budget planning, implementation, expenditure management and financing.
- An addendum in respect of institutional, policy and financial climate issues in the Chittagong Hill Tracts.

Objectives of the Study

A number of objectives were agreed by the Steering Committee for the study in September 2011. These are set out below:

- Development of an initial framework for the integration of policy with expenditure plans and the national climate change budgeting process.
- Better understanding of the execution (governance, control and performance management) of the climate change related budget.
- Understanding of the sources of funds on climate change and current and planned spend in Medium Term Budget Framework (MTBF).
- Review of governance arrangements of climate change planning, funding and expenditure.
- Development of a base for future review and planning.

Limitations and Challenges in the Study

The authors consider it prudent to set out the limitations of the study by reference to issues in climate change financing. Climate change itself is not easy to define for economic or financial assessment and it is also a relatively new entrant to the public policy arena. Identification of spend is therefore the first challenge. There are two distinct aspects to this challenge.

Firstly, there is no functional classification in the standard of classification for expenditure (COFOG in GFSM 2001) therefore it is easy to be drawn to an administrative approach to identifying climate spend - that is, an approach based on which administrative unit spends money. This limitation was exposed by the cross cutting and diverse nature of the response to climate issues ranging from hard adaptation capital works to socially based protection, livelihoods and health programmes that form the adaptation strategies of government. The term 'climate' rarely features in the descriptions of administrative units responsible for delivering adaptations.

Secondly, the separation of climate sensitive spend and climate change spend is a qualitative and judgment-led exercise and is open to refinement and constructive criticism. Equally, there is valid debates to be conducted on the separate identification of climate resilience spend, from development deficit spend and which element of expenditure addresses each component. These are complex and theoretical matters which at this early stage of analysis of climate sensitive spend, the study can contribute to the framing of future research. The methodology developed in the study is a first step in what is expected to be an ongoing process of refinement, review and evaluation of climate expenditure in Bangladesh and elsewhere.

In conducting the study a working definition of Climate Sensitive expenditure was used that was based broadly on the OECD definition shown in Table 1: Defining Climate Change and related specifically to climate variables and impacts and how the government has responded to this. This is outlined in detail in paragraph 4.3.1 Definition and Methodology. In essence the working definition used is based on the identification of adaptation activity with a linkage to the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and its policy themes.

It should be noted that the study focused on the policy interventions needed for climate change adaptation, recognising the current priority in Government of Bangladesh (GoB) approaches to climate change. However the study does highlight the considerable sums being invested in fossil fuel power generation , thus increasing greenhouse gas emissions, although these still remain very small on a global scale.

Bangladesh Context

In the Bangladesh context, it is well known that there are many agencies involved in climate response and climate sensitive activities including central and local government, development partners, NGOs, households and the private sector. The country has a long history of response to climate related events. However, to date, there has been no systematic review to identify the scale of the ongoing financial commitments in this aspect of public expenditure nor has there been an integrated review of the institutional and policy arrangements that frame this expenditure.

This study is therefore an initial rather than a definitive review of these arrangements. The figures presented are indicative and based on judgements, but confirm that the extent and scale of activity in this area of public policy is financially, economically and managerially significant. A key longer term aim for the Government of Bangladesh is therefore the development of a Climate Fiscal Framework within which the roles, risks, and responsibilities of parties involved in climate response can be allocated and a sustainable long term funding framework built. The study should give an initial indication of the issues to be faced in developing such a framework.

Overview of Findings and Conclusions

The review focussed mainly on government financial and policy arrangements as, the government is by far the largest funder of climate actions in Bangladesh – with around three quarters of government expenditure funded from domestic sources. This confirms that in principle a Climate Fiscal Framework should be set firmly within government systems, but should recognise that significant components of funding will also come from development partners, NGOs and the private sector.

The evidence identified in the study suggests that strengthening of capacity and institutions should be focussed on the key mechanisms of climate finance delivery within government, namely the Finance Division, Planning Commission and the technical functions associated with delivery of the Bangladesh Climate Strategy and Action Plan (BCCSAP). Headline findings from the CPEIR are noted below:

Budgets and Expenditure

- The Government typically spends around 6% to 7% of its annual combined development and non-development budget on climate sensitive activity which equates to an annual sum in the region of US$1 billion at current exchange rates. However, it is noted that while the spend on climate sensitive activity increased from 6.6% to 7.2% of the total budget between 2009/10 and 2010/11, it fell back to 5.5% of the budget in 2011/12. These figures represent around 1.1% of GDP on an ongoing basis.
- In absolute terms, the climate sensitive budget increased between 2009/10 and 2011/12 by 22%
- Over the period 2009/10 to 2011/12 the funding of climate sensitive budgets has been of the order of 77% from domestic resources and 23% from foreign donor resources.
- Loan funding increased from 58% to 82% of foreign donor resources between the 2009/10 and 2011/12 programmes.
- The special donor funds of BCCRF and PPCR contribute relatively small incremental amounts of around 2% to 3% each to the overall climate sensitive spend and a consequent gearing effect was noted. Over the three financial years reviewed, an 11% increase in donor resources yielded a 16% increase in overall climate sensitive expenditure. Donor funds are generally targeted at climate *change,* but climate resilience or sensitivity and climate change are addressed on *an integrated basis* in Bangladesh. Donor climate change funds should therefore be targeted as general support to climate sensitive activity within a Climate Fiscal Framework.
- There is no costed plan of Bangladesh's assessed needs in respect of climate change. However, as a country with a history of response to climate it can be concluded that this will be substantial on any basis of consideration. A key next step is to estimate this need on a rational and detailed basis for the future development of a Climate Fiscal Framework.
- Around 60% of the budget for climate related programmes is sourced from the development programme budget as opposed to around 25% from the government budget as a whole. This perhaps illustrates the priority of climate related activity as a key part of development and also the capital intensive nature of climate actions at this time.

Institutions

- There is a wide and complex constituency of interests in climate change that included central Ministries, line Ministries, local government, NGOs, the private sector (including households) and development partners. In the central government alone at least 37 Ministries (plus their departments and autonomous bodies) have at least one climate sensitive programme. The study also identified at least 10 donors on a bi-lateral and multi-lateral basis. This presents risks and challenges in respect of co-ordination and coherence.

- Based on sample surveys , local government institutions at Upazilla and Union Parishad level also undertake climate sensitive activity.
- The highest spending Ministries in respect of climate sensitive activity are Local Government Division 1 (22.1% of spend over three years), Agriculture (19.7%) and Disaster Management and Relief Division (17.5%).
- Interestingly, the Ministry Budget Framework of the Local Government Division makes no references in the Key Performance Indicators (KPIs) or targets to climate. This is perhaps the best illustration that Climate sensitive spend is driven more by existing sector policy than by an explicit coordinated climate strategy and that the BCCSAP has not been fully or explicitly transacted to spending plans within the MTBF.
- The institutional architecture to promote accountability has been identified as a central aspect of a Climate Fiscal Framework and could be in place and developed in the government. The MTBF is presently being strengthened and deepened through a financial reform project under the Finance Division. The MTBF has made a significant contribution to financial management in the government, but also it remains clear that further strengthening would be of benefit. The introduction of a climate dimension in tracking budgets and expenditure (in similar vein to Gender and Poverty tracking) would be a very helpful development to ensure that climate sensitive activity is recognised within the performance accountability architecture.
- In addition to this complex picture in Government, the study identified many NGOs, perhaps in the hundreds that undertake climate sensitive activity. There is also interest and activity at household level, private sector level and in the media and university sectors.

Strategy and Policy

- The main climate change strategic framework is the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) – published in 2008 and updated in 2009. There are six themes within the plan but no detailed costing or indeed priority was noted beyond initial infrastructure spend of US$500m in years 1 and 2 and a total figure of US$5bn over five years.

- However, this costing does not go beyond a description of the annual climate change response and does not address the long term *needs* in respect of thematic requirements or how this should be funded. In other words, a key to establishing a Climate Fiscal Framework is to identify the absolute level of need over the long term in Bangladesh and how this will be financed either through general development or by specific climate funding initiatives.

- Existing programmes, policy, institutional and budget architecture are being utilised by the Government to deliver climate sensitive activity, including responses to climate change.

- The study identified five funding mechanisms, six International climate change policy initiatives, national climate change policy initiatives, ten supportive sectoral policy documents, neutral policy documents and at least three non-supportive policy documents in this area. This presents a crowded and complex framework within which climate sensitive spend takes place. In addition to the supportive national policies, there is an array of contributory policy which does not reference climate change directly, but makes a contribution to resilience, including social protection and livelihoods programmes.

- A significant policy dilemma facing Bangladesh is the conflict between the need to expand energy capacity, while reducing reliance on natural gas in the process, and the need for climate

[1] Including through Autonomous Bodies and Local Government Engineering Department

adaptation initiatives. This is reflected in the allocations of expenditure in the Annual Development Plan (ADP) budget in 2011/12 where transport and energy attracted greater increases and, in comparison the budget for climate sensitive activity fell. It was noted from the National Energy Policy Road Map (July 2009) that no reference was made to climate change and that there is an intended shift towards the use of coal as well as renewables in the strategy.

- A significant issue was found to be balancing the policy influences that drive climate sensitive spend with national and international climate strategy. The volume and diversity of the primary focus of sector policy that drives climate sensitive spend in Bangladesh presents transactional challenges to the act of balancing policy. This suggests recommendations to strengthen the existing MTBF and policy planning architecture to accommodate climate issues in a co-ordinated way within the competitive policy environment in Bangladesh.
- The main government mechanisms for matching policy and spend is the MTBF managed by the Finance Division and the ADP managed by the Planning Commission. The study reviewed the MBF's of all thirty seven Ministries involved in the delivery of climate spend and noted that, on a value basis in 2011/12, that around 45% of planned climate sensitive expenditure was not referenced in the MBF. That is to say, most Ministries involved in climate sensitive activity make no reference to climate in their key performance frameworks or KPIs. This removes a significant proportion of the climate sensitive spend from the performance management architecture and disconnects climate policy at the operational level.

Chittagong Hill Tracts[2]

An addendum to the study was conducted between April and June 2012 in respect of Climate and Climate Change issues in the Chittagong Hill Tracts (CHT). A summary of the findings and conclusions is presented below:

- Climate Change is yet to emerge as a significant issue in CHT although environmental issues are already important in the CHT. General understanding about climate change was found to be relatively low amongst all agencies and local government working in the CHT.
- However, a marked contrast was found between elected members and rural officials where the latter were found to be able to articulate both effects and impacts of climate variables and associate this with climate change.
- There is presently no proven, visible climate change impact in CHT. However, there are scientific assumptions that due to climate change, the frequency of flooding and landslides will increase in the CHT.
- Many environmental problems are caused by unplanned agricultural extension and forestry programmes, which are not ecology appropriate and cause drainage problems and sometimes even disasters.
- A number of functions and administrative responsibilities (including elements of Agriculture, Public Health Engineering and Co-operatives for example) through which climate actions are exercised in Bangladesh were transferred to the Hill District Council from the central government under the 1997 Peace Accord. However disaster management – a significant component of a climate change response in Bangladesh and a dimension that was found to frame local understanding and perception in CHT and at local level generally – was not and

[2] The current development programmes in CHT are already included in the national financial analysis

remains under the operation of the District Relief and Rehabilitation Officer administered by the Directorate of Relief and Rehabilitation.

- There remains scope for climate change mitigation activity through Reduced Emissions from Deforestation and Degradation plus (REDD+) in the CHT
- There are two planned climate change projects from the government funded Bangladesh Climate Change Trust Fund (BCCTF) in respect of CHT amounting to Tk. 23,000,000 (US$280,000)

Significant Emerging Themes

The study identified a number of key themes across each of the aspects of climate sensitive activity reviewed:

- **Complexity** – in each area reviewed the sense of scale, breadth of involvement and the range of interest was wide. This now confirmed perception contributed to the demand for a CPEIR as part of process to rationalise and organise a climate response with a view to developing both a Climate Fiscal Framework and, consequently, improved outcomes.
- **Scale** – the response to climate change and climate sensitive issues in Bangladesh is financially and institutionally significant at both local government and national government level. The climate response consumes significant proportions of resources across all indicators including GDP and the Government's budget and involves significant proportions of a number of institutional budgets across Government.
- **Co-ordination** – given the scale and complexity, perhaps inevitably, the need for co-ordination emerges prominently in all analyses. It was concluded that co-ordination of climate response could be classified into three broad areas:
    - **Policy and Planning Co-ordination**. This means the achievement of balanced influence between sector policy and plans, climate change strategy and action plans and other policy/planning areas given the evident level of integration of climate change and climate policy/planning in the delivery of services. Both sector policy-plans and national Climate Change strategy and action plans have influence and thus must be adequately balanced. This is the role of the Planning Commission in coordination with relevant ministries and the Ministry of Forests and Environment (MOEF).
    - **Financial Planning and Performance Co-ordination**: This role lies with Finance Division and is implemented via the MTBF which acts as a governance and performance management mechanism as well as matching resources to policy. Also, if the proliferation of funding sources is taken into account – at least five were identified – then Finance Division has a crucial role in the co-ordination of funding, budgeting and enabling performance management and expenditure.
    - **Technical Co-ordination**. This role lies with the Ministry of Environment and Forests (MoEF) at the moment and has evolved from an environmental mandate. However, large elements of the climate sensitive activity in Bangladesh relate to adaptation strategies ranging from infrastructure to social protection programmes as well as a strong link to disaster risk reduction (DRR). Ministries related to local government, agriculture and disaster risk management are the highest spending institutions with most of the spend relating to adaptation and a significant element of capital works and social protection programmes.

- There is a clear need for the establishment and recognition of mandates in respect of each aspect of co-ordination. Architecture in respect of policy/planning co-ordination (Planning Commission) and financial management and performance (MBF and MTBF) is long established, but given the scale, diverse influences and complexity of climate sensitive activity would benefit from improved systems and communication.
- It is therefore vital to establish sound arrangements for the monitoring, reporting and verification of climate finance under the United Nations Framework Convention on Climate change (UNFCCC) for the government to track spend and measure progress and impact. The most appropriate institutional home for this is within the MTBF initiative in a similar vein to what has been done by the government in respect of gender and poverty expenditure tracking.

Financial Review Summary

Introduction

The study reviewed budgets and expenditure over a three year period from 2008/09 to 2011/12. The main focus was on the government budget. Among other matters the study reviewed the overall allocation of resources, the mechanisms delivering climate finance, the financing of climate spend, the main agencies involved, their processes and the nature of the budgets and the spend delivered. A methodology was also developed to identify climate finance within the Government budget. The methodology relied on qualitative and ultimately subjective judgements of spend as no universal international definition of climate change spend exists at this time. This approach produced an indicative outcome in absolute terms and a similarly indicative, although informative, analysis of spend and climate actions taken by the government.

This is the first in-depth review of climate expenditure by the Government of Bangladesh to be undertaken and as such the methodology is new and is undoubtedly capable of further refinement under the scrutiny and evaluation of a wider audience. The methodology is outlined in full at Appendix 4: Analytical Framework - Climate Change.

It is to be hoped that the study will form part of a dynamic process contributing to greater understanding and effectiveness of a climate response in Bangladesh.

Issues

The definition of climate finance used in the study recognised that resilience to the effects of both climate and climate change is a multi dimensional activity – as outlined in the BCCSAP. In reviewing the climate sensitive budgets and expenditure during the study it was found that the scale, range and diversity of both budgets and the agencies involved in delivering activities that contribute to intended climate resilient outcomes for Bangladesh tends to suggest that developing a single definition would be a complex task. The CPEIR in Bangladesh (and Nepal previously) demonstrates that climate change is a cross cutting activity and that, comparing the response in Bangladesh with that of other countries is currently difficult as the precise definition and framework for each country is largely determined by that country. From a Government perspective, the main issue is to deliver climate resilient development, covering current climate variability and climate change.

Amongst the important lessons to be learned from the review of budgets and expenditure in the study are that expenditure typically contributes to more than a single outcome, often perceived as being

readily identifiable by primary and other purposes. This was particularly evident in respect of Social Protection Schemes (BCCSAP Theme 1) where it was found that determining the climate and climate change-attributable element of these strategic initiatives was very much a matter of both perception and qualitative, informed but ultimately subjective judgements[3]. This is also evident in physical adaptation work, for example, where the incremental or marginal expenditure relating to a change in climate is inextricably bound together with the design and implementation of the adaptation as a whole. The purpose of such activities will contribute to a number of outcomes including climate change resilience.

This facet of identifying specific and singular climate change budgets and separating these from budgets intended to achieve other outcomes such as response to disasters as well as climate resilience would require a level of sophistication in budget classification and cost allocation that would perhaps elude most countries in the world and would certainly require substantial development of systems and capacity to achieve. It was found, however, in Bangladesh that substantial progress has been made in recent years in financial accounting and that financial data on a code by code basis over a number of years was readily available in flexible, specifiable formats for analysis.

It should also be considered in the Bangladesh context that GoB has implemented many policies for climate variability and disaster risk management for many years and this activity pre-dates the emergence of climate change as an issue. These activities have contributed to strengthening the country's response to climate change concerns. This has, perhaps inevitably and for sound operational reasons, led to the situation where climate change budgets and expenditure are integrated with and integral to existing historical activity and institutions and cannot readily be separated from this. With this background in mind the main findings, conclusions and recommendations from the financial review are set out below:

Main Findings

- Based on the methodology used in the study it is estimated that the Government of Bangladesh typically spend around 6% to 7% of its annual combined (development and non-development) budget on climate sensitive activity. This equates to an annual sum in the region of US$1 billion at current exchange rates. This sum is utilised to address all six themes within the BCCSAP. However it is noted that whilst the spend on climate sensitive activity increased from 6.6% to 7.2% between 2009/10 and 2010/11, it fell back to 5.5% of budget in 2011/12.
- This level of expenditure represents something in the region of 1.1% of GDP on an annual basis[4].
- The financing of the annual spend is largely funded from domestic resources. Over the period 2009/10 to 2011/12 the funding of climate sensitive budgets has been of the order of 77% from domestic resources and 23% from foreign donor resources. This is broadly in line with overall funding of GoB expenditure (development and non development) overall which is funded approximately 80% by domestic resources.
- There has been a marked shift in the donor resources funding climate sensitive budgets in recent years from grants based to loans based. Loan funding increased from 58% to 82% of foreign resources between the 2009/10 and 2011/12 programmes

[3] It was noted at the validation workshop that a study was mentioned where it was found that VGD had had little effect on climate affected households. No further information is available on this study or on how the evidence was generated. However, the point remains that assessing the climate change element is a subjective matter.

[4] See Table 22: Indicative Budget Attributable to Climate Activity 2009/10 to 2011/12

- It was found that approximately 97% of spend attributable to climate sensitive activities was for climate adaptation as classified under the BCCSAP themes ranging from infrastructure to social protection.
- In absolute terms, the level of climate sensitive budget rose between 2009/10 and 2011/12, however, between 2010/11 and 2011/12 the absolute level of spend reduced[5]. It seems likely that this was due to resources being diverted to energy and transport through the ADP[6]. This presents a climate change dilemma for Bangladesh as the recently developed energy policy[7] sets out to address the present reliance on Natural Gas for by increasing usage of fossil fuel as well as renewable sources. Bangladesh has significant quantities of high quality coal reserves and is presently developing a National Coal Policy.
- There are four operational mechanisms in place to deliver climate sensitive spend at the time of writing. These are:
    - Non development budget
    - Annual Development Programme (ADP)[8]
    - Bangladesh Climate Change Trust Fund (BCCTF) with government funds
    - Bangladesh Climate Change Resilience Fund (BCCRF) with donor funds
- All operational funding mechanisms address all six themes in the BCCSAP, albeit some specialisation was noted in that the non-development budget funds a larger proportion of the Social Protection theme and the ADP funds a greater proportion of infrastructure adaptation. This may be expected, given the capital intensive nature of infrastructure expenditure. However, perhaps the main point of concern is the risk of gaps and overlaps arising within what is a significant and complex annual undertaking. A further financing facility (Strategic Programme on Climate Resilience (SPCR) /Pilot Programme on Climate Resilience (PPCR) is also coming on-stream in the near future thereby creating further risk of both 'gap and overlap'. Given this, there is a clear case for addressing co-ordination at the technical, financial and planning levels and perhaps even a case, after due consideration, for specialisation of funding streams.
- It was found that most of the climate sensitive spend delivered is within multi-dimensional, strategic programmes, including the Agricultural Subsidy and Social Protection Programmes which are substantially funded through the non development budget. The study used a scale of direct relevance from 'direct' or concrete adaptation through to implicitly relevant programmes on a scale of 1 to 4 – i.e. implicitly or somewhat relevant. Around 70%[9] of the budget and spend was found to be within the level 3 and 4 programmes. In our view, this indicates three things:
    - Existing programmes, institutional and budget architecture are being utilised by the government to deliver climate sensitive activity, including responses to climate change. This is perhaps unsurprising given Bangladesh's long experience and accumulated expertise of response to climate variables and climate extremes.
    - The separation of the *climate change* element of these programmes is a subjective and judgmental task given the evident integration of climate sensitive policy, institutions and budgets with pre-existing climate related structures in the Government systems.

[5] See Table 22: Indicative Budget Attributable to Climate Activity 2009/10 to 2011/12
[6] See Table 2: Sectoral Comparison ADP 2010/11 to 2011/12
[7] Towards Revamping Power and Energy Sector: A Road Map (June 2009)
[8] Including bilateral and multilateral arrangements
[9] Refer to Table 22: Indicative Budget Attributable to Climate Activity 2009/10 to 2011/12 and Chart 5: Budget Attributed to Climate By Relevance (2009/10 to 2011/12)

    - In terms of strengthening institutions through technical assistance and thereby supporting the delivery of climate sensitive spend, there is a clear case for focussing on country systems and GoB mechanisms as this is where the most significant element of ongoing climate response is located.
- The increase in climate related commitments by 16% between 2009/10 and 2011/12 was driven by the non-development budget which is 100% financed by GoB. GoB commitments increased by 18% in the period whilst foreign resources increased by 11%. This may be termed, in practice, a 'gearing effect' at the macro level whereby increases in donor funding (specifically for the climate *change* element) have been met by a GoB increase in overall climate sensitive spend. Essentially, based on the figures in the study, a 10% increase in donor funding delivered an outcome of 15% increased spend in climate sensitive activities.
- The process through which the national budget is prepared, placed and passed in the Parliament could be strengthened from a climate perspective given the scale of expenditure and budgets in the activity.
- All line ministries/divisions of GoB have already been brought under the coverage of MTBF, which is a multi-year approach to budgeting so as to link spending plans of the government to its policy objectives. The MTBF seems to be a step forward in the sense that it allows the line ministries to plan ahead. However, it has quite a long way to go, at least in regard to climate change aspects.
- The present fund release mechanism appears to be less of a problem than it used to be in the past. The budget of all line ministries once approved and passed in the Parliament, can be withdrawn on a quarterly basis by concerned line ministries without any clearance of FD during the first three quarters of fiscal year, as was mentioned earlier.
- The integrated Budgeting and Accounting System (iBAS) has the flexibility to add new functionalities and under the on-going reform agenda, there is a plan to revise the existing classification system which could potentially accommodate greater flexibility in the analysis of climate spend.

Policy Review Summary

Introduction

The study reviewed national and international policy and strategy in respect of climate change, but also reviewed sector policy in key areas of government activity that influence the government's response to climate change. The policy review used a framework that recognised supportive, non-supportive and neutral policy on a sectoral basis and also a review of direct climate change policy.

Main Findings

- Climate change policy operates in a competitive policy environment in Bangladesh. The government's priorities[10] at this time include energy and transport which are key drivers of economic growth. A brief review of energy and power policy revealed a dilemma for the country in that the reliance on dwindling stocks of natural gas, which is used for about 80% to 90% of electricity generation is planned to be replaced by a significant increase in the use of coal as well as renewables. It is understood that National Coal Policy is currently being developed.
- With its historical experience of vulnerability to weather disasters, Bangladesh has taken several steps in recent years to embed climate change in national policy making. However whilst

[10] http://www.thedailystar.net/newDesign/news-details.php?nid=187821

climate change policy is a new element in national policy and development partner support, it is being framed within the broader policy contexts relating to development and response to disasters.

- This means that sectoral policy rather than climate change strategy is most prominent in driving government spend in some key spending ministries. It remains a concern that climate related strategy is not effectively transacted to policy and therefore to implementation and the attendant co-ordination architecture of accountability, performance and governance that is provided by the MTBF and the ADP.
- As regards the policy and strategy making process in Bangladesh, experience so far suggests that most polices are driven by experts and bureaucrats, following a top-down process and although the participation of stakeholders has significantly increased, the quality of participation of poor people appears to have remained unsatisfactory.
- There is no exclusive national policy that deals with climate change in Bangladesh. The BCCSAP strategy does not specify which one, out of the 28 adaptation modalities, should be prioritised over the others and in which order the country implements such a long list of adaptation programmes. The absence of both prioritisation and costing should be addressed.
- The development of climate change policy in Bangladesh has been stimulated and promoted by the international context . Reciprocally, Bangladesh has helped develop Least Developed Country (LDC) positions and particularly contributed to debates on climate finance. Bangladesh's vulnerability in a global context has given it moral voice within the international arena and it has championed the LDCs. In the longer term, the country's economic development may lead it into the middle income group- indeed that is a goal of political interests. This would mean it would benefit less from international climate funds.
- The Government of Bangladesh led the development of the innovative Bangladesh Climate Change Strategy and Action Plan, (which included low carbon dimensions) and was an early first from an international perspective. The strategy is *beginning* to be the critical reference document in cross planning processes in Government and for funding mechanisms such as the BCCTF and the BCCRF. However, the document is now almost three years old and could perhaps be usefully revised and relaunched to ensure that high awareness levels at Ministry level are maintained and enhanced where necessary. Coupled with renewed efforts for coherent development planning, in which climate change can be embedded, the country is moving ahead on climate change.
- Analysis of policy and programmes in many Ministries shows how wide and strong the connections are to climate change. Climate change impinges on the responsibilities of a wide range of Ministries although the Ministry of Environment and Forests has the technical lead. Accordingly, in recent years a large number of investments have been made by a range of Ministries, for example in coastal infrastructure and crop development which provide a base from which to improve climate resilience. The active disaster risk management agenda has been a long running focus for development, and helped put in place some local planning processes and policy transformations which help provide resilience for climate change.

Institutions Review Summary

Introduction

The institutions reviewed in this study included a international and national institutions involved in climate change in Bangladesh. This was a wide and complex constituency of interests that included central Ministries, line Ministries, local government, NGOs, the private sector and development partners.

Main Findings

- The constituency involved in climate issues in Bangladesh is wide and diverse. The study identified 37 Ministries (plus their departments and autonomous bodies) as well as more than 10 Donors on a multi lateral and bi-lateral basis, Local government, NGOs, households and private sector are also active in climate sensitive activity. This presents challenges and hazards to coherence and co-ordination.

- Spurred on by direct experience of some extreme weather catastrophes, there has been increased focus on handling climate induced vulnerabilities in the light of climate change across the national political consensus. Some of the dynamism and energy has resulted in tangible outcomes with new national and sectoral policies and institutions being developed in recent years all of which included climate change concerns.

- Ministries such as Local Government, Agriculture, Social Welfare, Water Resources, Food and Disaster Management have climate change components and mandates. These Ministries receive funds to implement programs through the Annual Development Plan (ADP) and non-development budgets. The Ministry of Environment and Forests (MoEF) has the mandate to implement projects from the BCCTF and BCCRF. Therefore, there remains a tension among the Ministries over climate change related issues owing to the tension that exists between the development of policy and the differences in budget between institutions. This situation makes the case for clarification and specialisation of institutional mandates and for strengthening allocative processes within the MTBF and ADP.

- The lack of intra-government coordination mechanisms is a limitation. The bureaucracy appears to have hindered progress in this regard which points towards a real imperative in developing these co-ordination mechanisms. The study identified three aspects of co-ordination within Government:
    - Policy Co-ordination. By this we mean the achievement of balanced influence between sector policy and climate change policy given the evident level of integration of climate change and climate in the delivery of services. Both sectoral policy and the national climate change strategy have influence and thus must be adequately balanced. This is the role of Planning Commission.
    - Technical Co-ordination. This role lies with MoEF at the moment and has evolved from an environmental mandate. However, large elements of the climate response in Bangladesh at this stage relate to adaptation strategies lled by other Ministries ranging from infrastructure to social protection programmes as well as a strong link to disaster risk reduction (DRR).
    - Financial and Performance Co-ordination: This role lies with Finance Division and is implemented via the MTBF which acts as a governance and performance management mechanism as well as matching resources to policy. Also, if the proliferation of funding sources is taken into account – at least five were identified – Finance Division has a crucial role in the co-ordination of funding.
- By extension, the interface between each coordination function takes on crucial and central importance. These is an obvious and desirable need to improve the flow of funds and to ensure that climate change is reflected properly in implementation. There are mutual interfaces between all three coordination functions , between Finance Division and Planning Commission in the funding of the ADP, between Planning Commission and MoEF in the development of policy and between Finance Division and MoEF through implementation of the MTBF.

- Currently, the main responsibility to foster adaptation lies with the lead institution, Ministry of Environment and Forest (MoEF). Unfortunately, its performance so far appears to have been limited for many reasons, such as weak structure, duality in mandate, lack of manpower and trained human resources and weak legal framework. It is argued that the MoEF has neither a clear legal mandate as yet, nor specific Rules of Business to lead all the activities centred on climate change in the country.
- It is encouraging to note that the NGOs of Bangladesh have been playing an important role in reducing climate change induced hazards. Some of the NGOs are engaged in massive public awareness campaign including preparedness training on climate change and sea-level rise and their impacts. Nevertheless, their efforts are not properly reflected in national programmes. A substantial portion of donors' assistance is channelled through NGOs. However, 'they operate completely outside the Joint Country Strategy (JCS) framework, leaving scope for potential overlap and duplication with the development programmes of the government'. There is also insufficient capacity of local bodies to plan and manage climate related projects continues to remain a major challenge to improve on climate vulnerability.
- In addition to intra-government co-ordination, the co-ordination between institutions i.e. national, regional and local governments would appear to be quite limited, undermining the effectiveness of the results that the project outcomes are designed to achieve. This is perhaps most sharply illustrated by the absence of climate change references in the MBF of Local Government.
- The involvement of the private sector is at its initial stage, and offers a lot of potential opportunities. Bangladesh has not yet formulated a policy in relation to private sector involvement in climate change and has not set any target of preferred mix of public and private funding or delivery modalities. This must be considered more fully in the development of a National Climate Fiscal Framework
- Development partners and Government have separated climate funding from mainstream Government planning and expenditure for their separate reasons. On the Government side the grounds are that current processes of assessment within the Planning Commission are slow and would delay spending. The functioning of Local Consultative Group on Environment and Climate Change is yet to gain momentum.
- At the inception workshop (3 August 2011) representatives from both the Ministry of Finance and the Planning Commission discussed inclusion of existing climate change funding into the public financial management system. It was stated that both the BCCRF and the PPCR are avoiding the formal public financial management (PFM) system and that this is against the principles of aid effectiveness, and that fiduciary risk cannot be an excuse to bypass national systems. However, as the Government's own Trust Fund also sits outside formal PFM systems of performance and scrutiny, there is clearly a need for movement towards accommodation of all funding mechanisms within the existing PFM systems in Bangladesh – particularly in light of the already significant sums being processed through Government systems.

Local Government Review Summary

Main Findings

- The adaptation component of the climate change agenda is a familiar one for many in Bangladesh. While, local stakeholders are not always able to distinguish between development expenditure and climate related expenditure, experiences of flooding, cyclones and other

climate related impacts have raised significant awareness of the challenges that Bangladesh faces. In general, local stakeholders identified climate impacts as cyclones, deforestation, tidal surge, salinity, water logging, flooding and drought. The effects on people's daily lives include loss of livelihoods, ground water depletion, irrigation problems, health problems and limited access to schools and health facilities. However, less is known by these local stakeholders about the causes of climate change and the need for mitigation.

- The two most popular strategies for addressing climate change identified by local stakeholders is infrastructure development and sustainable and alternative livelihoods, and that capacity building is necessary to enable people to work and development solutions to address climate impacts. However, this does not support the findings that a large proportion of central government funds, and some donor funds, are already allocated to Union Parishads (UPs) to implement infrastructure development.
- There are several sources of climate related finance found at the local level: central government funds, donor funds, private sector donations, household spending and local government internally generated revenue. On average, 14% of the UPs and Pourashavas' budgets are sensitive to climate change. Of this, the budgets of UPs and Pourashavas in coastal regions spend more than those from the floodplains and Barind. Of the schemes that UPs and Pourashavas deliver, safety net schemes, such as 100 day employment scheme, have a high sensitivity to climate change, of around 48 to 50%. While both ADP and Local Government Support Project (LSGP)/ Local Government Support Project Learning and Innovation Component (LGSP LIC) have similar sensitivity to climate change, between 11-13%, LGSP/LGSP LIC is made up of a larger amount of money and therefore able to make a larger contribution to addressing climate change.
- In addition to these funds, household and individual's spend their own financial resources on addressing climate change impacts. Most damages exceed poor households' income, although some financial and non-financial support is provided from either government, donors or NGOs, such as rice and accommodation. While the richer and middle income groups have more resources to reduce damages from climate impacts, ill-preparedness to the increased frequency of extreme weather events and limited government, donor and NGO support could push them into poverty over time.
- Central government funds are usually allocated to Zilas and Upazilas for further allocation to UPs. Some donor funds use the national system to channel funds to UPs, such as LGSP/LGSP LIC, but most channel funds directly to NGOs that bypasses the government system. The effectiveness of donor funds are yet to be assessed but their accountability frameworks are wide-ranging and complex. One aspect that is consistent in many of the funding mechanisms is the limited involvement of, or autonomy for, UPs in the planning and budgeting of these funds.
- UPs have limited power, financial autonomy and capacity to address climate change. Local planning and budgeting is a linear operational process whereby UPs implement the directives of central government and follow guidelines set by Upazila administrative offices. Moreover, there is a disconnect between national and local government bodies, and a strained relationship between local administrative offices and local elected bodies. Questions are raised as to whether UPs are equipped and well positioned to implement large scale climate related projects that requires the management of large volumes of funding and coordination with a range of national and local bodies.

- Finally, NGOs play a significant role in Bangladesh, including the delivery of climate related finance. They play an important and added value role in the area of mobilizing and engaging communities, providing technical expertise and ensuring transparency of expenditure. However, the lack of coordination with local government bodies and competition between NGOs present a challenge in tracking climate expenditure and aligning efforts to addressing climate change in a more integrated manner.

Next Steps and Recommendations

There are established planning and allocation mechanisms within Government that, with strengthening, can bring improved co-ordination, allocative efficiency and consequently better outcomes to climate issues in Bangladesh. The creation of alternative mechanisms will add further complexity to a substantial undertaking in Bangladesh that already utilises considerable domestic resources. Climate issues in Bangladesh are a matter of national interest from both a physical implementation and financial and economic perspectives. In summary therefore, it is recommended that the next stage in the process for Bangladesh should focus on three main initiatives in respect of Climate funding. The government should be supported to:

- Balance the policy influences at play in climate and the wider policy arena by strengthening of existing country architecture.
- Strengthen and utilise existing, established Government planning and financial allocation mechanisms of the MTBF and the ADP to manage climate funds.
- Manage results through a strengthened performance management arrangements within the MTBF and at the institutional level

Accordingly, a total of twenty recommendations are set out below for consideration. An indicative sequence is shown in diagrammatic format at **Figure 1: Indicative Sequencing of Next Stage Recommendations**:

Climate Strategy

1. Some consideration should be given to a further review of the BCCSAP in the near future to ensure that it remains fully relevant to current circumstances. Further consideration should be given to including more detailed costing of the needs of Bangladesh in respect of climate and climate change to provide a cornerstone for the development of a Climate Fiscal Framework. This revision should take into account the potential role, risks and responsibilities of the private sector (including households) in respect of climate change with the intention of engaging the interest, resources, skills and knowledge available in that sector of the economy.

Public Financial Management

2. The development of a national climate fiscal framework is a high priority to ensure allocative efficiency and effective transaction of strategy to both policy and budgets. The framework should recognise the following as critical factors:
    - The risks, roles and responsibilities that should be allocated to each institutional sector within Bangladesh including central government, local government, donors, NGOs, households and the private sector.
    - The allocation of funding responsibilities to all aspects of climate finance and activity.
    - The need for a focal point financial framework that ensures the long term sustainability of funding streams.

- Ensuring that long terms plans in a revised and costed BCCSAP can be funded or prioritised for funding on a rational basis within a climate fiscal framework.
- The capacity on an human resources (HR) and institutional basis to implement the framework on a sustainable and achievable basis.

3. The current level of expenditure on climate sensitive activity, around US$1 billion per year, is significant in economic terms. It was noted in BCCSAP that a study of the long term macroeconomics of climate (Thematic area 4; Programme 5 (T4P5)) was recommended, but this has not yet been conducted. This study should be conducted as soon as possible to support the development of a climate fiscal framework and should address, inter alia, the following:
    - An evaluation of the economic impacts of not spending at the current levels.
    - An evaluation of the economic development effects of the current expenditure, including the effects at household level.
    - An evaluation of the potential long term funding streams for financing climate change activity, including the feasibility of hypothecated taxation and potential of donor sources.
    - An evaluation of the sustainability of the current and required long term spend on climate change and climate sensitive activity.
    - The relationship between the government's energy and transport policies and climate policy in the longer term with a view to achieving a balanced accommodation of each priority.
4. It is recognised that the GFSM 2001 does not include a functional classification for climate change. However, it would be a useful development for the Government if some functional (or policy) recognition of climate change, perhaps on a thematic basis according to BCCSAP themes, could be incorporated into the structure of the Chart of Accounts presently under revision.
5. There are presently five mechanisms delivering climate finance in Bangladesh and as each addresses all six themes in BCCSAP some consideration should be given to a review of the co-ordination of this funding activity. There is a case for explicit recognition of the appropriateness of the use of each funding mechanism for particular thematic purposes, as would appear to be the case with the ADP contributing high volumes of the planned expenditure on infrastructure. The mandates and intended roles of each funding source should therefore be established with a view to eliminating the risk of gaps and overlaps. This may also have the benefit of further developing specialist skills and knowledge in particular aspects of climate spend and activity.
6. It was noted that each finance delivery mechanism within the government system operates to different levels of efficiency in respect of delivering spend. Typically, for example, the ADP tends to underspend by a greater amount than the non-development budget. It is therefore recommended that some consideration is given to funding capacity building public financial management initiatives with the objective of ensuring equality of process-efficiency across the climate finance delivery mechanisms.
7. Guidelines for the award of funding of climate change related projects proposed by both government and non-government entities to the BCCTF should be developed immediately to maximize the utilization of limited resources allocated to BCCTF. The development of procedures for the BCCTF should also include a clear statement of the role of the Controller and Auditor General in respect of the fund. The activity of the BCCTF should also be reflected in the MTBF and MBF of

the Ministries with a view to accommodating the need for performance and accountability in respect of fund expenditure.

8. In respect of the BCCRF and BCCTF some consideration should be given to integrating the funds with existing key country systems, whilst retaining their intended flexibility and agility of response. As a parallel initiative strengthening of these key country systems (MTBF and ADP in particular) would seem to be an effective long term strategy with wider benefits than the impacts on climate change response alone. In particular, the BCCRF should give serious consideration to funding institutional strengthening activities, including the reduction of fiduciary risk, as a key strategy in improving co-ordination of climate sensitive activity.

9. Some capacity building activity should be considered for the Controller and Auditor General's Office to enable him to address climate funding issues in the forthcoming audit plan and in particular to review climate finance in the forthcoming planned and regularity performance audits.

10. A review of procurement regulations to incorporate climate sensitivity should be considered for the Central Procurement Technical Unit (CPTU).

Climate Policy and Planning

11. Ministry Budget Frameworks presently do not always identify climate and change activity. Some consideration should be given by the Finance Division to the inclusion of a climate change dimension or 'marker' to the MTBF procedures to ensure that the activity is fully recognised by line Ministry accountability, performance management and governance structures. Such an initiative was successfully implemented by the Finance Division in respect of gender and poverty in recent years.

12. Consideration should be given to strengthening key relationships and co-ordination processes in the development and implementation of climate policy. In particular, three aspects should be focussed upon:

    - The transaction of strategy to implementation via sector policy should be addressed by ensuring that the climate dimension is adequately addressed at sectoral level. This must involve setting a climate dimension or marker within the MTBF process to identify budgets, promote accountability and, generally, match expenditure and performance plans with climate policy. It should also involve standards and guidelines, established by the Planning Commission, to ensure that the climate dimension is considered in all policy development. Some consideration should be given also to creating a climate marker within the ADP.

    - The relationship between, and respective capacities of, the Planning Commission and Finance Division in interpreting and funding climate policy should be strengthened to ensure appropriate allocative efficiency of resources and consistency with policy and priority intentions.

    - The communication of climate change strategy to line Ministry level and on to department, autonomous body and local government level should be a priority to ensure adequate reflection within Ministry budget frameworks.

Climate Institutions

13. The institutional mandates in respect of the three aspects of co-ordination identified in the study (technical, policy and financial / performance) should be clarified and steps taken to strengthen these and the interfaces between them. This should involve specific cross-institution actions

involving Planning Commission, Finance Division, MoEF, DRR, Local Government Division and other institutions within government that make a significant contribution to climate sensitive activity.

14. There is also a case for strengthening the co-ordination and transaction of climate policy, finance and delivery between the levels of government and the various non-government institutions, including the private sector, involved in climate change in Bangladesh. It is also important that the private sector and civil society organizations create more inclusive partnerships so that all their efforts are coherent and have greater impact on reducing climate vulnerability. Existing institutions that could potentially be developed in this regard could include the Ministry of Industry and the NGO Bureau.

15. The National Parliamentary Standing Committee on Environment should be empowered so that the body, with its legal authority, can oversee and guide various activities related to climate change, including involvement in international negotiations for adaptation. They may be actively involved in mainstreaming adaptation while sectoral allocations and priorities are made for the annual development plan. There is a case for a programme to be delivered in this area as a means of engaging the Committee and developing political leadership on climate issues. This initiative should also consider the formation of a function, perhaps a standing committee, to scrutinize projects/expenditure proposals regarding limate change related activities before placement of the overall budget. This would perhaps be a valuable programme for funding by the BCCRF as support for political level engagement and leadership .

16. As regards knowledge management, academic and research bodies and universities should give more efforts toward facilitating generation of information and knowledge related to climate change and its impact as it is widely acknowledged that long term studies on the effects of climate change are necessary. This was a particular limitation of the CPEIR in that only three historic years were considered to give an initial snapshot and trend in respect of funding and spend.

17. The BMCs and Climate Change Cells of line ministries should be equipped by personnel with expertise in the area of climate activities. Such a development could be considered for funding under the capacity building theme of BCCSAP. On the basis of strengthening institutional memory and business continuity, some consideration should be given to establishing a critical mass or group of climate specialists within government who have a portable set of skills that may be relevant to a number of Ministries involved in climate response. This recommendation is distinct from the administratively based creation of climate change cells or a climate change unit in the MoEF and focuses more directly on the HR requirements to equip both Climate Cells and BMCs with the necessary skills to establish performance evaluation and monitoring skills relevant to the cross cutting and pervasive nature of climate response in the Government of Bangladesh. It is clear that to be workable, such an initiative would require a good level of engagement with the Public Service Commission / Ministry of Establishment to ascertain both its feasibility and scope. It is also clear that such a group would require a diverse range of policy and operational skills given the diversity of professional disciplines involved in the climate response.

18. As a step towards bridging relationships between different local stakeholders by highlighting each of their strengths and weaknesses in delivering climate finance, the conduct of an appraisal of the capacity and comparative advantages of different local stakeholders to manage larger scale projects should be undertaken. For example, while UPs should be involved in climate related project, they may not be equipped with the capacity and resources to take on certain roles such as overall supervision and monitoring and evaluation of large scale projects. It may be that local administrative offices and NGOs should utilize their expertise in financial management, technical support,

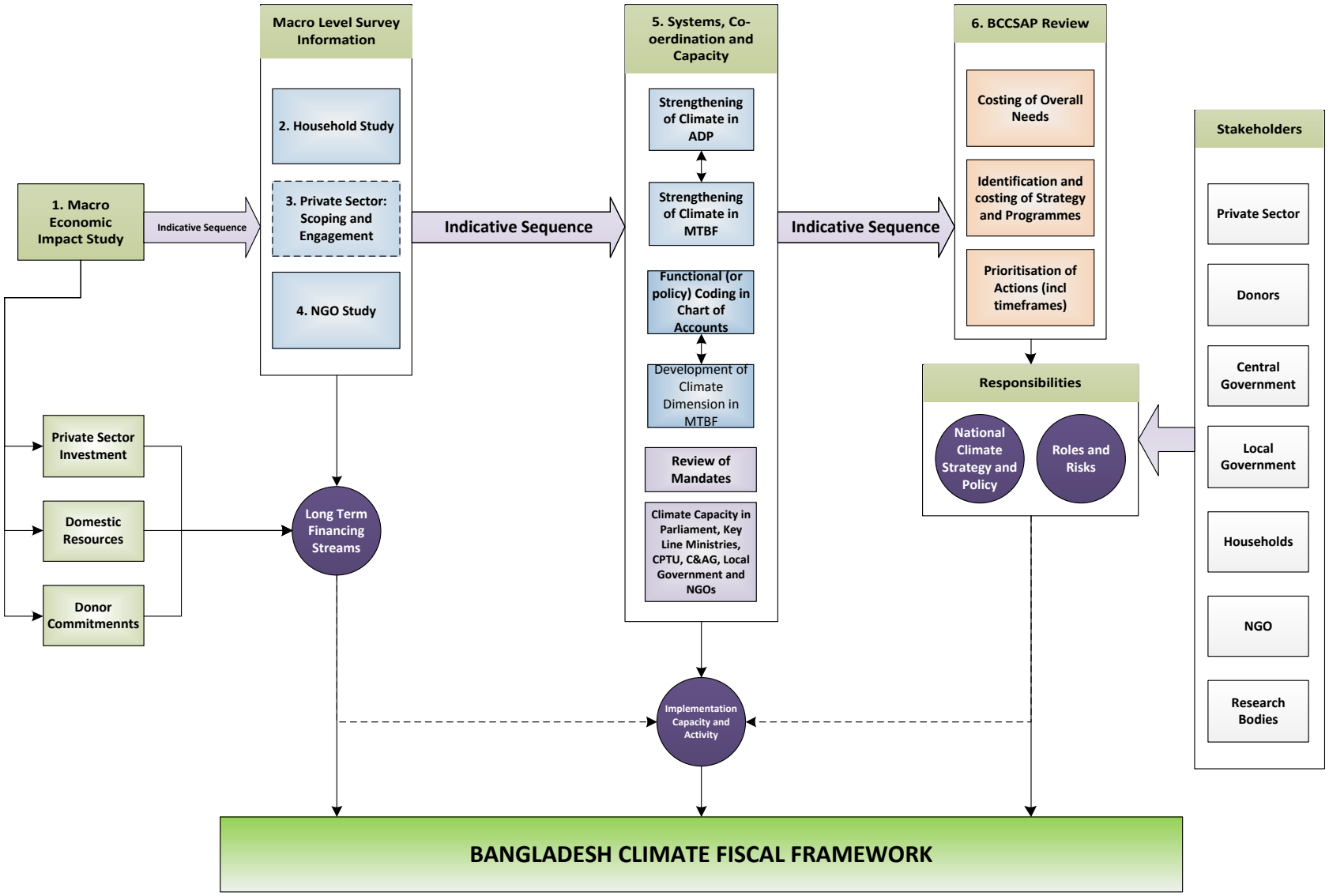
supervision and monitoring of climate finance, and local elected bodies should be equipped with necessary power and capacity to plan, budget and manage programs using a participatory approach.

19. Building on the existing vulnerability mapping database used for safety net programs, there is an urgent need to conduct further empirical and robust assessments of household spending on climate change related activities. This information could help target and prioritize funding to address the needs of households that are spending a large proportion of their income on addressing climate impacts. While there is a need to safeguard those most vulnerable, there is also a need advocate preventative measures to those with high- or middle- levels of income from slipping into poverty as a result of climate impacts.

Non Government Organisations and the Private Sector

20. Given the time constraints and scale of activity in climate issues in Bangladesh, it is felt that insufficient analysis was conducted in respect of both NGOs and the private sector. It is therefore recommended that a review or survey study is conducted in respect of climate sensitive activity in these economic sectors. The study should focus on the sources and application of finance and the policy and strategy architecture that frames spend.

Figure 1: Indicative Sequencing of Next Stage Recommendations



Chapter 1 - Introduction

1.1 Introduction to the CPEIR Study

This study has examined climate change programming within Bangladesh. The paper focuses on the public financing component of climate change actions, but also acknowledges the role played by civil society, and international support. The study is part of a broader effort by the GoB, supported in this case by UNDP, to strengthen the capacity of national and local level institutions to manage scaled-up climate finance, leading to the development of a climate fiscal framework at the national level. Such a framework will require clarity on climate-related public expenditure, improved institutional coordination between sectors and different levels of government, with strengthened fiduciary risk and public finance management.

The objective of the study has been to refine an appropriate methodology and then conduct an exploratory Climate Public Expenditure and Institutional Review (CPEIR) at both the national and local level. A major aim has been to show how climate change-related expenditure is being integrated into the budgetary process in response to national policy setting. Through time, as the CPEIR methodology is strengthened, it will serve as a tool to enable the Government of Bangladesh to improve prioritisation, efficiency and effectiveness of all public resources in support of climate change actions.

The CPEIR reviews both the financial management systems as well as the institutional arrangements for allocating and spending climate related expenditures. Given the requirement for a multi-sectoral response to climate change, this should be seen as an initial contribution to a dialogue across ministries and stakeholders in the longer process of developing a comprehensive fiscal framework.

The study has covered three core aspects of climate change financing at both the national and local level:

- An assessment of current policy priorities and strategies as these relate to climate change.
- A review of the institutional arrangements for promoting an integration of climate change policy priorities into budgeting and expenditure management.
- A review of the integration of climate change objectives within the budgeting process including as part of budget planning, implementation, expenditure management and financing.

The methodological approach taken for the study involved the compilation of relevant documentation on climate change policy, the institutional framework and public expenditure on climate change derived from official sources and from various public documents. In addition, individual semi-structured interviews with key informants were completed to identify key areas for further analysis. The research was largely carried out at the national level, but the local analysis was enhanced by field visits to climate affected municipalities. Two workshops were held during the research period where the methodology and initial results were shared with an audience of government officials and civil society representatives. This methodology takes into account the relatively recent beginning of the discussion on climate related policy, planning and budgeting within Bangladesh and is therefore largely exploratory in character.

1.2 Climate change and climate finance defined

1.2.1 Climate change

The approach that has been refined in Bangladesh looks at how expenditure is directed at climate change related actions in contributing to either (i) mitigation or (ii) adaptation (**Table 1: Defining Climate Change**).

Table 1: Defining Climate Change

2. Mitigation	
OECD Definition: An activity should be classified as climate change mitigation related if it contributes to the objectives of stabilisation of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration (OECD, 2011)	
Sector	***Example activities***
Forestry	Protection and enhancement of sinks and reservoirs of GHGs through sustainable forest management, afforestation and reforestation
Water and sanitation	Methane emission reductions through waste management or sewage treatment
Energy	GHG emission reductions or stabilisation in the energy, transport, industry and agricultural sectors through application of new and renewable forms of energy, measures to improve the energy efficiency of existing machinery or demand side management (e.g. education and training)
Transport	
Industry	
Agriculture	
3. Adaptation	
OECD Definition: An activity should be classified as adaptation-related if it intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience (OECD, 2011).	
Sector	***Example activities***
Enabling activities	Supporting the development of climate change adaptation-specific policies, programs and plans
Policy and legislation	Capacity strengthening of national institutions responsible for adaptation
Agriculture	Promoting diversified agricultural production to reduce climate risk
Energy	Strengthening of energy transmission and distribution infrastructure to cope with the expected impacts of climate change
Forestry	Securing local rights and systems for the sustainable and long-term utilisation of the forest in order to increase resilience to climate change
Health	Strengthening food safety regulations; developing or enhancing monitoring systems
Transport	Building protection from climate hazards into existing transport infrastructures (e.g. Disaster Risk Reduction measures)
Water and sanitation	Monitoring and management of hydrological and meteorological data

Source: Handbook on the OECD-DEC climate markers. Preliminary version. OECD, 2011

1.2.2 Climate finance

Within the framework of the United Nations Framework Convention on Climate Change (UNFCCC), the Durban package has now launched the Green Climate Fund to follow on from the interim Fast Start Funding. Finance has been a major concern for countries of the G77 and China negotiating group as a whole with many individual countries also making the case including Bangladesh. However, financing of

a sustainable climate deal is still a vision, not a reality and there has been little agreement about the sourcing of the additional resource required. In view of past experience of shortfalls around funding pledges and disbursements, new and additional funding was a part of the move to monitoring, reporting and verification of critical features under climate change agreements. Developing countries have frequently emphasised that the new and additional climate finance should be from developed country *public* finances. They have cited the collapse of the international finance system in 2008/9 as a demonstration that private finance would not be sustainable. Developed countries think that it will be innovative funding, linked to the private sector, which delivers over the long term. There have also been serious disagreements on modalities: how the finance should be managed and accessed, and a lack of trust about delivery with experience of shortfalls on commitments.

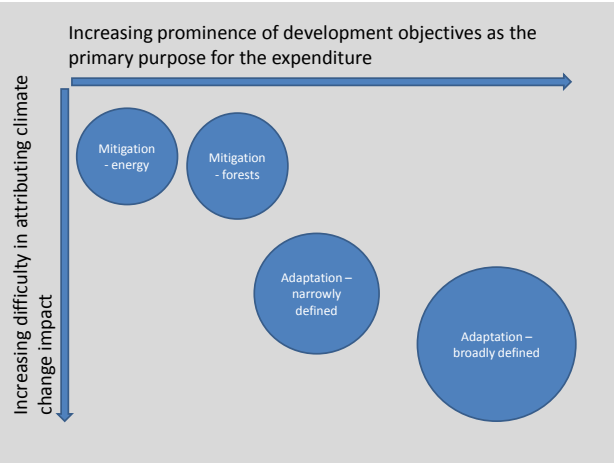
What is clear is that climate finance is needed to meet the additional costs brought about by climate change. These incremental costs will be incurred by most sectors of the economy and will affect both investment programs and the recurrent expenditure of government spending. The challenge is to identify the level of 'top up' required for each sector and then ensure an effective mechanism is in place so that this level of finance can be measured. This is proving, in practice, a very difficult endeavour.

As the largest Least Developed Country (LDC) and in view of its climate vulnerability, Bangladesh is regarded as requiring climate change finance and has already received some Fast Start Funds from European Governments. These flows are likely to grow. In addition, the Government has always had to tackle the impacts of extreme weather events and sensitivity to climate within its development and disaster management spend. So there is a need to take stock now, and start to construct a framework- hence the CPEIR.

Climate finance represents a very significant mainstreaming challenge for public finance management and can be likened to a new funding stream across the whole of the national budget. The administration of climate finance therefore calls for a prominent role to be played by the Ministry of Finance. It also suggests that a projectised approach to climate change will likely not be the most strategic route to take; rather a revision of the public sector finances will be required.

Without an internationally recognised definition of climate expenditure there are no clear boundaries to such spending. This represents a major challenge for any study of climate finance. **Figure 2** portrays some of the components of climate finance in terms of the prominence given to developmental objectives when planning the expenditure (what are often called the 'co-benefits' of such spending) and the difficulty in attributing the climate change impact of such expenditure.

Figure 2: Comparison of different areas of climate expenditure



What this Figure suggests is that some elements of climate expenditure will more readily identifiable with the effects of climate change than others. A response to such a situation is simply to accept there will be varying levels of confidence that can be placed on different estimates of expenditure – essentially the identification of climate sensitive spend and climate change spend is a continuum and separating one from the other is a judgment-led and qualitative process.

From the perspective of a national Government and effective implementation, there is no need to arbitrarily define what is climate change expenditure and what is climate sensitive expenditure. In practice climate change will change the frequencies and extremities of extreme events over time, but the Government would in any event need to tackle extreme events, as well as slow onset disasters such as droughts. The need to differentiate climate change expenditure derives from the obligations on Annex I countries under the UNFCCC to provide new and additional finance for climate change.

The phenomenon of "adaptation deficit" applies in all countries, but with its increased climate risk is likely to be the more marked in Bangladesh. This term, perhaps better described as the development deficit, refers to the extent to which societies are adequately adapted to the current climate (Burton, 2004). Normally the deficit is excluded from the baseline and future cost estimates (Smith at el, 2011). Development as usual needs to be excluded, but this is difficult to do in academic costing studies and even more difficult in country policy contexts.

This was the approach adopted in the World Bank economics of adaptation studies, of which Bangladesh was a case study (Narain et al, 2011, World Bank, 2010). Adaptation costs are defined as those due to climate change but additional to development. To explain this, it is possible to look at the example of cyclone shelters. There is already a deficit in provision of cyclone shelters- that is the development deficit -and this deficit is increasing with population growth. But climate change will mean that more people in different locations will be affected and so the extent, severity and frequency of cyclones may increase. So additional shelters will need to be built and all shelters made stronger- these are the precise costs of climate change. If climate change is not constrained, it is likely that people will need to move from some areas, and those costs would be due to climate change.

From a Government perspective, the main issue is to deliver climate resilient development, covering current climate variability and climate change. It also doesn't make sense from an implementation perspective to run programmes which put in more cyclones and then additional programmes to upgrade them for climate change, and also site them in additional locations (that is what is beginning to happen now, due to the way that climate finance is provided). The situation is further complicated as it is widely recognised in the climate change literature that development and adaptation are closely linked and that continued development may be one of the best defences against climate change (Narain et al, 2011, Schelling, 1992). Development makes more resources available for abating risk and recovery from climate change. Of course, too, adaptation is also crucial for development.

As indicated in the World Bank study above, there has often been a lot of attention on the hard technology required for CC adaptation in Bangladesh. But once there is a focus on individual households and livelihoods, a wider range of strategies applies. Chronically poor people rely heavily on climate-sensitive sectors such as agriculture and fisheries, they are less able to respond to the direct and indirect effects of climate change due to limited assets and capacity, and they tend to be located geographically in marginal areas that are more exposed to climatic hazards, such as flood plains, or on nutrient-poor soils (Tanner and Mitchell, 2008). Obviously this should mean that climate change public expenditure reviews should link in with gender, poverty and social safety net policies too.

1.3 Structure of the report

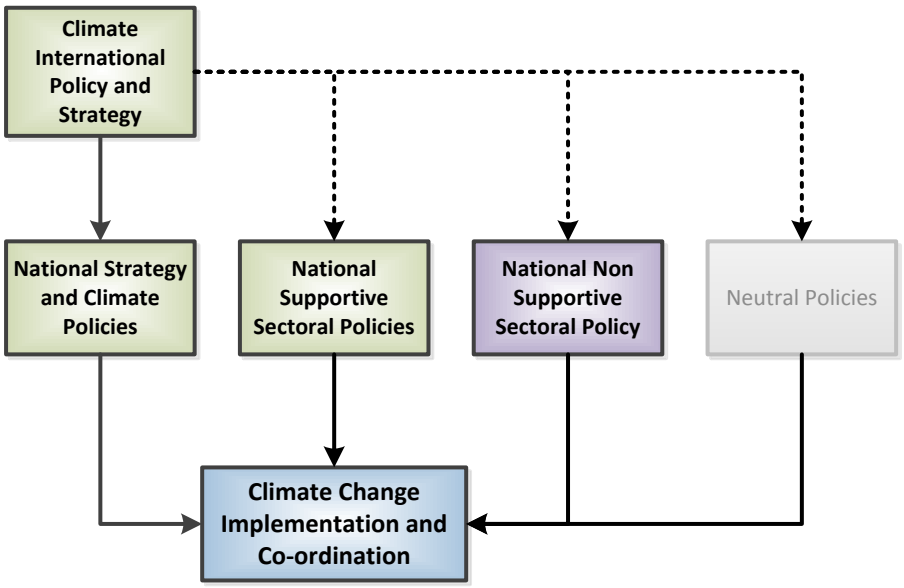
After this brief introduction, the rest of the report focuses on the core aspects of the study. Chapter 2 examines the status of policy and planning for climate change; Chapter 3 describes the institutional arrangements for climate change; Chapter 4 details the results of the team's climate change expenditure analysis; Chapter 5 describes public finance management as it relates to climate change; and the final chapter examines issues of local government institutional capacity and expenditure management. Conclusions and recommendations are made within these respective chapters.

Chapter 2 – Climate Change Policy

2.1 Introduction

This chapter outlines the development of policy on climate change within a broader framework fordevelopment and disaster risk reduction. It is also evident that climate change impinges on the responsibilities of a wide range of Ministries although the Ministry of Environment and Forests (MoEF) has the lead. Accordingly, in recent years a large number of investments have been made by a range of Ministries, for example in coastal infrastructure and crop development which provide a base from which to improve climate resilience. The Government led the development of the Bangladesh Strategic Action Plan on climate Change (BCSSAP) which also included low carbon energy dimensions. Coupled with renewed efforts of coherent development planning, in which climate change is now being embedded, the country is moving ahead on climate change and is a lead player for the Least Developed Countries (LDC) internationally. Capacity issues constrain progress, and these also require new ways to engage. Implementation of plans and strategies on climate change has a long way to go and there will need to be a continuing national effort at all levels and sectors of civil society. Policy analysis was conducted across five tiers of policy as shown below in Figure 3: Policy Influence and Analytical Framework:

Figure 3: Policy Influence and Analytical Framework



2.2 Chapter Structure

The chapter considers the following aspects of the overall policy framework:

- The overall context on climate policy development including the relationship with disaster risk reduction, international policy dimensions, and economic development;
- National climate change policy including the Bangladesh Climate Change Strategic Action Plan (BCCSAP);
- Sectoral policy dimensions;
- Climate change and development planning processes;
- Donor engagement dimensions;
- Capacity and coordination challenges

The chapter also presents conclusions and recommendations.

2.3 Current policy environment

Resource allocation in the Annual Development Programme (ADP) was reviewed as an indicator of the overall policy priorities in Bangladesh between 2010/11 and 2011/12. This analysis is intended to provide context to the policy analysis in respect of climate. The key sectors involved in climate delivery included Agriculture, Water Resources, and Social Welfare – based on the financial analysis outlined in more depth in Chapter 4 - Expenditure Review.

It can be seen from Table 2 that there has been a marked shift of resources towards the Power sector between 2010/11 and 2011/12. This recognises a government priority in adding energy capacity[11] and there is a substantial public and policy narrative on this subject. These are often characterised as the single greatest priority facing the country. It may therefore be expected that substantial resources will be directed to achieving greater capacity. The implication for climate, and indeed other policy initiatives, is that the policy environment may well be crowded with competing demands and is likely to be competitive.

Table 2: Sectoral Comparison ADP 2010/11 to 2011/12

Sector	ADP Allocation 2011/12	ADP Allocation 2010/11	(+/-)	(%)
Power	**702,571**	**473,441**	**+229,130**	**+33%**
Transport	**678,288**	**455,504**	**+222,784**	**+33%**
Physical Planning, Water Supply & Housing	513,871	318,408	+195,463	+38%
Oil, Gas and Natural Resources	94,192	66,080	+28,112	+30%
Communication	46,768	25,179	+21,589	+46%
Agriculture	235,172	213,748	+21,424	+9%
Water Resources	134,413	119,401	+15,012	+11%
Education & Religious Affairs	490,512	478,857	+11,655	+2%
Labour and Employment	14,858	4,400	+10,458	+70%
Industries	54,406	51,425	+2,981	+5%
Science, Information & Communication Technology	20,709	17,991	+2,718	+13%
Social Welfare, Women Affairs, & Youth Development	28,979	26,469	+2,510	+9%
Mass Media	3,767	8,780	-5,013	-133%
Rural Development and Institutions	400,101	408,141	-8,040	-2%
Sport and Culture	23,323	32,677	-9,354	-40%
Public Administration	38,260	49,572	-11,312	-30%
Health, Nutrition, Population & Family Welfare	127,570	379,053	-251,483	-197%
Total	**3,607,760**	**3,129,126**	**478,634**	**+13%**

2.4 Bangladesh's position on climate change

2.4.1 Overview on climate policy development

Bangladesh has extreme environmental vulnerability to climate hazards, irrespective of the exacerbation caused by increased greenhouse gases in the atmosphere. This has meant that the country has developed and is still improving its response and anticipation of extreme weather events in the context of disaster risk management, and also that development policy tackles climate variability. In recent years

[11] http://www.mof.gov.bd/en/budget/11_12/power/power_energy_en.pdf

therefore, whilst climate change policy is a new element in national policy and development partner support, it is being framed within these broader policy contexts.

Bangladesh is home to one of the world's largest river delta systems and is located at the heart of the active Asian monsoon region. Around 60 per cent of Bangladesh is less than five meters above sea level and it is susceptible to river and rainwater flooding, particularly during the monsoon. Bangladesh is hit by a severe cyclone every three years, either before or after the monsoon, creating storm surges that are sometimes in excess of ten meters: Bangladesh is on the receiving end of about 40 per cent of the impact of total storm surges in the world. Crops and the livelihoods of the rural poor in low-lying coastal areas are also devastated by saline water intrusion into aquifers and groundwater and land submergence. In addition, seasonal droughts occasionally hit the north-western region. Given high population density of almost 970 people per square kilometre, large segments of the population will be at risk.

This vulnerability has meant that the academic community and activists engaged early in the international climate change collaborations on science (IPCC) and the UNFCCC, brought back and disseminated information back home (Ayres et al 2009) [12]. An early connection was made to the impacts that climate change would make on the development effort: aid is a significant feature of Bangladesh's development spend with significant contributions from the EU and its member states. The Organisation for Economic Cooperation and Development (OECD) estimated in 2003 that as much as 50 per cent of development assistance is in sectors potentially affected by climate change.

2.4.2 Climate Policy Development

With the support of the well-established scientific community and strategic development initiatives, Bangladesh and has long been active in the UNFCCC process. There has also been a series of policy and institutional changes undertaken by the Government in recent years influenced by transformations in ideas, knowledge, actors and incentives (Alam et al 2011). These generated an increase in political commitment for climate change, emergence of new climate change actors in the decision making, influenced by international climate change politics and funding and through increasing hopes and frustration over such funds.

There is a widespread awareness about the inter-relationship of climate change and development, and the dangers that climate change poses for its economic growth - reflected in the new 6th Five Year Plan (2011). The present Government is firmly committed to its election pledge that provides for an adoption of an integrated policy and plan to protect the country from the adverse effects of global warming. The present government is committed to implementing its election pledge that provides for adoption of "*an integrated policy and plan to protect the country from the adverse effects of global warming*" as well as to ensure food for all by 2013, eradicate poverty, create an enabling environment for increased employment, and guarantee access to energy and power.

2.4.3 Close relationship with Disaster Risk Reduction (DRR)

As climate change started to become a policy issue, the early intention of the Government supported by DFID and UNDP was to mainstream it within a disaster risk management framework (McGillivray and Hedger, 2002).

Climate change started in policy terms as one of the components of the first Comprehensive Disaster Management Plan (CDMP) (Component 4b) which aimed to establish a mechanism that facilitated

[12] It is also of interest to note that the US Country Studies Program in 1996-7 sponsored some of the early investigations.

management of long term climate risks and uncertainties as an integral part of national development planning. The climate component focused on three critical areas:

- Building the capacity of MoEF/DoE to coordinate and mainstream climate change issues in development activities, (which has had some success)
- Strengthening existing knowledge and information accessibility on impact prediction.
- Adaptation to climate change and awareness-raising, advocacy and coordination to promote climate change adaptation and risk reduction in development activities.

The second phase of CDMP(II) has just got underway and aims to further reduce Bangladesh's vulnerability to adverse hazards and extreme events, including the impacts of climate change. It will do so through risk management and mainstreaming. CDMP(II) aims to institutionalise the adoption of risk reduction approaches, not just in its host the Ministry of Food and Disaster Management (MoFDM) but more broadly across 12 key Ministries and agencies.

2.4.4 Broader policy development

Bangladesh produced its National Adaptation Program of Action (NAPA) in 2005 and was a lead player on NAPAs in the UNFCCC. But weaknesses in relying on this selective approach became clear. Spurred on by Cyclone Sidr and with the stimulus of the Bali Action Plan, the GoB prepared the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2008/9 to provide strategic direction on climate change. Prior to BCCSAP formulation, GoB formulated a number of national and sectoral strategies and action plans including the national water management plan, the national biodiversity strategy and action plan and national environmental management plan including climate viabilities.

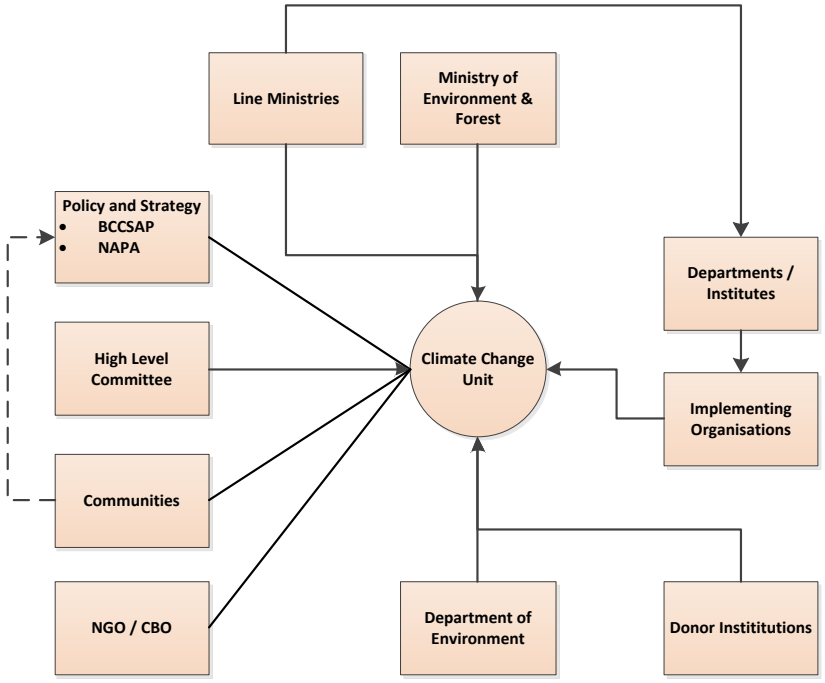
As regards policy and strategy making process in Bangladesh, experience so far suggests that most polices are driven by experts and bureaucrats, following a top-down process (Alam et al 2010). While participation of stakeholders has significantly increased, the quality of participation of poor people appears to remain unsatisfactory.

Since the development of the BCCSAP, the government strategy is to integrate climate change challenges and opportunities into the overall development plan and programs involving all sectors and processes for economic and social development. This process is in its early stages and has been supported by the UNDP and UNEP Poverty, Environment and Climate and Mainstreaming (PECM) Project of the Planning Commission with additions on climate change in the critical planning documents: the Annual Development Plan (ADP), the sixth Five Year Plan (FYP), and the Outline Perspective Plan Vision (OPPV) 2021. These instruments have been more focused on poverty reduction and gender issues.

An overall framing of the climate and policy structures[13] is set out below in Figure 4: Overall Framing of National Climate Structures:

[13] Source: Huq and Rabbani 2011

Figure 4: Overall Framing of National Climate Structures



2.4.5 International policy aspects

The country has been a participant in the UNFCCC process from signature in June 1992, ratification in 1994 and in the Kyoto Protocol since 2001. The GoB submitted the Initial National Communication (INC) to UNFCCC in October 2002 and is now preparing its second national communication which will be completed in 2012. Bangladesh has increasingly become a significant player in the UNFCCC negotiations, as the largest Least Developed Country (LDC) with special status and with a moral voice. It has developed its national position across the range of international negotiation issues through the Climate Change Unit in the MoEF and with the support of several policy institutes, and its advocacy has been increasingly visible since the BAP in December 2007[14]. Its position is aligned closely with other LDCs. For the UNFCCC Conference in Bali, the Climate Change Cell prepared an advocacy document on the need for adaptation for the vulnerable people and the LDCs (CCC, 2007). Bangladesh gave a statement on behalf of the LDCs to the United Nations General Assembly (UNGA) in February 2008 arguing for immediate support to LDCs for climate change. Bangladesh operates within the SAARC group which is aiming for South Asia to be a world leader in climate resilience. The third Climate Vulnerable Forum, immediately before the UNFCC Durban Confernce of the Parties (CoP) was held in Dhaka in November 2011 with many country leaders attending.

Official Government delegations have steadily increased to the main COPs and in Cancun and Durban comprised over 100 representatives, not only from MOEF but other Ministries, Members of Parliament, policy institutes, NGOs and journalists. A coordinated united approach on key messages has been

[14]Development partners have given specific support to these activities and hlped lead to the Durban outcome when LDCs pressurised the richer BASIC group of the G77.

identified across Government and civil society[15] and clear negotiation positions are set down. In Durban Bangladesh negotiated for[16]:

- Peaking of global peaking of green house gas emission by 2015 and reductions by Annex 1 countries by 90% to 95% by 2050
- A new legally binding agreement by 2015 and a new Kyoto phase
- Technology transfer: special provisions for LDCS, SIDs Africa and issues around Intellectual Property Rights (IPR), patent protection and genetic resources
- Adaptation Fund automatic funding with approval of projects
- National Adaptation Plans: Bangladesh keen to promote its integration of climate change into national planning
- 1.5 per cent of GDP of Annex I countries
- Financial resources over 0.7 per cent of Gross National Product (GNP)
- Funding should be available through direct access to the Green Climate Fund coordinated by the COP through multilateral financial institutions and in line with sovereign ownership of the recipient countries

2.4.6 Economic development aspects

Climate change threatens to undermine recent economic development in the country. Through good macroeconomic policies and a vigorous private sector, the country is maintaining a solid GDP growth rate of 5.5% to 6% annually and is resilient. It has been identified as one of the so-called "next 11 countries with basically promising outlooks for investment and future growth"[17]. GDP has more than tripled in real terms and food production has increased three fold. Population growth rate has declined but the fertility rate decline seems to have plateaued so, with increased life expectancy, a reduced mortality rate and improvements in nutrition, a surging population could remain a challenge. The Human Development Index (HDI) significantly improved and the percentage of people living below poverty declined from 59% to 40% per cent between 1991 and 2005. However, more than 50 million people still live in poverty and many live in remote or ecologically fragile places. The economy is vulnerable to external risks such as a weak global recovery, and a declining new outflow of migrant workers. Power shortage is one of the significant internal risks (World Bank 2010a).

Discussion about Bangladesh becoming a Middle Income Country (MIC) has been gathering momentum in election manifestos in the country, and in the Sixth Five Year Plan 2011-2015. However, Bangladesh's LDC status gives it special advantages under the UNFCCC.

2.5 National policy frameworks: sectoral policies

2.5.1 Overview

Climate change is cross-sectoral and its policy development is integral to development planning and an on-going development of disaster risk reduction. However, Governments function by Ministry and theme so it is vital to embed climate change in individual Ministries. Analysis of each current sector plan shows strong elements that indirectly contribute to strengthening physical systems and enhancing human capacity to cope with and adapt to changing climatic conditions. Sector policy covers a diverse range of issues including: Bangladesh Environment Policy 1992, The Forest Policy 1994, The Water Policy 1999, National Land use Policy 2001, National Fisheries Policy 1998, National Environment

[15] S. Huq, report on Cancun, IIED 13-12-10
[16] Statement of GoB negotiation brief
[17] According to Goldman and Sachs, quoted in Swiss Agency for Development and Cooperation SDC Cooperation Strategy Bangladesh 2008-12

Management Action Plan (NEMAP) 1995. In contrast, some policies, such as the Export Policy 2006, and Industrial Policy 2005 have components which sometimes conflict with climate change concerns, for example, expanding shrimp cultivation in the coastal areas for earning foreign currency without providing land use planning. A more detailed review of significant sectoral policies is outlined below.

2.5.2 The Environment Policy 1992

The Environment Policy 1992 built upon the spirit of Rio Conference and acknowledged that sustained development of the country is based on the well-being of the environment and ecosystems since it provides the services necessary for ensuring progress. Forest conservation, extension and further development were recommended to maintain the environmental balance and to fulfil the socio-economic needs of the community, which in turn may contribute to mitigation and adaptation.

2.5.3 Forest Policy 1994

The Forest Policy 1994 recognizes the importance of biodiversity for environmental sustenance. Aims 3 and 8 of the policy explicitly mentioned that habitats for the wildlife and vegetation will be conserved through afforestation and by bringing forest lands under Protected Areas. The policy targets to bring 20% of the total land area of the country under forest cover, and at least 10% of which under Protected Areas by 2015. It also declared that measures will be taken to improve degraded forests. The Policy, at the same time, advocated social forestry, which includes agro forestry, woodlot plantations, strip plantations in vacant public and private lands of the country. Afforestation could directly contribute to climate change mitigation efforts and efforts to improve forest quality add to forest resilience.

2.5.4 National Land Use Policy 2001

Land utilization policy has little direct focus on climate change, but has components like reduce illegal land use conversion and ensure facilities so that land use activities is attuned with environmental conservation which have linkages to climate change in terms of both adaptation and mitigation. The policy advocated for tree plantations in the riverine and coastal islands to increase forest cover in the country, which may contribute in protecting people and resources in those areas from climate change induced hazards.

2.5.5 National Fisheries Policy 1998

Although fisheries policy of the country aims at enhancing production of fish resources from inland and marine sources and to increase the export oriented foreign currency earning, it at the same time focuses on environmental balance and biodiversity conservation (mentioned in objective 5 of the policy). The policy identified different threats to fisheries resources, such as (i) population pressure, (ii) construction of infrastructure in the floodplains, (iii) pollution by chemical fertilizers, insecticides and pesticides; and urged for reducing these threats as to improve the situation. These components might contribute indirectly to address climate change problems.

2.5.6 National Water Policy 1999

National water policy mentions that this policy is a bold step for governance in the water sector. It provided the first comprehensive look at short, medium and long term perspectives for managing water resources in Bangladesh. Sections 4.9, 4.12 and 4.13 clearly focus on importance of water on fisheries and wildlife, water for the environment and preservation of wetlands respectively. These may indicate that these will play important roles in handling water sector problems in a climate change context.

2.5.7 Coastal Zone Policy 2005

The coastal zone policy recognizes the importance of ecosystems and biodiversity conservation needs and mentioned that the coast contains several ecosystems that have important conservation values. The coastal zones are hot spots in the context of climate change, and provides the ecological foundation for an important common property resource; a large portion of these resources include various types of fisheries resources in the estuaries and in the Bay of Bengal, which provides livelihoods security for millions of coastal vulnerable inhabitants.

2.5.8 Livestock Development Policy 1992

Livestock development policy of Bangladesh puts major emphasis to enhance livestock and poultry (meat and egg) production in order to ensure a sustained supply of animal protein for the people of the country. However, some of the objectives have relevance to biodiversity conservation. For instance, its target to produce biogas production may contribute in reducing pressure (e.g. fuel wood collection by the rural community) on forest resources.

2.5.9 National Seed Policies 1993

The National Seed Policy 1993, The Seeds (Amendment) Act 1997, The Seed Rules 1998 are mainly aiming at achieving self sufficiency in food production. Thus the instruments include provisions for liberalizing of import of seed and seed processing machineries, strengthening of quality control and research system and maintaining a seed security arrangement. These instruments have little attention to the conservation of indigenous or local crop diversity and to protect local ecosystems and habitats from invasion of foreign species. However, food security enhancement would reduce community vulnerability.

2.5.10 Agriculture policy (Draft) 2010

The agriculture sector encompasses crops, fisheries, livestock, and forestry sub-sectors. The existing National Agricultural Policy was adopted in April, 1999. A new (draft) agriculture policy 2010 is currently being formulated which aims to enhance crop productivity, profitability and employment in the rural areas to improve well-being of the poor. The new agriculture policy outlines strategies so that agricultural lands are more protected, the decline of biodiversity could be arrested, natural disasters including climate change impacts/threats in agriculture resources could be addressed. Thus appropriate implementation of agricultural policy will be important to foods and livelihoods security. Food security is also considered as an important theme in the BCCSAP.

2.5.11 Integrated Coastal Zone Management (ICZM) 2005

Coastal zones are the most vulnerable geographical areas of Bangladesh in relation to climate change threats. Integrated coastal zone management can address multiple impacts and also help to help community capacity for adaptation. Integrated Coastal Zone Management (ICZM) aims, as it mentioned, “to create conditions suitable for the reduction of poverty, development of sustainable livelihoods and the integration of the coastal zone into the national processes”.

2.5.12 Chittagong Hill Tracts Development Facilities (CHTDF), UNDP

UNDP’s flagship programme Chittagong Hill Tracts Development Facility (CHTDF) works for the overall development of opportunities for all peoples and communities resident in the CHT. CHTDF aims to support the Government of Bangladesh and enable the institutions of the CHT and their constituent

communities to pursue accelerated, sustainable socio-economic development and regional poverty reduction, based on the principles of self reliance, local participation, and decentralized development.[18]

The key objectives of the programme are:

- Capacities of CHT institutions, including MoCHTA, the Regional Council, the three Hill District Councils, and the traditional institutions of the three Circle Chiefs, are enhanced
- Economic opportunities for small local enterprises, women, youth and farmers are improved
- Literacy is increased through improved access to a strengthened education system adapted to the local context
- Health conditions are improved through a strengthened health system supporting community outreach and localized service delivery
- Local communities are empowered and their capacities to manage their own development are enhanced
- Confidence required to find the solutions to long standing problems and encourage sustainable development and peace in the CHT is created.

CHTDF is the most prominent project being implemented by UNDP. Since its inception, CHTDF undertook a holistic approach towards the overall development of CHT. CHTDF works closely in coordination with the government and other traditional institutions, local NGOs, national NGOs, community based organizations to enhance capacity of the institutions, economic opportunities, empowerment of people at CHT, provide better health and educational facilities and provides an environment for better confidence building among diverse groups. In similar vein to other programmes and institutions in Bangladesh, climate change is not mentioned explicitly.

2.5.13 Non Supportive Policy

Three policy documents were identified that were potentially non-supportive to climate issues in Bangladesh. Export Policy 2006, Industrial Policy 2005 and Non renewable Energy Policy 2005. The latter is also connected to Towards Revamping Power and Energy Sector: A Road Map' (June 2010) and the planned National Coal Policy. In the latter policy, the dilemma relates to national priority to deal with the shortfall in generation capacity that is seen as having a negative effect on economic growth. Additionally, the planned expansion is generation capacity will take place against a backdrop of reliance on reducing reserves of natural gas (88% of power plants are run by natural gas[19]).

The government at present is responsible for around 63%[20] of total power production and therefore allocates significant resources to this function, including a significant increase in the ADP in 2011[21]. There is a plan within the document to increase the use of renewables to 5% and then to 10% by 2015 and 2020 respectively. However, the use of coal is also seen as a way of reducing dependency on natural gas[22] and the expected expansion in the use of coal for both power generation and brick kilns between now and 2030 is marked and is estimated to be almost threefold from 2,880mt to 8060mt in the period.

[18] Source: CHTDF website, 2012
[19] Towards Revamping Power and Energy Sector: A Road Map Page 1
[20] Towards Revamping Power and Energy Sector: A Road Map Page 2
[21] http://www.thedailystar.net/newDesign/news-details.php?nid=187821
[22] Draft Final Report: Assessment of Investment and Financial Flows to Mitigate Climate Change Effects in the Energy Sector: May, 2011. Pages 21 and 23

There is a further and obvious technical dilemma within this in that Bangladesh has coal that is high in heat generation capacity[23] and has sufficient national reserves to accommodate the required needs for its five existing coal mines.

2.6 National policy frameworks: climate change related policies

2.6.1 Climate change resilient investment

According to the 6th Five year Plan, over the decades, the Government, with the support of development partners, has invested in:

- Flood management schemes to raise the agricultural productivity of many thousands of kilometres of low-lying rural areas and to protect them from extremely damaging severe floods.
- Flood protection and drainage schemes to protect urban areas from rainwater and river flooding during the monsoon season.
- Coastal embankment projects, involving over 6,000 km of embankments and polder schemes, designed to raise agricultural productivity in coastal areas by preventing tidal flooding and incursion of saline water.
- Over 2,000 cyclone shelters to provide refuges for communities from storm surges caused by tropical cyclones and 200 shelters from river floods.
- Comprehensive disaster management projects, involving community-based programs and early warning systems for floods and cyclones.
- Irrigation schemes to enable farmers to grow a dry season rice crop in areas subject to heavy monsoon flooding and in other parts of the country, including drought-prone areas.
- Agricultural research programs to develop saline, drought and flood-adapted high yielding varieties of rice and other crops, based on the traditional varieties evolved over centuries by Bangladeshi farmers.
- Coastal 'greenbelt' projects, involving mangrove planting along nearly 9,000 km of the shoreline.

These investments in 'climate proofing' have resulted in major impacts on economic growth and poverty reduction. Over the last 10-15 years, the number of fatalities from natural disasters has declined, as the country's ability to manage risks, especially floods and cyclones, has improved and community-based systems have been put in place. These investments have been led by a range of Ministries.

2.6.2 Recent policy developments

Key recent policy developments include:

- National Adaptation Programme of Action (NAPA) (2005 and revised 2009)
- Bangladesh Climate Change Strategy and Action Plan (BCCSAP) (2009)
- Climate Change Unit in Ministry of Environment & Forests
- Climate Change focal points established in relevant ministries

2.6.3 National Adaptation Programmes of Action (NAPA)

The NAPA (2005) identified 15 priority activities, including general awareness raising, capacity building, and project implementation in vulnerable regions, with special focus on agriculture and water resources. The NAPA considered only urgent and immediate priorities for adaptation, and was not a plan, and in

[23] Draft Final Report: Assessment of Investment and Financial Flows to Mitigate Climate Change Effects in the Energy Sector May, 2011 Page 32

fact little has been achieved from it. The NAPA was further updated in 2009 and identified 45 adaptation measures with 18 immediate and medium term adaptation measures. However, an evaluation of the NAPA process in Bangladesh found that the technical legacy of the NAPA process is recognised in the high-level planning arena only (COWI and IIED 2009).

2.6.4 Bangladesh Climate Change Strategy and Action Plan (BCCSAP)

The BCCSAP provides an overall framework for action recognizing the need for adaptation and simultaneously highlighting the GoB's willingness to follow a low carbon pathway towards achieving development (MoEF, 2009). BCSSAP is widely recognised to be a major achievement and is a basic reference for aligning investments. The programs are categorized under four timelines, from immediate to long-term, focusing on medium and long-term actions through pillars y drawn from those set out in UNFCCC negotiations under the Bali Roadmap i.e. adaptation, mitigation, technology transfer and financing and has six thematic areas with 44 programs (and 145 actions) have been identified within these thematic areas. Emphasis is placed on adaptation and the use of knowledge base towards planned adaptation. The themes are elaborated in **Table 3: BCCSAP Themes**:

Table 3: BCCSAP Themes

Theme 1: Food Security, Social Protection and Health:	The first relates to ensuring food and livelihood security, especially for the poorest and most vulnerable in society, including women and children. It focuses on the needs of this group for food security, safe housing, employment and access to basic services, including health.
Theme 2 Comprehensive Disaster Management:	This is to further strengthen the country's already proven disaster management systems to deal with increasingly frequent and severe natural calamities.
Theme 3 Infrastructure:	This Action Plan is to ensure that existing assets (e.g. coastal and river embankments) are well-maintained and fit-for-purpose and that urgently needed infrastructure (e.g. cyclone shelters and urban drainage) is put in place to deal with the likely impacts of climate change.
Theme 4 Research and Knowledge Management:	This is to predict the likely scale and timing of climate change impacts on different sectors of the economy and socioeconomic groups; to underpin future investment strategies; and to ensure that Bangladesh is networked into the latest global thinking on science, and best practices of climate change management.
Theme 5: Mitigation and Low Carbon Development:	This is to evolve low carbon development options and implement these as the country's economy grows over the coming decades and the demand for energy increases.
Theme 6: Capacity Building and Institutional Strengthening:	This is to enhance the capacity of government ministries and agencies, civil society and the private sector to meet the challenge of climate change and mainstream them as part of development actions.

However the BCCSAP is not a costed and sequenced delivery framework. Nor does it specify in detail how the projects are to be implemented - merely distinguishing between those activities which are part of the relevant development programme and the "incremental work" which will be financed under the Action Plan, at that time (2008) through the Bangladesh Climate Change Trust Fund.

2.6.5 The National Plan for Disaster Management (NPDM)

Given the vulnerability to frequent natural disasters, GoB has also made significant progress in policies and investments for reducing disaster risks. The GoB drafted the National Plan for Disaster Management

(NPDM) 2008-2015 in 2008 for addressing Disaster Risk Reduction (DRR) and climate change adaptation (CCA) comprehensively in all development plans, programmes and policies. The policy highlights priorities for disaster risk reduction and adaptation through assessment of climate change risk, community-based programmes for risk reduction, public awareness, improving early warning systems, communication facilities strengthening emergency response systems. GoB has made significant progress in shifting its focus from traditional 'relief and rehabilitation' to a DRR approach that emphasises cost effectiveness in approaches to DRR.

In addition to the Disaster Management Policy 2011, the National Plan for Disaster Management (NPDM) 2008-2015 which addresses DRR provides the overall guidance on this issue. Although the Government has made considerable progress in establishing an institutional framework for DRR, many of the plans and policies are yet to witness implementation. It can also be observed that there is a gap in the transfer of knowledge about DRR and CC from science to the project implementation at community level. In general, coordination among donors, NGOs and regional interests is a concern. Although a detailed system on disaster management has been put in place (by the Comprehensive Disaster Management Programme (CDMP) with Disaster Management Committees at different levels, they are perceived as being inadequately funded or prioritised to conduct their mandate effectively. There appears to have no broad-based ownership of the plans, resulting in different stakeholders implementing them in too many different ways with hardly any common national approach in implementation.

2.6.6 Low carbon dimensions

Even though Bangladesh's contribution to the generation of green house gases (GHG) is miniscule, the country wishes to play its part in reducing emissions now and in the future. Government policy therefore is to encourage increased energy efficiency and cost efficiency in the development and utilization of conventional energy. Emphasis is also given to the development of renewable energy, particularly solar home systems and biogas plants to manage emissions without jeopardizing access to energy – as shown in Table 2 power is one the highest priority national initiatives at this time.

In partnership with civil society, a major nationwide program of social forestry has also been implemented and coastal 'greenbelts' have been planted as a key adaptation-mitigation strategy. As Bangladesh industrializes and develops coal reserves, the country will seek the transfer of state-of-the-art technologies from developed countries to ensure that the country follows a low-carbon growth path. Bangladesh has also pledged to reducing GHG emissions from agriculture and urban waste management. The country is further committed to the development of forestry resources and in this regard is exploring all avenues including the mechanisms under REDD (Reducing Emission from Deforestation and Forest Degradation).

Currently Bangladesh has two Clean Development Mechanism (CDM) projects concerned with solar energy and waste management. It aims to increase the number of similar programs and is experimenting with new instruments to generate carbon credits and facilitate carbon market financing in the future.

2.7 Incorporation of climate policy objectives into development planning mechanisms

2.7.1 National planning mechanisms

The GoB's engagement with the key decisions of the international Aid Effectiveness agenda has given a boost to national development planning efforts. In the context of implementation of the Paris

Declaration (PD) and Accra Agenda for Action (AAA) Commitments, the GoB's leadership in aid coordination in recent years has generally increased. Bangladesh has been preparing its National Development Strategy in the form of Poverty Reduction Strategy (PRS) called National Strategy for Accelerated Poverty Reduction (NSAPR) since 2003. The current NSAPR-II (Revised) was launched in 2009 for three years, FY 2009-11 and the Sixth Five year Plan is completed (2011-2015), as well as an Aid Management Strategy .

The ministries/departments use DPPs (Development Plan Pro-forma) formats in outlining project components and implementation strategies. But these projects are rarely developed based on public consultation; these are rather following a top-down approach. The projects under the Annual Development Plan (ADP) are prepared by Planning Commission on the basis of inputs (initial proposals/budgets) received from line Ministries, in line with guidelines and prioritisation criteria. Finance Division provides the total available resources for the ADP, and Planning Commission prepares the sectoral allocations. The line Ministries then submit detailed proposal to the Planning Commission.

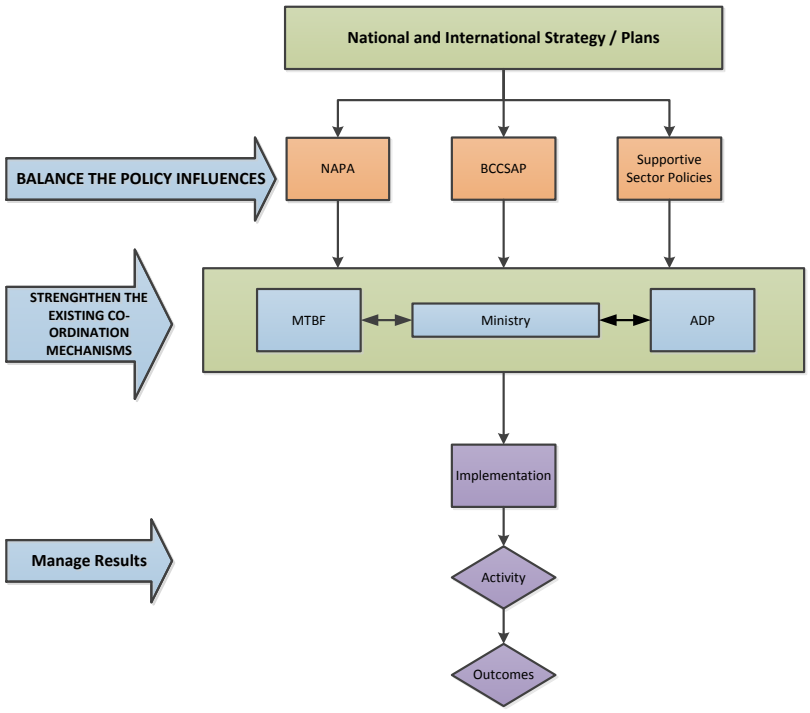
This is a crucial co-ordination mechanism in the allocation of resources and it is essential that balanced policy influences operate to optimise resource allocation and ensure that climate, and indeed other policy priorities are adequately and appropriately reflected in the ADP.

2.7.2 Climate change and national development planning

How policies are incorporated in the development planning at institutions is not clearly defined. This is clearly a gap in practices that should be addressed. It was found that institutions tend to plan for their own domain following the guidance of respective policies and strategies, that is to say sector policies rather than national climate change strategies tend to drive the preparation processes.

This is illustrated below in Figure 5: It is considered that the influences of National Strategies do not fully transact to implementation and to achieve this, the co-ordination mechanisms of the ADP and MTBF should be strengthened.

Figure 5: Policy Influences in Climate Change



Currently, there are 71 Ministries and Departments who are responsible for preparing the ADP and co-ordination is conducted by the Planning Commission. In line with all aspects of the allocative and policy processes in Bangladesh the scale and complexity is daunting.

A second crucial implementation mechanism where it is possible to identify climate change as a major functional issue is the Medium Term Budget Framework (MTBF). Climate change is referenced in *Ministry* Mission statements, such as MOEF and the Disaster Management and Relief Division which identifies the effects of Climate Change as an aspect where risk reduction programmes will be implemented.

The interaction between the ADP and MTBF is therefore central to the successful transaction of BCCSAP to the implementation and performance frameworks of Line Ministry implementers. BCCSAP might be further developed as an effective instrument capable of guiding how to develop climate change adaptation programmes/projects by following public consultation process; it also may guide how to prepare DPPs in this regard. However, consideration must be given to ensuring that an adequate balance of sector policy and national strategy in respect of climate change can be achieved.

It is understood that Oxfam is planning to review the BCCSAP so that it could efficiently guide the whole adaptation planning process for different sectors ranging from DPP development, public consultation to project impact evaluation activities. It would perhaps be useful to complete the picture, if some complementary consideration could be given to the internal co-ordination mechanisms as described above.

2.7.3 Role of MTBF

The Medium Term Budget Framework (MTBF) outlines the responsibilities of different Ministries for three consecutive forward years, and explains in simple terms the ways and means they are adopting to achieve key Government objectives. The format of the MTBF allows scope for narrative explanation of the relationship of activities that are non-specific climate change activities to increasing resilience over the long term. This explanation would also be useful for professionals and policy planners to capture and understand how an additional monetary allocation in order to implement a program may be valuable for making a systems, infrastructure or community climate resilient. Also refer to **Table 4: Climate References in Ministry Budget Frameworks (2011/12).**

The objectives and benefits of the MTBF in general, and in this context for climate finance specifically, include:

- As a government led public financial management initiative it promotes explicit Ministry recognition and ownership of programmes and the achievement of their objectives.
- Increased predictability of funding to enable Ministries as implementers to plan several years ahead for their programmes to be delivered and ultimately sustained. The medium term focus, three years in Bangladesh, is consistent with many adaptation initiatives in climate which run for more than one year.
- Ministries are provided with a hard budget constraint, and attendant accountabilities, to promote increased autonomy which in turn increases incentives for efficient and effective use of resources.
- Improved transparency in the allocation and use of resources
- Increased emphasis on service delivery by linking budget inputs to desired outcomes in the performance management framework of MTBF

In other words, this is the architecture that matches policy with budget and sets out the performance framework by way of KPIs and specific intentions for each Line Ministry.

2.7.4 Assessment of MTBF on climate change

Programs and projects were reviewed and were classified in three types:

- Programs that directly contribute to capacity enhancement of the communities.[24]
- Programs that indirectly contributes to addressing climate change, and
- Strategic programs that provide long term support to make both the physical and human systems resilient to climate change uncertainties

There are two broad adaptation approaches. One is a hazards-based approach which includes building physical infrastructure, sea defence, dykes and river bunds, disaster risk reduction and preparedness planning. The other approach, vulnerability-based approach, includes targeted safety-net programmes to strengthen livelihood assets.

The adaptive-capacity approach includes insurance, awareness building, flood proofing and improving technological know-how. The policy-based approach includes climate proofing (e.g., homesteads or roads raising), mainstreaming within various sectors and within the planning process. Adaptation to deal with climate-induced impacts on water resources includes changing cropping patterns, crop diversification, crop planting timings, tilling methods and so on.

[24] Direct programs will help communities to better prepare to cope with climate change uncertainties in the long term. Some of the programs under this type may be effective to create institutions and infrastructure which may act as capital for the community in order to receive maximum benefits out of their activities

It was noted however that the influence of sector policy rather than climate change strategy is an issue in the Ministry Budget Frameworks. This is illustrated in Table 4 below: Further details are shown in Chapter 4.

Table 4: Climate References in Ministry Budget Frameworks (2011/12)

Ministry (Lakh Taka)	Total Climate Attributable Resources Allocated (2009/10 to 2011/12)	% of Total	Climate References in Ministry Budget Frameworks (2011/12)
Local Government Division	2,038,269	22.1%	No
Agriculture	1,816,482	19.7%	22
Disaster Management and Relief Division	1,617,476	17.5%	7
Primary and Mass Education	537,712	5.8%	No
Roads and Railway Divisions	532,158	5.8%	No
Water Resources	403,721	4.4%	No
Social Welfare	365,089	4.0%	No
Planning Division	338,347	3.7%	10
Women & Children Affairs	255,426	2.8%	No
Environment and Forest	250,660	2.7%	19
Other Ministries / Divisions (27)	1,062,831	11.5%	20
Totals	**9,218,172**	**100.0%**	**78**

This analysis shows that the largest implementer (and some others) of climate sensitive spend does not identify climate or climate change as a policy influence. This could be said to absent the climate sensitive component of projects from the performance evaluation, governance and accountability architecture of government. It also indicates a gap in the transaction of the national strategies through to implementation.

2.8 Policy dimensions of donor engagement

2.8.1 Introduction

For the majority of donors who have been working for decades in Bangladesh, there has been a number of ways in which they have become engaged on climate change from longer established and large programmes which were screened for climate change (Hedger,2011). There are four dimensions of donor activity:

- Evolutionary approaches
- Response to country drivers
- Response to donor country politics
- Step change with response to international political developments

Each is considered in turn below.

2.8.2 Evolutionary approaches:

Some donors see their move into climate change as an evolutionary activity associated with work on poverty reduction, food security and DRR. For example, the Danish International Development Agency (DANIDA) has been working in Bangladesh for 40 years with a poverty reduction focus. The new strategy will have climate change as a separate pillar. DANIDA's work on climate change started in 2007 and is viewed within a broader framework on environmental management and was screed for climate risk. Additional funds were provided for the climate change Bangladesh work (within the Danish aid budget) – essentially a reallocation of priority and the attendant resources.

2.8.3 Country drivers (BCSSAP and aid effectiveness)

Donors have also responded to the internal country drivers and the GoB's intensification of activity on climate change around the production of the BCCSAP . All donors thought that the Action Plan was a positive move and that their own investments were aligned with this plan (Hedger, 2011). Another stimulus to engagement has been the progress under the aid effectiveness agenda, the Joint JCS and the increasing momentum around the Local Coordinating Group on Environment and Climate Change.

2.8.4 Response to donor country politics

Several donors are responding to a push from their country offices to be seen to be at the forefront on climate change. Further, having established effective ways of both delivering impact on the ground and dealing with fiduciary risk problems by working in specific programme niches, there is concern about delivery on climate change. In respect of the UK, where there has been engagement on climate change for several years, there is evidence of changes in UK Government policy affecting the shaping and priorities for UK spend in Bangladesh. The first strategy was a poverty focus. Now there is greater interest in the private sector.

2.8.5 Step change through international political developments

For multilateral donors, such as the Asian Development Bank (ADB), the World Bank, and the International Finance Centre (IFC), the engagement process has been driven by a step change with revised regional and country strategies for Bangladesh. These have included climate change as a pillar of action, driven presumably by fundamental moves within their organisations to increase work on climate change, linked to international developments. Developing momentum for the international political process, specifically the fast start funds, has led some European donors for the first time to fund climate change activities in Bangladesh.

In fact "new" funds were generated separately for climate change by the EC, Denmark, Sweden and Switzerland for their contribution to the BCCRF, and contributions were not drawn out of long-planned country programmes. So more resources are being delivered to Bangladesh, although these resources were not necessarily "additional" for each donor – this increase is also evident in Government's financial statement which saw an 11% increase in foreign resources committed between 2008/09 and 2011/12[25]. From the Global Climate Change Alliance (GCCA), which was initially established in 2008, €8.5mn funds were committed in December 2010 to the BCCRF. To get the scale, this compares to the €403mn allocated for the EU's programme between 2007 and 13, so comparatively this is not a very significant investment.

For the UK, Bangladesh is a country for assistance and its commitment to the BCCRF is a legacy of the London Meeting in September 2008. Following the massive destruction of Cyclone Sidr, international financial institutions and developed countries said explicitly that helping Bangladesh on climate change-related issues was on their list of priorities, and they would consider the creation of a MDTF for

[25] See Table 17: Increase in Financial Commitment – Programmes with a Climate Dimension 2009/10 to 2011/12

Bangladesh to support climate change adaptation. The UK was the first country in the world to announce a fund of £75 million ($133 million, and including £17 million for the CDMP), which from the outset linked it to the World Bank as an implementation agency.

DFID-Bangladesh has been working to secure the success of the fund and engage other donors. BCCRF, as an off-budget pooled fund, is generally a new approach in the country, with the exception of health and education.

2.9 Climate change: capacity and coordination challenges

2.9.1 Introduction

The overwhelming challenge arising from the innovatory dimensions of climate change are the capacity and coordination challenges which will now be explored.

Across the globe, climate change has moved rapidly from the research institutes to the implementers and decision-makers at all scales of governance and across all aspects of public policy. The first efforts in Bangladesh have been a strengthening of the MoEF, a process all agree is not completed. However, since the preparation of the first NAPA in 2005, other ministries and Government agencies have been engaged. Their roles are formalised in the management of both the trust funds (BCCTF and BCCRF) where ten ministers are represented. But there is a generally recognised need for capacity to increase awareness and understanding of climate change in key ministries.

2.9.2 Human Resource Capacity

Key Ministries are involved in the governance of both the trust funds, and the SPCR. According to the MoEF, the Planning Commission is being trained and there is to be a training course in the official civil service academy, with the provision of M Phil and D Phil fellowship opportunities from the BCCTF. The need for further capacity building has already been factored in both to the CDMPII project and the SPCR. The CDMPII is to set up new units in each ministry for DRR and CCA – currently there are only focal points. Whilst there is general agreement about the diagnosis, there is very little evidence yet of a coordinated prescription for action in respect of climate change skills. There are components to strengthen MoEF, in CDMP, SPCR, BCCTF, BCCRF and the USAID programme. But, what is actually to be achieved is not at all clear.

2.9.3 Institutional Capacity

Apart from the need to understand how climate change will interact with the development agenda, the potential inflow of additional funds for climate change creates greater stresses on the handling capacity of Government to manage the funds effectively, which raises fiduciary risk concerns among development partners. Building capacity takes time however it was found that Planning Commission, are often well equipped to assess projects and also coordinate effort across Government and also that Finance Division have been seen to make good progress in recent years across the Public Financial Management in embedding and extending MTBF.

Climate change is changing the strategies and on-going work of donor organisations in that new programmes with the climate change label are increasingly being supported. In terms of the content of these programmes, a considerable proportion so far is about capacity and technical development, notably the climate change components of the CDMP. The project components of the SPCR, which are probably the best developed, are about adding a climate change perspective to coastal infrastructure (polders, and water schemes, and agriculture). So it might be more accurate to say that climate change is modifying development.

2.9.4 Capacity issues of MoEF

MOEF does not have a track record as a spending ministry. According to various sources accessed, there is a major problem with coordination across the ministries. Whilst there is some interest in accessing the climate change funds that apparently will be available, the convening capacity of the MoEF is limited in part because it is not a high-ranking ministry represented in Cabinet. It was evident from the interviews that this issue has been widely discussed across the several groups that were interviewed. On the positive side, one major international development organisation reported that, compared to other countries involved in the World Bank-led PPCR, MoEF had effectively coordinated other Government ministries for the programme's development.

Increasing capacities of professional and technical staff is not a straightforward task. Civil service procedures can slow the creation of new posts, and the internal career path can mean frequent moves of key staff – this point has apparently been discussed at the Bangladesh Development Forum. Externally funded projects rely on consultants, who get paid more than civil servants, and who can move to other projects, so that the processes of building organisational learning and institutional memory is undermined. Ironically too, Bangladesh's international profile on climate change, which it has been developing, is potentially undermining immediate progress in the country. Key staff are always "either going or gone" to climate change meetings outside the country according to one organisation Basically, as there is a legacy of under-spend on aid in general including climate change increasing professional and technical capacity for project development is vital.

2.9.5 Donor capacity issues

Of course, capacity for coordination is not just a problem for the GoB – donors also face problems. This issue is covered in more detail in the following section within the discussion about the aid effectiveness process. Climate change has emerged clearly for funding at a time when the Paris Declaration Joint Coordination Strategy (JCS) process has been put in place, so this has created additional challenges and some countries have not had the capacity to engage on the Local Consultative Groups. (These are the groups associated with specific issues; environment and climate change is one). Comparatively few donors have been operating on a wide scale in Bangladesh. For the most part, donors have been operating in well established niches and have developed their own various ways of working with the governance and accountability challenges. Donors are grappling with problems about how to spend their money wisely and where climate change fits in with longer running programmes.

2.10 Conclusions and Recommendations

2.10.1 Conclusions

1. With its historical experience of vulnerability to weather disasters, Bangladesh has taken several steps in recent years to embed climate change in national policy making. However whilst climate change policy is a new element in national policy and development partner support, it is being framed within broader policy contexts relating to development and response to disasters.

2. This means that sectoral policy rather than climate change strategy is most prominent in driving of government spend in some key spending ministries. It remains a concern that strategy is not effectively transacted to policy and therefore to implementation and the attendant co-ordination architecture of accountability, performance and governance that is provided by the MTBF and the ADP.

3. As regards policy and strategy making process in Bangladesh, experience so far suggests that most polices are driven by expert and bureaucrats, again following a top-down process. While

participation of stakeholders has significantly increased, the quality of participation of poor people appears to have remained unsatisfactory.

4. There is no exclusive national policy that deals with the climate change in Bangladesh. The BCCSAP strategy does not specify which one, out of the 28 adaptation modalities, should be prioritised over the others and in which order the country implements such a long list of adaptation programmes (note some work is now underway here).
5. The development of climate change policy in Bangladesh has been stimulated and promoted by the international dimension. Reciprocally, Bangladesh has helped develop LDC positions and particularly contributed to debates on climate finance. Bangladesh's vulnerability in an international context has given it moral voice within an international context and it has championed the LDCs. In the longer term, the country's economic development may lead it into the middle income group- indeed that is the goal of political interests. This would mean it would benefit less from international funds.
6. Government led the development of the innovatory Bangladesh Climate Change Strategic action Plan, (which included low carbon dimensions) which was an early first from an international perspective. The strategy is *beginning* to be the critical reference for cross planning processes in Government and for funding mechanisms such as the BCCTF and the BCCRF. However, the document is now almost three years old and could perhaps be usefully revised and relaunched to ensure that high awareness levels at Ministry level are maintained and enhanced where necessary. Coupled with renewed efforts of coherent development planning, in which climate change is now embedded, the country is moving ahead on climate change.
7. Analysis of policy and programmes in many Ministries shows how wide and strong the connections are to climate change. Climate change impinges on the responsibilities of a wide range of Ministries although the Ministry of Environment and Forests has the technical lead. Accordingly, in recent years a large number of investments have been made by a range of Ministries, for example in coastal infrastructure and crop development which provide a base from which to improve climate resilience. The active disaster risk management agenda has been a long running focus for development, and helped put in place some local planning processes and policy transformations which help provide resilience for climate change.

2.10.2 Recommendations

1. On the policy level consideration should be given to strengthening key relationships and co-ordination processes in the development and implementation of policy. In particular, four aspects should be focussed upon:
    - The transaction of strategy to implementation via sector policy which could be addressed by ensuring that the climate dimension is adequately addressed at sectoral level.
    - The respective roles of Planning Commission and MoEF in developing and transacting strategy to policy should be clarified and mandated.
    - The relationship between, and respective capacities of, Planning Commission and Finance Division in interpreting and funding policy should be strengthened to ensure appropriate allocative efficiency of resources that are consistent with policy and priority intentions.

- The role of MoEF in respect of sector policy consultation should be developed, perhaps via technical assistance.
- The communication of climate change strategy to Line Ministry level should be a priority to ensure adequate reflection within Ministry Budget Frameworks.

2. An integral part of the challenge of implementing the diversity of plans is capacity issues constraining progress. Implementation of plans and strategies on climate change has a long way to go and there will need to be a continuing national effort at all levels and sectors of civil society and government as critical decisions are often not made in a transparent way. The 6th five year plan puts it very well:

> *"We must undertake climate change investments with communities, learn from them, build on their knowledge of their local environments, and ensure that proposed investments meet their needs. The Government recognizes that tackling climate change requires an integrated approach involving many different ministries and agencies, civil society and the business sector. There is also a need to strengthen the capacity of Government and other organizations to plan and implement development programs. Development organizations need to strengthen their capacity so that they can implement their regular programs more effectively and rise to the challenge of climate change".*

3. Climate change needs to be recognised as part of development at all levels. Climate change policy in broad terms in Bangladesh is very integrated with existing policy and the 'additional and incremental' element that relates to climate *change* presents new challenges on co-ordination and capacity. There is likely to be on-going debate about how far climate change should (or indeed can) be handled separately in view of its close relationship with long-established investments in agriculture, social protection, food security, livelihoods and DRR. More attention will be needed on this issue with a view to achieving a consensual and agreed approach.

4. Some consideration should be given to a review of the BCCSAP in the near future to ensure that it remains fully relevant to current circumstances. Further consideration should be given to including more detailed costing of the needs of Bangladesh in respect of climate and climate change (which should be separately costed) to provide a cornerstone for the development of a Climate Fiscal Framework.

Chapter 3 - Climate Change Institutional Analysis

3.1 Climate Institutions Overview

3.1.1. Introduction

Over the last few years, there has been significant change in the institutional landscape in Bangladesh (Alam et al 2011). The establishment of new institutions within government, political system, private sectors, research, academic, NGOs, network and campaigns has taken place. Climate change is now considered as a development issue and the dire need of mainstreaming climate change is widely recognized. However, the challenge remains as to who and how to perform this.

There are currently a large number of institutions which have a role in tackling climate change. Some of the institutions contribute directly in addressing the problems and some indirectly helps the communities in question to achieve outcomes towards their resistance development. The following sections present a discussion on institutional components and mechanisms on climate change and cover: a categorisation of climate institutions; a description of Government organisations; an outline of NGOs, policy institutes and the private sector; institutional arrangements between development partners and the Government; funding mechanisms; and strengthening of institutional processes.

3.1.2. Climate Institutions

Table 5 shows existing major climate institutions by types and their key activities. The institutions can be broadly divided into several groups such as government, civil society/think tanks, local government, commercial enterprises, media, community, financial institutions and private sector including individuals and households. Key institutions are discussed below:

Table 5: Climate Institutions and Activities

Groups of institutions	Major areas of activities	Institutions (Examples)
Government	Research and modelling	BARC, BARI, BRRI, BIDS, IWFM, Universities (e.g., BUET, BAU)
	Program planning/implementation of adaptation strategies	Ministry of Food and Disaster Management, CDMP, Ministry of Environment and Forest, Department of Environment, Ministry of Water Resources, Ministry of Agriculture, Local Government Engineering Department, WARPO, Social Welfare
	Immediate disaster response	Directorate of Relief and Rehabilitation, Disaster Management Bureau, Armed Forces, Coastal Guard, District administration, Red Crescent Society, CPP
	Climate data generation	IWM, CEGIS, BMD, BWDB
Local government	Emergency measures, Pre- and post-disaster relief and rehabilitation, Food security	Union Parishad, Upazila Parishad, Municipal Corporation, VGD, VGF, FFW
Civil Society / Think Tanks	Socio-Political motivation, Networking, Lobbing	BELA, BAPA, Nirapad, Deshpremik Mancha, BIDS
NGOs, CBOs,	Motivation, Promotion, Awareness raising, Training	CARE, BRAC, Oxfam, Water Aid, Community based organizations

Groups of institutions	Major areas of activities	Institutions (Examples)
Media	Popular investigation, Transparency, Accountability, Awareness raising,	Electronic and print media organizations
Commercial enterprises	CSR activities, Capacity building, Awareness raising, Food security	Banks (e.g., HSBC, give climate change awards); Coca Cola ("Every drops matter", project with Concern Universal) Uniliver (Rehabilitation program in AILA affected areas)
Financial institutions	Micro credits/bank loans	BRAC/Grameen Bank/other NGOs, Private and public banks
	Use of foreign remittances to cope with adversities	Western Union, BRAC, Mobile companies
Households	Activities related to DRR and CCA for during, pre- and post-disaster situations	Roads raising, Homestead raising, protective works (e.g., bundth building) , Cropping pattern, Culture of climate-tolerant cropping, species, Crop diversification

3.2 The Government Agencies

3.2.1 Bangladesh Planning Commission

The Bangladesh Planning Commission acts as the central planning organization of the country. The Prime Minister is the Chairman and the Minister for Planning is the Vice-Chairman of the Commission. It determines goals and strategies of short, medium and long term plans, and formulates policy measures for the achievement of planned goals and targets. It also acts as advisor to the government in respect of, among others, projects and programmes relating to climate, disaster and other development issues. It can be characterised as the key policy co-ordination mechanism in the Government and has a central role in the effective transaction of climate change policy to action at Ministry level. It also has a crucial role in the interface between policy and allocation of resources at sector level.

The Commission consists of the Vice Chairman and five Members. The Secretary, Planning Division acts as the Member Secretary of the Commission. Under the Members, there are six Divisions. Two of the Divisions (viz. General Economics Division and Programming Division) deal with the general macro issues of the economy. The other four Divisions deal with the planning and policy issues of different sectors of the economy.

3.2.2 Institutional Linkages

The Planning Commission interacts with different Ministries/Agencies of the Government. The Bangladesh Bureau of Statistics (BBS) meets data requirements of the Planning Commission. Finance Division (FD) and Internal Resource Division (IRD) advise the Planning Commission on matters of resource availability and formulation of fiscal and monetary policy. The Implementation Monitoring and Evaluation Division (IMED) undertakes monitoring and evaluation of the public sector development projects included in the Annual Development Program (ADP). The IMED also deals with the matters relating to Central Procurement Technical Unit (CPTU), and works toward improvement of the public procurement process in Bangladesh. The Economic Relations Division (ERD) mobilizes Official Development Assistance (ODA) to address the saving-investment gap in the development planning. At the micro level, ERD lines up project aids for implementation of the ADP. The Bangladesh Institute of Development Studies (BIDS) gives backup research support to the Planning Commission whenever necessary. The Planning and Development Academy supports the Commission by providing training

inputs for its officials. Finally the Commission submits plans, programmes and projects to the National Economic Council for formal approval.

3.2.3 Ministry of Finance

The Ministry of Finance has four Divisions: Economic Relations Division (ERD), Finance Division, Bank and Financial Institutions Division and Internal Resources Division.

ERD is one of the important Divisions of the Government of Bangladesh, which mobilizes external resources for socio-economic development of the country. ERD leads as the focal point of the Government for interfacing with the development partners as well as for co-ordination of all external assistance inflows into the country. It assesses the needs of external assistance and devises strategy for negotiations and mobilizing foreign assistance.

3.2.4 Ministry of Environment and Forest

Planning, regulation and co-ordination of environmental and forestry programmes are the major activities of Ministry of Environment and Forests (MoEF). In addition, MoEF also undertakes actions to reduce climate change impacts in different sectors. The activities of MoEF in climate change aspects include formulation of policy for climate change adaptation and mitigation; performing national and international negotiations, climate change funds management and related administrative actions. Two climate change policy instruments i.e. the National Adaptation Plan of Action (NAPA) and the Bangladesh Climate Change Strategy and Action Plans (BCCSAP) were developed through stakeholder consultation process under the auspices of the Ministry. This ministry acts as the permanent member in the Executive Committee of the National Economic Council (ECNEC) to make sure that the environmental interests are taken care of while undertaking development actions. In the similar fashion, the MoEF plays effective roles in mainstreaming climate change in sectoral activities performed by different Ministries and departments. MoEF currently has emerged as project implementation agency by using the funds (like BCCTF and BCCRF), and they are entrusted to spend to address climate change impacts.

3.2.5 Department of Environment (DoE)

The Department of Environment is engaged to protect environment from development activities. Biodiversity conservation, Pollution control by performing monitoring mechanisms, EIA processing are other important areas where DoE put efforts to make sure that environmental components and processes are functioning well. Besides, DoE put special emphasis in undertaking actions in areas related to climate change. DoE was directly involved in the preparation of NAPA and BCCSAP documents. In a recent initiative, DoE produced Biodiversity National Assessment which recommends six biodiversity conservation programs in the face of climate change. DoE has set up a climate change cell to carry out research activities on different thematic areas. The climate change cell undertook research on climate change modelling and impacts scenarios. In addition, DoE arranged necessary actions to produce National Communication papers (initial and second national communication) in order to facilitate Ministry of Environment and Forest so that Bangladesh Government as a member of UNFCCC could submit the report to fulfil its commitment.

3.2.6 Ministry of Science and Information & Communication Technology (MoSICT)

The Ministry of Science, Information and Communication Technology (MoSICT) has been contributing in research activities on different climate change issues for the last couple of years. Every year they allocate research funds to different Universities, NGOs and researchers for conducting research, where climate change issues (e.g. modelling, impacts scenarios) received important attention.

3.3 Disaster management agencies

3.3.1 Ministry of Food and Disaster Management

Due to Bangladesh's vulnerability and regular experience of extreme weather event, notably cyclones and flood, disaster risk management is a major focus of Government effort and has been established longer than climate change. The lead agency, the Ministry of Food and Disaster Management (MoFDM) dealing with management of disasters, includes climate hazard management as well. While over 75 per cent money of ADP is spent through public procurement, public procurement of MoFDM, accounting for over TK 4,000 crore a year, is an important area of governance[26].

3.3.2 Disaster Management Bureau (DMB)

Within the Ministry of Food and Disaster Management (MoFDM), the Disaster Management Bureau (DMB) operates its activities largely during and in post-disasters phase[27].

3.3.3 Directorate of Relief and Rehabilitation (DRR)

The Directorate of Relief and Rehabilitation constitutes a major directorate of MoFDM. An analysis of expenditure of the Directorate of Relief and Rehabilitation shows that the achievements of last 4 years compared to corresponding previous fiscal years for selected relief and rehabilitations programs have progressively increased across years.

The GoB addressed the issue of disaster management following the Hyogo Framework for Action 2005-2015 (HFA), to which Bangladesh is a signatory country. Bangladesh has a regulative framework for disaster management that provides guidance for relevant laws, policy and best practice. The framework includes the Disaster Management Act, the National Plan for Disaster Management and the Standing Orders on Disaster.

The Disaster Management Act forms the legal basis (i) for the protection of life and property (ii) to manage long term risks from the effects of natural and human induced hazards, and (iii) to respond to and recover from a disaster. The National Plan for Disaster Management shall provide the overall guideline for the relevant sectors and the disaster management committees at all levels to prepare and implement specific plans for their respective areas. The plan identifies the key sectoral policy agenda for disaster management. The Standing Orders on Disaster provide a detailed institutional framework for disaster risk reduction and emergency management. They outline detailed roles and responsibilities of Ministries, divisions, departments, various committees at different levels, and other organizations involved in disaster risk reduction and emergency management.

While the GoB has made considerable progress in addressing the issue of disaster management and DRR, there are still gaps as some of the policies and plans at national and local levels are still in a draft stage and some have been developed as a part of larger international and regional initiatives such as the SAARC Framework of Action and the Hyogo Framework for Action (HFA), which is again facing the problem of inadequate funding, coordination and effective implementation. Similarly, the Disaster Management Committees at different levels are not supported with funds to carry out their responsibility. The capacity of the government in DRR in general, but especially on the local government level, is still low which can partly be attributed to the fact that government civil servants are frequently transferred. Regional coordination is still relatively weak although Bangladesh is very much dependent

[26] An analysis over the last 15 years (up to 2010-11).shows that the increasing trend rate has been quite high in non-development budget (14.2%) compared to in development budget (1.8%) (Islam 2011).

[27] However, he DMB budget for both development and non-development budgets have almost been unchanged between the last two fiscal years (2010/11 and 2011/12) (Islam 2011).

on the DRR and Climate Change policy of neighbouring countries. This refers also to the cross-border flood forecasting system.

3.3.4 Special Disaster Risk Reduction Fund

Disasters risks and climate change risks are closely related. In fact, climate risks increase disasters risks many-fold. A Natural Disaster Risk Reduction Fund was established in 2004 from the government revenue budget, with an average annual allocation of TK 89 crore for disaster risk reduction and climate change adaptation (CEGIS 2010). Apart from that, a good number of DRR and climate projects are implemented by NGOs with direct external support.

3.3.5 Comprehensive Disaster Management Programme (CDMP) in MoFDM

Bangladesh has taken up a Comprehensive Disaster Management Programme (CDMP) with support from UNDP and other donor agencies. The aim of the programme is to put greater emphasis on disaster preparedness and risk reduction. CDMP has a number of disaster management components. The three main areas of focus are:

- Capacity building for MoEF and DoE to coordinate and mainstream climate change into their existing activities;
- Strengthening existing knowledge and information accessibility on CC impact prediction and adaptation;
- Awareness raising, advocacy and coordination to promote climate change adaptation into development activities

The Local Disaster Risk Reduction Facility (LDRRF), a component of the CDMP has the task of keeping the climate change cell of the DoE informed and updated. LDDRF aims to improve coordination on disaster management aspects at the local level.

Bangladesh has now a fairly advanced mechanisms set up for disaster management and climate risk management (CRM). However, for more effective coordination between different organizations and ministries the UNDP has suggested that an Integrated National Framework for CRM and DRR be set up for broader understanding of climate change risks and impacts, as well as capacity building for assessing risks and analyzing them with sectoral and cross-sectoral perspectives and implications.

The second phase CDMP (2010-2014) aims to expand the Phase I activities to cover 40 vulnerable districts with a vision to scale up risk reduction and preparedness capacities through six areas: 1) professionalizing the disaster management system 2) rural risk reduction 3) urban risk reduction 4) early warning and emergency response preparedness 5) capacity building for mainstreaming DRR across 12 ministries and 6) generating information on climate change impact scenarios.

3.3.6 Cyclone Preparedness Programme (CPP) and Bangladesh Red Crescent Society

Cyclones and storm surges are clearly on increase due to global warming and sea level rise. The Cyclone Preparedness Programme (CPP) is engaged in massive public awareness and capacity development activities for pre-disaster preparedness at households and community levels[28]. The programme is jointly managed by MoFDM and Red Crescent Society. Besides, more and more international and national NGOs now include community risk assessments and awareness activities into their projects.

[28] The Cyclone Preparedness program offers cyclone related early warning coupled with physical infrastructure to safeguard lives during natural hazards. The number of CPP volunteer per households is steadily increasing over time (8%) indicating a sharp increase in expenditure on CPP activities. The number of volunteers per thousand households increased to 14 in 2011, from 2 in 1986, which is still far from satisfactory (Islam 2011).

The BCCSAP called for enhancement of early warning system (EWS), by involving national institutions. The success of the Cyclone Preparedness Programme (CPP) is largely attributed to the robustness of the early warning system, the issuance of warnings through a unified signalling system, and the dissemination of information from door to door by about 62,000 volunteers of the Bangladesh Red Crescent Society.

3.4 Other Institutions

3.4.1 Government

There are some Government organizations in Bangladesh, who do not have direct involvement in climate change related issues but some of the components/entities in these organizations have some interface with climate change and its impacts. They are : Department of Forest, Department of Agriculture Extension, Department of Fisheries, Bangladesh Agriculture Research Institute, Bangladesh Rice Research Institute, Bangladesh Fisheries Research Institute, Bangladesh Forest Research Institute, Bangladesh National Herbarium and so on.

Besides, there are other institutions involved on aspects of climate change, such as Bangladesh Meteorological Department (BMD) under the Ministry of Defence which has been leading the country as the focal point for the IPCC. There is also a Parliamentary Standing Committee on Environment[29]

3.4.2 National and International Non Governmental Organisations

Bangladesh has one of the largest NGO communities in the world. Under the umbrella of their integrated development projects many of them are active in post-disaster response and rehabilitation operations to act as supplementary to the efforts of the government (CEGIS 2011)[30.] Some have expanded their approach to include climate change, notably those closely linked to international organisations (OXFAM, IUCN, CARE, Concern and Action Aid). IUCN is promoting awareness and education on the impacts of Climate Change as well as adaptation to climate change and climate variability in Bangladesh. Some NGOs (e.g. Caritas, CARE, World Vision, BRAC and others) are even involved in the construction of cyclone and flood shelters. Some are international like BRAC, BDPC, CNRS and others are national NGOs. Most national NGOs focus on pre-disaster awareness and preparedness at household and community level. Lately, they have also started to mainstream their programmes for DRR and organized themselves in a number of DRR consortia, such as the Disaster Forum (initiated by Oxfam), Nirapad (initiated by CARE) and national and local NGOs and a national level consortium of six leading NGOs called NAARI (National Alliance for Risk Reductions and Response Initiatives).

A number of innovative programmes have been introduced on climate change adaptation (**Appendix 1: Annex on NGO innovation on adaptation initiatives**). NGOs of Bangladesh have been playing an important role with actions in recovery/rescue of people and property during disasters and post disaster efforts. They have been trying to assist people with different kinds of programmes with the consideration that these interventions may provide backup support to community level adaptive initiatives to cope with natural hazards. Some of the external interventions focus on livelihoods protection; some are aimed at infrastructure (house) building, rehabilitation and protection creating a long term resilience unless these relief efforts are considered as part of long term strategic planning , while some of the projects are deployed in reducing psychological shocks and trauma for emergency relief.

[29] However, the committee is not yet legally empowered to oversee activities related to climate change, nor to involve in international negotiations for adaptation.

[30] Most of the information on NGOs in this section are drawn on CEGIS 2011 (Second National Communication Project)

For some areas of development assistance, such as agriculture, NGOs are critical to delivery. On climate change a mixed story has emerged. Outside the NGOs linked into international organisations in Dhaka, adverse comments were made about financial probity, by all sections interviewed. There is clearly a need for some coherence to be developed in this sector, as there are windows in both the trust funds for direct funding opportunities. Apparently, the announcement of the GoB's BCCTF generated the formation of over 100 NGOs, although ultimately these have not been given any funding. In a recent initiative, the MoEF cancelled their decision and gave a portion of the funds to PKSF (Palli Karma Shahayak Foundation) in a hope they will better be able to manage climate change projects/funds. (Although their background is in micro-credit). It should also be noted that policy and research institutes operate in some ways as NGOs, and that professional staff also establish NGOs, for consultancy work. With weak local government structures, NGOs may be the link to effective working at local level but it is evident that more attention needs to be given to developing effective financial management skills in some parts of the NGO sector, as in Government. This can be linked to greater and more effective engagement in national policy making and transparent governance.

Keeping climate change and adaptation strategy in perspective, one of the first projects was designed and implemented in the south-western (SW) region of Bangladesh by CARE Bangladesh, called Reducing Vulnerability to Climate Change (RVCC), in association with 16 partner NGOs.

3.4.3 Universities and institutions

Some of the public and private Universities of the country have departments with a special focus on environment/ecosystems, plant/animal science and biotechnology. These Universities produce the work force for biodiversity and related areas. In addition, such universities and institutes conduct research work on issues like environment status, loss of ecosystems and habitats, spatial and temporal changes, land use and land cover, biodiversity assessment, monitoring and conservation issues etc.

As regards to academic programs, until recently only the private BRAC University offered a post graduate Disaster Management course. Now some other universities like Dhaka University and the International Centre for Climate Change and Development (ICCCAD) have begun including Disaster Risk Reduction and Climate Change issues in their curricula.

The number of undergraduate and post graduate level courses on DRR is still very limited. There is still a gap in the transfer of knowledge from science/universities to the project implementation on the local community level. Networking on a regional level among universities and scientists could also be improved.

3.4.4 Private sector

Capacity issues also seem to inhibit private sector involvement, despite various efforts to raise awareness. There is a lack of capacity in financial institutions in both public and private sectors to evaluate projects, so that the lack of understanding of specific types of climate change investments and their risk profiles means that banks often find it difficult to develop and structure appropriate financial products. There is also the view that the bulk of climate change funding will be administered by the Government with support of NGOs. Coupled with the seemingly urgent short term management of crises such as hartals and power cuts, 99% of corporate climate change is perceived to be either an irrelevance or at best an extension of their Corporate Social Responsibility[31].

[31] Asian Tiger Capital Partners 2010. A strategy to engage the private sector in climate change adaptation in Bangladesh. Prepared for the International Finance Corporation.

The private sector is increasingly taking on its role in Disaster Risk Reduction and climate change issues. Two mobile phone providers, Grameen Phone (private) and Teletalk have started to make disaster early warning alerts available by sending instant messages to their subscribers in two districts, Sirajganj (flood prone) and Cox's Bazar (cyclone prone) with the intention of expanding it across the country at a later stage.

Very recently, several business enterprises and banks are taking part in DRR and climate change adaptation activities through corporate social responsibility (CSR). Some of them are HSBC (climate change awards), Coca Cola ("every drop matters" project with Concern Universal).

3.4.5 Chittagong Hill Tracts Institutional Architecture

An overview of the institutional architecture of CHT is presented below in Table 6:

Table 6: Administrative Structure of CHT Administration

Level	Policy Institutions	Local Government	Central Extension	Traditional Institutions
National	Ministry of Chittagong Hill Tracts Affairs (MOCHTA)			
Regional	Chittagong Hill Tracts Refugee Affairs Taskforce (CHTRAT) *Functions:* CHT Land Commission	Chittagong Hill Tracts Regional Council (CHTRC)	Chittagong Hill Tracts Development Board (CHTDB)	
District/Circle		Hill District Councils (HDCs)	Deputy Commissioner (DC) Office	King (Circle Chief)
Upazila/Mouza		Upazila Parishad Pourashava	Upazila Nirbahi Officer (UNO) Office	Headman (revenue collection)
Union/Mouza		Union Parishad		
Village/Para/Adam				Karbari (traditional judicial role)

As part of the Peace Accord 1997, a number of diverse responsibilities were transferred from Central Government to Hill District Council. This decentralization has created scope for uses of budgets to meet the local needs. However, whilst environmental issues are important in CHT understanding about climate change was found to be low in all agencies and local government working in CHT. The transferred Department (Responsibilities) to Hill District Council in CHT are shown below in Table 7.

Table 7: CHT Transferred Administrative Responsibilities

Rangamati	Khagrachari	Bandarban
Agriculture Extension	Agriculture Extension	Agriculture Extension
Bangladesh Small Cottage Industries	Bangladesh Small Cottage Industries	Bangladesh Small Cottage Industries
Bazar (Daily market) Fund Administration	Bazar (Daily market) Fund Administration	
Cooperative	Cooperative	Cooperative

Rangamati	Khagrachari	Bandarban
Cotton Development Board		Cotton Development Board
Department of Public Health Engineering	Department of Public Health Engineering	Department of Public Health Engineering
District Sports Office	District Sports Office	District Sports Office
Family Planning	Family Planning	Family Planning
Family Welfare Vocational Training Institute		District Artificial Fertility Centre
Fisheries Department	Fisheries Department	Fisheries Department
Health	Health	Health
Horticulture Centre	Horticulture Centre	Horticulture Centre
Khurda Nrigostir (small ethnic groups)Cultural Institute	Khurda Nrigostir (small ethnic groups)Cultural Institute	Khurda Nrigostir (small ethnic groups)Cultural Institute
Livestock	Livestock	Livestock
Nursing Institute		Lama Horticulture Centre
Primary Education	Primary Education	Primary Education
Public Library	Public Library	Public Library
Shilpakala Academy	Shilpakala Academy	Shilpakala Academy
Social Welfare	Social Welfare	Social Welfare
Textile Vocational Training Institute		
Youth Development	Youth Development	Youth Development

CHT Climate Change Related Activities

National development projects in the CHT area are implemented through the central or local government system and the traditional administrative system responsible for land related issues, conflict resolution and revenue collection. Development projects are not directly linked with climate change adaptation or mitigation.

Climate change related activities of relevant institutions in the CHT region are given below in Table 8

Table 8: CHT Climate Activities and Institutions

Major areas of activities	Major institutions
Water Supply and Sanitation (including setting-up tube-wells, construction of latrines, lying water supply line, water supply line maintenance, drainage system development)	**National Government:** MoCHTA, DPHE, LGED **Special Administration:** CHTBD, CHTRC, CHTDC **Local Government:** Pourashava **Non-Government Organizations (NGOs):** Asroy Ongon, Green Hill, Hill Research and Development Programme, Rangamati Development Association, Hill View Foundation, Indigenous Multiplex Development Organization, Progressive, Society of Community Village Advancement,

Major areas of activities	Major institutions
	Shining Hill, Dhaka Ahsania Mission, NGO Forum for Drinking Water Supply and Sanitation
Development of fisheries in the Hill districts	**National Government:** MoCHTA, FLD
Improvement of quality of health services	**National Government:** MoCHTA **Non-Government Organizations (NGOs):** Welfare Association
Construction and renovation of physical infrastructure including roads, bridges, culverts, embankment	**National Government:** MoCHTA, LGED, RHD, BRDB **Special Administration:** CHTRC, CHTDC **Local Government:** Pourashava **Non-Government Organizations (NGOs):** Centre for Indigenous People Development, Indigenous Multiplex Development Organization
Development of education, religion and social welfare related institutions in the remote areas.	**National Government:** MoCHTA, LGED, BRDB
Distribution of different agricultural inputs (power tiller, pump, spray machine, seed etc.) among the farmers of Hill areas; and extension of technologies	**National Government:** MoCHTA, DAE, BSRI **Non-Government Organizations (NGOs):** Hill Flower, HSDO, Society for Indigenous Women Progress, Welfare Association
Research, Production, Storage and supply of seeds	**National Government:** DAE, BARI, FD **Non-Government Organizations (NGOs):** Centre for Indigenous People Development
Afforestation including distribution of tree saplings, promoting social forestry, gardening	**National Government: FD, HD** **Non-Government Organizations (NGOs):** Tanga, Red Crescent Society, Sammo Moitry Association (SMA), Aronnok, Hill Flower, Nabo Digonta, Society of Community Village Advancement, Welfare Association
Soil management including soil fertility, and soil conservation	**National Government:** SRD (Soil Research Department) **Non-Government Organizations (NGOs):** CODEC
Water management including wetland development and management; water shed management	**National Government:** WDB, FLD **Non-Government Organizations (NGOs):** Centre for Indigenous People Development
Training and awareness building	**National Government:** DAE **Special Administration:** CHTDB **Non-Government Organizations (NGOs):** Hill Flower, , Aronnok, Ashika Human Development Centre, Dhaka Ahsania Mission
Rehabilitation and reconstruction	**Special Administration:** CHTDC **Local Government:** Pourashava

Major areas of activities	Major institutions
Biodiversity and ecosystem conservation	**National Government:** HD **Non-Government Organizations (NGOs):** Aronnok, Tanga, Hile Hilly, Hill Flower, Green Hill
Livelihood including access to the natural resources and marketing facilities; and promotion of co-management	**National Government:** LGED **Non-Government Organizations (NGOs):** Ashika Human Development Centre, Centre for Indigenous People Development, Hill Flower, Development Concern
Food production and food security	**Non-Government Organizations (NGOs):** Asroy Ongon, Centre for Indigenous People Development

3.5 Aid-effectiveness agenda and development partner (donor) relations

3.5.1 Introduction

The GoB's engagement with the key decisions of the international Aid Effectiveness agenda is demonstrated by its active participation in meetings in Rome 2003, Paris 2005 and Accra 2008[32.] Following the Accra meeting a Joint Coordination Strategy (JCS) working group was established with donors that has streamlined and rationalised development partners' engagement. An Aid Effectiveness Unit (AEU) has been established in the Economic Relations Division (ERD).The JCS was signed in June 2010 with 18 partners[33] [34].

GoB and DPs have jointly established a multi-tier structure for GoB-DP dialogue on transparency and coordination[35.] The apex tier is the high level forum for dialogue and coordination called **Bangladesh Development Forum (BDF)**. So far, there were two high level meetings in 2005 and 2010. Aid Effectiveness was an important agenda for discussion in BDF meetings[36.] The other important tier for aid coordination is the **Local Consultative Group (LCG)** and its working groups. It is set that LCG and its working groups will meet regularly for review of progress and coordination.

The following observations are largely drawn on Wood et al (2011).

- There is little participation of Parliament in the development process. In the absence of properly functioning local government institutions, the role of local bodies in the planning process remains limited. Insufficient capacity to plan and manage development projects continues to remain a major challenge to improve aid effectiveness. The reforms in terms of Public Financial

[32] Centre for Policy Dialogue (CPD) (2008) Accra Conference on Aid Effectiveness: perspectives from Bangladesh. CPD Occasional Paper Series paper 76 Dhaka

[33] GoB (2010) Bangladesh Joint Cooperation Strategy 2010-2015 Aid Effectiveness Unit, Economic Relations Division, Ministry of Finance June 2010

[34] Donor officials who had worked in Africa where aid is 60 percent of aid is in budget support, found the situation comparatively very fragmented with the Public Fiduciary Assessment process in its early stages.

[35] It is, however, discouraging to take note of the recent event of postponement of aid by World Bank and other donors for funding Padma Multi-purpose Bridge Project on charge of transparency and corruption.

[36] A high level Bangladesh Development Forum (BDF) meeting was held in Dhaka on 15-16 February 2010. The objective of the forum was for the Government to share, and discuss with development partners, its long-term plan to reach middle income status by 2021 (Vision 2021); the content of its new National Strategy for Accelerated Poverty Reduction; and its proposed reforms and delivery priorities. The Hon'ble Prime Minister of Bangladesh, opened the event, her speech referring specifically to the need for healthy democracy, decentralisation, transparency and anti-corruption. The event was well attended by development partners, including 36 development agencies and donors, and more than 80 civil society and private sector representatives.

Management (PFM) have contributed to strengthening the substantially of capacity of the Finance Division, but financial management in line ministries remains weak. This latter point tends to suggest that a deepening of the MTBF would be beneficial in the management of climate (and indeed other) funds. This would enable Budget Management Committees in key spending Ministries to relate expenditure more directly with climate change objectives.

- GoB's capacity constraints, project implementation bottlenecks, complicated donor procedures (particularly procurement procedures) and conditionalities are considered as major causes for slow disbursement. This perhaps explains the differences in the ADP and Non-Development budgets as expenditure delivery mechanisms – this is explored further in chapter 4 and chapter 5.
- There is little progress in the area of managing for results. Except for the MDG progress report, there is hardly any reporting on results. A national development result framework is being drafted under GoB-DP partnership arrangement through the JCS. MTBF provides a framework for linking expenditure and results but its application is still very limited. This again suggests that a strengthening of the MTBF from a performance management point of view should be a priority.
- As the Phase II evaluation of the Paris Declaration suggests, the functioning of the LCG working groups is yet to gain momentum (Wood et al 2011). Bangladesh has not formulated an Aid Policy yet and has not set any target of preferred mix of modalities. But it seems that the process of preparing the JCS has already had a positive impact on the aid environment in Bangladesh, with costs of dealing with donor partners falling, and the next major step is to monitor implementation. Programme-based (including budget support) aid in Bangladesh remains far below the 66% target. A substantial portion of donors' assistance is channelled through NGOs. 'They operate completely outside the JCS framework, leaving scope for potential overlap and duplication with the development programmes of the government' (Wood et al 2011). Bangladesh conducted country level evaluation of the Paris Declaration (Phase 1, 2008 and Phase 2, 2011). The evaluations aimed to report progress of the PD implementation. The evaluations also included studies on the implementation in three selected sectors namely, Health, Transport, and Power & Energy and a cross cutting issue, Climate Change.
- Climate change finance in Bangladesh can be identified as a classic case of what ideally should not happen according to Paris Principles - with the emergence of new players, new global aid institutions, instruments and objectives. Donors often themselves have limited capacities on climate change and tend to work to agenda established by their Governments (Hedger, 2011). The contested issues in negotiations at international level are in evidence in Bangladesh. What is visible at country level in Bangladesh is that initiatives started at international level by donors, in ways which may seem coherent at the time in terms of political objectives, have on-going legacies at country level. For example, DFID is funding significant parts of the CDMP, the SPCF, the BCCRF and also the GEF, which has funded the NAPA process in the past. This is probably due to the fact that there has been rapid development of policy on climate change within all organisations as a result of domestic political change or improved technical and scientific knowledge. Each new political initiative leaves an institutional legacy which usually lasts longer than the politician or Government that introduced it. Pressure is always on to demonstrate action on vulnerable countries and make an impact.
- However, under the overarching Bangladesh Development Forum (BDF) the working group including one on Environment and Climate Change under the MoEF have been established to facilitate coordination. These moves are supported to various levels by most of the

development partners. This group began to meet regularly in 2011 and is working currently as an information clearing mechanism.

3.6 Funding Mechanisms

3.6.1 Introduction

In addition to the Annual Development Programme and non development budgets, three further institutional funding mechanisms were identified. Each is considered in turn in the proceeding paragraphs.

3.6.2 Bangladesh Climate Change Trust Fund (BCCTF)

Bangladesh was the first government to set up a trust fund to create a national resource for climate change investments with the aim to support implementation of the BCCSAP by allocating about US$100 million in 2009-10 from the non-development budget. A similar amount has been budgeted for FY 2010-11 demonstrating ongoing financial commitment. Fuller financial details are considered in Chapter 4.

This move was intended to demonstrate the importance that GoB attached to climate change and was enabled by primary legislation in Parliament. The fund was initially Taka +300 crore, which was later, increased to Taka 700 crore – approximately US100m annually. In early 2009, the government approved Climate Change Trust Fund Policy. Following this, in May 2010, the Climate Change Trust Fund Act 2010 was passed. Of the total amount of the fund, 66 per cent are allowed to be spent on Climate Change related project activities and the remaining amount, 34 per cent has to be invested or used for emergencies.

It is understood that around 5,000 applications were made under the NGO window, apparently of a poor quality according to policy institutes who had been involved in their assessment (Hedger, 2011). It would seem now that the process has been re-started. The projects approved for ministries include a wide range, some which are broad in scope, such as for risk reduction and adaptive measures in the health sector, and some very specific measures, such as plastic bag removal in two rivers. Some seem to duplicate other funded areas, such as construction of cyclone resistant housing and strengthening capacity of the Climate Change Unit at MoEF[37]. A thematic analysis of BCCTF is shown in chapter 4 and is compared to the non-developments budget and ADP. There would seem to be some evidence of duplication of focus between ADP and the BCCTF.

3.6.3 The Bangladesh Climate Change Resilience Fund (BCCRF)

The BCCRF has been created with an amount of US$110 million, funded principally by DFID ($87 million), and also Denmark ($1.6 million), Sweden ($11.5 million), the EU ($10.4 million) and Switzerland. The purpose of the BCCRF is to support the BCCSAP and provide funding for climate change management, primarily adaptation but also mitigation. Its benefits are also intended to include high-level coordination, thus reducing the risk of overlaps, and to provide donor harmonisation, flexible fund management and transparency.

It aims to attract additional funding with the potential to be the “one-stop” mechanism. There will be two windows: an on-budget window for funding public sector projects and a window for funding projects from the public sector and civil society.

Governance is a two-tiered structure supported by a secretariat. The governing council includes GoB ministries and development partners and the World Bank Country Director as an observer. This will

[37] A few have weak links to climate change such as the construction of a Botanical garden and, the voting campaign for the Sundarbans to be a natural wonder of the world.

over-see the fund with a management committee which will select the proposals. The secretariat will manage the projects overseeing project preparation to grant agreement and implementation[38] . The World Bank will act as the secretariat for an initial three years whilst GoB capacity is built up.

This fund was originally proposed to be the Multi Donor Trust Fund (MDTF) in 2008. The GoB and key NGOs objected to the proposed role of the World Bank as the collector, disburser and administrator of the fund. These discussions mirrored those at international level, where the role of the World Bank and the associated Global Environment Facility (GEF), had been constrained and refined. Objections were raised about the lack of government control, the lengthy and complex procurement processes which would be required, the level of fees, and the poor environmental record of the Bank[39] . DFID as principal funder, supported by the other early entrant, the Danish Government, however had major concerns about financial management and fiduciary risk. Finally, there was accommodation and resolution with a three year time frame for the World Bank as administrator whilst capacity is built up in GoB and with GoB having sufficient safeguards about overall control. The GoB and the donors hope this fund will now act as a focus for additional resources. However, there are still likely to be further delays as proposals are created and assessed according to World Bank procedures which are criticised as being lengthy. Creating the BCCRF has been a challenge in terms of aligning GoB and donors' interest but it is now a model which is of interest at a global level.[40]

3.6.4 Strategic Programme for Climate Resilience (SPCR) Bangladesh

The third funding mechanism, through the Climate Investment Funds (CIFs) at the World Bank, also proved to be controversial at its inception for DFID in the UK as a principle funder, when it announced allocating what at that time were termed the Environmental Transformation Funds through the World Bank in 2008. As the modalities of the Adaptation Fund had just been agreed in Bali at COP13, when there had been disagreements about the role of the GEF, it seemed to many in civil society that this was an unwelcome proliferation of funds at a critical point, to an institution which was part of the problem, not the solution, and that support for poor countries affected by climate change should be in the form of loans not grants[41]. These issues were resolved by blending in grant components and providing concessional loans, but procedures involved in developing what became the PPCR have been very slow, in part in response to the formalities involved in constructing a transparent credible process and structure.

An amount of US$11m in the form of grants ($50m) and concessionary loans ($60m) from MDBs was approved for Bangladesh in October 2010 for "piloting" adaptation activities in climate vulnerable areas through the PPCR. It was one of the first countries selected. A significant amount of these funds are being allocated to top-up major investment projects, which had already been planned, and are also being funded with a loan component. The lead agency is the Asian Development Bank with the World Bank and IFC who are taking responsibility for different components.

To its credit the CIF process is comparatively transparent and well documented. This means there is a considerable amount of information which can be analysed[42]. Development was comparatively transparent, compared to the two trust funds. There were several preparatory meetings ahead of the formal mission, and there was a stakeholder consultation workshop. From these discussions, the four thematic areas were identified, which do overall seemingly "*support one of the country's top priorities:*

38 Natural Resources Planners (2010)
39 According to a 2009 New Age editorial, "10-15 per cent of the $5 billion that the MDTF will amount will possibly become a management fee for the bank" (between $500–$750 million).
40 See Gomez-Echeverri, 2010
41 See also Guardian 17-05-08 where the Bangladesh High Commission objected to the loan concept.
42 See World Bank website on the Climate Investment Funds

protecting people and land in low-lying coastal regions", according to the World Bank press release. These four are:

- Promoting climate resilient agriculture and food security
- Coastal embankments improvement and afforestation
- Coastal climate resilient water supply, sanitation, infrastructure improvement
- Technical assistance, climate change capacity building and knowledge management[43]

There is considerable ambition for the SPCR, with significant expected outcomes, which is somewhat surprising as essentially it is a "pilot" programme:

- Increased resilience of coastal infrastructure (housing, connectivity, flood control and improved drainage systems within polders, improved water supply and sanitation) for withstanding effects of climate induced seasonal and natural disasters.
- Reduced water and soil salinity and improvements in agricultural and fisheries production
- Improved capacity of MoEF to manage and coordinate investments in and knowledge on climate resilient initiatives.

Results will be tracked in numbers, acreages, percentage increases and losses, lengths and numbers, but essentially only parts of the country, and some people will be covered. The contentious issues, which were identified during interviews for the study, revolve around the grant versus loan issues (see Table 2 in Annex), and the heavy bias to hard infrastructure in the programme, which means global multilateral organisations (which are criticised by NGOs) will be working with some national key agencies that do not have general respect in terms of governance dimensions. The issue of coastal infrastructure has a long history of donor investment, and not necessarily with great success. One major programme the - Flood Management Plan - was eventually abandoned in the face of opposition from civil society. One interviewee commented that those that have (property) will be the beneficiaries. It is understood that no funds have yet been disbursed from the SPCR and accordingly it was not included in the expenditure review.

While discussing climate institutions it is also a pertinent question as to how is the process of allocations to spend on climate change issues and what are the sources of these funds. These issues are briefly discussed in the following sections.

3.7 Strengthening the Institutional Processes

3.7.1 New institutional mechanisms

Over the last few years, there has been significant change in the institutional landscape in Bangladesh (Alam et al 2011). The establishment of new institutions within government, political system, private sectors, research, academic, NGOs, network and campaigns has taken place. An All Party Parliamentary Group on climate change and parliamentary committee of coastal MPs has also been formed. Within the government, strengthening the institutional approaches to climate change, has taken place. Establishment of Climate Change Cell (CCC) in 2005 at DoE is one of such example[44].

A National Steering Committee on climate change has been established to coordinate and **f**acilitate national actions on climate change. It is chaired by the Minister of the Ministry of Environment and Forests and comprises the Secretaries of all climate-affected Ministries and Divisions, and representatives of civil society and the business community. It reports to the National Environment

[43] Viable MOEF equipped with the requisite human resources and technology for managing and coordinating investments in and knowledge on climate resilient initiatives

[44] The CCC produced a large number of documents on climate change issues in order to further enhance national level understanding on the issue.

Committee, chaired by the Prime Minister. The National Steering Committee on Climate Change also provides guidance on international climate change negotiations, including bilateral, multilateral and regional programs for collaboration, research, exchange of information and development.

The MoEF is the focal ministry for maintaining direct coordination with the UNFCCC and its related activities at global and national levels. The MoEF has now several agencies and institutional mechanisms to implement its mandate of environmental, natural resource and climate change management. These include:

- Climate Change Unit (CCU)
- Department of Forest (FD)
- DoE which houses the Climate Change Cell
- Bangladesh Forestry Research Institute (BFRI)

3.7.2 PECM

The UNDP conceived that combined effects of poverty, environmental degradation and climate change induced hazards make the lives of people difficult in many ways. Reflecting on this fact, UNDP designed and implemented a project called PECM (Poverty Environment and Climate Mainstreaming) aiming at reversing environmental degradation and strengthen adaptation in ways that benefits the poor, and that facilitate sustainable economic development at the same time. The PECM project is working to improve institutions at different tiers, update policies and develop investment environments which may contribute in enhancing pro-poor development and environment. The project seeks to enhance the institutional capacity of targeted national stakeholders, primarily the Planning Commission allowing them to integrate poverty-environment-climate linkages into national development planning and budget processes.

3.7.3 Climate Change Mainstreaming Efforts and BCCSAP

Recognising the demands for multi-stakeholder engagements towards addressing climate change, the GoB put emphasis on a coordinated approach. To this end, as mentioned earlier, the MoEF formulated the Bangladesh Climate Change Strategy and Action Plan (BCCSAP). The BCCSAP consists of themes encompassing all major aspects of livelihoods where adaptation would be necessary. This provides a framework to determine adaptation needs and to implement adaptation up to 2015. Out of 44 programmes, 28 have specific relevance to adaptation. The programmes for adaptation are organised under six major Pillars. To facilitate the process, the concerns of climate change are incorporated in long term planning processes such as the Sixth Five Year Plan. To steer BCCSAP related activities, a high powered ministerial committee was formed in early 2009. With its active guidance, the CCU within the MoEF is now to translate the mainstreaming mandate of the BCCSAP into actions.

3.8 Conclusions and Recommendations

3.8.1 Conclusions

- Spurred on by direct experience of some extreme weather catastrophes, there has been increased focus on handling climate induced vulnerabilities in the light of climate change across the national political consensus. Some of the dynamism and energy has resulted in tangible outcomes with new national and sectoral policies and institutions being developed in recent years all of which included climate change concerns.
- Ministries such as Local Government, Agriculture, Social Welfare, Water Resources, Ministry of Food and Disaster Management have climate change components and mandates. These

Ministries receive funds to implement programs (both for recurrent and capital) through ADP and non-development budgets. On the other hand, the MoEF has the mandate to implement projects from BCCTF and BCCRF. Therefore, there remains a tension among the Ministries over climate change related issues owing to the tension that exists between the development of policy and the differences in budget between institutions. This situation makes the case for clarification and specialisation of mandates and for strengthening the interface between key institutions.

- The intra-government coordination mechanism is a limitation. Bureaucracy appears to have hindered progress in this regard which points towards a real imperative in developing these. The study identified three aspects of co-ordination within Government:
    - Policy Co-ordination. By this we mean the achievement of balanced influence between sector policy and climate change policy given the evident level of integration of climate change and climate in the delivery of services. Both sectoral policy and national Climate Change strategy have influence and thus must be adequately balanced. This is the role of Planning Commission.
    - Technical Co-ordination. This role lies with MoEF at the moment and has evolved from an environmental mandate. However, large elements of the climate response in Bangladesh at this stage relate to adaptation strategies ranging from infrastructure to social protection programmes as well as a strong link to DRR.
    - Financial and Performance Co-ordination: This role lies with Finance Division and is implemented via the MTBF which acts as governance and performance management mechanism as well as matching resources to policy. Also, if the proliferation of funding sources is taken into account – at least five were identified – Finance Division has a crucial role in the co-ordination of funding.
- By extension, the interfaces between each mechanism take on crucial and central importance. These are an obvious and desirable focus to improve the flow of funds and to ensure that climate change is reflected properly in implementation. There are mutual interfaces between all three mechanisms: between Finance Division and Planning Commission in the funding of the ADP, between Planning Commission and MoEF in the development of policy and between Finance Division and MoEF through implementation of the MTBF.
- Currently, the main responsibility to foster adaptation lies with the lead institution, Ministry of Environment and Forest (MoEF). Unfortunately, its performance so far appears to have been limited for many reasons, such as weak structure, duality in mandate, lack of manpower, trained human resources and weak legal framework. It is argued that the MoEF has neither a clear legal mandate as yet, nor specific Rules of Business to lead all the activities centred on climate change in the country.
- It is encouraging to note that the NGOs of Bangladesh have been playing an important role in reducing climate change induced hazards. Some of the NGOs are engaged in massive public awareness campaign including preparedness training on climate change and sea-level rise and their impacts. Nevertheless, their efforts are not properly reflected in national programmes. A substantial portion of donors' assistance is channelled through NGOs. However, 'they operate completely outside the Joint Country Strategy (JCS) framework, leaving scope for potential overlap and duplication with the development programmes of the government'. There is also

insufficient capacity of local bodies to plan and manage climate related projects continues to remain a major challenge to improve on climate vulnerability.

- In addition to intra-government co-ordination, the co-ordination between institutions i.e. national, regional and local governments would appear to be quite limited, undermining the effectiveness of the results that the project outcomes are designed to achieve. This is perhaps best evidenced by the absence of climate change references in the MTBF of Local Government as mentioned in chapter 2.
- The involvement of the private sector is at its initial stage, and offers a lot of potential opportunities.. Bangladesh has not formulated a policy in relation to private sector involvement in Climate Change and has not set any target of preferred mix of funding or delivery modalities. This perhaps is a stage that should be considered more fully in the development of a National Climate Fiscal Framework
- Both development partners have separated climate funding from mainstream Government planning and expenditure for their separate reasons. On the Government side the grounds are that current processes of assessment within the Planning Commission are slow and would delay spending. At the inception workshop (03-08-11) representatives from both the Ministry of Finance and the Planning Commission discussed inclusion of existing climate change funding into the public financial management systems. The integrated Budgeting and Accounting System (iBAS) has the flexibility to add new functionalities and under the on-going reform agenda, there is a plan to revise the existing classification system. It was also stated that both the BCCRF and the PPCR are avoiding the formal system and this is against the principles of aid effectiveness, and that fiduciary risk cannot be an excuse to bypass national systems. However, as the Government's own Trust Fund also bypasses national systems, under an Act of parliament, there is clearly a need for movement on both sides.

3.8.2 Recommendations

1 The institutional mandates in respect of the three aspects of co-ordination should be clarified and steps taken to strengthen these and the interfaces between them. This should involve specific cross-institution actions involving Planning Commission, Finance Division, MoEF, DRR and other significant institutional partners within government that make a significant contribution to the government's climate change response.

2 There is also a case for strengthening the co-ordination between the levels of government and the various non-government institutions, including the private sector, involved in climate change in Bangladesh. It is also important that the private sector and civil society organizations create more inclusive partnerships so that all their efforts are coherent and have greater impact on reducing climate vulnerability. Existing institutions that could potentially be developed in this regard could include the Ministry of Industry and the NGO Bureau.

3 In respect of the BCCRF and BCCTF some consideration should be given to integrating the funds, whilst retaining their intended flexibility and agility of response, with existing country systems and in parallel, strengthening these country systems. This would seem to be an effective long term strategy with wider benefits than simply the impacts on climate change response.

4 The National Parliamentary Standing Committee on Environment should be empowered so that the body, with its legal authority, can oversee and guide various activities related to climate change, including involvement in international negotiations for adaptation. They may be actively made

involved in mainstreaming adaptation while sectoral allocations and priorities are made for the annual development plan.

5 It is important that foreign aid is more effective in order that results of the climate efforts are tangible and visible through proper planning, implementation and monitoring. As regards knowledge management, academic and research bodies and universities should give more efforts toward facilitating generation of information and knowledge related to climate change and its impact.

Chapter 4 - Expenditure Review

4.1 Introduction

The objectives of this expenditure and budgetary analysis are:

I. To set climate planned and expenditure in Bangladesh within an overall country context

II. To identify the scale and trends of planned and actual expenditure on climate actions;

III. To understand expenditure patterns of climate sensitive spending in Central Government; and

IV. To examine sources of funding for climate actions.

The review used financial information published in the Government of Bangladesh Budget Brief, Annual Development Programmes (ADP) and by extraction of financial information from the Government's main accounting and budgeting record, iBAS. The main sources of information are shown in Table 9: Summary of Data Sources below:

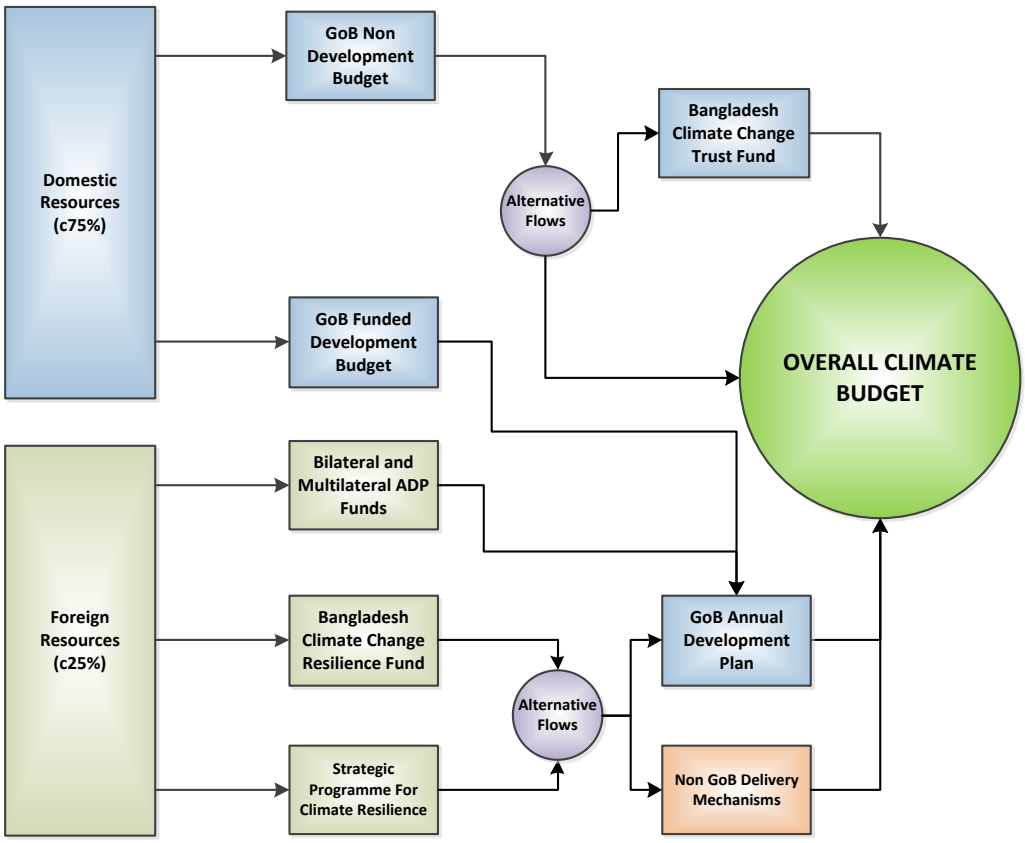
Table 9: Summary of Data Sources

	Government of Bangladesh Sources of Financial Information			
	Non-Development		Development	
Year	**Overall**	**Source**	**Climate**	**Source**
2008/09	Original Budget	Budget Brief	Original Budget	N/A
	Revised Budget	Budget Brief	Revised Budget	N/A
	Actual Expenditure	Budget Brief	Actual Expenditure	N/A
2009/10	Original Budget	Budget Brief	Original Budget	N/A
	Revised Budget	Budget Brief	Revised Budget	ADP / iBAS
	Actual Expenditure	Budget Brief	Actual Expenditure	iBAS
2010/11	Original Budget	Budget Brief	Original Budget	N/A
	Revised Budget	Budget Brief	Revised Budget	ADP / iBAS
	Actual Expenditure	Budget Brief	Actual Expenditure	iBAS
2011/12	Original Budget	Budget Brief	Original Budget	ADP / iBAS

The main focus of the review was Government; however, a review of disbursements and planned disbursements from Donor Funds, primarily the Bangladesh Climate Change Resilience Fund (BCCRF) and the Strategic Program for Climate Resilience (SPCR) was also conducted.

A simplified overview of Climate Funding ion Bangladesh indicating the main areas of focus is shown below in **Figure 6: Simplified Overview of Climate Funds Flow (Bangladesh)**:

Figure 6: Simplified Overview of Climate Funds Flow (Bangladesh)



Within Figure 6 alternative flows for both domestic and foreign resources include various mechanisms such as, for example, the use of Palli Karma Sahayak Foundation (PKSF) for the BCCRF as well as internal Government arrangements for ADP and Non-ADP funds. The diversity and number of institutions involved in delivery of climate finance adds a further complexity as each has its own governance and accounting arrangements.

4.2 Contextual Overview of Government Finance 2008/09 to 2011/12

4.2.1 Overall Government Budget

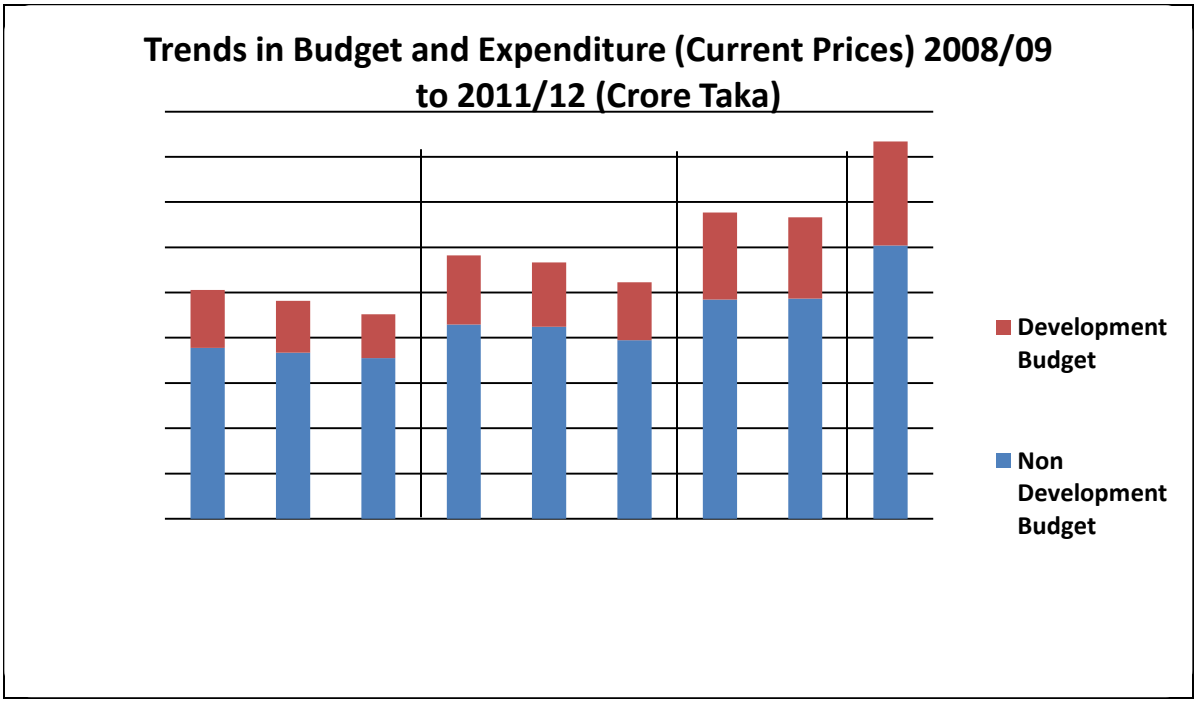
The overall financial context within which Climate activity is undertaken is a financial expansion of Government activity. The rate of growth in the Government budget in the years reviewed, 2008/09 to 2011/12 has exceeded inflation. This is illustrated on an indicative basis from publicly available sources and by calculations and analysis performed during the study. It can be concluded from the analysis that there is real growth in Government budget and expenditure.

Table 10: Inflation and Growth in Government Budget Compared

Year	Increase in GoB Original Budget[45]	Increase in Actual Expenditure[46]	Rate of Inflation[47]
2008/09		0.5%	6.7%
2009/10	15%	15.6%	7.3%
2010/11	16%		8.8%
2011/12	23%		11.3%

This increase in Government expenditure in real terms is an important contextual consideration as managing growth effectively in an organisation on the scale and diversity of the Government of Bangladesh is a significant managerial undertaking, which requires institutional capacity and efficient systems of governance, financial control, internal control and performance management. Climate activity within this environment must therefore be viewed as one of a number of Government initiatives each with objectives and targets to be met. The data used to develop **Chart 1** is shown at **Appendix 2: Financial Data – Overall Government Budget and Expenditure 2008/09 to 2011/12**.

Chart 1: Trends in Overall GoB Budget and Expenditure 2008/09 to 2011/12



The main, contextual findings to note from **Chart 1** in respect of overall budget preparation and execution by Government are summarised below:

- The overall GoB budget is generally split around 75/25 between non-development and development. The greater part of expenditure is non-development.

[45] Calculated From Budget Brief.
[46] Calculated from indices in Bangladesh Economic Review 2010 and review of Budget Brief
[47] Inflation and GDP (except 2011-12) from BBS, 2011-12 GDP data from Budget in Brief and Inflation on the basis of 6 month average

- There is a small but discernible shift in the allocation of resources from non-development to development in the overall budget – the non-development proportion declined from 75% in 2008/09 to 72% in 2011/12.
- There is an overall trend of growth in GoB Budget and Expenditure and in each of its constituent components. From2008/09 to 2011/12 the Government budget has increased by 64.9% overall. The Annual Development Programme has increased by 79.7% and the non-development budget by 59.8% in the same timeframe.
- However, on reviewing actual expenditure there is a difference between the non-development budget and Annual Development Programme as spending delivery mechanisms. In general terms, the non-development budget underspent at between 3% and 8% of budget, whilst the Annual Development Programme underspent by 10% and 24% in the same timeframe. Fuller details are shown at Appendix 2: Financial Data – Overall Government Budget and Expenditure 2008/09 to 2011/12 (Table 38 and Table 39)
- Government budgets and expenditure are a significant part of GDP[48]. This is shown in Table 11 below:

Table 11: Government Expenditure as % of Gross Domestic Product

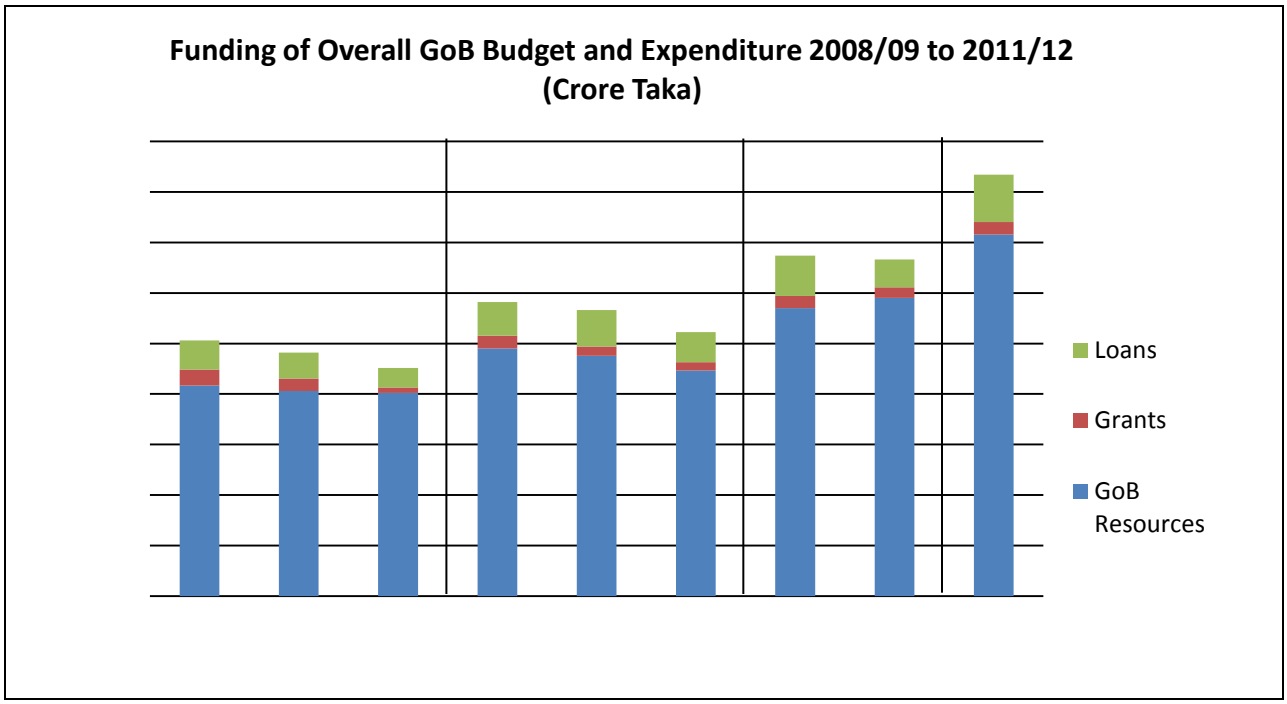
Year	Government Budget as % of GDP
2008	14.5%
2009	14.6%
2010	15.9%
2011	17.9%

4.2.2 Funding of Overall Government Expenditure

It was noted above that the GoB Budget and Expenditure is increasing which raises the question of how this is being funded. **Chart 2** below presents the funding of budgets and expenditure split between domestic and foreign resources and further splits foreign resources between grants and loans to determine if patterns and trends emerge. The data used to generate the chart is shown at **Appendix 3: Funding of Overall Government Budgets and Expenditure 2008/09 to 2011/12** (Table 40).

[48] Per IMF: http://www.imf.org/external/np/sec/pn/2011/pn11132.htm

Chart 2: Funding of Overall GoB Budget and Expenditure 2008/09 to 2011/12



The following summarises the main findings from the analysis of overall GoB budgets and expenditure:

- Typically the GoB finances over 80% of expenditure and budget and the element funded by GoB has increased from 82% in 2008/09 to 85% in 2010/11. This pattern is observable in both budgets and in actual expenditure.
- The non-development budget overall is almost entirely funded by GoB. In 2008/09 it was funded 96% by GoB and by 2011/12 this had risen to 98%.
- The Annual Development Programme is generally funded in equal proportions by donor and government resources. However, the GoB element of funding has been increasing in recent years – in the 2008/09 budget the GoB element was 43% whereas by 2011/12 this had risen to 54%.
- Whilst GoB has committed more than 50% of resources in the original and revised budgets since 2009/10 there is no discernible pattern in funding of actual expenditure – in 2008/09 expenditure was 54% funded by GoB and 44% in 2009/10.
- Perhaps the most noticeable pattern in the overall funding of budgets and expenditure is the shift in the nature of foreign resources committed and utilised in budgets and expenditure. The vast majority of foreign resources are utilised for the Annual Development Programme and expenditure. The proportions and trends are illustrated in **Table 12** below:

Table 12: Analysis of Foreign Resources 2008/09 to 2011/12

Analysis of Foreign Resources (Crore Taka)	Budget 08/09	Revised 08/09	Actual 08/09	Budget 09/10	Revised 09/10	Actual 09/10	Budget 10/11	Revised 10/11	Budget 11/12
Foreign Resources as % of Overall Budget / Expenditure	17.6%	15.7%	11.0%	15.8%	16.1%	14.5%	15.4%	11.4%	14.2%
Comprising:									
Grants	5,320	4,485	1,756	4,690	3,500	3,217	4,550	3,850	4,555
Loans	9,270	8,505	7,245	11,675	13,000	11,004	14,250	9,350	16,650
	14,590	**12,990**	**9,001**	**16,365**	**16,500**	**14,221**	**18,800**	**13,200**	**21,205**
% Split of Foreign Resources									
Grants	36.5%	34.5%	19.5%	28.7%	21.2%	22.6%	24.2%	29.2%	21.5%
Loans	63.5%	65.5%	80.5%	71.3%	78.8%	77.4%	75.8%	70.8%	78.5%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

It can be seen in the table that there is a discernible shift within the foreign resources utilised from grant funding to loan funding over the period from 2008/09 to 2011/12 from 63.5% to 78.5% as well as a fall on the overall utilisation of foreign resources in budgets and expenditure.

4.2.3 Summary of Main Findings From Review of Overall GoB Budgets and Expenditure

1. Both Annual Development Programme and non-development budgets and expenditure have increased in real terms year on year since 2008/09. This indicates that the Government is managing growth in activity within an already complex and diverse organisational context.
2. The magnitude of growth is also significant over the period 2008/09 to 2011/12 with Annual Development Programme increasing by 79.7% and the non-development budget by 59.8%.
3. The non-development budget accounts for about three quarters of GoB budgets and expenditure. However, between 2008/09 and 2011/12 there has been a slight shift from Annual Development Programme based expenditure to non-development. The non-development element increased from 75% to 78% over this period.
4. The non-development budget generally underspends by a smaller proportion than the Annual Development Programme. This perhaps indicates a more efficient expenditure delivery mechanism; however this finding can offer no insight on the effectiveness of expenditure in meeting objectives. Essentially this indicates that full budget execution is typically not achieved in either Annual Development Programme or non-development budgets.
5. Typically the GoB finances over 80% of expenditure and budget and the element funded by GoB has increased from 82% in 2008/09 to 85% in 2010/11, indicating a corresponding reduction in

the utilisation of foreign resources. There has also been a discernible shift in foreign resources within the overall basket of funding from a grants basis to loans from 63.5% loan funded in 2008/09 to 78.5% loan funded in 2011/12.

4.3 Review of Climate Budgets, Expenditure and Funding

4.3.1 Definition and Methodology

There is no agreed accounting definition for the functional classification of climate change-related expenditure in use in the Government of Bangladesh, or on a wider basis. This is perhaps not surprising, as the GFSM 2001[49], the international standard that sets out the Classification of the Functions of Government (COFOG), does not identify climate change or climate related expenditure other than a single reference to Climate Protection under the Pollution Abatement function in Environmental Protection. The absence of a functional definition makes classifying climate budget and expenditure a subjective and judgmental task. Climate change expenditure – as exemplified by the six themes in BCCSAP – is a cross-cutting response and is found in a diverse range of budget heads.

The budget and expenditure classification chart (Chart of Accounts) of the Government of Bangladesh has around 13,500 codes to classify budgets on an administrative and operational (Ministry and Institution) and functional (COFOG) basis. The Chart of Accounts is currently under review by the Government and is expected to be GFSM 2001 compliant on completion of this ongoing work.

Within the Chart of Accounts a total of nineteen codes include the term 'climate' or 'climate change' in the title. This small number is perhaps as a direct result of the absence of a functional classification within the international standard. The diversity of activity within the climate response in Bangladesh required that consideration had to be given to codes beyond those simply referencing climate or climate change in the title. Accordingly, the study developed an analytical framework that was used to analyze expenditure and budgets by identifying codes in the Chart of Accounts and attributing climate change proportions within these budgets on an informed, judgment basis. The methodology is outlined in full at **Appendix 4: Analytical Framework - Climate Change**.

4.3.2 Planned and Actual Climate Expenditure

The study reviewed financial records outlined at **Table 9: Summary of Data Sources** and identified climate related projects, programmes and codes – referred to as programmes with a climate dimension. Programmes and projects are implemented by Ministries within the Government's Medium Term Budget Framework (MTBF) that sets out the Ministry mission and key activities and also set the performance framework, including performance indicators, for the Ministry as an organisational unit. This is an important consideration from a policy implementation perspective. The Ministry and its constituent Divisions and Departments have lead organisational responsibility for the delivery of programme objectives in relation to Climate. **Table 13** (Non Development Budget) and **Table 14** (Annual Development Programme) below shows a summary of the number of codes identified (by year) and the Ministries involved in the delivery of climate programmes. In summary, the analytical framework was applied to all 13,500 codes in the Chart of Accounts. A total of 180 non-development codes and 669 development codes were identified as shown in **Table 13** and **Table 14**:

[49] Government Finance Statistics Manual 2001

Table 13: Non Development Budget – Summary of Programmes Identified[50] 2008/09 to 2011/12

Ministry / Division	2008/09 (OB)	2008/09 (RB)	2008/09 (Actual)	2009/10 (OB)	2009/10 (RB)	2009/10 (Actual)	2010/11 (OB)	2010/11 (RB)	2010/11 (Actual)	2011/12 (OB)
Agriculture	6	17	17	8	61	61	54	97	97	15
Disaster Management	0	0	0	0	6	6	6	9	9	10
Social Welfare	4	4	4	4	4	4	6	6	6	6
Women & Children Affairs	4	4	3	3	3	3	5	5	5	5
Environment & Forest	0	4	4	6	14	14	14	15	15	11
Water Resources	0	0	0	0	15	15	15	15	15	14
Fisheries & Livestock	1	2	2	2	9	8	8	10	9	6
Local Government	0	0	0	0	0	0	1	6	6	5
Shipping	0	0	0	0	0	0	1	3	3	2
Cultural affairs	0	0	0	0	0	0	0	7	7	5
SICT	0	0	0	0	1	1	1	1	1	1
Planning	0	0	0	0	0	0	0	1	1	1
Statistics	0	0	0	0	0	0	1	1	1	0
Home	1	1	1	1	1	1	1	1	1	0
Jute & Textile	0	1	1	0	1	1	1	1	1	0
TOTALS	**16**	**33**	**32**	**24**	**115**	**114**	**114**	**178**	**177**	**81**

Table 13 identifies two general findings:

- Firstly, the diversity of Ministries and Divisions involved in the delivery of climate programmes (funded almost entirely by GoB) and;
- Secondly, the rapid increase in the number of codes between 2008/09 and 2011/12.

However, perhaps the most interesting finding is the magnitude of the increase in the number of codes in 2009/10 between the original budget and revised budget from 24 to 115, concentrated in Agriculture and Water Resources. This timing is consistent with the publication and subsequent implementation of the Bangladesh Climate Change Strategic Action Plan (BCCSAP).

In the Annual Development Programme a similar diversity of Ministries is reflected in the programmes identified by the analytical framework. A total of thirty five of the fifty seven organisational units (Ministries or Divisions) covered by the MTBF had at least one climate related programme in the period 2009/10 to 2011/12. This indicates a broad constituency of interest in delivering the outcomes of climate response in the GoB. **Table 14** identifies the Ministries and Divisions with the highest number of climate programmes. **Appendix 6:** Annual Development Programme Ministry Programmes 2009/10 to 2011/12 shows the full list of thirty five Ministries and Divisions.

[50] OB – Original Budget; RB – Revised Budget; Actual – Actual Expenditure

Table 14: Development Budget – Summary of Programmes Identified 2009/10 to 2011/12

Ministry / Division	2009/10	2010/11	2011/12
Local Government Division, Local Government Ministry	102	96	87
Water Resources	48	59	60
Agriculture	42	51	76
Roads and Railway Division, Communication	39	47	57
Environment and Forest	29	39	26
Fisheries and Livestock	24	27	31
Energy and Mineral Resources Division, Power, Energy and Mineral Resources	13	15	17
Education Ministry	13	26	21
Health and Family Welfare Ministry	12	11	3
Other Ministries and Divisions (26)	77	84	84
Total Number of Programmes	**399**	**455**	**462**

Table 14 highlights the following points:

- As with the non-development budget, the diversity of interest is evident in the range of Ministries involved in delivering climate programmes.
- The number of programmes overall is increasing year on year.
- In most Ministries in the table, the number of programmes in absolute terms is high which perhaps can bring co-ordination and alignment challenges when considering delivery.

4.3.3 Climate Programme Budgets and Expenditure

The overview of climate finance in GoB is based on the available data for both Annual Development Programme and non-development budgets. The following financial data was therefore used in the analysis:

- 2011/12 Original Budget
- 2010/11 Revised Budget
- 2009/10 Revised Budget

The data presents sufficient range and coverage to give an indication of the significance of climate finance within GoB in terms of budget, expenditure and funding[51]. The analysis of climate budgets, expenditure and funding is presented below in Table 15 and Table 16.

[51] It is noted on page 83 that "The non-development budget overall is almost entirely funded by GoB. In 2008/09 it was funded 96% by GoB and by 2011/12 this had risen to 98%. In the funding analysis of climate finance it has been assumed, in the absence of specific information to the contrary from study research, that all programmes with a climate dimension in the non-development budget are funded 100% by GoB.

Table 15: Programmes with a Climate Dimension - Expenditure and Budgets as Percentages of GoB and GDP

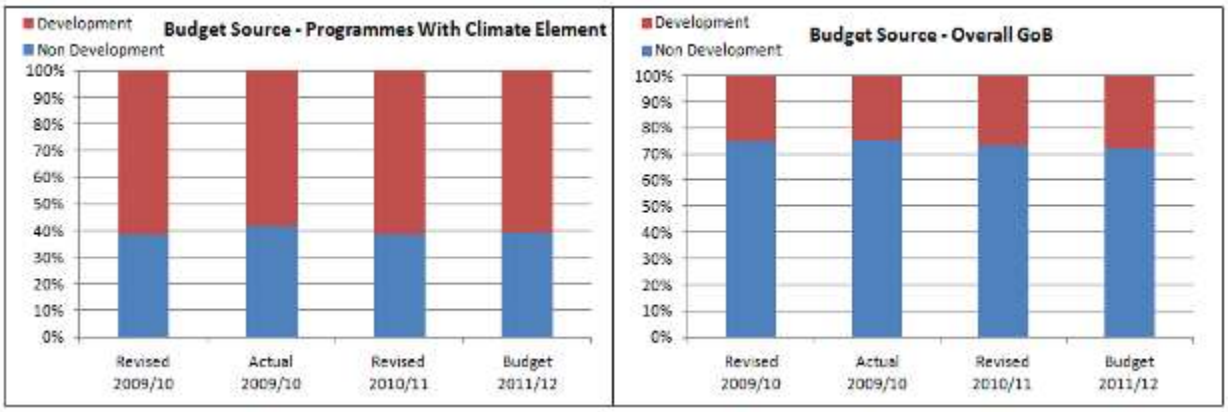
Value of Programmes With a Climate Dimension (Lakh Taka)	**Revised 2009/10**	**Actual 2009/10**	**Revised 2010/11**	**Budget 2011/12**
Non Development Budget	1,031,973	1,012,986	1,334,873	1,213,874
Annual Development Programme	1,642,987	1,406,839	2,098,909	1,895,554
Climate Programmes Total	**2,674,960**	**2,419,825**	**3,433,782**	**3,109,428**
Year on Year Change		-9.5%	41.9%	-9.4%
Overall Increase 2009/10 to 2011/12				**16.2%**
Total GoB Budget / Expenditure (Lakh Taka)	**Revised 2009/10**	**Actual 2009/10**	**Revised 2010/11**	**Budget 2011/12**
Non Development Budget	8,481,000	7,891,500	9,732,400	12,079,900
Annual Development Programme	2,850,000	2,555,200	3,588,000	4,600,000
Total Government Budget	**11,331,000**	**10,446,700**	**13,320,400**	**16,679,900**
Value of Programmes With a Climate Dimension as % of Overall GoB	23.6%	23.2%	25.8%	18.6%
Value of Programmes With a Climate Dimension as % of Non Development	12.2%	12.8%	13.7%	10.0%
Value of Programmes With a Climate Dimension as % of Annual Development Programme	57.6%	55.1%	58.5%	41.2%
Gross Domestic Product (GDP)	**69,432,400**	**69,432,400**	**78,749,500**	**89,967,000**
Value of Programmes With a Climate Dimension as % of GDP	3.9%	3.5%	4.3%	3.4%

The main findings from this analysis of budgets and expenditure – based on programmes with a climate dimension are shown below:

- The period from 2009/10 to 2011/12 saw an increase in budgeted resources for programmes with a climate dimension of 16.2%. The major proportion of the increase arose between 2009/10 and 2010/11 – perhaps as a result of the publication and commencing implementation of BCCSAP.
- The magnitude of increase in the constituent parts of the budget (ADP and non development) were similar over the period at 15.4% and 17.6% respectively
- Programmes delivering climate response activities represent around 3% to 4% of Gross Domestic Product in Bangladesh
- A figure in the range of 18% to 25% is a rough indication of the annual value of government budget and expenditure on programmes with a climate dimension in Bangladesh. This is a significant proportion of government activity contributing to what is already recognised as a significant National challenge. This magnitude suggests a need for specific procedural recognition within budget processes.
- Climate programmes form a significant proportion of the Annual Programme / Development budget of the Government. This, again, perhaps suggests a need for specific procedural recognition within development budget processes.

- The Annual Development Programme is a more significant budget source for programmes with a climate dimension than general expenditure in the GoB. This point is illustrated in **Chart 3** below:

Chart 3: Budget Source Climate v GoB as a Whole



The significance for climate response of this proportion of the ADP utilised for climate programmes is perhaps a process based point. It was noted previously that, in broad terms, the ADP is more likely to underspend than the non-development budget.

4.3.4 Funding of Programmes with a Climate Dimension

It was noted previously in the text below **Chart 2**: Funding of Overall GoB Budget and Expenditure 2008/09 to 2011/12 that GoB funds around 80% to 85% of overall government expenditure from domestic resources (including general taxation and borrowing). Climate programmes are similarly, largely funded from GoB resources although there is evidence that, perhaps reflecting climate as a government and donor priority activity, climate programmes are funded to a greater extent by foreign resources than is GoB expenditure and budgets as a whole. This is particularly marked in the case of programmes funded in the ADP. This is illustrated in **Table 16** and **Chart 4** below:

Table 16: Funding of Programmes with a Climate Dimension

Funding of Programmes with a Climate Dimension (Lakh Taka)	**2009/10 Revised**	**%**	**2010/11 Revised**	**%**	**2011/12 Original**	**%**
GoB – Non Development	1,031,973	38.6%	1,334,873	38.9%	1,213,874	39.0%
GoB – ADP	1,015,985	38.0%	1,324,757	38.6%	1,199,965	38.6%
Donor – Loans	362,113	13.5%	482,283	14.0%	575,896	18.5%
Donor – Grants	264,889	9.9%	291,869	8.5%	119,693	3.8%
Total Climate	**2,674,960**	**100.0%**	**3,433,782**	**100.0%**	**3,109,428**	**100.0%**
GoB v Donor		%		%		%
GoB		76.6%		77.5%		77.6%
Donor		23.4%		22.5%		22.4%
		100.0%		**100.0%**		**100.0%**
Proportions of Donor Funds		**%**		**%**		**%**
Loans		57.8%		62.3%		82.8%
Grants		42.2%		37.7%		17.2%
		100.0%		**100.0%**		**100.0%**

The main findings from this analysis are shown below:

- GoB funds a consistent level of resources of programmes with a climate dimension in the period reviewed. This is typically around 77%, although the GoB element shows a slight increase over the period.
- There has been a marked shift within the commitment of foreign resources to programmes with a climate dimension over the period reviewed. There is a trend towards greater emphasis on loan funding, from 57.8% on the 2009/10 ADP to 82.8% in the 2011/12 ADP. The overall proportion of foreign resources committed is consistent as a percentage of the overall basket of funding – as is the GoB element.
- The levels of resources committed by GoB and Donors to programmes with a climate dimension have increased over the period reviewed, although it was noted that the original budget in 2011/12 shows a reduction against revised budget for 2010/11. However, it was noted from data in **Appendix 2** that, overall, the non-development budget tends to increase slightly on in-year revision whilst the ADP tends to be revised downwards.
- Between 2008/09 and the original budget of 2011/12 (the latest available data) the financial commitment to climate programmes by both donors and government has increased; GoB resources by 17.9% and donor resources by 10.9% This is illustrated in **Table 17** below:

Table 17: Increase in Financial Commitment – Programmes with a Climate Dimension 2009/10 to 2011/12

Lakh Taka	Revised 2009/10	Revised 2010/11	Budget 2011/12	% Increase
GoB	2,047,958	2,659,630	2,413,839	**17.9%**
Foreign Resources	627,002	774,152	695,589	**10.9%**
Total	**2,674,960**	**3,433,782**	**3,109,428**	**16.2%**

It was noted above that GoB funds overall non development expenditure almost entirely and it has been assumed, in the absence of findings to the contrary, that GoB funds 100% of non-development budget and expenditure in programmes with a climate dimension. There is, however, a noticeable difference between overall funding of the ADP and funding of programmes with a climate dimension *within* the ADP. This is illustrated in **Chart 4** below:

Chart 4: ADP Funding Overall v ADP Funding of Programmes with a Climate Dimension

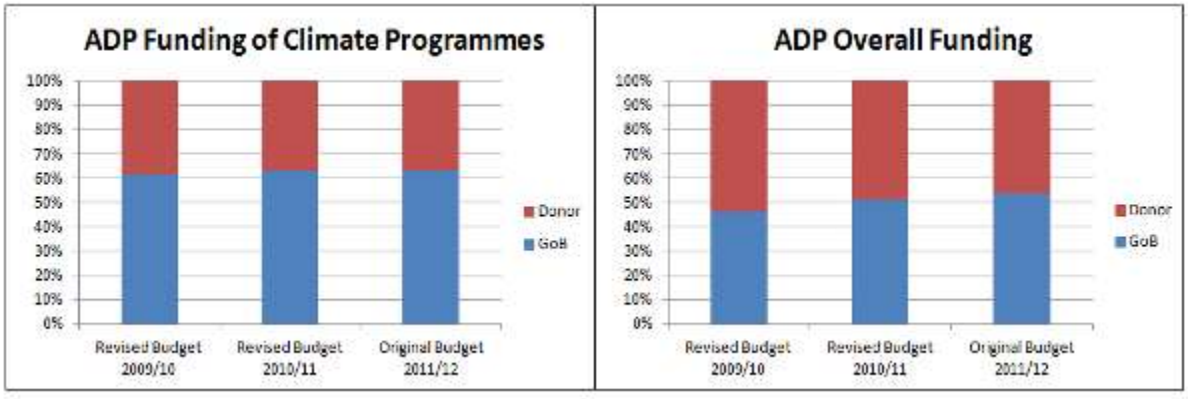


Chart 4 illustrates that whilst donor funding consistently accounts for around 50% of overall ADP funding, it consistently accounts for around 40% of the funding of programmes with a climate dimension. This point is exemplified more fully in data shown at **Appendix 7**: Comparison of Overall ADP Funding with Funding of ADP Programmes with a Climate Dimension. This finding perhaps hints at a central issue in the definition and financial management of climate change in that foreign resources are targeted at the climate *change* element of programmes whilst the Government response to climate change is integrated with its response to climate in general. This perhaps indicates that strategic programmes with a climate change *dimension* are less likely to attract climate change funding. However, this point would require further research to gain deeper insight.

The study did not have ready access to the funding proportions of actual expenditure on climate programmes in the ADP, however if overall ADP expenditure is taken as a proxy, given that the mechanism to deliver funding is the same, it would seem that there is little discernible pattern from the data available to determine if there is a procedural connection between original sources of funding and eventual delivery of spend. This aspect of delivering climate finance may well be considered for further study. The point is illustrated in **Table 18** below:

Table 18: Funding Proportions of Overall ADP Expenditure

Funding Proportions of Overall ADP Expenditure	Expenditure	
	2008/09	2009/10
GoB	53.5%	44.3%
Foreign Grants	9.1%	12.6%
Foreign Loans	37.4%	43.1%
Total	**100.0%**	**100.0%**

4.3.5 Summary of Financial Review of Programmes with a Climate Dimension

- From the 13,500 codes in the GoB Chart of Accounts a total of 180 non-development programmes and 669 ADP programmes were identified as having a climate dimension in their activities.
- A total of 37 of the 57 Ministries or Divisions within the MTBF process manage at least one programme or project with a climate dimension within its activities.
- 2009/10 saw a large increase in the number of climate change related programmes in the GoB; from 24 to 115 in the non-development budget alone. This timing perhaps relates to implementation of BCCSAP.
- Around 20% to 25% of the overall government budget and expenditure is on programmes with a climate dimension within their activities.
- A significant proportion of the value of the ADP is committed to programmes with a climate dimension. This was as high as 58.5% in recent years (2010/11).
- Financial commitments to programmes with a climate dimension represent around 4% to 5% of Gross Domestic Product. This is obviously a very significant annual undertaking with attendant economic and managerial implications.
- Around 60% of the budget for climate related programmes is sourced in the development programme as opposed to around 25% in the government as a whole. This perhaps illustrates the priority of climate related activity as a key part of development.
- The GoB funds approximately 77% of all expenditure in programmes with a climate dimension. The GoB also finances the majority of overall commitments to programmes with a climate

dimension in both development and non-development budgets. In the former, the government finances around 60% of commitments, whilst the in the latter, the GoB funds 100% of budgets and expenditure.

- There is no discernible pattern in the source of funding of actual expenditure in respect of programmes with a climate dimension. However, in both years where data was available (2009/10 and 2010/11) expenditure was close to being evenly funded by Government and Donors.
- Foreign resources contribute around 23% of funding to programmes with a climate dimension. However, there has been a marked move from grant finding to loan funding of these programmes in recent years. Loan funding increased from 58% to 82% of foreign resources between the 2009/10 and 2011/12 programmes.
- In the ADP, programmes with a climate change dimension are funded by a greater proportion of domestic resources than is the case with the ADP as a whole.
- Expenditure and commitment of resources to programmes with a climate dimension has increased by 16% between 2009/10 and 2011/12.
- There is a 'gearing effect' evident in the increased commitment to programmes with a climate dimension. The increase in climate related commitments by 16% between 2009/10 and 2011/12 required a greater commitment of GoB funding to achieve this. GoB commitments increased by 18% in the period whilst foreign resources increased by 11%.

4.4 Review of Programmes with a Climate Dimension – Relevance Analysis

4.4.1 Introduction

It was outlined in the **Definition and Methodology** that a programme with a climate dimension did not indicate that all of the resources in that programme were of direct relevance. Accordingly, a further analysis was conducted of programmes with a climate dimension based on relevance criteria. Each programme identified was evaluated against the following criteria:

Table 19: Relevance Criteria - Programmes with a Climate Dimension

Scale	Activity Relevance	Rationale	Sample Programmes From ADP and Non Development Budgets
1	Strongly relevant (Climate Dimension Weighting 75%+)	Concrete, direct and highly (potentially) visible outcome / effect due to investment Activity which is fundamental in the design of the activity, with an explicit objective of mitigation / adaptation (Activities related to BCCSAP's 44 Programmes) forestation, conservation, eradication of pests and diseases, soil ecosystems, grain quality improvement new/redesigned dykes, polders, cyclone shelters, warning and forecasting, , roads/homestead raising estuary development	ADP Programmes: Emergency Disaster Damage Rehabilitation (Sector) Project-2007 (Part-C: Rural Infrastructure) (1/1/2008-31/12/2010 Secondary Towns Integrated Flood Protection Project (Phase-2) (01/07/2004 - 30/06/2011) Non Development Budget Sample Programmes: Solar Energy Utilization and Development of its Related Technology Bangladesh Climate Change Trust Fund[52]
2	Significantly	Remarkable and somewhat concrete and	ADP Programmes:

[52] NB: This is the payment to the fund by GoB, not disbursements from the fund to beneficiary projects and programmes

Scale	Activity Relevance	Rationale	Sample Programmes From ADP and Non Development Budgets
	relevant (Climate Dimension Weighting 50% to 74%)	<u>(potentially) visible outcome / effect</u> - Objectives important but not one of the principal reasons for undertaking the activity. irrigation facilities/efficiency, removing water logging, crop diversification, biotechnology, innovation of new varieties, new efforts for removing water logging Social Protection schemes Health initiatives	Reduction of poverty through Nagor Partnership (1/1/2007-30/3/2015) Modernisation of Facilities to Increase Supply of Standard Quality of Seed-(01/07/06 - 30/06/11 <u>Non Development Budget Sample Programmes:</u> Vulnerable Group Development Programmes Rehabilitation Programme for Fish Farmer & Fishermen in the Cyclone Aila Affected Area (2009-10 to 2011-12
3	Somewhat relevant ([53]Climate Dimension Weighting 25% to 49%)	<u>Indirect with some potential effect:</u> rehabilitation of embankments, polders, water logging land use change, ruminant agriculture, storage creation, AIGs, poverty reduction, , livelihood enhancement, R& H construction in 'critical' regions/hotspots O & M, emergency measures, capacity/ resilience building) human capital development, training research, extension service, measures to respond to changing climate, awareness building	<u>ADP Programmes:</u> Karnafuli Water Supply Project (1/3/2006-30/6/2012) Improved Health for Poor: Health, Nutrition and Population Research Project (1/7/2004-31/12/2012 <u>Non Development Budget Sample Programmes:</u> Procurement, Processing and Distribution of Improved Seeds (2003-04 to 2010-11 Management of Buffer Stock of Seed (2009-10 to 2013-14)
4	Implicitly relevant (Climate Dimension Weighting 0% to 24%)	<u>Implicit effect</u> local/feeder roads, culverts construction, international trade promotion river training, bank protection	<u>ADP Programmes</u>: Bangladesh Railway Sector Improvement Project : Construction of Double line Between Tongi and Bhairab Bazar Including Signalling (01/07/2006- 30/06/2011) Second Rural Infrastructure Improvement Project : RIIP-II (1/7/2006-30/6/2012) <u>Non Development Budget Sample Programmes:</u> Old Age Scheme Agriculture Subsidy Management

As emphasised in the methodology and definition, there is no standard for the classification of climate change budgets and therefore local knowledge and subjective, qualitative judgements were used to

[53] Refer to Table 45 and Table 46 for estimated weighted averages of the climate dimension within the budgets attributable to each band of relevance

identify programmes and to classify them within the relevance framework – part of this was due to the absence of definitive geographic information or Development Pro-Formas for example. In general terms, a cautious approach was taken in terms of determining relevance and there a number of instances where programmes could be classified in an alternative banding. It is therefore counselled that figures on relevance analysis are indicative rather than definitive. The allocation of budgets, expenditure and programmes within the bandings could be considered as a potential area for further work.

4.4.2 Relevance Analysis – Indicative Financial Significance

As mentioned above, a total of 37 ministries or divisions have had at least one programme that includes a climate dimension in the period 2009/10 to 2011/12. A full list of these Ministries and their combined development and non-development budgets for programmes containing a climate dimension for 2009/10, 2010/11 and 2011/12 is shown at **Appendix 8: Combined Ministry Budgets 2009/10 to 2011/12**. The main finding from the data is that the Ministries / Divisions with the ten highest allocations across the three years account for 88.5% of the resources allocated to these programmes under the combined ADP and non development budgets. This is shown **Table 20** below:

Table 20: Key Ministries (Financial Basis) in the Delivery of Climate Activities

Ministry (Lakh Taka)	Total Resources Allocated (2009/10 to 2011/12)	% of Total
Local Government Division	2,038,269	22.1%
Agriculture	1,816,482	19.7%
Disaster Management and Relief Division	1,617,476	17.5%
Primary and Mass Education	537,712	5.8%
Roads and Railway Division, Communication	532,158	5.8%
Water Resources	403,721	4.4%
Social Welfare	365,089	4.0%
Planning Division	338,347	3.7%
Women & Children Affairs	255,426	2.8%
Environment and Forest	250,660	2.7%
Other Ministries / Divisions (27)	1,062,831	11.5%
Totals	**9,218,172**	**100.0%**

However, as noted earlier, not all expenditure or resources allocated within these programmes are primarily directed to climate change. Accordingly, the total resources allocated have been analysed by relevance using the criteria in **Table 19**. Overall summaries of the development and non development budget by relevance, shown in **Appendix 9**: Climate ADP and Non Development Budgets Analysed By Relevance with a summary combining both budgets below in **Table 21**:

Table 21: Combined GoB Budgets – Programmes With A Climate Dimension - By Relevance

TOTAL BUDGET (LAKH TAKA)	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	134,315	5.0%	133,594	3.9%	119,205	3.8%
2 Significantly	226,183	8.5%	268,310	7.8%	268,732	8.6%
3 Somewhat	710,107	26.5%	1,021,839	29.8%	1,096,483	35.3%
4 Implicitly	1,604,355	60.0%	2,009,714	58.5%	1,625,008	52.3%
Climate Total	**2,674,960**	**100.0%**	**3,433,457**	**100.0%**	**3,109,428**	**100.0%**
GoB Total Budget	**11,331,000**	**23.6%**	**13,320,400**	**25.8%**	**16,679,900**	**18.6%**
GDP	**69,432,400**		**78,749,500**		**89,967,000**	

The most significant finding from **Table 21** is that

- The overwhelming majority of programmes with a climate dimension were assessed as either somewhat (3) or implicitly (4) relevant. This tends to suggest that the approach to the delivery of climate finance and climate response is closely aligned to the delivery of programmes also designed to meet objectives other than climate related outcomes – and also that existing programmes and institutions are being utilised as key elements of climate response. In other words, climate change response by the Government is an integrated element of a multi dimensional approach where expenditure simultaneously addresses multiple development deficits within the same programme – climate change being one such dimension. This may also be characterised as developing resilience to climate issues by improving development.

4.4.3 Budgets and Expenditure Attributable to Climate Change

A methodological note on this aspect of the analysis is set out at **Appendix 5**: Methodological Note - Identification of Climate Spend. Each of the 849 codes identified were classified for relevance and a % of each programme was calculated. Relevance was attributed using the criteria set out at Table 19: Relevance Criteria - Programmes with a Climate Dimension on page 96 above. A full financial summary is set out below in Table 22:

Table 22: Indicative Budget Attributable to Climate Activity 2009/10 to 2011/12

Budget Attributed to Climate Activity (Development) (Lakh Taka)	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**
R1 - Strongly	61,228	50,489	39,227
R2 - Significantly	89,495	99,685	102,887
R3 - Somewhat	156,120	253,063	266,078
R4 - Implicitly	153,838	187,948	157,785
Indicative Climate Budget in Programmes With a Climate Dimension	**460,680**	**591,186**	**565,978**
Budget Attributed to Climate Activity (Non Development) (Lakh Taka)	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**
R1 - Strongly	55,762	70,420	70,455
R2 - Significantly	31,436	40,290	40,319
R3 - Somewhat	72,866	82,759	91,679
R4 - Implicitly	126,337	173,014	142,515
Indicative Climate Budget within Programmes With a Climate Dimension	**286,401**	**366,483**	**344,968**
Budget Attributed to Climate Activity (Overall GoB) (Lakh Taka)	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**
Development	460,680	591,186	565,978
Non Development	286,401	366,483	344,968
Estimated Climate Budget	**747,081**	**957,668**	**910,946**
As % of Programmes	**27.9%**	**27.9%**	**29.3%**
As a % of GoB Budget	**6.6%**	**7.2%**	**5.5%**
As a % of GDP	**1.1%**	**1.2%**	**1.0%**

The main findings from this analysis are:

- A total of 37 ministries or divisions (from a Government wide total of 57) are involved in the delivery of climate finance and activities in the GoB.
- The Ministries and Divisions with the 10 highest budgets account for just under 90% of the value of programmes within which climate finance is delivered.
- In broad terms, climate activity represents around 27% to 29% of the budget of the overall basket of activities within which it is delivered, (i.e. programmes with a climate dimension)

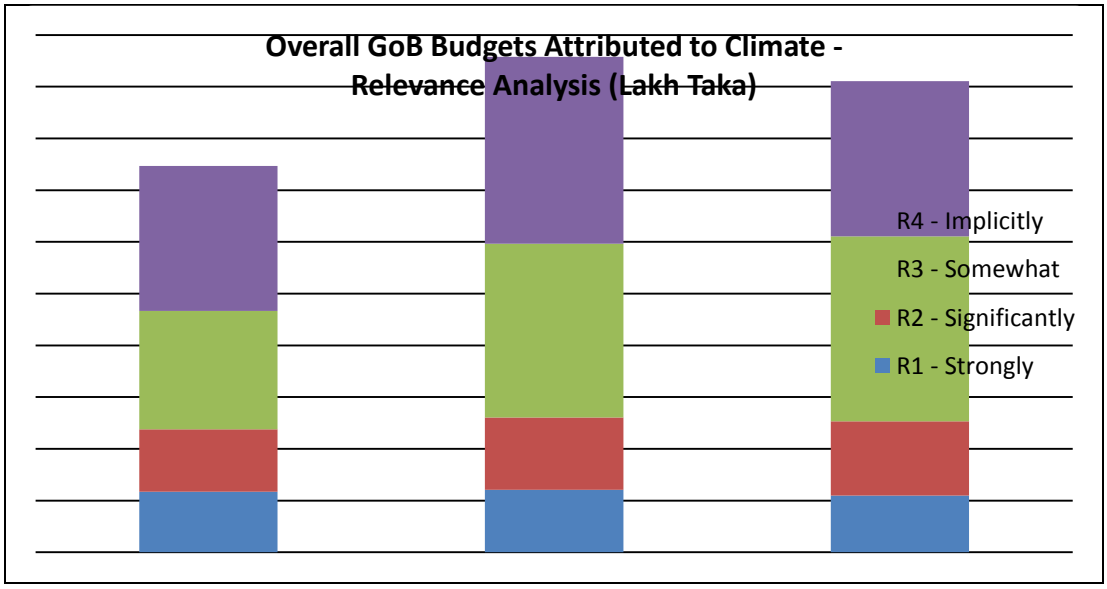
- A figure in the range of 5.5% to 7.2% would be a reasonable annual indicator of the percentage of the combined GoB budget that is spent directly on addressing climate change and climate in any given year.
- This figure represents around 1.0% to 1.2% of Gross Domestic Product.
- A significant majority (around 70%) of climate finance is delivered within programmes that are implicitly (4) or somewhat (3) relevant. This suggests that most climate activity is delivered alongside other development activities and is, at least, closely aligned to these activities. This calculation is set out in Table 23 below:

Table 23: Analysis of Indicative Climate Budgets by Relevance

Budget Attributed to Climate Activity (Overall GoB) (Lakh Taka)	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**
R1 - Strongly	116,990	120,909	109,682
R2 - Significantly	120,931	139,975	143,206
R3 - Somewhat	228,986	335,822	357,757
R4 - Implicitly	280,175	360,962	300,300
Total	**747,082**	**957,668**	**910,945**
% of Indicative Budget By Relevance	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**
R1 - Strongly	15.7%	12.6%	12.0%
R2 - Significantly	16.2%	14.6%	15.7%
R3 - Somewhat	30.7%	35.1%	39.3%
R4 - Implicitly	37.5%	37.7%	33.0%
Total	**100.0%**	**100.0%**	**100.0%**

The split of budgets attributed to climate, based on weights, is also illustrated in **Chart 5** below:

Chart 5: Budget Attributed to Climate By Relevance (2009/10 to 2011/12)



It was noted above that a majority of climate finance is delivered within projects and programmes alongside activity designed to achieve a range of objectives. It was further noted that a wide range of Ministries are involved in the delivery of climate activities. This situation raised the question of the recognition and priority placed by Ministries and Divisions on climate and climate change when delivering such activities within or as an integral element of their programmes**. Table 4** below shows an analysis of the MBFs of the ten Ministries and Divisions with the highest levels of resources allocated:

As mentioned above at paragraph 4.3.2 that the MTBF is the policy implementation framework used by the GoB. It matches financial resources with intended policy outcomes in a performance, accountability and governance framework that includes performance indicators. The Budget Frameworks - developed on a Ministry / Division basis rather than a sector basis - also outline the Ministry's key activities and mission and links activities directly to planned outcomes. This latter point links outcomes to the overall organisational unit responsible for programme delivery on both an annual and medium term basis.

It was also shown at **Table 23** that most climate finance is delivered within somewhat or implicitly relevant programmes[54] – these were found to include programmes such as Vulnerable Group Development, Education Feeding Programmes, Flood Protection and Sanitation for example. The analysis in **Table 4** shows that Ministries with the most financially significant programmes within which climate activity is delivered do not always explicitly state this in implementation plans.

It may therefore be considered that a climate dimension should be introduced to Ministry Budget Frameworks along similar lines to Gender and Poverty which are already included. This may promote co-ordination of finance as the MTBF combines development and non-development budgets in a single resource envelope, and may also develop further the required enabling environment for the promotion of climate resilient investment[55]. This could be achieved by linking programmes and expenditure assessed as somewhat relevant (3) and implicitly relevant (4) more directly to climate outcomes.

4.5 Review of Programmes with a Climate Dimension – Thematic Analysis

4.5.1 Introduction

The Bangladesh Climate Change Strategic Action Plan (BCCSAP) was published in September 2008 by the Ministry of Environment and Forests. The BCCSAP identified climate hazards in Bangladesh and their impacts and set out a plan of programmes to address these issues. The BCCSAP also notes that the needs of the poor and vulnerable, including women and children, will be prioritised in all activities implemented under the Action Plan. Programmes were grouped into six themes[56] as reproduced below:

> **Food security, social protection and health** to ensure that the poorest and most vulnerable in society, including women and children, are protected from climate change and that all programmes focus on the needs of this group for food security, safe housing, employment and access to basic services, including health
>
> **Comprehensive disaster management** to further strengthen the country's already proven disaster management systems to deal with increasingly frequent and severe natural calamities.

[54] Examples include Vulnerable Group Development in Social Welfare, Flood Protection and Sanitation projects in Local Government that deliver climate activity but this is not recognised explicitly in the implementation plans of Line Ministries.
[55] BCCSAP 'Financing The Action Plan' Paragraph 54.
[56] BCCSAP Summary Page XV and XVI

Infrastructure to ensure that existing assets (e.g. coastal and river embankments) are well-maintained and fit-for-purpose and that urgently needed infrastructure (e.g. cyclone shelters and urban drainage) is put in place to deal with the likely impacts of climate change.

Research and knowledge management to predict the likely scale and timing of climate change impacts on different sectors of the economy and socioeconomic groups; to underpin future investment strategies; and to ensure that Bangladesh is networked into the latest global thinking on climate change.

Mitigation and low carbon development to evolve low carbon development options and implement these as the country's economy grows over the coming decades.

Capacity building and institutional strengthening to enhance the capacity of government ministries and agencies, civil society and the private sector to meet the challenge of climate change.

A timeline extracted from the programmes[57] in the BCCSAP is shown at **Appendix 12: BCCSAP Programmes By Thematic Activity**. The BCCSAP programmes show four categories of priority within the overall timeline; immediate, short-term, medium term and long term. The following is a summary of data presented at **Appendix 12**:

- Theme 1 – No programmes with immediate priority, three beginning in the short term and extending into the long term and a further three commencing in the medium term.
- Theme 2 – Three programmes commencing immediately and a further programme[58] commencing in the medium term.
- Theme 3 – Two programmes to commence immediately in relation to cyclone shelters and embankments, with the balance commencing in the medium into the long term
- Theme 4 – Two programmes to commence immediately and one in the short term. Remaining programmes commencing in the medium term
- Theme 5 – Three programmes to commence immediately and four in the medium term
- Theme 6 – Four programmes to commence immediately with a further one programme commencing in the short term.

Programmes in the BCCSAP are not costed individually, but the pattern of planned activity by theme can be deduced to a certain extent from the timeline. In short, it may be expected that there would be an initial deployment of resources and an increase in activity in the medium to long term. The initial deployment in resources was actually observable in 2009/10 in the Non Development Budget – perhaps a more responsive mechanism given its tendency to spend a greater % of its allocation that other mechanisms - between original and revised budgets. The number of relevant projects in the original non development budget of 2009/10 was 24 and this had increased to 115 by the time of revision. This represented a substantial increase of the order of 80% of the taka value of the original budget.

Thematically the immediate response appears to have focussed on Themes 1, 2 and 6 with Theme 1, for example, taking the most significant share of the increase in budget commitment and subsequent expenditure. The increase between 2009/10 original and revised non-development budgets is shown in Table 24 below:

[57] "It is estimated that a $500 million programme will need to be initiated in Years 1 and 2 (e.g., for immediate actions such as strengthening disaster management, research and knowledge management, capacity building and public awareness programmes, and urgent investments such as cyclone shelters and selected drainage programmes) and that the total cost of programmes commencing in the first 5 years could be of the order of $5 billion." BCCSAP paragraph 55

[58] This is an insurance and risk programme which can be identified in the Annual Development Programmes and has commenced.

Table 24: Increase in 2009/10 Non Development Budget

Theme	Increase between 09/10 Budgets (Lakh Taka)	% Increase
T1	52,991	34.3%
T2	23,703	15.3%
T3	7,053	4.6%
T4	9,742	6.3%
T5	11,245	7.3%
T6	49,933	32.3%
Totals	**154,667**	**100.0%**

4.5.2 Thematic Activity – Financial Review

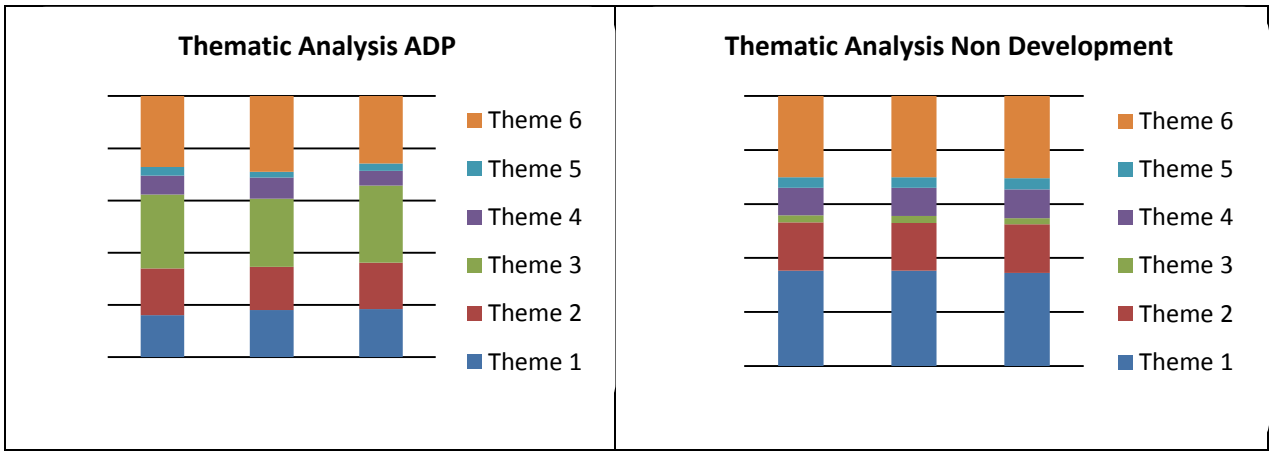
The review and analysis of the Climate budget on a thematic basis is based on the budgets attributed to climate as identified in the relevance analysis – these budgets are summarised at Table 22 and Table 23. Whilst it is recognised that these figures are indicative and based on qualitative judgements, and that a significant proportion of climate finance is delivered as part of multi dimensional schemes and programmes, this approach perhaps gives a more specific indication of progress in respect of BCCSAP implementation. A summary of indicative climate budgets by theme is shown in Table 25 below:

Table 25: Budgets Attributable To Climate Split By Theme

Lakh Taka	ADP				Non Development				Total Budget Attributable To Climate		
	2009/10	2010/11	2011/12		2009/10	2010/11	2011/12		2009/10	2010/11	2011/12
Theme 1	74,279	106,436	104,249		101,028	129,291	118,991		175,307	235,727	223,239
Theme 2	82,138	97,904	100,406		51,267	65,009	61,991		133,405	162,914	162,397
Theme 3	130,542	154,670	167,603		7,555	9,424	7,787		138,097	164,093	175,390
Theme 4	33,597	47,826	31,526		29,247	38,105	37,024		62,844	85,931	68,550
Theme 5	14,898	13,287	16,237		11,293	14,443	14,190		26,191	27,730	30,427
Theme 6	125,226	171,062	145,958		86,012	110,212	104,986		211,238	281,274	250,943
Totals	**460,680**	**591,186**	**565,978**		**286,402**	**366,484**	**344,968**		**747,082**	**957,669**	**910,946**

The main finding from this overall view is that each budget mechanism (ADP and non development) appears to address all six themes, however Theme 3, (infrastructure) as may be expected, is more heavily funded from the development budget and Theme 1 (social protection) is noticeably more heavily funded from the non-development budget. In the context of each budget as a mechanism to deliver climate finance, this may well be an important consideration in future planning. The application of each budget by theme is illustrated in Chart 6 below:

Chart 6: ADP and Non Development Budget Themes



In respect of both programmes containing a climate dimension; and indicative budgets attributable to climate change itself, the resources allocated increased between 2009/10 and 2010/11 and then reduced in the original budget in 2011/12. In 2010/11 the budgets increased by 22% and 28% respectively and reduced by 9% and 5% in the 2011/12 original budgets. However, the following findings are highlighted in respect of the individual themes:

- Theme 2 (Disaster Management) indicative budgets reduced only very slightly in 2011/12. The taka value of the budget was more or less maintained from 2011/12.
- Theme 3 (Infrastructure) indicative budgets increased year on year across the three years.
- Theme 5 (Mitigation and low carbon development) indicative budgets increased year on year across the three years, although it should be noted that the values involved are relatively small when compared to the overall climate budgets. This is a clear indicator that, based on the figures developed in the study that adaptation accounts for around 97% of the government spend in climate response.
- The largest increases in themes between 2009/10 and 2011/12 were for Theme 1 (Food security, social protection and health) and Theme 3 (Infrastructure) at 27%
- The smallest overall increase in resources allocated was for Theme 4 (Research and knowledge management)

The overall resources allocated to each theme between 2009/10 and 2011/12 are shown as a percentage of the total indicative budget attributed to climate in Table 26 below:

Table 26: Budget Attributable to Climate By Theme (Proportions)

	% of Total Budget Attributable To Climate		
Theme	**2009/10**	**2010/11**	**2011/12**
Theme 6 - Capacity building and institutional	28.3%	29.4%	27.5%
Theme 1 - Food security, social protection and health	23.5%	24.6%	24.5%
Theme 3 – Infrastructure	18.5%	17.1%	19.3%
Theme 2 Comprehensive disaster management	17.9%	17.0%	17.8%
Theme 4 - Research and knowledge management	8.4%	9.0%	7.5%
Theme 5 - Mitigation and low carbon development	3.5%	2.9%	3.3%
Total	**100.0%**	**100.0%**	**100.0%**

The following findings are highlighted in respect of the allocations and should be considered in light of priorities set out in the BCCSAP and developments since publication:

- In each of the three years the indicative resources allocated to theme 6, theme 3 and theme 1 account for over 70% of the budgets. This would appear to be consistent with BCCSAP which highlights capital intensive priorities[59] including cyclone shelters and drainage.
- Theme 1 (Food security, social protection and health) is the second highest budget commitment in the three years reviewed and forms a significant part of the resources allocated.
- The proportions of the budget allocated to each theme are broadly consistent across the years in each budget. This perhaps indicates settled operational priorities as well as the relative costs of each theme. It may reasonably be expected that themes 2 and 3 could be capital intensive and require significant initial investments to create assets, for example.
- The theme with the lowest allocated resources is theme 5 (mitigation and low carbon) at 3.2% on average. This may be due to the nature of the expenditure, afforestation for example, being less expensive initially.

4.6 Bangladesh Climate Change Trust Fund (BCCTF)

4.6.1 Introduction and Overview

The BCCTF is the Government trust fund financed entirely from the non-development budget. The fund is permitted by law to spend 66% of resources allocated with the balance (34%) to be invested as an ongoing source of income to the fund and to address emergency situations. The BCCTF is empowered to make disbursements to approved programmes run by both Government and non-governmental organisations.

The Trust Fund approach is new in Bangladesh for any aspect of public expenditure but in other countries it has been noted that such mechanisms exist. For example in Thailand, where the funds are called 'Non Budgetary Funds' it is believed that there are over 100 such funds covering diverse government activities. The nature of the Trust Fund as a mechanism is explored further in Chapter 5.

4.6.2 Financial Significance

The complete record of budgets and payments to the fund since 2009/10[60] is shown below in Table 27:

Table 27: Bangladesh Climate Change Trust Fund: Budgets and Expenditure (Taka '000)

2009-10 (Revised Budget)	2009-10 (Actual Expenditure)	2010-11 (Original Budget)	2010-11 (Revised Budget)	2010-11 (Actual Expenditure)	2011-12 (Original Budget)
5,552,228	5,552,228	7,000,000	7,000,000	7,000,000	7,000,000

The government budget for the fund is held by the Ministry of Environment and Forest (MoEF) and the figures above suggest that the total value of the budget has been transferred to the fund, in one or more payments, in each year of the BCCTF's existence. It should be noted that this expenditure relates to the transfer into the fund, and takes no cognisance of disbursements from the fund.

[59] Refer to paragraph 55 of BCCSAP

[60] No evidence was found of payments into the fund prior to 2009/10

The annual payment into the fund would represent around 7% of the sum allocated by GoB from the non-development budget for programmes with a climate dimension and around 20% of the sum calculated as attributable to climate at Table 25 above.

4.6.3 Thematic Focus of BCCTF Activity

As noted in **Chart 7,** the projects approved for ministries include a wide range, some of which are broad in scope, such as for risk reduction and adaptive measures in the health sector, and some very specific measures, such as plastic bag removal in two rivers. Some seem to duplicate other funded areas, such as construction of cyclone resistant housing and strengthening capacity of the Climate Change Unit at MoEF[61]. Given the range of interest in climate and the different mechanisms involved in the delivery of climate finance, duplication is probably a high risk in any event.

As of January 2012, the latest available summary information on the MoEF website[62] indicated that a total of 62 projects had been approved for support from the BCCTF. A schedule of approvals by value and theme is shown below Table 28:

Table 28: BCCTF Approvals by Theme

Theme	Total Cost (Taka Lakh[63])	%	No of Approvals
3	22,187.62	32.4%	20
5	20,004.62	29.2%	16
1	11,194.90	16.3%	12
2	7,323.50	10.7%	3
4	5,282.15	7.7%	7
6	2,546.75	3.7%	4
Totals	**68,539.54**	**100.0%**	**62**

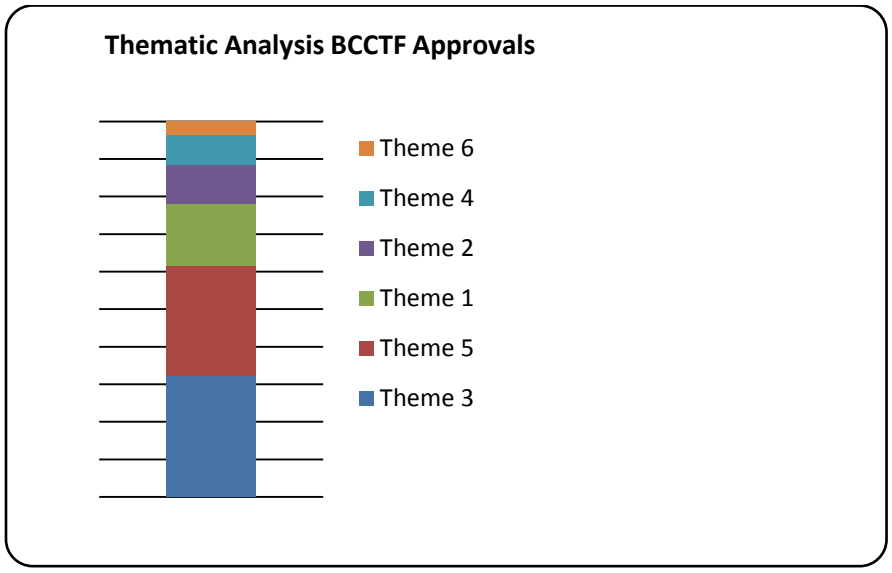
It is noted that main theme approved for funding by the BCCTF is Infrastructure (theme 3). This may reflect the immediate priorities as set out in BCCSAP, however this also coincides with the main focus of the Annual Development Programmes reviewed in the study. The data is also presented in Chart 7 below:

[61] A few have weak links to climate change such as the construction of a Botanical garden and, the voting campaign for the Sundarbans to be a natural wonder of the world.

[62] http://www.moef.gov.bd/html/climate%20change%20unit/List%20of%20Approved%20Project%20of%20Bangladesh%20Climate%20Change%20Trust%20Fund.doc

[63] The data on the MoEF website on approvals is not quantified in units and is undated. It has been assumed that the units on the document are lakh taka. This assumption is based on the press report on 23 November 2011 by BSS which indicated approvals of 86.39 crore taka for an additional six new programmes, refer to http://news1.bssnews.net/newsDetails.php?cat=107&id=209756&date=2011-11-23, and on the press report of 25 January 2012 http://www1.bssnews.net/newsDetails.php?cat=107&id=223176&date=2012-01-25 which indicated approvals for five new projects totalling 97 crore taka. The assumption of the value of approvals in Lakh taka would also be in line with the scale of the fund and judgements made in respect of a sample of individual projects on the approvals list.

Chart 7: BCCTF - Thematic Analysis



As with the ADP and the non-development budget mechanisms, BCCTF addresses all themes in the BCCSAP. The majority of approvals by taka value relate to Theme 3 (Infrastructure) and Theme 5 (low carbon development and mitigation). This is an interesting finding in that the ADP and the non-development budget, by thematic analysis, had allocated least resources to theme 5. (See Chart 6 above). A further observation relates to Theme 6 (capacity building and institutional) which has attracted most funding from the ADP and non-development budgets (around 28%) and the least amount of funding from the BCCTF, 3.7%. This would seem to indicate an element of specialisation by the funding streams in practice, however further research would be required to determine the extent of formal co-ordination that led to this finding.

4.6.4 Volume and Value of Approvals by BCCTF

It was found that a total of 62 approvals for programme funding have been made by the Board of Trustees of BCCTF, according to the MoEF[64] website totalling 68,450 lakh taka. It is understood that this list of approvals pre-dates two further tranches of approvals made by the Board in November 2011 and January 2012 (as reported by Bangladesh Sangbad Sangstha (BSS) – the national news agency of Bangladesh). The list of approved projects by taka value is shown at below in Table 29:

[64] http://www.moef.gov.bd/html/climate%20change%20unit/List%20of%20Approved%20Project%20of%20Bangladesh%20Climate%20Change%20Trust%20Fund.doc

Table 29: BCCTF Volume and Value of Programme Approvals

Budgeted Funding	Crore Taka
2009/10	555.2
2010/11	700.0
2011/12	700.0
Total Budgeted Funding	**1,955.2**
Values Approved (Original List of 62 Projects)	685.4
6 x Approvals Nov 2011[65]	86.4
5 x Approvals Jan 2012[66]	97.0
Total Value of Approvals (73)	**868.8**
Approvals as % of Fund	**44.4%**

The main finding from the analysis is that approvals to date would equate to some 44% of the value of the BCCTF. However, this relies on the further assumption that the sum budgeted in the 2011/12 Original (MoEF) Budget has, in fact, been paid to the BCCTF. The data available to the study for analysis of the non-development budget did not include actual expenditure for the year 2011/12 as that financial year is ongoing of writing (January 2012).

4.6.5 BCCTF Beneficiaries

Based on analysis of the 62 approvals (see also Appendix 13: List of Approved Project of Bangladesh Climate Change Trust Fund (BCCTF)) noted in Table 29 a review was carried out of the intended recipients of the funds outlined in the publicly available sources. It was found that overwhelmingly these approvals were for disbursements to Government Bodies. An analysis of the 62 approvals is shown below in Table 30.

Table 30: Analysis of BCCTF Approvals by Agency Group

Agency	Lakh Taka	%	No
Autonomous Bodies	384	56.1%	31
Department	264	38.5%	21
Local Government	21	3.1%	5
Ministry	10	1.5%	2
University	4	0.6%	2
NGO	2	0.3%	1
Totals	**685**	**100.0%**	**62**

Table 30 shows that the majority of approvals by value were to Autonomous Bodies, such as Bangladesh Water Development Board and Departments in central government. Interestingly, only a small sum has been approved for disbursement to Local Government bodies at just over 3% of the total.

[65] http://news1.bssnews.net/newsDetails.php?cat=107&id=209756&date=2011-11-23
[66] http://www1.bssnews.net/newsDetails.php?cat=107&id=223176$date=2012-01-25&dateCurrent=2012-01-29

However, perhaps the most significant finding in the review of BCCTF from a financial and the objectives of the fund perspective is that as of January 2012 no evidence has been made available of disbursements from the fund to NGOs. It is further understood that some approvals of payments were made to NGOs at an earlier stage in the fund's history. However, no evidence was found in this regard.

4.6.6 The Bangladesh Climate Change Resilience Fund (BCCRF)

The objective of BCCRF is to support the implementation BCCSAP which is aimed at building the capacity and resilience of the country to meet the challenge of climate change. The BCCRF will finance activities designed to achieve the CCSAP's goals and support one or more of the BCCSAP pillars.

The BCCRF was created with an amount of around US$110 million, funded principally it is understood by grants from DFID ($87 million), and also now by Denmark ($1.6 million), Sweden ($11.5 million), the EU ($10.4 million) and Switzerland (US$3.4m). The anticipated benefits of BCCRF are to provide high-level coordination, eliminate overlap, provide donor harmonisation, flexible fund management and transparency. It aims to attract additional funding with the potential to be the "one-stop" mechanism.

There will be a number of windows within the fund that will be utilised to meet its objective. These include an on-budget window for funding public sector projects and a window for funding projects from civil society – it is understood that the Civil Society window is 10% of the value of the fund and will be managed by PKSF[67] and that a research window of approximately US$3.2m is also part of the overall fund.

As of December 2011 there had been three calls for programme proposals from the fund and of 50 proposals received, 4 were recommended for funding. It is understood that 3 contracts had been signed as at this date.

At the time of the second mission of the study, December 2010, no disbursements had been made from the fund although it was anticipated that disbursements to approved programmes would commence in the first quarter of 2012. If the duration of the fund is assumed to be four full years it would add approximately 2.6% additional funding to the spend attributable to Climate. Fuller details of the calculations are shown at Appendix 14: BCCRF - Annualised Estimate.

4.7 Issues, Conclusions and Recommendations

4.7.1 Issues

In broad terms, it is again noted that there is no single universal definition in common usage in respect of climate change related budgets and expenditure. The study developed and applied a definition in this regard that had a specific Bangladesh character and reflects both the history of climate actions in Bangladesh and is consistent with international definitions in use.

The definition recognises that resilience to the effects of both climate and climate change is a multi dimensional activity. This was also recognised in the six diverse themes identified in the BCCSAP. In reviewing the budgets and expenditure during the study it was found that the scale, range and diversity of both budgets and the agencies involved in delivering activities that contribute to intended climate resilient outcomes for Bangladesh tends to suggest that developing a single definition would be a complex task as, if anything has been made certain by the CPEIR in Bangladesh (and Nepal previously), it

[67] Palli Karma-Sahayak Foundation

is that climate change is a cross cutting activity and that, comparing the response in Bangladesh with that of previous countries reviewed, the precise definition and framework for each country is largely determined by that country.

However, this is not to suggest that to set an international *standard* from which each country can draw its own definition, is less than worthwhile in any respect. Perhaps the important lessons to be learned from the review of budgets and expenditure in the study are that expenditure typically contributes to more than a single outcome, often perceived as being readily identifiable by primary and other purposes. This was particularly evident in respect of Social Protection Schemes (BCCSAP Theme 1) in the where it was found that determining the climate and climate change-attributable element of these strategic initiatives was a matter of qualitative, informed but ultimately subjective judgements. This is also evident in physical adaptation work, for example, where the incremental or marginal expenditure relating to a change in climate is inextricably bound together with the design and implementation of the adaptation as a whole. The outcomes of such activities will contribute to a number of outcomes including climate change resilience.

This facet of identifying specific and singular climate change budgets and separating these from budgets intended to achieve other outcomes as well as climate resilience would require a level of sophistication in budget classification and cost allocation that would perhaps elude most countries in the world and would certainly require substantial development of systems and capacity to achieve. This latter point is perhaps worthy of further consideration if a more definitive and less subjective or judgement based identification of climate change budgets is to be achieved – essentially this would require investment in costing systems and capacity rather than financial accounting systems alone. It could be argued that financial costing systems are a logical development from financial accounting systems and some consideration could be given to this in future PFM accounting reforms.

It was found in Bangladesh that substantial progress has been made in recent years in financial accounting and that financial data on a code by code basis over a number of years was readily available in flexible, specifiable formats for analysis. However, the chart of accounts is currently under review and, on completion of the review, may well address some of the issues set out above in respect of identifying climate change expenditure as a discrete budget and expenditure dimension.

It should also be considered in the Bangladesh context, as mentioned in the Policy and Institutions chapters, that GoB has implemented many policies in climate and environmental management for many years and this activity pre-dates the emergence of climate change as an issue. These activities have contributed to strengthening the country's response to climate change concerns. This has, perhaps inevitably and for sound operational reasons, led to the situation where climate change budgets and expenditure are integrated with existing historical activity and institutions and cannot readily be separated from this. With this background in mind the main conclusions of the review of budgets and expenditure are set out below:

4.7.2 Conclusions

- A Government Trust Fund and two multi-donor programmes have been created. Each draws on different funding routes. The proliferation obviously runs contrary to the principles of harmonisation and alignment in the aid effectiveness agenda. For those who have created them, they are perceived to have different functions, be closely aligned and be complementary. However, the evidence suggests that each fund addresses all six themes in the BCCSAP. A

climate Fiscal Framework should address the issue of which funding modality is best suited to which aspect of climate change response.

- It was found that programmes delivered by the GoB that have a climate or climate change dimension represent a significant annual undertaking in financial, managerial and economic terms. In broad terms, the government are managing real growth in their budgets overall – driven by policy – and therefore the management of climate finance is, by definition, one of a number of policy initiatives that are Government priorities. Climate change activity represents around 1.1% to 1.2% of GDP; Programmes with a climate dimension (within which climate change finance is delivered) represented around 3.8% of GDP in the same period.
- The growth in the overall GoB budget between 2009/10 and 2011/12 was around 43%. The growth in the budgets for programmes with a climate dimension rose by 16% in the same period; however attributed climate change element of these programmes rose by around 22%. This indicates that climate change is consuming a greater proportion of these strategic programmes and also reinforces the findings in the policy and institutions chapters that most climate finance is delivered within multi dimensional programmes addressing a range of policy objectives and is, essentially, fully integrated with strategic development programmes. This also demonstrates the approach taken by GoB to make use of existing policy frameworks, institutions and budgets to address climate change issues.
- The government typically funds around 80% of overall budgets from domestic resources. This ratio of domestic to foreign funding is comparable in respect of programmes with a climate dimension and, by logical extension, climate change. The figures calculated in the review suggest that around 78% of climate change budgeted activity is funded by GoB. In the three years covered by the review that growth in GoB resources committed to Programmes with a Climate Dimension has increased by 18% whilst donor resources has increased in the same period by 11%.
- There has been a noticeable shift in the composition of donor funding for these programmes from around 64/36 loans to grants in 2009/10 to 82/18 loans to grants in 2011/12.
- It was found that a number of key Ministries that deliver climate change finance in Bangladesh do not explicitly recognise this in their Ministry Budget Frameworks. The ministries include Local Government, Roads and Water Resources – in each case there is evidence of significant budgets relating to climate change. This illustrates two important points:
- The extent to which existing functions, institutions and budgets are used to deliver climate change finance.
- A gap in transacting strategy to policy in that the absence of explicit recognition of the climate change dimension in Ministry Budget Frameworks absents the climate dimension from Ministry accountability and performance management architecture.
- There are five mechanisms (four of which are in operation) for delivering climate change activities in Bangladesh:
    - Development Budget
    - Non Development Budget
    - BCCTF
    - BCCRF
    - PPCR

- Each mechanism has its own governance and procedural architecture and, the evidence suggests, each has a different ability to deliver expenditure. For example, the ADP tends to overspend by a larger amount than the non-development budget. Each mechanism was found to address all six themes in the BCCSAP, with attendant risk of overlaps and gaps arising. Some evidence was found of specialisation in that the development budget focuses to a greater extent on capital projects (in infrastructure – theme 3) than the non-development budget.
- There is no functional recognition of climate change in the chart of accounts of the Government. However, a number of codes (19) explicitly mention climate change. It is understood that the chart of accounts is under review at the time of writing.

4.7.3 Recommendations

- Whilst it is recognised that the GFSM 2001 does not include a functional classification for climate change. However, it would be a useful development for the Government if some functional recognition of climate change, perhaps on a thematic basis according to BCCSAP themes, could be incorporated into the structure of the Chart of Accounts presently under revision.
- There are presently five mechanisms delivering climate finance in Bangladesh and as each addresses all six themes in BCCSAP some consideration should be given to a review of the co-ordination of activity. There may be a case for explicit recognition of the appropriateness of the use of each funding mechanisms for particular thematic purposes, as would appear to be the case with the ADP contributing high volumes of the planned expenditure on infrastructure.
- Ministry Budget Frameworks presently do not always identify climate and change activity. Some consideration should be given by Finance Division to the inclusion of a climate change dimension to the MTBF procedures to ensure that the activity is fully recognised by Line Ministry accountability, performance management and governance structures.
- It was noted that each delivery mechanism within the government system operates to different levels of efficiency in respect of delivering spend. Typically, for example, the ADP tends to underspend by a greater amount than the non-development budget. This has an impact of the delivery of climate activities (as well as GoB activity overall). It is therefore recommended that some consideration is given to funding capacity building public financial management initiatives with the objective of ensure equality of process efficiency across the finance delivery mechanisms.

Chapter 5 - Assessment of climate change public finance management

5.1 Introduction

The Government of Bangladesh (GoB) has been dedicating a significant portion of its budgetary allocations, both development and non-development, towards combating/minimizing and mitigating many of the adverse effects of CC – as it claims. The principal objectives of this chapter are to:

1) shed light to the processes and procedures of the formulation and approval of the budgetary allocations to various sectors and heads along with the integration of policy objectives with expenditure plans; and
2) assess the mechanism of execution, monitoring and performance evaluation of expenditures of budgetary allocations, with special significance attached to climate change related policies and programmes of the government.

5.2 Public Financial Management vis-a-vis 'Climate Change

Bangladesh, over the last 35 years, has invested over $10 billion to activities aimed at reducing the climate change adverse impacts[68], thus, management of 'climate related expenditure' has become an integral part of overall public financial management (PFM). Following the adoption of BCCSAP 2009, the concept of 'climate change' and its effects has become one of the important 'focal points' for most line ministries (except a few, e.g. the Ministry of Religious Affairs, Ministry of Expatriates' Welfare and Overseas Employment, Ministry of Liberation War Affairs, etc.). The Ministry of Environment and Forest, however, has formed a special unit to deal with CC related initiatives and activities, which is named the "Climate Change Unit". Therefore, the visions of GoB in regards to PFM are relevant to any discussion of climate related economic activity, which are focused on four strategic objectives:

1) to formulate budgets consistent with the medium-term macroeconomic framework and provide greater predictability of resources to executing agencies through the introduction of medium-term budgets. This calls for strengthening capacities and processes for macroeconomic planning, strategic budgeting and enforcing spending limits on line ministries/divisions;
2) to operationalize the NSAPR (National Strategy for Accelerated Poverty Reduction[69]) through formulating the budget consistent with national and sectoral policies, and greater delegation of budget management authorities to line ministries;
3) to ascertain greater accountability in government financial operations, improve the quality of financial management information, and ensure sound cash management. This requires strengthening institutional arrangements and capacities for financial management in the line ministries, implementation of accounting and auditing process reforms;
4) to strengthen external auditing practices to bring them into line with the international practices through enhancing the independence of the Comptroller and Auditor General, introduction of modern audit practices including entity wide audit, and improving the operations of the Public Accounts Committee (PAC).

5.3 Formulation and Approval of Budget: Role of the Parliament

5.3.1 Introduction

The role of the Parliament in formulating the national budget has been defined and clearly spelt out in the Constitution of the country. Budget year in Bangladesh runs from July through June. Formal

[68] Bangladesh Climate Change Strategy And Action Plan 2009, Ministry of Environment and Forests, GoB
[69] It is important to note here that NSAPR2 has already been substituted by the '*Sixth Five-year Plan*" by GoB which contains a *chapter* on climate change

presentation of the budget proposal is made in the month of June which, after having approved by the Parliament, takes effect on the first day of July every year. Although the concept of Climate Change and its adverse effects have been around and visible for many years in Bangladesh, it was not institutionalized until the development and adoption of NAPA in 2005.

The Parliament seems to be quite conscious about the climate issue – as evidenced by direct references in the annual Budget Speech by the Finance Minister – "In order to face the challenges posed by the climate change, we have prepared **Bangladesh Climate Change Strategy and Action Plan, 2009** and **Climate Change Trust Act 2010** and set up **Bangladesh Climate Change Resilience Fund (BCCRF).** The Government has by now taken up 49 projects under the fund to enhance the capacity for adaptation to the climate change induced consequences". However, as Bangladesh does not yet have a ministry/division/entity to deal exclusively with CC related issues and only a portion/component of most of the projects would be dedicated to address such issues, it can be presumed that the Parliament would not be fully aware of the portion and significance of the budget

5.3.2 Pre-budget Phase:

In Bangladesh there is no scope for holding any discussion within the Parliament on the budget prior to its formal presentation in the Parliament. But in practice, the Finance Minister holds routine pre-budget conferences, discussion meetings, workshops, etc. with a variety of stakeholders and concerned authorities/bodies in the process of the formulation of budget. Precursory conferences are held with the seven most relevant Standing Committees of the Parliament. These are Committees on Public Accounts, Estimate, Public Assurance, Public Undertaking, Ministry of Planning, Ministry of Commerce, and Ministry of Finance. In addition, general members of the Parliament may (and do) hold formal or informal discussion meetings with the Finance Minister and provide suggestions and advice in regard to demands for appropriations for programmes/projects affecting their own constituencies. In the absence of a separate ministry/division to deal with CC related effects, formal discussion on this issue is few and far between.

5.3.3 Presentation and Approval Phase:

Once the budget is formally presented by the Finance Minister in the House, general members deliberate on the nuts and bolts of the budget and many bring notices of amendment. Then proposed amendments are voted upon in the House, and the ones that are accepted by a majority (50%+1) are incorporated in the budget. The budget that is placed usually is passed with some 'minor' modifications/amendments. It is important to note that the role of Standing Committees almost does not exist in this process – which is certainly a weakness of the process of approval of a national budget. Indeed, it would not be exaggeration to suggest that a mechanism for scrutiny of the projects (especially the large ones) by an appropriate Standing Committee does not exist in the approval phase of budget in Bangladesh.

5.3.4 Implementation Phase:

The government submits a progress report on the implementation of the budget to the Parliament each quarter, and progress is also reported on the Finance Division website. Members are expected to critique the report and present their suggestions and recommendations. However, elaborate discussion on the progress report is rather rare.

In comparison with many other countries of the world, the role of the Parliament and of its different bodies vis-a-vis passage of the national budget appears to be less strong in Bangladesh. Timeline of the process, *inter alia*, is indisputably a major determinant of this limitation. Customarily the budget is placed in the House about mid-June or so, when it must be approved on or before 30th of June. Thus, the

opportunity for a critical and elaborate discussion and debate on the budget in the Parliament remains elusive. However, some ministry-specific Standing Committees (e.g. Environment and Forest, Agriculture, Food and Disaster Management Ministries) do discuss climate related finance, as these ministries have relatively more of climate related activities than many others.

5.3.5 Standing Committee on Public Accounts (PAC):

This Committee (specifically mandated by the Constitution) consists of no more than fifteen members who would be appointed by the House. No member of the Ministerial Cabinet can be a party to the Committee. The Committee is supposed to scrutinize the Appropriation Accounts and the report of the Comptroller and Auditor General to ensure: a) that the fund has been spent exactly for the purpose it was sanctioned for; b) that "the expenditure conforms to the authority which governs it"; and c) that all re-appropriations have been made in accordance with the provisions made under the rules framed by the appropriate authority. Also, the Committee is charged with the duty of examining the statement of accounts showing the income and expenditure of state corporations, trading and manufacturing schemes, concerns and projects together with the balance-sheets and statements of profit and loss accounts, etc. and report any irregularities and lapses along with recommendations for remedial measures to the Parliament. The PAC is known to be the "most active" Committee of the present (ninth) Parliament of Bangladesh, for it has met much more times than any other Standing Committees of the Parliament.

5.4 Budget in the 'Medium Term Budget Framework'

5.4.1 Introduction

The Medium Term Budget Framework (MTBF) is a multi-year approach to budgeting that provides a framework for government receipts and expenditures, and links the spending plans of government to its policy objectives. It requires a credible estimate of resources available, both domestic and foreign, for expenditure. It requires decision makers to balance what is affordable against the policy priorities of the country. Thus MTBF brings the policy planning and the budgeting process together. Resource allocation is linked to the policies and priorities of the Ministry. The five characteristics that make the MTBF system different from the traditional system are: (i) MTBF estimates the budget for one year and projects expenditure for four consecutive years; (ii) budget is prepared in a more integrated way, with no division between development and non-development budget; (iii) resources are allocated on the basis of priority to meet the strategic objectives, not on top of previous year's budget; (iv) key performance indicators (KPI) of the respective ministries/agencies are clearly demonstrated; and (v) line ministries/agencies are empowered to allocate and utilize resources, thus making them more accountable in preparing and executing the budget.

The MTBF now covers all ministries/divisions and 'other institutions'[70] – the total number being 59. The ministries that are directly impacted by climate change, e.g. Ministries of Environment and Forest, Agriculture, Food and Disaster Management, Fisheries and Animal Resources, Water Resources, Local Government, Rural Development and Co-Operatives, etc. have explicit reference of 'climate change' in their missions and objectives. Other ministries that also are affected by this factor one way or the other by some degree are in the process of adopting it through incorporating projects/activities in response to Call Circulars issued by FD, as the concept becomes increasingly prominent on the national stage.

[70] The Public Service Commission (PSC), Supreme Court of Bangladesh (SC), Election Commission, etc. are referred to as "other institutions" in the documents of GoB.

The Finance Division (FD) of the Ministry of Finance (MoF) through its Circular 1 puts in a consolidated way the details for preparation of the MTBF. It spells out the objectives of the MTBF "to improve the efficiency and effectiveness of public expenditures and ensure the attainment of the goals set out in the NSAPR[71]". The circular spells out the preparation process which is divided into three phases. These are (i) strategic phase, (ii) estimating phase, and (iii) budget approval. The three phases are further divided into several sub-phases.

5.4.2 Budgeting procedures under MTBF:

Procedures for preparation of Budget under the Medium Term Budget Framework include the following.

First, start with a Medium-Term Macroeconomic Framework (MTMF). The MTMF includes projections of the overall macroeconomic situation of the country for three consecutive years. The purpose of developing the MTMF is to assess the alternative macroeconomic policy scenario and risk associated with each alternative. Finance Division, in association with Planning Commission, Economic Relations Division, Bureau of Statistics, National Board of Revenue, Bangladesh Bank and other relevant offices/agencies update this MTMF twice in one fiscal year.[72]

The Programme 5 (P5) of the Thematic area 4 (T4) explicitly stipulates incorporation of findings about the impacts that climate change would have on (a) macro-economic growth and stability; (b) different sectors of the economy, and (c) different regions and socio-economic groups, in the short, medium and long terms in the projections of MTMF. Four action plans also have been spelt out in the BCCSAP 2009. But any such study has not been known to have undertaken so far. This project could be implemented and could also take into consideration the effect on growth of not spending the US$1bn per year spent by Government on Climate Change response.

Second, develop and update the Ministry Budget Framework (MBF): line ministries prepare and update the MBF in line with the strategic objectives set out in the Poverty Reduction Strategy Paper (PRSP). The main objectives of MBF are:

a) to establish a linkage between the budgetary allocation and government's strategic objectives, policies and priorities reflected in the NSAPR and other policy documents of the government;
b) to prepare a realistic expenditure plan for concerned ministries on the basis of the resources available in the medium term; and
c) to establish linkages between the budgetary allocation and performance of individual ministries and, subordinate departments and agencies of the ministries.

As of the end of 2011, the Call Circulars issued by FD do not specifically refer to Climate Change. Nonetheless, the MBF does identify it as a major policy concern like poverty alleviation, women's development, etc. This exemplifies the robustness of the MTBF as a budgetary system. Thus the MBF reviews all programmes and projects, their estimated costs, information on gender, and revenue receipts by respective ministries.

Having the CCRMF along with a multi-donor fund, called the 'Climate Change Resilience Fund (CCRF), a large number of projects – either on-going or just about to be completed/just completed, line ministries have been promoting CC related projects to minimize/combat adverse effects of CC. Although it was noted in Chapter 4 that not all Ministries achieve this explicitly.

[71] However, as was mentioned earlier the current Government has switched to the 'Sixth Five-year Plan" as the substitute for NSAPR, which has attached high significance to the climate issue.

[72] The MTMF is commensurate with the programme – 5 under the thematic area 4 (T4P5) with the objective of identifying likely macroeconomic and sectoral impacts of climate change and plan adaptation and mitigation strategies, as incorporated in BCCSAP 2009.

Third, review the budgetary framework of the lone ministries/divisions: Finance Division and Planning Commission hold discussions with the line ministry and reach agreement on this MBF.

Fourth, finalize and approve the ministry-wise/division-wise indicative expenditure ceiling and revenue target: Finance Division and Planning Commission finalize the MBF and upon approval, this becomes the indicative expenditure ceiling and revenue target for the respective ministries.

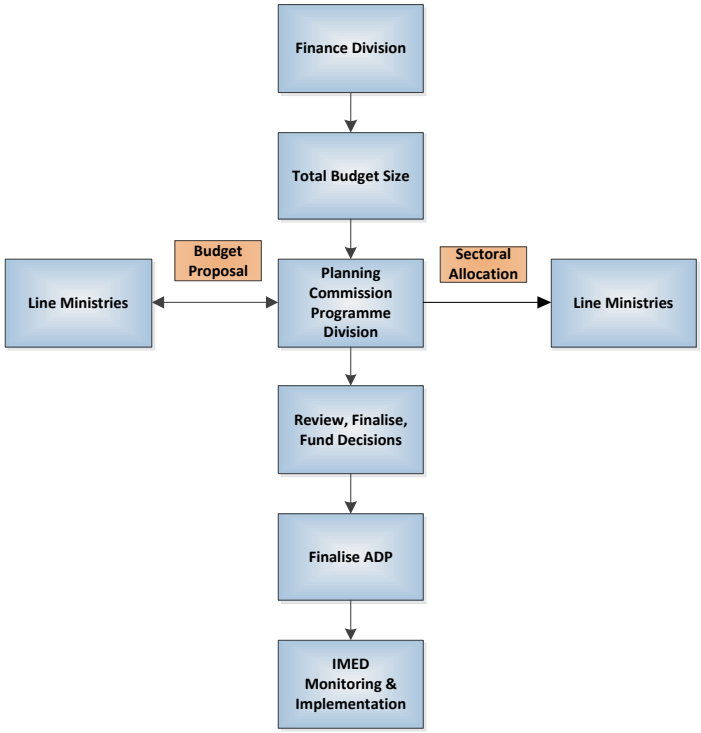
Fifth, prepare and issue the budget circular: Finance Division issues the budget circular mentioning the expenditure ceiling and revenue target. No Ministry (except for the Environment and Forest Ministry) as of now specifically target 'climate finance' as a part of the revenue budget.

Sixth, prepare the estimates by the line ministries/divisions; line ministries prepare the detailed budget, including all the development and non-development expenditures. Seventh, review and finalize the estimates and projections prepared by the line ministries and divisions. Finance Division, in a joint meeting with Planning Commission and relevant ministry finalizes the budget estimates. FD then compiles the estimates and sends to the Cabinet for approval. On approval of the Cabinet, the MTBF is then placed in the Parliament for approval of the First Year's estimate.

5.4.3 Linkages MTBF to Annual Development Programme

The projects under ADP are prepared by Planning Commission on the basis of inputs (initial proposals/budgets) received from line Ministries, in line with some guidelines and prioritisation criteria. After the Finance Division provides the total size of the ADP, the Planning Commission prepares the sectoral allocation. The line Ministries then submit detailed proposal to the Planning Commission. The Planning Commission in consultation with the line Ministries finalizes the fund proposals within given sectoral allocations Figure 7: Annual Development Plan Preparation Process.

Figure 7: Annual Development Plan Preparation Process



A crucial institutional relationship is that between Finance Division and Planning Commission in the overall co-ordination and funding of climate policy. This is illustrated above and shows the impact on Line Ministry activity. In terms of climate change it is important that this aspect of PFM functions efficiently to ensure that policy is fully transacted from strategy that influences are balanced between sectoral and national and that funding levels reflect priorities.

5.4.4 Performance Measurement:

Every ministry sets targets and key performance indicators (KPIs) for its budgeted programs and performance, and each ministry is measured against the targets and KPIs. The KPIs for each ministry are set in line with other sectoral and national goals and indicators previously set in MDGs and PRSP.

For instance, 5 key Ministries and Divisions which are spending about 40% of the budget, e.g. Communications, Health and Family Welfare, Education, Environment and Forest, and LGD are expected to face performance audit during the current fiscal year[73]. Therefore, if there is a CC related project, it can be presumed that there is a set of KPIs that was built-in the 'logical framework' of the project. As a general rule, if a project is found not to be achieving its annual target set out in the development project proposal (DPP) by the Ministry Coordination Committee presided over by the Secretary, the causes are discussed and attempts are made to resolve the bottlenecks. It has happened in some cases in the recent years that funding for such project(s) has been blocked.

5.4.5 'Climate Change' Expenditures and MTBF:

Call Circulars are issued by FD as a prelude to framing MBF by each line ministry. Two call circulars are issued – first one in November that relates to the strategic objectives and, the second one in the month of March inviting estimate for the proposed activities, for the coming fiscal year. The current classification structure of budget does not allow disaggregation of 'climate related expenditure' from the aggregate expenditures. Therefore, no specific mention of CC related activities can be found in the call circulars. Two important concepts that are given special attention in the call circulars are: 'poverty alleviation', and 'gender sensitivity'. Each line ministry is asked to explain separately "how each of its strategic objectives and associated activities related to the objective would contribute towards government's goals of 'poverty alleviation' and of women's development'"[74] Thus; the call circulars do not contain any specific reference to 'climate change' issue. But relevant ministries (e.g. the Ministries of Forest and Environment, Food and Disaster Management, etc.) may cite activities relating to climate change effects and include expenditure proposals in response to the Call Circular-1 accordingly.

5.5 Fund Release Mechanism

To ensure effective execution of budgetary allocations through balancing Government's receipts and expenditures, FD insists that plans of the total expenditure be spread over all the quarters in a way to avoid crowding of bills in the last quarter of the fiscal year. Many project implementing agencies send bills for clearance at the fag-end of a fiscal year. Once line ministries (and therefore, project implementing agencies) needed fund release clearance from Finance Division every quarter.

Once the overall budget is approved, during the first three quarters of a fiscal year line ministries are at liberty to draw the non development funds allocated to them on a quarterly basis *without* any release certificate from FD. This development may account for the apparent efficiency of the mechanism in delivering expenditure.

[73] *The Daily Star*, 10 August 2011.
[74] Call Circular – 1, November 2011, GoB.

It is only during the fourth quarter all line ministries have to furnish records of all expenditures made during the first three quarters, in order to facilitate the preparation of the revised budget. This rule applies to both the development and non-development budgets alike. In terms of fund release mechanism, the process seems to be slightly different in the following ways:

- Most part of the non-development budget is of 'recurrent' in nature. Therefore, the rate of utilisation is high, and somewhat stable throughout the fiscal year. But for the development budget it is not true.
- For non-development part, funds not spent during the fiscal year which it has been earmarked for, would lapse altogether after the expiry of the period. But, this is not true for funds under the development budget.
- Directors of projects under development budget must submit accounts of statement to the concerned Divisional Controller of Accounts on a regular basis.

As a result, it seems that the present fund release procedures pose not as much of a problem and could not be accused to be a justifiable 'reason' for non-implementation/non-completion of many projects (both development and non-development), which has become a routine event in Bangladesh

5.5.1 Non-Development Funds

Government departments/offices having detailed allocation in the "Detailed Demand for Grants" do not require release order from Finance Division every time they would need to have access to funds. The concerned ministry or head of the department will however, issue fund placement order authorising the spending unit/agencies to spend. The allocation in lump sum for the Ministry/Division, department/directorate and autonomous and semi-autonomous bodies and local bodies requires the approval of FD to issue the break up (detailed allocation) order by the Ministry/Division. Once the utilisation procedures of the lump sum allocation are finalised with the approval of FD, the concerned Ministry/Division can approve the break-up of the lump allocation. Funds allocated for the autonomous and semi-autonomous bodies and local bodies as grant-in-aid and special programmes from non-development budget are released in four quarterly instalments with the approval of FD. The non-development budget is almost entirely funded by GoB (98% in FY 2012, see Chapter 4).

5.5.2 Development Budget Funds:

In general, administrative approval should be issued for all parts/items of a project together in one go within August of the relevant financial year. The concerned Ministry/Division is required to send the statements and reports to the concerned section of Development Wing of FD on a regular basis.

The Project Directors must ensure the submission of accounts statement to the concerned Divisional Controller of Accounts regularly. No fund would be released after the expiry of project period unless the project is re-included in the RADP/ADP. If and when the allocation of a project is reduced in RADP and if it is found that the fund released against the provision of original ADP is more than the RADP allocation, a certificate relating to expenditure incurred from the concerned CAO must be obtained for the release of further funds. If the reduced allocation in any item in the RADP is more than the fund released and expenditure incurred, the approval of the Programming Division of the Planning Commission should be obtained for adjustment of the expenditure and the proposal for fourth quarter release should be sent to FD. The concerned Ministry/Division is empowered to issue revised break up order against economic codes as per annual budget allocation, subject to that no re-appropriation is allowed in respect of CD/VAT.

A separate Bank Account is required for each project. All money received from CAO and Development Partners must be deposited in the relevant accounts. The fund kept in these accounts can only be spent for the implementation of programme as per the project proposal (PP).

Proper explanation of the unspent balance of the released fund is to be furnished and a certificate that the fund would be utilized in scheduled time as per PP and the instructions of FD are to be included. Quarterly statement of accounts relating to the fund released, and the expenditure incurred is to be submitted regularly in the appropriate format. The appropriate Ministry/Division would send the accounts statements relating to the fund released and the expenditure incurred on the 15th & 30th day of every month to the FD.

The competent authority can authorise an appropriation at any time before, but not after the expiry of financial year. Any unspent balance lapses after 30th June and is not available for utilization in the following years, except in so far as it is re-included in the estimates and approved by the authority.

Given the above discussion, it appears that the fund release mechanism follows a somewhat different route in respect of development budget funds, which may be at least partly responsible for prolonged/non implementation of many development projects.

5.6 Flow of Funds to Local Governments:

Each line ministry has a Chief Accounts Officer (CAO). Most line Ministries that have involvement in activities at the district level have offices in district headquarters (except for a few ministries with no function at the district level, e.g. Ministry of Foreign Affairs, Ministry of Chittagong Hill Tracts Affairs, Ministry of Expatriates' Welfare and Overseas Employment, etc.). Each of those district offices of ministries has a District Accounts Officer. At the *Upazila* level, there is an *Upazila* Accounts Officer. Funds flow from the line ministry through the office of CAO to the district accounts office, and from the district accounts office to the Upazila accounts office. However, for the local government offices located in and around Dhaka city, called the "Presidency Area", funds flow through the Office of the Controller of General Accounts (CGA). Otherwise, CGA office functions as the centre of consolidation of funds only. Compensations of employees and other expenses of the District Council Office are paid for by the Public Administration Division (formerly Establishment Division). Financing of any local development projects(s) overseen by the District Council is made by the concerned line ministry (depending upon the jurisdictional coverage of the project) through grants-in-aid.

5.7 Institutions Responsible for PFM

5.7.1 Line Ministries:

There is a 'Budget Management Committee (BMC)' in each line ministry for the implementation of budget, with the Secretary of the ministry in question as the chairperson. The Committee is charged with the responsibility of managing the Ministry's budget in its entirety – i.e. comprising revenue receipts and expenditures incurred both development and non-development. The Public Money and Budget Management Act 2009 stipulate that all line ministries of GoB should constitute a 'wing' or branch for overall management of budget related activities.

It has been learnt that a total of 33 out of 59 ministries/divisions/other institutions have already complied with the provision of the Act by forming a separate wing to deal with budget related activities[75].

[75] A list of these ministries are in the process of being prepared in Finance Division, but has not been available immediately.

Ministries implement the budget through their departments. Essentially ministries' principal function boils down to monitoring the implementation process.

5.7.2 Office of the Comptroller and Auditor General (CAG)

The Office of the Comptroller and Auditor General, the Supreme Audit Institution (SAI) of Bangladesh is charged with the responsibility of auditing government receipts and public spending and to ascertain whether expenditures have yielded value for money in government offices, public bodies and statutory organizations.

The main thrust is auditing to what extent the audited entity follows rules, laws and regulations, budgetary resolutions, policy, established codes, or agreed upon terms, such as the terms of a contract or the terms of a funding agreement. The objective, scope and nature of a particular compliance audit depend on a number of factors, including the mandate and constitutional role of the Office of CAG, as well as laws and regulations that are relevant to the audited entity. The areas of compliance/financial audit, as summarized by the Office of CAG, include the following.

- Audit against provision of funds to ascertain whether the money shown as expenditure in the accounts were authorized for the purpose for which they were spent.
- Audit against rules and regulations to see that the expenditure incurred was in conformity with the laws, rules and regulations.
- Audit of sanctions to expenditure to see that every item of expenditure was done with the approval of the competent authority.
- Propriety audit which extends beyond scrutinizing the mere formality of expenditure to its wisdom and economy, and to bring to light cases of improper expenditure or waste of public money.
- While conducting the audit of receipts of the government, the Comptroller and Auditor General satisfies him/her that the rules and procedures ensure that assessment; collection and allocation of revenue are done in accordance with the law and there is no leakage of revenue which legally should have come.

In response to a concern expressed by the PAC of the Parliament in 1998, the Office of CAG has incorporated a new area, called 'Performance Audit' in the audit portfolio since 1999. The objective is to ensure accountability of the executive to the Parliament and ultimately to taxpayers for optimal utilization of public resources.

Since introduction, a total of 22 performance audit reports have been submitted to PAC of which three have been addressed. It is to be noted here that when a project confronts audit objection, the concerned line ministry intervenes and attempts to resolve the dispute with the CAG Office. If it is not resolved, another 'tri-party' dispute resolution meeting is held in the presence of representative(s) of FD. If it cannot be resolved at that point, the audit objection is forwarded to the PAC. Since most of CC related projects are still ongoing and just a handful may have been just completed, the auditing process has not kicked off yet in most cases.

5.7.3 Climate Change Trust Fund:

To adapt/mitigate CC related adversities, GoB developed the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2008, which was revised in 2009. A trust fund, namely Climate Change Trust

Fund (CCTF)76 was also created by virtue of the Climate Change Trust Fund Act 2010. GoB is committed to allocate Tk. 7 billion to the Fund every year. A Climate Change Unit (CCU) under the Ministry of Environment and Forests (MoEF) has been set up to carry out implementation functions of CC related activities. Two-third or 66% of the fund would be spent on projects related to the six thematic areas designated under BCCSAP, while 34% would be held in bank account for crisis situation. For government projects, maximum 250 million taka (3.57 million U.S. dollars) would be allocated from this fund, while the highest allocation for any project by NGO would be 50 million taka (about 714,000 U.S. dollars).

Projects related to CC activities are submitted to the CCU through the appropriate line ministries/divisions. It is the CCU which is in charge of scrutinizing various projects and prioritizing the ones that satisfy the above noted two conditions, namely a) consistency with one or more of the six thematic area(s), and b) funding constraint of 250 million taka. As of now no other rules/procedures are known to exist. However, detailed procedural guidelines are being contemplated in the near future as the issue of climate change financing becomes increasingly more important.

5.7.4 Procurement

Public procurements in Bangladesh are carried out in accordance with the standard comprehensive law, namely "The Public Procurement Act 2006' which is applicable to all ministries, departments, autonomous, semi-autonomous bodies and corporations.

Generally, procurement functions are performed by heads of departments and project directors of projects (and other competent authorities according to the delegation of financial power) of a given ministry. A Ministry's function is generally confined to monitoring of the processes and procedures as laid down in the Act. However, construction works are usually monitored directly by line ministries.

Though procurement rules do not specify the issue of climate change in the process, the environment - a closely related concept - becomes relevant in any significant procurement in the public sector. Expected impact of such activity on environment, poverty alleviation, and gender sensitivity is required to be disclosed and certified by relevant procuring authority.

5.7.5 Public Private Partnership (PPP)

PPP is a contractual agreement formed between a public agency and private sector entity. It allows greater private sector participation in the delivery of services. PPP allows the public agencies to tap private sector technical, management and financial resources to achieve certain public agency objectives such as: greater cost and schedule certainty, supplementing in-house staff, innovative technology applications, and specialized expertise or access to private capital. PPP provides benefits by allocating the responsibilities to the party – either public or private – that is best positioned to control the activity that will produce the desired result. The concept of PPP is still at the infancy stage in Bangladesh. In the mean time, some major infrastructure projects are in the stage of building. Many mega-projects related to CC may be financed through is scheme, as has happened elsewhere in the world. Only time can and will tell us the extent of its success in Bangladesh.

[76] CCTF is to be governed by a 17-member Board of Trustees with the Minister/ State Minister of the Ministry of Environment and Forest as its Chairperson. Members include 10 Ministers/State Ministers from among key ministries of the government, Governor of Bangladesh Bank, Planning Commission member of the Socio-economic Infrastructure Department, and other GoB nominated expert level representatives, etc. The Secretary of the Finance Division would serve as the member-Secretary of the Board.

5.8 Conclusions

- The process through which the national budget is prepared, placed and passed in the Parliament could be strengthened from a climate perspective given the scale of expenditure and budgets in the activity.
- All line ministries/divisions of GoB have already been brought under the coverage of MTBF, which is a multi-year approach to budgeting so as to link spending plans of the government to its policy objectives. The MTBF seems to be a step forward in the sense that it allows the line ministries to plan ahead. However, it has quite a long way to go, at least in regard to climate change aspect.
- The present fund release mechanism appears to be less of a problem that it used to be in the past. The budget of all line ministries once approved and passed in the Parliament, can be withdrawn on a quarterly basis by concerned line ministries without any clearance of FD during the first three quarters of fiscal year, as was mentioned earlier. Therefore, delay/non-completion of projects does not seem to be stemming from the fund release mechanism, *per se*. As noted previously, the institutional framework for the absorption of budget – especially CC related ones seems to be rather weak.
- Auditing of the overall public accounting system does not appear to be encompassing all the areas of compliance that are supposed to covered given the declared objectives of the Office of CAG. It was noted that CAG Office audits only those cases which are not resolved within a given line ministry and in a tri-party settlement meeting. Also, reports on these audits are not made public, the less so are any punishment or punitive actions.
- The procurement process does not specify a reference to CC related do's and don'ts, as it does, say about environmental impact of large procurements.

5.9 Recommendations

- To strengthen the Budgeting procedures under MTBF in the light of MTMF, the latter needs to be upgraded further through implementing the programmes as stipulated in the thematic area 4 and Programme 5 (T4P5) of BCCSAP 2009. This can be made possible by undertaking project(s) to study the impacts of climate change on macroeconomic growth and stability. In particular, the effects on growth of omitting the current climate change spend should be emphasised in the project.
- Strengthening of key allocation processes within both the MTBF and ADP and the interface between these is a significant potential advantage in achieving better climate outcomes. Some consideration should be given by stakeholders to initiatives on a general or climate specific basis to achieve this.
- Formation of a Parliamentary Standing Committee to scrutinize projects/expenditure proposals regarding CC related activities before placement of the overall budget would be helpful.
- The BMCs of line ministries should be equipped by personnel with expertise in the area of CC activities. Such a development could be considered for funding under the capacity building theme of BCCSAP.
- Some capacity building activity should be considered for Controller and Auditor General's Office to enable him to address climate funding issues in the forthcoming audit plan and in particular to review climate finance in the forthcoming planned performance audits.
- A review of procurement regulations to incorporate climate sensitivity should be considered by the Central procurement Technical Unit (CPTU)
- A detailed set of rules/guidelines for the award of funding of climate change related projects proposed by both government and non-government entities may be developed immediately to

maximize the utilization of limited resources allocated to CCTF. The development of procedures for the BCCTF should also include a clear statement of the role of the Controller and Auditor General in respect of the fund.

Chapter 6 – Local Government

6.1 Introduction

6.1.1 Why local government?

Local government, civil society organizations (CSOs), non-governmental organizations (NGOs), the private sector and other local bodies have important roles to play in strengthening national systems, particularly in addressing climate change for the diverse needs of communities.

In addition to identifying sources of climate finance available at the local level and strengthening local government capacity to manage climate finance, the analysis of local government as part of CPEIR could strengthen the links between national policy and local implementation. It could also promote transparency in how climate related investments are translated into local expenditures. As part of its ongoing decentralization reform, a local government analysis could strengthen democratic governance at the local level by ensuring elected local government bodies play a key part in the formulation and decision making of climate finance delivery.

6.1.2 Objectives and expected outcomes

There are five objectives to the local government analysis of the CPEIR in the Bangladesh:

1. To explore local government's understanding of, and contribution to, addressing climate change
2. To conduct an initial mapping of different sources of climate finance at the local level and funding modalities (e.g. direct donor funding, central government grant, community generated income, household's own income)
3. To get a sense of local government's capacity to prioritize, manage and deliver climate finance based on national and local climate policies and institutional arrangements
4. To identify other key local stakeholders' role in delivering climate finance
5. To identify the accountability framework for delivering climate finance at the local level

The expected outcomes of the analysis are to provide a review of local government's role in prioritizing, managing and delivering climate finance and present a set of recommendations to the Government of Bangladesh on:

- Overview of the different funding modalities that channel climate finance to the local level to ensure effective implementation of climate change responses for vulnerable communities.
- Areas of capacity support required for local government to prioritize, manage, deliver and account for climate finance to vulnerable communities.

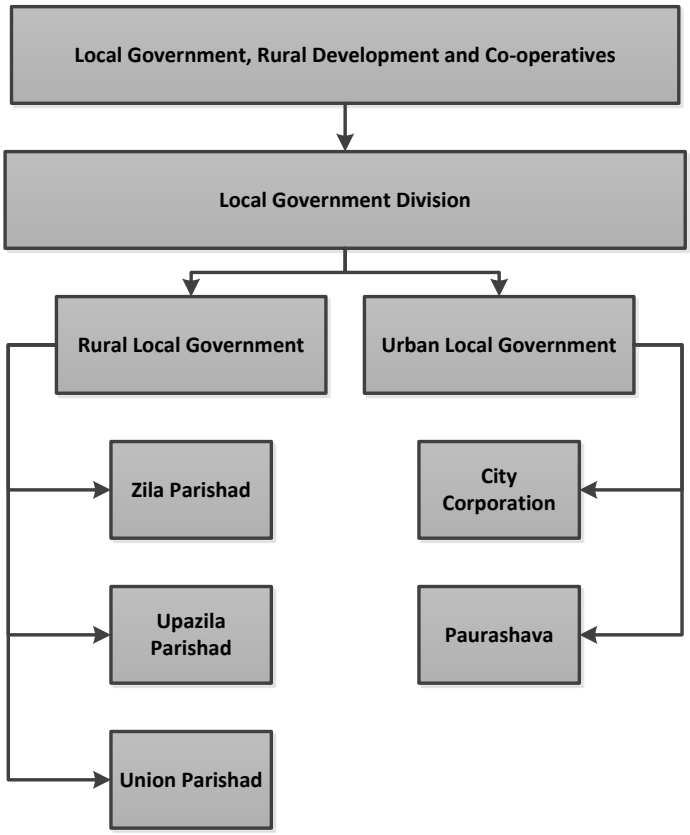
The intended purpose of these outcomes is to provide a framework for Government of Bangladesh to support local government to develop Climate Fiscal Frameworks in pilot areas.

6.1.3 Local government structure in Bangladesh

Bangladesh is divided into seven divisions. Each division is sub-divided into districts or zilas. Each zila is divided into sub-districts or Upazilas. Each Upazila is further divided into Union Parishads (UPs). Each union is composed of many villages. At most of these local government levels, there are two structures: a local elected body and a local administrative office. Local elected bodies exist at the zila, Upazilla and UP levels in rural areas and in City Corporations and Pourashava in urban areas. All local elected bodies are under the direct responsibility of the Ministry of Local Government, Rural Development and

Cooperatives (MLGRD&C), and receive funds from the Local Government Division (LGD) of this ministry. This structure of local government is outlined in Diagram 1. The local elected bodies are different to the local administrative offices, which are appointed officials responsible for implementing the priorities of national ministries. They receive funds directly from their corresponding line ministries. At the time of study, there is an on-going struggle on the legitimate power and authority of between the elected and administrative structure at the Upazila level. (Daily, Star, 2010)

Figure 8: Local government structure in Bangladesh



Article 9, 59 and 60 of the Constitution of Bangladesh (GoB, 2004) describes elected local government bodies in general terms, including the mandate to prepare and implement plans related to public services and economic development. For a full list of functions of UPs, Upazila Parishads and Paurashavas, see Appendix 15: Roles and responsibilities of UPs, Upazila Parishads and Paurashavas.

In practice, elected local government bodies in rural area have limited financial autonomy. For example, in rural areas, Upazila Parishad work alongside the local administrative offices of central government, led by the officer-in-charge, UNO, who have significant executive power. While there is an elected Chairperson in each Upazila Parishad, they have limited power to make decision on the choice of activities that is implemented at the local level. In urban areas, local elected bodies, such as Municipalities, work directly with central government ministries and therefore enjoy more freedom in the area of planning and prioritizing of funds.

Three regions and 11 local government administrations have been selected for this study due to their exposure and sensitivity to climate impacts: coastal area, floodplain and Barind. This study acknowledges that there are other climate hotspots in Bangladesh but they are not covered in this study

due to limited time and resource constraints. As there are many different actors involved at the local level, the analysis in this study focuses primarily on UPs, the local elected body at the lowest level of government that have existed for over 100 years (GoB, 2011). Table 31 sets out the selected UPs and pourashavas and the climate change impacts they face.

Table 31: Selected UPs and pourashavas and the climate change impacts they face

Region	Union/ Pourashava	Climate change impact
Coastal	Lata Union	Sea Level Rise, Salinity, Cyclone, Tidal Flood, Water logging
	Garoukhali Union	
	Gabura Union	
	Padmapukur Union	
	Satkhira Pourashava	Salinity, Sea Level Rise, Cyclone, Water logging
Floodplain	Kunderchar Union	Flood, River Bank Erosion
	Palerchar Union	
	Zazira Pourashava	
Barind	Rishikul Union	Drought, Depletion of Ground Water Level, Flood
	Deohata Union	
	Godagari Sadar Union	Drought, Depletion of Ground Water Level, Flood, River Siltation
	Godagari Pourashava	

6.2 Local government's understanding of climate change

6.2.1 Understanding of "climate change''

Local stakeholders'[77] perspective of climate change is generally influenced by the media, interpretation of disaster from people's own experiences, and through informal public discussions. There are variations between different local stakeholders' understanding and the degree to which they are aware of the climate change agenda. However, in general, local stakeholders' understanding of climate change stem from their experiences of climate impacts, such as cyclones, deforestation, tidal surge, salinity, water logging, flooding and drought, as well as the effect on people's daily lives, such as loss of livelihoods, ground water depletion, irrigation problems, health problems and limited access to schools and health facilities. While this awareness leans more towards the adaptation component of climate change, Dhaka, a large urban city, also addresses the mitigation component of climate change, such as the need for green space and renewable energy.

6.2.2 Local government's perspectives

Local government practitioners in rural areas often associate climate change with flooding, water logging, salinization and extreme weather events such as Cyclone Sidr and Aila. They are also able to link climate change with the slow changes of temperature, such as longer dry seasons that affect agricultural outputs. There is recognition that the damages of climate change impacts on homes, infrastructures and livelihoods are exacerbated by existing vulnerabilities of rural communities. For example, in regions to the South of Bangladesh, salinization has damaged buildings, shrimp cultivation and agricultural and livestock based industries and more crucially, led to a depletion of fresh drinking water. Children are also found to have skin irritation as a result of salinization.

[77] "Local stakeholders" in this chapter specifically refer to those who were involved in the local government analysis study. This includes local government officials and elected members, community members and NGOs.

Most of the UNOs involved in this study have heard of the term “climate change” and were able to articulate the effects of climate change impacts on the lives of people in their respective working areas. UPs elected members involved in this study were able to identify specific sectors as highly climate-sensitive: water resources, infrastructure (embankment, roads and bridges), disaster response management, livelihoods (agriculture, livestock, fisheries), irrigation and deforestation. They also consider the frequency and severity of these impacts in recent years as a result of climate change.

In the capital city, Dhaka City Corporation puts emphasis on greenhouse gas emissions, although flooding is also a recognized challenge. The climate change responses implemented by the Corporation include sustainable waste management, development of green space and the promotion of green economic development. However, this is not necessarily reflected in all urban areas in Bangladesh. For example, officials in Sathkhira in Khulna District have less understanding of climate change as they were unable to articulate the links between greenhouse gas emissions and the climate-related disasters that they have experienced in recent years.

6.2.3 Communities’ perspectives

Among communities, people are becoming more aware of the issues of climate change, particularly since cyclones Aila and Sidr. The devastations after Aila were still vivid in the minds of the people involved in this study. In Gabura Union in the South of Bangladesh, one of villages most affected by Cyclone Aila, people were heavily affected by a decline in shrimp cultivation and other agricultural- and livestock- based industries as a result of the cyclone itself but also the longer term impacts of salinization and water logging. In Padmapukur and Godagari Unions in Sathkhira and Rajshahi, some people have mentioned the scarcity of safe drinking water due to salinization and water depletion. As a result, many villagers have moved away from their homes to work as rickshaw pullers in neighbouring urban areas. Some who have stayed behind have taken up high risk activities to sustain their livelihoods, such as hunting in the Sundarban area, which are prone to attacks by wild animals. Due to a lack of alternative options, some households have borrowed from high interest loans to re-establish damaged livelihoods in areas that remain to be highly climate sensitive, such as shrimp cultivation.

The Government and NGOs have also staged interventions to help raise awareness of climate change in communities, to learn about the risks and vulnerabilities associated with climate change, such as loss of livelihoods, damaged infrastructure and safe water scarcity. For example, Satkhira Unnayan Sangstha, a local NGO has been working with coastal communities in South West Bangladesh on climate change adaptation. Through a series of workshops, seminars, training and school competitions on climate change impacts and coping strategies, 4327 people of different age and profession have learned more about climate change issues and adaptation strategies. (Halder, 2009)

6.2.4 Local perspective on climate change strategies

On addressing these key challenges, local communities, local government and NGOs have repeatedly pointed to the need for access to sustainable and alternative livelihoods, capacity to develop climate change responses, more climate resilient planning and infrastructure and access to information on climate change impacts at the local scale. There is also demand for accessible disaster responses such as emergency shelters during extreme weather events. While there is demand for increased financial resources and access to climate related funds, there is an equivalent demand from almost all local stakeholders for capacity support to develop skills and expertise to address climate change challenges. There is a consensus that sustainable solutions and approaches are required and that climate financing needs to be directed at building the capacity of communities so they can better utilize the resources for addressing climate change.

Many local stakeholders interviewed expressed the need for addressing underlying social and economic vulnerabilities, such as improved infrastructure through better roads, embankments and access to water and electricity and access to alternative livelihoods. For example, in Gabura, the damaged embankment has reduced mobility and exposed communities to coastal erosion and flooding. Similarly, in Kunder Char and Paler Char Unions, people are losing their motivation to repair their homes and install tube wells and latrines as they feel there would be no use as long as infrastructure remains inadequate. These views reflect the strong relationship between climate impacts and existing vulnerabilities of communities, which demonstrates the ongoing need to enhance and improve existing development strategies for vulnerable communities in areas such as agriculture, livelihoods transport, health and education. Similarly, it is not clear whether local stakeholders are able to distinguish climate specific interventions from ongoing development and service delivery interventions as most of the people interviewed have attributed overall development challenges a result of climate change.

Some of the strategies identified by local stakeholders as necessary to addressing the impacts of climate change include (1) tree plantations, (2) rehabilitation from disasters, (3) construction of raised embankment, (4) construction of raised road, (5) construction of cyclone shelter, (6) construction of second line of protection from flooding and (7) climate resilient livelihoods.

There is a strong demand from all local stakeholders for physical infrastructure, especially in rural areas. However, this does not support findings in the subsequent sections in this chapter that show prominent funds, such as ADPs and LGSP/LGSP LIC, are already being allocated to UPs to spend on infrastructure development. This raises the question as to why these funds have not been able to address the infrastructural gaps identified by local stakeholders. More analysis is needed on how these funds are delivered towards the intended infrastructural needs, whether there are any problems in the disbursement of funds to the local level and if there are capacity issues among local practitioners.

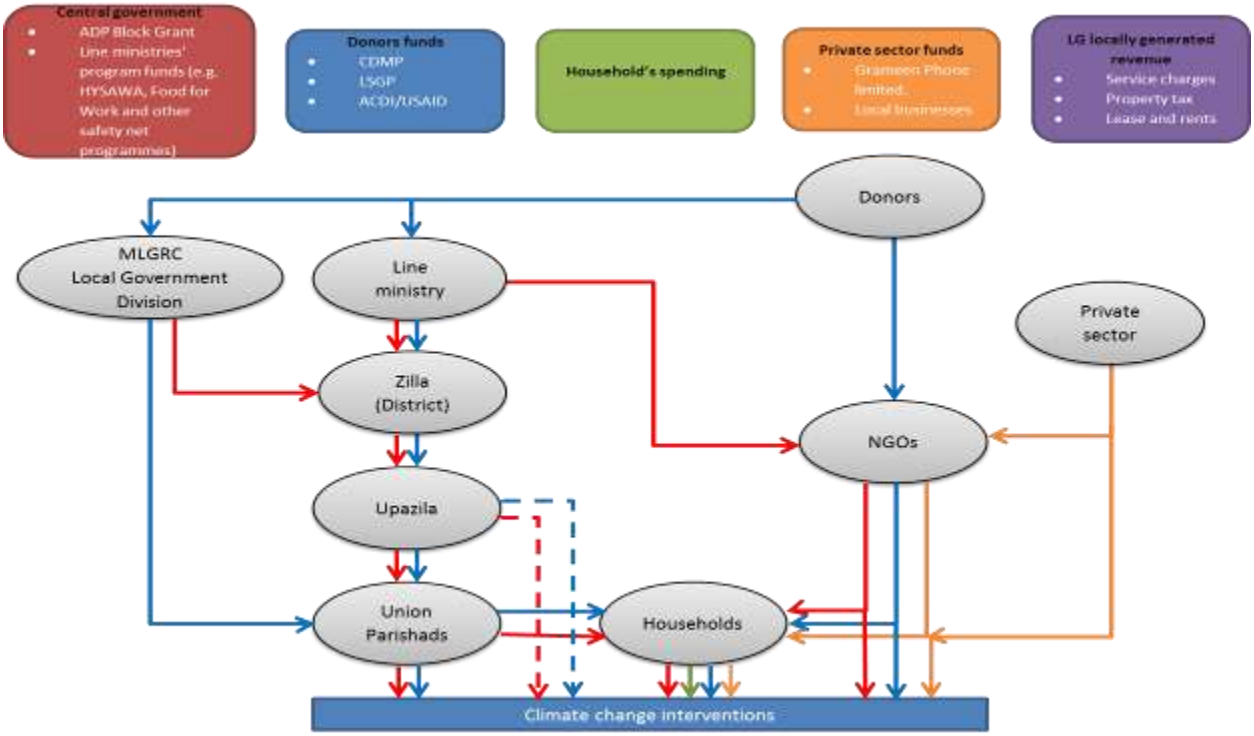
6.3 Sources of climate finance and funding modalities

6.3.1 Sources of climate finance and funding modalities

At the time of the study, there are no climate change specific funds available to UPs. There are also no national disaster funds available to UPs. However, based on the “climate expenditure” classification determined in Chapter 4, there are various funds available to UPs that are relevant to climate change. The sections below will outline these different sources and modalities of funds. For more detailed information about general fund flows to UPs, see Assessment of Fund Flows to Union Parishads. (GoB, 2011)

Based on the scope of the study, there are five key sources of finance identified at the local level, some of which have relevance to climate change. The five sources are: (1) central government funds, (2) donor funds, (3) local government locally generated revenue, (4) household spending and (5) private funds. The modalities used for channelling these sources of funds to the local level are set out in Figure 9.

Figure 9: Sources of Local Government climate finance and funding modalities



Modalities include: central government grant to local government bodies; donor funds to local government bodies through central government financial system; donor funds channelled directly to NGO; and private sector donations to NGOs and households. The flow of funds is indicated by the colour of the arrows, which correspond to coloured text boxes above indicating the different sources of funds. For example, the arrows with the colour red indicate the different flows in which central government funds are channelled to the local level. The dotted lines indicate the fund flows that have not been identified in this study but may exist. The section below provides an outline and analysis of some of these funds and funding modalities.

6.3.2 Annual Development Plans (ADP) block grant, central government fund

The Government's ADP block grant, also known as Thok Boraddo, is a resource from central government for UPs mainly used for spent on infrastructure projects. The amount is centrally determined by the size and population of each union and dispersed to UPs from the LGD of MLGRD&C through the Zila and Upazila administrative offices. Each Union prepares its own budget and makes a request for ADP block grant. In many cases, the allocation of ADP tends to be lower than the amount requested and there are also reports of late or insufficient allocation. Thus, UPs often have to start with a deficit budget every year. For example, Lata Union has requested 800,000 taka of ADP in 2011. They only received 561,000 taka of ADP from the government. (Lata Union Parishad, 2010)

The UP spends the ADP grant in line with the guidelines on infrastructure, agriculture, public health and sanitation set out by the Upazila administrative office. Some of the thematic areas outlined in the UPs and Pourashavas' budgets are considered relevant to climate change, such as reinforcing embankment and desalinization. This is in line with the definitional framework used at Central Government level.

6.3.3 Safety net programs, central government fund

Safety net programs are the most prominent funds allocated to UPs from central government. This includes funds for Food for Work (Kabikha), Test Relief (TR), 100 day employment generation scheme, vulnerable group feed (VGF), vulnerable group development (VGD) and stipends for widows and persons with disabilities. These funds are administered by different line ministries, such as Ministry of Food and Disaster Management, Ministry of Women Affairs and Ministry of Social Welfare. They are channelled to, and coordinated by, the Upazila administrative government office and dispersed to UPs for implementation.

Some of these are spent on activities that are highly relevant to climate change. For example, the VGF scheme distributes food to the most vulnerable, which could help build resilience. The 100 day employment generation scheme reduces economic vulnerability through job opportunities and income generation for vulnerable communities. However, some of these funds are spent on road construction, and it is questionable whether these projects are resilient or maladaptive. Schemes such as Kabikha, TR and 100 day employment generation scheme fall under the directive of the Ministry of Food and Disaster Management and are aligned to the Ministry's medium-term budget framework, which includes climate change specific objectives.

While these funds are mostly channelled to UP level for implementation, UPs generally do not have any control or power over the use of these funds. They merely work as implementer or consulting bodies. On the effectiveness of these central government funds and funding modalities, by and large, UP involved in the study consider ADP effective in addressing the needs of the rural poor. However they remain critical of the amount of ADP available to them and the corruption associated with the disbursement of ADP funds from the Upazila administrative office. UPs also spent a significant amount of their time and energy on implementing safety net programs. Most UP elected members feel that the coverage, quality and quantity of foods and resources under these programs are inadequate to meet the needs of marginalized people.

In addition to the ADP and safety net programs, there are other climate change related projects and activities implemented by different line ministries, such as Local Government Engineering Department (LGED), Water Development Board, and the public health and engineering department. These projects are designed and planned by the government's Project Implementation Officer (PIO) at the local level and supervised by the Upazila administrative office.

6.3.4 Local Government Support Project (LGSP LIC), donor fund

UNDP, World Bank and other donors together are supporting LGSP/LGSP LIC in pilot UPs. The aims are to strengthen local government capacity in Bangladesh at the Union level, give UPs greater control over the use of funds and provide opportunities for UPs to implement projects based on the needs of local communities. (UNDP, n.d.)

The funding modality uses the same block grant system as the ADP but without the interventions of Zilas or Upazilas. Donors give the LGSP/LGSP LIC funds to the LGD of MLGRD&C, where they are directly disbursed to the bank accounts of the pilot UPs. This funding is audited by a different firm to the auditor of ADP. In most of the study areas, a large proportion of the LGSP/LGSP LIC funds are spent on reducing rural vulnerabilities through infrastructure development.

There is potential for climate change finance to be channelled through this modality as it gives greater autonomy and power to UPs. For example, there is a strong participatory component to the development of local plans where nine wards in a Union would hold individual meetings to come up with priorities and present to communities for review. So far, UP elected members consider this the single most effective program at the union level and strongly advocate future programs to be supported through this funding modality. However, there is a need to address a more fundamental challenge of building UP capacity on delivering climate change programs, as highlighted in section 5.4. The bypassing of Upazila and Zila administrations may also lead to increased tension to the already delicate relationship between the different tiers of local government. The Upazila administrative offices are already highly critical of this funding modality. For example, there are claims from UNOs in the study areas that the LGSP/LGSP LIC funds are not properly utilized by UPs due to corruption and vested interested.

As the LGSP LIC comes to an end in March 2012, UNDP is launching two new programs, the Union and Upazila Parishad Governance Programmes that aims to continue strengthening local governance and building local elected bodies' capacity at the Union and Upazila level (UNCDF, 2011).

6.3.5 Community Disaster Management Programme (CDMP), donor fund

Coordinated by the UNDP, and funded by donors such as AusAID, UK Aid, Norwegian Embassy, European Commission and SIDA, CDMP aims to strengthen community capacity to address and mainstream disaster risks and climate impacts into development planning. (CDMP, 2008) Now entering its second phase, CDMP II has six outcome areas shown below:

Outcome 1 Development of strong, well-managed and professional institutions in Bangladesh that is able to implement a comprehensive range of risk reduction programmes and interventions at the national level, as well as contributing to regional actions, international learning and best practice.

Outcome 2 Reduced risk to rural populations through structural and non-structural interventions, empowerment of rural communities and improved awareness of, and planning for, natural hazard events, including the likely impacts of climate change.

Outcome 3 Reduced risk to urban populations through structural and non-structural interventions, improved awareness of natural hazard events and the piloting of urban community risk reduction methodologies targeting the extreme poor.

Outcome 4 Improved overall effectiveness and timeliness of disaster preparedness and response in Bangladesh by strengthening management capacity and coordination as well as networking facilities at all levels.

Outcome 5 Better disaster-proofing of development funding across thirteen ministries. This will achieved by generating increased awareness of hazard risks and the provision of technical information, advisory services and resources to stimulate positive changes in planning and investment decisions over the long-term.

Outcome 6 Community-level adaptation to disaster risks from a changing climate is effectively managed.

The CDMP is a nationally executed project under the responsibility of the Disaster Management Bureau of the Ministry of Food and Disaster Management. It is co-managed between the Bureau and UNDP and currently piloted in 40 localities. Donor funds are pooled into one basket and allocated to NGOs for implementation of activities that address disaster risks and climate change impacts. As a precondition for NGO to access CDMP funds, Union and Upazila level government's Disaster Management

Committees (UDMCs) need to be involved in, or have endorsed, the NGO's program. However, UDMCs do not necessarily have access to the funds. There is also inconsistency in the level of involvement of UDMCs across the different pilot areas.

6.3.6 ACDI/VOCA food security program, donor fund

USAID is supporting ACDI/VOCA, an international NGO, in the Khulna Division of Bangladesh to implement a five-year, USD $45m program to reduce food insecurity among vulnerable households. The Program for Strengthening Household Access to Resources (PROSHAR) aims to empower communities by providing household members with tools such as agricultural and livestock tools to improve their food security. (ACDI/VOCA, 2012) Once an agreement has been reached between USAID and the government, funds are channelled to ACDI/VOCA. From here, specific program funds are allocated to various NGOs, such as Shushilan, Muslim Aid and Codec, for implementation of food security projects.

Both CDMP and ACDI's food security programmes are implemented in pilot areas and have identified NGOs as the key stakeholder for delivering climate finance. Both have specific, but different, guidelines that partner NGOs are required to follow as part of the fund's accountability framework. The key feature of both programs is the limited involvement of central and local government in the prioritizing, managing and delivering the funds. The rationale for targeting NGOs, rather than local government, as implementing partners is to minimize bureaucracy and corruption, and maximize the efficiency of project implementation, a modality that is considered more efficient in reaching vulnerability communities.

While there may be more efficiencies for donors to *channel* funds directly to NGOs, this funding modality raises the question as to whether the *implementation* of the funds at the local level is efficient. NGOs, such as Shushilan, working in one or two districts, could receive funding from over 12 donors, each requesting different reporting mechanisms under different budget codes. This creates a significant amount of operational tasks for NGOs, especially those that are already faced with limited resources and capacity. Local government is also aware that there are a multitude of NGOs working in one region receiving significant funding directly from donors, yet they are rarely aligned to achieve the local area's priorities in a coordinated manner.

In addition to the efficiency of the delivery of funds and accountability framework, this modality of funding and programming also raises the question of sustainability and ownership. While the roles of NGOs should not be downplayed, as discussed in section 5.5, there are benefits to involving local government in these programs. For example, local government could institutionalize the best practice of these programs into longer term local development plans and budgets. There is also scope in NGO run programs to include an element of capacity building for local government with the aim of transferring the responsibility of the programs to local government in the long run. Significant hurdles will need to be addressed, such as promoting collaborative working between local actors and stronger involvement of relevant ministries in financing the programs.

6.3.7 Internally generated revenue

The internally generated revenue of UP is very limited and made up of revenue such as holding tax, tax from the local markets, tax collected from boat stations, land tax, marriage tax and fines collected by village court, as identified in all UP budget reports. (2011) The spending of this revenue varies according to priority of the UPs or Pourashavas but could include expenditure on local salaries, office operations, road construction, tube well and latrine distribution to vulnerable households and support and repair for local institutions such as schools, mosques and Madrashas.

The amount of income derived from these internal sources is usually inadequate to meet the growing needs of Unions. Most UPs struggle to tax people in rural areas largely due to low capacity of UP tax collector, high level of mistrust of local government bodies, fear of being unpopular, and poor economic conditions. The risk and challenges will be the same for raising internal revenue for addressing climate change.

6.3.8 Financial analysis of climate sensitive budgets in the study areas

Table 32 and Table 33 documents the funds received by eight UPs and Pourashavas[78] of the study areas as identified in their annual budget report of 2011. The table also sets out an analysis of the extent to which these funds are climate sensitive or relevant, in taka and as a percentage of the total budget, based on the same classification and definitional framework used throughout the study.

Table 32 presents the climate sensitivity of budgets by the schemes that UPs and Pourashavas implement, and the funds associated with these schemes. Table 33 presents the climate sensitivity of budgets by regions and eight study areas. For a detailed breakdown of the schemes, budgets and study areas, see Appendix 16: Breakdown of climate change expenditure by UPs and Pourashava study areas.

From all the schemes and projects set out in UP and Pourashavas annual budget reports, those selected for analysis are schemes with the largest funds that are relevant to climate change, such as LGSP/LGSP LIC, ADP and safety nets. In both tables, there is an item called “Other (schemes relevant to climate change)”, which is an item that groups together schemes with smaller amounts of funds that has relevance to climate change, but too small to be broken down for further analysis. The schemes that have no relevant at all to climate change are grouped together and classified in the tables as “Other (schemes not relevant to climate change)”. This includes schemes such as 500,000 taka spent on development of ethnic communities.

[78] Source: Gabura Union Parishad, 2011, Pakmapukur Union Parishad, 2011, Satkhira Pourashava, 2011, Kunder Char Union Parishad, 2011, Jajira Pourashava, 2011, Rishikul Union Parishad, 2011, Deochata Union Parishad, 2011, Godagari Pourashava, 2011. Limited or inaccurate data for the other three UPs (Lata Union, Gharoukhali Union and Paler Char Union) were not included for this analysis.

Table 32: Climate change sensitivity of UP and Pourashava budgets by schemes 2011-12

Schemes	Total budget	Climate sensitive budget	Climate sensitivity of budget (in percentage)
Annual Development Plans (Union Parishads)	2,100,000	234,000	11
Other budgets (Union Parishads)	25,780,530	4,445,106	17
Development programs (Pourashavas)	194,167,771	27,352,577	14
Revenue budget (Pourashavas)	87,750,103	4,632,187	5
LGSP/LGSP LIC	8,850,000	885,000	10
KABIKHA (Food for Work)	13,190,000	1,766,500	13
TR (Test Relief)	5,180,000	436,000	8
100 day employment scheme	18,349,850	8,842,310	48
Other safety programs (e.g. VGF, VGD)	1,000,000	500,000	50
REOPA	250,000	12,500	5
DASCHO	2,868,600	286,860	10
HYSAWA	7,650,000	765,000	10
UGIIP-2	77,300,000	15,460,000	20
Other (schemes not relevant to climate change)	13,159,384	0	0
Total UP and Pourashva funds identified in all study areas			**457,596,238**
Total climate sensitive budget identified in all study areas (taka)			**65,618,040**
Average climate sensitivity of all study areas (percentage)			**14**

Table 33 shows that safety nets such as 100 day employment scheme, VGF and VGD have the highest sensitivity to climate change with an average of 48 to 50% sensitivity. This is largely due to the fact that these funds are generally used for structural and non-structural measures such as building embankment, job creation and provision of food, which could be classified as adaptation strategies for vulnerable people. Of these funds, the 100 day employment scheme and KABIKHA are made up of larger amounts than the other safety nets, which demonstrate the potential of this modality in absorbing high volumes of funds. While ADP and LGSP funds have similar sensitivity to climate change, around 11% to 13%, the LGSP fund is much larger than the ADP fund and therefore contributes a larger amount towards addressing climate change issues. This also demonstrates that the LGSP modality may have better capacity to manage a much higher volume of funds. In Pourshavas, a significant amount of funds are classified as 'development budget' and 14% of these funds are considered sensitive to climate change. It would be valuable to explore some of these funding modalities as potential for channelling climate finance in Pourashavas.

Table 33: Climate change sensitivity of UP and Pourashava budgets by regions and study areas 2011-12

Union Parishad/Pourashava	Total budget (taka)	Climate sensitive budget (taka)	Climate sensitivity of budget (percentage)
COASTAL REGION	**264,541,541**	**46,346,449**	**24**
Padmapukur Union Parishad	19,205,823	5,865,500	31
Gabura Union Parishad	18,431,850	4,739,110	26
Satkhira Pourashava (Municipality)	226,903,868	35,741,839	16
FLOODPLAIN REGION	**38,607,090**	**5,257,832**	**11**
Kunder Char Union Parishad	3,605,000	252,200	7
Jajira Pourashava (Municipality)	35,002,090	5,005,632	14
BARIND REGION	**154,447,607**	**14,013,760**	**9**
Deopara Union Parishad	11,395,234	1,018,430	9
Rishikul Union Parishad	24,699,927	2,089,930	8
Godagari Pourashava (Municipality)	118,352,446	10,905,400	9
ALL UPs IN STUDY AREAS	**77,337,834**	**13,965,170**	**18**
ALL POURASHAVAS IN STUDY AREAS	**380,258,404**	**51,652,870**	**14**
ALL EIGHT UPS AND POURASHAVAS IN STUDY AREAS	**457,596,238**	**65,618,040**	**14**

Table 33 [79]demonstrates that UPs from all study areas spend an average of 18% of their overall budget on activities sensitive to climate change, and Pourashavas spend an average of 14%. The coastal region spends more on climate change than the floodplain and barind region. The data also shows that more funds are channelled to barind and coastal regions than in the floodplain region. It is worth exploring the rationale for this distribution so future climate finance could be re-prioritized to meet the needs of areas that are receiving least support.

6.3.9 Households spending

Most people use their limited resources to sustain their livelihoods in the event of climate related disasters or challenges because they are either not receiving government, NGO or other types of support or these types of support are insufficient. For example, in Cyclone Aila affected Padmapukur Union of Shamnagar Upazila, people have lost most of their resources and relied heavily on loans to survive, exposing them to more vulnerabilities. However, household spending on addressing climate change often go unnoticed by policy makers and practitioners in government, NGOs and other agencies. Due to limited capacity and tools, there is currently no accurate data on how much households are spending to address climate change impacts. This presents a challenge to effectively prioritize and deliver climate finance to those most vulnerable. Some NGO employ tools, such as participatory rural appraisal to assess the vulnerabilities and risk at household levels, which may offer a starting point for further analysis on household spending.

[79] Source: Gabura Union Parishad, 2011, Pakmapukur Union Parishad, 2011, Satkhira Pourashava, 2011, Kunder Char Union Parishad, 2011, Jajira Pourashava, 2011, Rishikul Union Parishad, 2011, Deochata Union Parishad, 2011, Godagari Pourashava, 2011.

A light-touch assessment was conducted based on arbitrary analytical tools and interviewing techniques on household spending in eight unions of the study areas, see Appendix 17: Analysis of climate sensitivity of household spending. Data were collected through direct interviews from the members of affected households. However, due to the arbitrary nature of the data collection and analysis methodology, this information should not be used as empirical data results. It does provide some initial insight into household spending and present an argument for more empirical and robust analysis on the climate sensitivity or relevance of household expenditure.

The assessment suggests that household spending to address the damage from climate impacts vary across different economic classes. For those considered as most poor, extreme poor and landless households, the damages often exceed their income, some by more than double the amount. The damage to rich households is generally higher than those classified as poor and extreme poor due to the fact that they have more assets. They also have higher income and therefore more options to reduce these damages. However, while rich and middle income households may seem to have more financial resources to address climate impacts, it seems that their income is progressively spent on addressing the damages caused by increased frequency and extremity of climate impacts. As they do not access government's safety net programs, often to save embarrassment, they end up selling their land. Overtime, rich and middle income households fear that they will eventually become poor and vulnerable more quickly than they are able to generate the income. This presents a longer term view for policy makers to also consider how impacts of climate change are pushing middle and high income poverty. This calls into action the need for more preventative measures to address the impacts of climate change. For example, there could be more strategies to raise awareness of communities, including middle and high income groups, about building homes on floodplain and areas exposed to climate induced hazards, so they can be more informed decisions on their own action.

6.3.10 Private sector funds

The scope of the study has not included analysis of private sector funds but two sources have been identified at the local level that are worth highlighting. The first is contributions from local businesses and rich households in rural areas towards post-disaster recovery for poor and vulnerable households. This was identified in the climate hotspot study areas where households have claimed to have received financial and non-financial support from private individuals after Cyclone Sidr and Aila. The second source of private funds identified was 8,000,000 taka provided by the national mobile phone company, the Grameen Phone Limited, to Sushilan, an NGO in Bangladesh, to build two cyclone shelters cum school. (Shushilan, 2011)

The overall analysis of the sources of funds and funding modalities points to the need for local practitioners to develop local climate fiscal frameworks that sets out the options available to a local area for accessing, managing, prioritizing and delivering climate finance. There should be a focus on the existing funding modalities that have effectively channel funds to the local level for implementation. This framework should also provide guidelines on sources of funds, including funds from donors and the private sector, and how local practitioners could target climate finance using knowledge generated from the household spending analysis and vulnerability assessments. It should also provide guideline to NGOs and other local actors on how different funds could be better streamlined and targeted.

6.4 Local government's capacity on climate financing

6.4.1 Do national policy or plans set out UPs' legal mandate, roles and responsibilities in addressing climate change?

At the national level, the mandates, roles and responsibilities of UPs, Upazilas and Pourashavas are outlined in the Constitution of Bangladesh (GoB, 2004), the Local Government (Upazila Parishad) Act (GoB, 1998 and GoBa, 2009) and the Local Government (Union Parishad) Act (GoBb, 2009). Of these legislations, there are no specific climate change mandates but there are climate related responsibilities such as sustainable environmental management, provision of safe drinking water, maintenance of embankment, organization of credit programs and poverty reduction. There are also generic responsibilities that could be extended to address climate change issues, such as organizing campaigns and awareness raising activities, which could, for example, focus on climate impacts on local communities. During the time of study, the BCCASP and the BCCTF fund are not known to specify a role for local government, nor has the BCCASP been reflected in local government's plans, strategies, activities and budgets.

Local ADPs are produced by UPs and Upazilas based on the overall infrastructure and developmental needs of a local area and guidelines set out by central government. As demonstrated in the financial analysis section of this chapter, ADPs have around 10% climate change relevance. For example, related to climate change, UPs are expected to allocate 5% of their ADP towards addressing disaster risks, based on central government guidelines. In areas such as Gabura and Padmapukur, there are also Local Disaster Risk Reduction Plans developed in 2007, which has supported the implementation disaster risk reduction schemes in those areas. However, these plans have not been scaled up to all climate sensitive or disaster prone areas.

6.4.2 Do UPs have the autonomy to determine the allocation for climate expenditure and deliver climate change interventions?

There seems to be limited autonomy for UPs to make decisions on climate expenditure and climate change activities. With a highly centralized planning and budgeting process, UPs follow a linear operational process to execute national policies and priorities. The general approach is that line ministries delegate the responsibility for implementing programs and projects to the Upazila administrative office led by the UNO. As the budget holder of these programs, the UNO has the legitimate authority to approve budgets for UPs. However, UNO themselves are also controlled by the zila headquarters. This linear process of disbursing funds and executing national policies and plans limits UPs autonomy to determine how funds are spent locally. It also means that there are often delays to operation due to hold ups at the Zila or Upazila level.

UPs have limited power on revenue collection nor do they have the adequate capacity to collect revenue. UP elected members are also reluctant to be forceful in revenue collection in the hope to be re-elected. Some are also reluctant to collect tax from people who could barely afford a meal a day. The LGSP/LGSP LIC programs are exceptions to this where funds are allocated directly to UPs with the aim of strengthening local government capacity.

On donor funded climate change related programmes, UPs often have no or little control. For example, CDMP provide some additional functions and responsibilities to UPs but these are mainly focused on approving NGO projects and they are not mandatory by law. Similarly, in Rishikul Union of Rajshahi District, the Barind Multi-purpose Development Authority, a district level administrative body, is the

main implementing partner responsible for delivering the Hygiene, Sanitation and Water Supply (HYSAWA) and the Development Association for Self-Reliance Communication and Health projects, both of which are supported by donors such as Danida and Swiss Red Cross to tackle the problem of irrigation in the Barind area. (BMDA, 2012) Some UPs in these areas are involved in performing the duties delegated to them by the Barind Authority but they have limited control over the design and management of the program and the budget.

Within the UPs, the planning and budgeting decisions are usually determined by a committee made up of local elected members, elites and locally respected persons, such as local school teachers, religious leaders, Matbars (leader of the village court) and political party leaders. Usually, the key issue discussed is to address vulnerabilities through strengthening rural infrastructures. However, these committees are often accused of being politically biased in favour of the vested interest of the committee members. For example, UP elected members would not question the budget decisions of those who are loyal to them.

Over the years, the government has tried to revise local government laws, roles, responsibilities and duties, many of which relate to UPs. However, to this date, little has taken effect on stabilizing the environment in which UPs operate, including the relationships between UPs and Upazilas and between Upazilas and central government. (GoB, 2011) To identify capacity of UPs in delivering climate finance, there is a need to address the wider challenges and complexities in the decentralization process in Bangladesh.

6.4.3 Do UPs have the capacity to delivering climate finance?

UPs have vast local knowledge of the impacts of climate change on communities, physical infrastructure and service delivery. However, the field visits found that UPs lack financial autonomy, resource and capacity on climate change specific issues, such as lack of hazard and vulnerability mapping and the pursuit of maladaptation development. UP members are also found to have limited capacity to reach out to vulnerable households. Therefore, efforts to address climate change impacts that are not funded by central government or NGOs have relied on volunteerism, such as ongoing maintenance of river embankment.

The study has found no evidence of any UPs managing large-scale projects, which are usually undertaken by NGOs or government line agencies, through Upazila administrative offices, with minimal involvement of the UP. For example, a project on the preservation of non-saline regular water was undertaken in Garoukhali Union by local NGOs, not the Garoukhali UP. This raises the question as to whether under the current structure, UPs have the capacity to manage large volumes of funding to undertake large scale projects. An appraisal of local actors' capacity to manage funds could help government and donors better target implementing partners for delivering climate finance.

6.4.4 What is the relationship between UPs and central government, and between UPs and Upazila administrative offices?

The LGD of MLGRD&C is tasked with the provision of support and capacity development to local elected bodies. It is also this division where ADP grants are dispersed and the LGSP/LGSP LIC are channelled through. Other line ministries, such as the Ministry of Food and Disaster Management, provide support to local government to meet ministries' medium-term budgetary framework, where addressing climate change is often included in the framework's objectives. Under the Local Government Act (2009), UPs are obligated to perform the tasks as requested by line ministries. However, the objectives of MLGRD&C and the line ministries are not necessarily the same. Nor is there any evidence of alignment in their

support to UPs and other local government bodies to implement programs and strengthen capacity. There is a disconnect between the national and local level of government. For example, government officials with technical expertise in areas such as engineering and public health work in Upazila administrative offices. In theory, they should visit UPs on a regular basis to provide technical support. In practice, these technical officials are rarely present at the Union level to provide capacity support for UP members.

UPs act primarily as a recipient or a consulting body when the Upazila administrative office is implementing a project delegated by the line ministry. Therefore, the relationship between Upazila administrative offices and the elected UP is complex. On the one hand, some Upazila administrative offices consider UP as their "hands and legs", without which they cannot function properly. They also rely on UP elected members as key informants of community problems and issues. On the other hand, Upazilas administrative offices consider themselves more knowledgeable, better managers and are better prepared with technical and modern expertise to serve the local community. Moreover, they have a low level of trust of, and respect for UP and Upazila elected members. For example, the salary of Upazila administrative officials is based on the standard national pay scale. In contrast, UP elected members receive less money and thus command less respect. This complex relationship is a cause for concern for many donors and NGOs on the effectiveness of local government to deliver programs. These issues need to be urgently addressed in order for climate finance to be confidently delivered to the local level. The appraisal of roles and responsibilities of different local bodies is a starting point for identifying the comparative advantages of each local actor, thus provide an opportunity for more collaborative working.

6.4.5 What is the role of UPs in making expenditure accountable to communities and government/donors?

UPs expenditure is audited by central government's account general office. Other funds such as LGSP/LGSP LIC, are audited separately by different, independent, auditing firms. From the perspective of local stakeholders in the study areas, there is a sense that the audits of LGSP programs are exposed to corruption. For example, some chairpersons and government officials complained that they take regular bribe to influence the audit report. Similarly, auditors do not always conduct a comprehensive evaluation of UP spending. Rather than going to the UP office to review the accounts, they would simply invite UP chairpersons to the Upazila office to validate information. While UPs invest significant time on addressing government and LGSP audits, they also recognize the need to be more accountable to the community.

6.4.6 Are UPs equipped to target and address community needs?

Even though they are able to articulate people's vulnerabilities, UPs currently do not have the tools and capacity to specifically determine climate impacts on different vulnerable groups. However, in Padmapukur Union of Shamnagar Upazila, the UP has produced a database of vulnerable groups that are used to select eligible recipients of different safety net programs to avoid duplications. There is potential to build upon the existing database used for safety net programs to identify people who are vulnerable to climate impacts. There is also scope for utilizing UPs strategic position and local knowledge to identify climate vulnerabilities and better target and prioritize climate finance and interventions.

One of the areas that could be strengthened is community involvement in project planning and budgeting to ensure that activities are more responsive and demand-driven. For example, in Kunder Char and Paler Char Unions of Shariatpur District, the involvement of community in the budgeting

process is minimal. In contrast, Rishikul and Deoupara Unions of Rajshahi District have higher levels of community involvement. With technical support from a local NGO, Socheton, these UPs arrange open budget meetings held in communal areas, such as schools, to enable community members to participate in reviewing annual budgets. However, these NGO initiatives to make UP more accountable to its citizen are currently not widespread.

Table 34 sets out the key strengths and weaknesses of UPs and the areas of capacity support for delivering climate finance, as perceived by the local stakeholders involved in this study.

Table 34: Strengths and weaknesses and areas of capacity support for UPs

Strengths	Weaknesses	Areas for UP capacity support on climate financing
Know-how of local problems and vulnerabilities	Limited power and authority	Climate change and disaster risk understanding
Local knowledge about climate impacts	Limited resources and technical expertise	Climate change and disaster risk sensitive development planning
Social capital	Highly centralized and limited autonomy	Public Financial Management
Social mobilization capacity	Overworked	Monitoring and Evaluations
	Limited recognition and remuneration	Report writing and negotiation skills
	Corruption and political bias	Public awareness raising on climate change and disaster risks
	Lack of climate change understanding	Access to climate related information, such as climate projections and public and private finances available to UPs
	Poor planning	

The overall analysis of UP capacity is the need to strengthen UP involvement in the planning and budgeting of climate related programs. Building on the development of local climate fiscal frameworks, central government should complement the delivery of climate finance with technical support for building capacity at the local government level. It should also appraise the roles and responsibilities of different local bodies and agencies involved to identify their comparative advantages. For example, local elected bodies with democratic mandate, such as UPs, could be in charge of planning and implementation. Local administrative offices and NGOs could be responsible for manage the finance and providing technical support to those implementing the activities. The framework could also be developed using a community participatory approach as a way of fostering community engagement in local decision making and strengthening the role of UPs as local community leaders.

It is also strongly indicated that there is a wider challenge, and an urgent need, to address the tensions between the elected and the administrative bodies at the local level. As long as these strained relationships continue, there will always be a bottleneck at the local level in effectively addressing the needs of the communities.

6.5 Roles of other local institutions and organizations

6.5.1 NGOs

NGOs have a long history in Bangladesh. Shakil (2011) argues that CSO growth is a result of ineffective political institutions in local areas, a dysfunctional market system and social exclusion. This is reflected in the politicization of social institutions, the emergence of organizations that provide micro-credit schemes and the focus on socio-economic development. 250,000 registered NGOs in Bangladesh have been documented (Prothom Alo, cited in Shakil, 2011). As the prime actor of CSOs, NGOs are known to have played a significant role in environmental awareness.

Shariatpur, Zazira Upazila

Flooding and river erosion are the main disasters in Jajira. However, they are rarely reported in national media and lack government attention. In the absence of large-scale government infrastructure projects, Shariatpur Development Society (SDS), a leading NGO in Zazira, fills the gap by implementing programs to reduce the vulnerabilities of community during and after disasters. SDS, funded by a range of donors, supports disaster management and emergency response and emergency shelter and plinth construction. Through programs such as River Basin Program, Amder School project (ASP) and RESOLVE, SDS aim to raise awareness of the need to reduce the losses from disasters, such as loss of life, injuries and damages to assets and livelihoods. SDS works in coordination with the government and attends the monthly government coordination meeting at the Upazila and District level.

Source: SDS, 2012

Due to its prominent role in Bangladeshi society, NGOs need to be considered as a vehicle for delivering and managing climate finance. This study has identified significant volume of funding channelled directly from donors and government to NGOs for implementing climate-relevant projects. For example, in Padmapukur Union, an area heavily affected by Aila, a number of NGOs are in operation to provide micro-credit programs to enhance the livelihoods of low income people, such as Caritas, Shushilan, UNDP, Jagrata Jubo Sangha (JJS), Rupantar, Solidarities, Oxfam-GB, World Vision, BRAC, Association for Social Advancement (ASA), Gonomukhi and Grameen Bank.

The Satkhira branch of Shushilan, an NGO working in selective regions in Bangladesh, have been receiving funds from Christian Aid, Concern Worldwide and Oxfam to address disaster related issues such as water and sanitation early recovery response to Cyclone Aila, integrated adaptation and mitigation measures and economic empowerment and community adaptation to build resilience. The three donors have provided a total of 22,247,333 taka in 2011 directly channelled to Shushilan, bypassing central and local government bodies. Together with a range of other projects, the disaster related funds that Shushilan received from donors constitute over 24% of its total budget for 2011. (Shushilan, 2011) However, heavy workload and submitting different proposals and reports for the purpose of accountability and lack of coordination with other NGOs are key challenges.

While NGOs have filled the gaps in areas that local government is unable to address, there are significant issues in adopting this funding modality. First and foremost is the inability for central or local government to track climate expenditure among the plethora of NGOs and CSOs working in Bangladesh on areas related to climate change. The absence of this information could affect the prioritization of

climate finance and misdirect government or donor funds to areas that are already receiving significant NGO support. Some UPs and Upazilas are aware of NGO programs in their areas and maintain a certain degree of coordination with them. For example, CDMP requires NGO partners to work with local government on implementing disaster management programs. However, more often than not, UPs have no power and authority over NGO's operation. This lack of coordination between UPs and NGOs could affect how local development plans and budget are aligned to achieve maximum benefits for communities. The NGOs in the study areas are able to provide information on their budget and expenditure, which demonstrates a certain degree of transparency. However, it is not evident how affected communities or beneficiaries are involved in the budgeting and design process of NGO-sponsored programs.

There is a need for more coordination between local government and NGOs in delivering climate change activities. For example, the development of a local climate fiscal framework should include the role of NGOs and provide guidance on implementing activities in a more coordinated and area-based approach.

6.5.2 Other stakeholders

Due to limited time, the study was unable to explore the role of other local institutions, organizations and bodies that are addressing climate change issues. Table 35 provides an overview of the existing roles of various local stakeholders that this study was able to map. It also gives an indication of how local stakeholders perceive each other. The interpretations come from local stakeholders involved in this study.

Table 35: Stakeholder analysis

Type of stakeholder	Existing role	Desired role
Upazila Parishad Chairperson	Work with UNO office to implement government's plans and strategies	More decision making power and authority
Municipality Chairperson	Develops plans and implement programs on service deliver and local development; more independence from central government	Increase coverage and improve service delivery
UP Chair and elected members	Implements and consults on government programs; limited power and resources	More resources and capacity, incrased decision making power and authority
UNO	Possess executive power to administer and execute guidelines and rules for government projects, follow the directives from central government	Act as monitor and supervisor of government projects and programs, with less decision making power
Line ministries	Follows national directives and priorities, develop national plans and strategies	More coordination with local elected bodies and people, less corruption
Project Implementation Officer (PIO)	Government officials; overseas national schemes at the local level; often overloaded; prone to corruption	More attention and transparency to local people
Local NGO	Autonomous bodies whose strength is in social mobilization, local knowledge and awareness raising; limited coordination with GoB and local government but high level of coordination and accountability to donors	More coordination, transparency and accountability to GoB and local government bodies; increase the coverage of work, more attention to the poor and most vulnerable
Media/ Journalists	Reporting on local problems, including	More reports on local problems; take

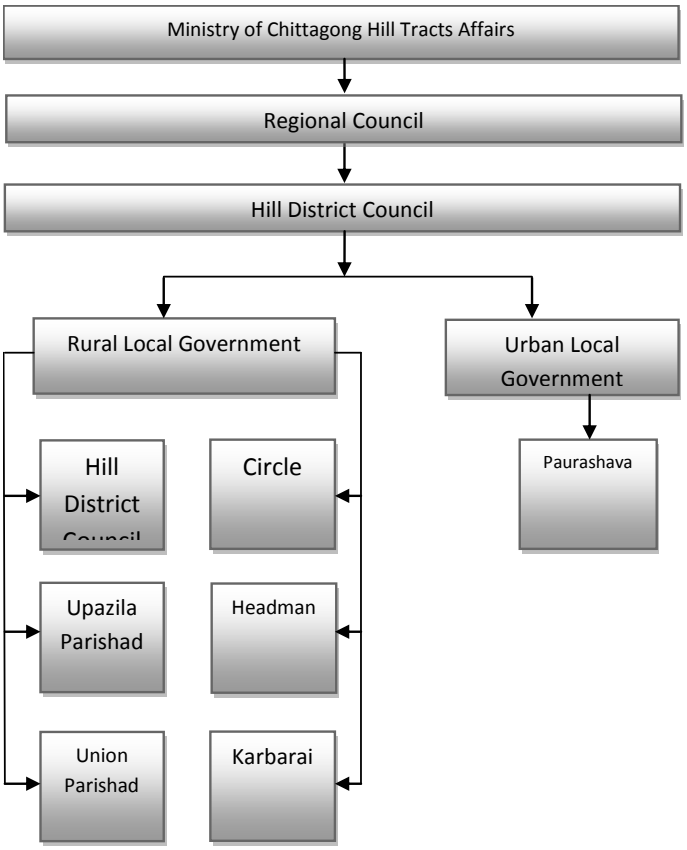
Type of stakeholder	Existing role	Desired role
	disasters; attending government and NGO meetings	local problems to the national level
Ministers	Influence national level policy decisions; highly political; work for party interests	Work for constituents instead of party agenda; lobby the government on behalf of their constituents, less corruption
Local communities	Victims of, and vulnerable to, disasters	Access to diversified livelihood options; access to market information
Local representatives (religious leaders, businesses, school teachers)	Play a role in UP committees, NGO committees	More vocal, less political, mobilizing genuine young leaders, more donation to the community; more focused n the development of local people
Law enforcement agencies	Rare presence, low capacity, low confidence and trust from local people	More involvement, more resources and capacity for better service delivery

6.6 Chittagong Hill Tracts

6.6.1 Local government structure in Chittagong Hill Track (CHT)

Traditionally, Chittagong Hill Track (CHT) is divided into three circles. These circles are Chakma, Bomong and Mong. Today, these three circles fall under Rangamati, Bandarban and Khagrachari districts respectively. At the district level, unlike the Zilla parishad, Hill districts have hill district council. This council works as an umbrella institution for overall development and administrative works of the district. At the upazilla and Union level, the local government structure remains like those of the mainland. However, the most striking feature for the local government structure in CHT is the coexistence of two governance structures - traditional as well as the mainstream. This perhaps presents unique challenges in co-ordinating climate as well as other development activity.

Figure 10: Local Government Structure CHT



The structure of local government in CHT is outlined in Figure 10: Local Government Structure CHT. As with the Bangladesh as a whole, the local elected bodies are different to the local administrative offices and the latter are appointed officials responsible for implementing the priorities of national ministries. However, all government funds directly come from the Ministry of Chittagong Hill Tracts Affairs to the regional council then the allocated funds directly go to each Hill District Council, which presents a relatively clear funding stream through which financial co-ordination could potentially be implemented.

In practice, elected local government bodies and the indigenous political bodies in rural area have limited financial autonomy. For example, in rural areas, Union Parishads and headman, they have limited power to make decision on the choice of activities that is implemented at the local level. In urban areas, Hill district councils, district commissioners enjoy more freedom in the area of planning and prioritizing of funds.

Three hill districts and two local government administrations of CHT have been studied for this study. As there are many different actors involved at the local level, the data in this study focuses primarily on UPs, the local elected body at the lowest level of government that have existed for over 100 years (GoB, 2011). Table 36 below sets out the selected UPs and the climate change impacts they face.

Table 36: Selected CHT UP and Climate Variables Impact

Region	Union Parishad	Climate Variable and Impact
Rangamati	Belaichari	Heavy rainfall, rising temperature, low agricultural productivity, low level of water in the river, deforestation
Bandarban	Rajbila Union Parishad	Erratic rainfall, deforestation, low agricultural productivity
Khagrachari	Pera Chara Union Parishad	Drought, rising temperature, deforestation, low agricultural productivity

6.6.2 CHT Local government's understanding of climate change

Local stakeholders'[80] perspective of climate change is generally influenced by interpretation of disaster from people's own experiences, and through informal public discussions. There are variations between different local stakeholders' understanding and the degree to which they are aware of the climate change agenda. However, in general, local stakeholders' understanding of climate change stem from their experiences of climate impacts, such as excessive rainfalls, heavy temperature, landslide, flooding as well as the effect on people's daily lives, such as loss of livelihoods, water scarcity in chayras, health problems.

6.6.3 Local government's perspectives

Local government practitioners in rural areas often associate climate change with climate variables such heavy rainfall, rising temperature, deforestation and lack of water in *Chayras*. They are also able to link climate change with the changes of temperature, such as high temperature that leads to deforestation. There is recognition that the damages of climate change impacts on livelihoods such as agriculture and deforestation.

Most of the local administrative officials who contributed in this study have heard of the term "climate change" and were able to articulate the effects of climate change impacts on the lives of people in their respective working areas. UPs elected members involved in this study however were not able to identify specific sectors as highly climate-sensitive.

6.6.4 Communities' perspectives

Among communities, people have very limited understanding of climate change. The Government and NGOs begin to help raise awareness of climate change in communities, to learn about the risks and vulnerabilities associated with climate change, such as loss of livelihoods, damaged infrastructure and

[80] "Local stakeholders" in this chapter specifically refer to those who were involved in the local government analysis study. This includes local government officials and elected members, community members and NGOs.

water scarcity. For example, in Khagrachari, a local NGO CAMCASS and *Jarban Kallan Mohila Shamity* has been working for a long time and give orientation and training to its target communities where they talk about climate change and its impacts.

6.6.5 Local perspective on climate change strategies

On addressing climate change as well as other development challenges of CHT, local communities, local government and NGOs have repeatedly pointed to the need for access to sustainable livelihoods for indigenous people, maintaining eco diversity of CHT, capacity to develop climate change induced disaster responses at the local scale. In many cases, local people identified overall development challenges as climate change challenge. Most local stakeholders emphasize the need to build the capacity of communities so they can better plan, implement and utilize the available resources for addressing overall development challenges including the challenges of climate change.

Some of the strategies identified by local stakeholders as necessary to addressing the impacts of climate change include (1) tree plantation (2) encouraging traditional agricultural system (3) better waste management, (4) river drainage

6.6.6 Sources of climate finance and funding modalities

At the time of the study, there are no climate change specific funds available to Local government in CHT. However, Rangamati Hill district Council has received a project from the central ministry worth taka six cores of which two cores has been received so far. The project at its implementation stage and Hill district council aims at spending the funds in the areas of tree plantation and bio gas diversity which has some relevance to climate sensitivity. So far, this project is highly top-down where participation of locally elected bodies in planning and implementation of the project is very minimal. Local elected bodies work as a consulting body at the implementation stage and do not hold the project budget.

Modalities include: central government grant to Hill district council; donor funds channelled directly to NGO; Local government generated expenditure, household's own expenditure on climate change. The flow of funds is indicated by the colour of the arrows, which correspond to coloured text boxes above indicating the different sources of funds. For example, the arrows with the colour red indicate the different flows in which central government funds are channelled to the local level.

6.6.7 Annual Development Plans (ADP) block grant, central government fund

The Government's ADP block grant, also known as Thok Boraddo, is a resource from central government for UPs mainly used for spent on infrastructure projects. The amount is centrally determined by the size and population of each union and dispersed to Hill district council from the MoCHTA through the Upazila administrative offices. Each Union prepares its own budget and makes a request for ADP block grant. In many cases, the allocation of ADP tends to be lower than the amount requested and there are also reports of late or insufficient allocation.

In CHT, the UP spends the ADP grant in line with the guideline on infrastructure, agriculture, public health and sanitation set out by the Upazila administrative office. Some of the thematic areas outlined in the UPs and are considered relevant to climate change, such as paving the roads, installation of deep tube wells, construction of ponds and embankments etc.

6.6.8 Safety net programs, central government fund

Safety net programs are the most prominent funds allocated to UPs from central government. This includes funds for Food for Work (Kabikha), Test Relief (TR), 100 day employment generation scheme, vulnerable group feed (VGF), vulnerable group development (VGD) and stipends for widows and persons with disabilities. For CHT, these funds are administered by MoCHTA line ministries, such as Ministry of Food and Disaster Management, Ministry of Women Affairs and Ministry of Social Welfare. They are channelled to, and coordinated by, the hill district council office, Upazila administrative government office and dispersed to Union Parishads for implementation.

Some of these are spent on activities that are highly relevant to climate change. For example, the VGF scheme distributes food to the most vulnerable, which could help build resilience. The 100 day employment generation scheme reduces economic vulnerability through job opportunities and income generation for vulnerable communities. However, some of these funds are spent on road construction, and it is questionable whether these projects are resilient or maladaptive. Schemes such as Kabikha, TR and 100 day employment generation scheme fall under the directive of the Ministry of Food and Disaster Management and are aligned to the Ministry's medium-term budget framework, which includes climate change specific objectives.

While these funds are mostly channelled to Hill District Council for implementation, UPs generally do not have any control or power over the use of these funds. They merely work as implementer or consulting bodies. Like the Ups, the traditional bodies such as headman and Karbaris have no control and power over these funds. Like the plain lands, on the effectiveness of these central government funds and funding modalities, by and large, UP involved in CHT study consider ADP effective in addressing the needs of the rural poor. However they remain critical of the amount of ADP available to them and the authority associated with the disbursement of ADP funds from the district council office. UPs also spent a significant amount of their time and energy on implementing safety net programs. Most UP elected members feel that the coverage, quality and quantity of foods and resources under these programs are inadequate to meet the needs of marginalized people.

6.6.9 Local Government Support Project (LGSP LIC), donor fund

UNDP, World Bank and other donors together are supporting LGSP/LGSP LIC in pilot UPs. The aims are to strengthen local government capacity in Bangladesh at the Union level, give UPs greater control over the use of funds and provide opportunities for UPs to implement projects based on the needs of local communities. (UNDP, n.d.)

The funding modality uses the same block grant system as the ADP but without the interventions of Zilas or Upazilas. Donors give the LGSP/LGSP LIC funds to the LGD of MLGRD&C, where they are directly disbursed to the bank accounts of the pilot UPs. This funding is audited by a different firm to the auditor of ADP. In most of the study areas, a large proportion of the LGSP/LGSP LIC funds are spent on reducing rural vulnerabilities through infrastructure development. In CHT, the modality of fund disbursement remain the same except for some details.

There is potential for climate change finance to be channelled through this modality as it gives greater autonomy and power to UPs. For example, there is a strong participatory component to the development of local plans where nine wards in a Union would hold individual meetings to come up with priorities and present to communities for review. So far, UP elected members consider this the single most effective program at the union level and strongly advocate future programs to be supported

through this funding modality. However, there is a need to address a more fundamental challenge of building UP capacity on delivering climate change programs, as highlighted in section 5.4. The bypassing of Upazila and Zila administrations may also lead to increased tension to the already delicate relationship between the different tiers of local government. The Upazila administrative offices are already highly critical of this funding modality. For example, there are claims from UNOs in the study areas that the LGSP/LGSP LIC funds are not properly utilized by UPs due to corruption and vested interested.

As the LGSP LIC comes to an end in March 2012, UNDP is launching two new programs, the Union and Upazila Parishad Governance Programmes that aims to continue strengthening local governance and building local elected bodies' capacity at the Union and Upazila level (UNCDF, 2011).

6.7 Conclusions

- The adaptation component of the climate change agenda is a familiar one for many in Bangladesh. While, local stakeholders are not always able to distinguish between development expenditure and climate related expenditure, experiences of flooding, cyclones and other climate related impacts have raised significant awareness of the challenges that Bangladesh face.

- In general, local stakeholders identified climate impacts as cyclones, deforestation, tidal surge, salinity, water logging, flooding and drought. The effects on people's daily lives include loss of livelihoods, ground water depletion, irrigation problems, health problems and limited access to schools and health facilities. However, less is known about the causes of climate change and the need for mitigation.

- The two most popular strategies for addressing climate change identified by local stakeholders is infrastructure development and sustainable and alternative livelihoods, and that capacity building is necessary to enable people to work and development solutions to address climate impacts. However, this does not support the findings that a large proportion of central government funds, and some donor funds, are already allocated to UPs to implement infrastructure development.

- There are several sources of climate related finance found at the local level: central government funds, donor funds, private sector donations, household spending and local government internally generated revenue. On average, 14% of the UPs and Pourashavas' budgets are sensitive to climate change. Of this, the budgets of UPs and Pourashavas in coastal regions spend more than those from the floodplains and Barind. Of the schemes that UPs and Pourashavas deliver, safety net schemes, such as 100 day employment scheme, have a high sensitivity to climate change, of around 48 to 50%. While both ADP and LSGP/LGSP LIC have similar sensitivity to climate change, between 11-13%, LGSP/LGSP LIC is made up of a larger amount of money and therefore able to make a larger contribution to addressing climate change.

- In addition to these funds, household and individual's spend their own financial resources on addressing climate change impacts. Most damages exceed poor households' income, although some financial and non-financial support is provided from either government, donors or NGOs, such as rice and accommodation. While the rich and middle income groups have more resources to reduce damages from climate impacts, ill-preparedness to the increased frequency of

extreme weather events and limited government, donor and NGO support could push them into poverty over time.

- Central government funds are usually allocated to Zilas and Upazilas for further allocation to UPs. Some donor funds use the national system to channel funds to UPs, such as LGSP/LGSP LIC, but most channel funds directly to NGOs that bypasses the government system. The effectiveness of donor funds are yet to be assessed but their accountability frameworks are wide-ranging and complex. One aspect that is consistent in many of the funding mechanisms is the limited involvement of, or autonomy for, UPs in the planning and budgeting of these funds.

- UPs have limited power, financial autonomy and capacity to address climate change. Local planning and budgeting is a linear operational process whereby UPs implement the directives of central government and follow guidelines set by Upazila administrative offices. Moreover, there is a disconnect between national and local government bodies, and strained relationship between local administrative offices and local elected bodies. Questions are raised as to whether UPs are equipped and well positioned to implementing large scale climate related projects that requires the management of large volume of funding and coordination with a range of national and local bodies.

- Finally, NGOs play a significant role in Bangladesh, including the delivery of climate related finance. They play an important and added value role in the area of mobilizing and engaging communities, providing technical expertise and ensuring transparency of expenditure. However, the lack of coordination with local government bodies and competition between NGOs present a challenge in tracking climate expenditure and aligning efforts to addressing climate change in a more integrated manner.

6.8 Recommendations

- Conduct an appraisal of the capacity and comparative advantages of different local stakeholders to manage larger scale projects. This is a step towards bridging relationships between different local stakeholders by highlighting each of their strengths and weaknesses in delivering climate finance. For example, while UPs should be involved in climate related project, they may not be equipped with the capacity and resources to take on certain roles such as overall supervision and monitoring and evaluation of large scale projects. It may be that local administrative offices and NGOs should utilize its expertise in financial management, technical support, supervision and monitoring of climate finance, and local elected bodies should be equipped with necessary power and capacity to plan, budget and manage programs using a participatory approach.

- Build on the existing vulnerability mapping database used for safety net programs, conduct more empirical and robust assessments of household spending on climate change related activities. This information could help target and prioritize funding to address the needs of households that are spending a large proportion of their income on addressing climate impacts. While there is a need to safeguard those most vulnerable, there is also a need advocate preventative measures to those with high- or middle- levels of income from slipping into poverty as a result of climate impacts.

- All the above recommendations could be used to inform the development of a local climate fiscal framework to present options available to local decision makers and planners to access, manage, prioritize and deliver climate finance. The framework should provide insight for government and donors to consider how best to channelling climate finance to implementing

partners to target beneficiaries. There should be a focus on the existing funding modalities that have effectively channel funds to the local level for implementation. The framework should also provide guidelines on sources of funds and how local practitioners could target climate finance based on household vulnerabilities. It should set out the comparative advantages of the different local actors so different funds could be better coordinated and targeted.

Appendix 1: Annex on NGO innovation on adaptation initiatives

- **Reducing Vulnerability to Climate Change (RVCC)** One of the first projects anywhere which looked at community level vulnerability was designed and implemented in the southwestern (SW) region of Bangladesh during 2003-2005 by CARE Bangladesh, called Reducing Vulnerability to Climate Change (RVCC), in association with 16 partner NGOs and a few regional/national institutions (CARE-RVCC, 2003). The RVCC innovated a participatory methodology to assess vulnerability of a few communities living in climate change hot spots in the SW region. Moreover, a few institutional adaptation modalities were also promoted that involved exercising planned adaptation involving Local Government Institutions (LGIs), promotion of school curricula on climate change, grassroots advocacy on water rights, and social mobilisation towards responding to climate change at local levels (Ahmed, 2008). RVCC paved the way for further intensification of Community Based Adaptation (CBA) in the country. As a consequence, a few adaptation modalities were replicated elsewhere by other inspired NGOs (such as Practical Action and GUK who became involved in replicating 'floating gardens' in Gaibandha).
- **Banchte Shekha** has started to promote ideas such as a floating garden in water logged areas and crab fattening in saline prone areas. Following their successful trials on this, they initiated the promotion of rice-fish co-production in brackish water regime, and consequently farmers stepped up the challenge of replacing shrimp beds into paddy-cum-fish culture enclosures in areas such as Dumuria and Abhoynagar.
- **CARE** undertook trials of the newly developed BRRI-40 and BRRI-41 paddy varieties at farmers' level. This was done in collaboration with the Bangladesh Rice Research Institute (BRRI). While the two varieties were found to be useful for avoiding adverse impacts of salinity in the monsoon rice season up to 10-12 ppt in Satkhira, the BRRI produced a new variety, BRRI-47, which could sustain up to 12 ppt salinity during dry season. Before extension, all these varieties and other non-rice varieties such as chillies and tomato were field tested by CEGIS in collaboration with the BRRI and the Bangladesh Agriculture Research Institute (BARI). It was found that such new varieties would be highly useful for adapting to high salinity under climate changing conditions (Ibrahim *et al.,* 2009).
- **SHOUHARDO,** a major rural development project administered by CARE Bangladesh in association with its partner NGOs, promoted adaptation modalities such as raising the plinth height of houses to avoid flooding, creating wave-breaks in haor areas to safeguard villages from erosion, charland resettlement areas, cyclone shelter refurbishment/building with modified design (CARE, 2009). CARE Bangladesh has so far been concentrating their adaptation promotion in drought-prone, flood-prone, erosion-vulnerable haor areas.
- **BRAC and Hellen Keller Institute (HKI), Bangladesh** have become involved in promoting CBA. While BRAC has been promoting alternative agriculture to avoid crop loss due to high salinity and flooding, the HKI has been popularising common practices such as raising the plinth height of flood-prone dwellings, crab fattening, nursery, apiculture and so on.

With support of NGOs, by now many household farmers have acquired the know-how of promoting salt-tolerant, soil-less species, social forestry and livestock pasture as an adaptation against potential sea level rise and climate change. Planting more trees (especially coconut trees, or even mangrove plantation) along embankments and roads are already practiced. Some of the NGOs are engaged in massive public awareness campaign including preparedness training on potential sea-level rise and its impacts.

Appendix 2: Financial Data – Overall Government Budget and Expenditure 2008/09 to 2011/12

Table 37: ADP and Non-Development (Budgets and Expenditure)

RESOURCES FOR ADP	BB09/10	BB09/10	BB10/11	BB09/10	BB10/11	BB11/12	BB11/12	BB11/12	BB11/12			
Per Budget Brief Statement IX (Crore Taka)	Budget 2008/09	Revised 2008/09	Actual 2008/09	Budget 2009/10	Revised 2009/10	Actual 2009/10	Budget 2010/11	Revised 2010/11	Budget 2011/12	Original Increases 2008/09 to 2011/12	Revised Increases 2008/09 to 2010/11	Actual Increases 2008/09 to 2009/10
Non Development Budget	75,581	73,367	71,001	85,880	84,810	78,915	96,825	97,324	120,799	**59.8%**	**32.7%**	**11.1%**
ADP	25,600	23,000	19,372	30,500	28,500	25,552	38,500	35,880	46,000	**79.7%**	**56.0%**	**31.9%**
Total Government Budget	**101,181**	**96,367**	**90,373**	**116,380**	**113,310**	**104,467**	**135,325**	**133,204**	**166,799**	**64.9%**	**38.2%**	**15.6%**
% Split Rev v Dev												
Non Development Budget	75%	76%	79%	74%	75%	76%	72%	73%	72%			
ADP	25%	24%	21%	26%	25%	24%	28%	27%	28%			
Total Government Budget	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**			

Table 38: ADP and Non-Development Budget v Actual 2008/09 and 2009/10 (Original)

RESOURCES FOR ADP	BB09/10	BB10/11			BB09/10	BB11/12		
Per Budget Brief Statement IX (Crore Taka)	Budget 2008/09	Actual 2008/09	+/-	%	Budget 2009/10	Actual 2009/10	+/-	%
Non Development Budget	75,581	71,001	-4,580	-6.1%	85,880	78,915	-6,965	-8.1%
ADP	25,600	19,372	-6,228	-24.3%	30,500	25,552	-4,948	-16.2%
Total Government Budget	**101,181**	**90,373**	**-10,808**	**-10.7%**	**-101,181**	**-90,373**	**10,808**	**-10.7%**

Table 39: Development and Non-Development Budget v Actual 2008/09 and 2009/10 (Revised)

RESOURCES FOR ADP	BB09/10	BB10/11			BB10/11	BB11/12		
Per Budget Brief Statement IX (Crore Taka)	**Revised 2008/09**	**Actual 2008/09**	**+/-**	**%**	**Revised 2009/10**	**Actual 2009/10**	**+/-**	**%**
Non Development Budget	73,367	71,001	-2,366	-3.2%	84,810	78,915	-5,895	-7.0%
ADP	23,000	19,372	-3,628	-15.8%	28,500	25,552	-2,948	-10.3%
Total Government Budget	**96,367**	**90,373**	**-5,994**	**-6.2%**	**113,310**	**104,467**	**-8,843**	**-7.8%**

Appendix 3: Funding of Overall Government Budgets and Expenditure 2008/09 to 2011/12

Table 40: Funding of Overall GoB Budgets and Expenditure 2008/09 to 2011/12

Per Budget Brief Statement IX (Crore Taka)	Budget 2008/09	Revised 2008/09	Actual 2008/09	Budget 2009/10	Revised 2009/10	Actual 2009/10	Budget 2010/11	Revised 2010/11	Budget 2011/12
Non Development Budget									
Funded By:									
Grants	996	414	378	420	222	101	249	364	383
Loans	2,217	1,740	558	1,560	1,512	831	1,728	1,580	2,035
GoB Resources	72,358	71,213	70,065	83,900	83,076	77,983	94,350	95,380	118,381
	75,571	**73,367**	**71,001**	**85,880**	**84,810**	**78,915**	**96,327**	**97,324**	**120,799**
% Funding									
Grants	1.3%	0.6%	0.5%	0.5%	0.3%	0.1%	0.3%	0.4%	0.3%
Loans	2.9%	2.4%	0.8%	1.8%	1.8%	1.1%	1.8%	1.6%	1.7%
GoB Resources	95.7%	97.1%	98.7%	97.7%	98.0%	98.8%	97.9%	98.0%	98.0%
	100.0%	**100.0%**	**100.0%**	**99.5%**	**99.7%**	**99.9%**	**99.7%**	**99.6%**	**99.7%**
ADP									
Funded By:									
Grants	5,320	4,485	1,756	4,690	3,500	3,217	4,550	3,850	4,555
Loans	9,270	8,505	7,245	11,675	13,000	11,004	14,250	9,350	16,650
GoB Resources	11,010	10,010	10,371	14,135	12,000	11,331	19,700	22,680	24,795
	25,600	**23,000**	**19,372**	**30,500**	**28,500**	**25,552**	**38,500**	**35,880**	**46,000**
% Funding									
Grants	20.8%	19.5%	9.1%	15.4%	12.3%	12.6%	11.8%	10.7%	9.9%
Loans	36.2%	37.0%	37.4%	38.3%	45.6%	43.1%	37.0%	26.1%	36.2%
GoB Resources	43.0%	43.5%	53.5%	46.3%	42.1%	44.3%	51.2%	63.2%	53.9%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Split of Foreign Resources									
Grants	5,320	4,485	1,756	4,690	3,500	3,217	4,550	3,850	4,555
Loans	9,270	8,505	7,245	11,675	13,000	11,004	14,250	9,350	16,650
	14,590	**12,990**	**9,001**	**16,365**	**16,500**	**14,221**	**18,800**	**13,200**	**21,205**
% Split of Foreign Resources									
Grants	36.5%	34.5%	19.5%	28.7%	21.2%	22.6%	24.2%	29.2%	21.5%
Loans	63.5%	65.5%	80.5%	71.3%	78.8%	77.4%	75.8%	70.8%	78.5%

Per Budget Brief Statement IX (Crore Taka)	Budget 2008/09	Revised 2008/09	Actual 2008/09	Budget 2009/10	Revised 2009/10	Actual 2009/10	Budget 2010/11	Revised 2010/11	Budget 2011/12
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
OVERALL BUDGET	**Budget 08/09**	**Revised 08/09**	**Actual 08/09**	**Budget 09/10**	**Revised 09/10**	**Actual 09/10**	**Budget 10/11**	**Revised 10/11**	**Budget 11/12**
GoB Resources	83,368	81,223	80,436	98,035	95,076	89,314	114,050	118,060	143,176
Foreign Resources									
Grants	6,316	4,899	2,134	5,110	3,722	3,318	4,799	4,214	4,938
Loans	11,487	10,245	7,803	13,235	14,512	11,835	15,978	10,930	18,685
	101,171	**96,367**	**90,373**	**116,380**	**113,310**	**104,467**	**134,827**	**133,204**	**166,799**
% Split of Funding									
GoB Resources	82.4%	84.3%	89.0%	84.2%	83.9%	85.5%	84.6%	88.6%	85.8%
Grants	6.2%	5.1%	2.4%	4.4%	3.3%	3.2%	3.6%	3.2%	3.0%
Loans	11.4%	10.6%	8.6%	11.4%	12.8%	11.3%	11.9%	8.2%	11.2%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Balance of Foreign Resources									
Grants	6,316	4,899	2,134	5,110	3,722	3,318	4,799	4,214	4,938
Loans	11,487	10,245	7,803	13,235	14,512	11,835	15,978	10,930	18,685
	17,803	**15,144**	**9,937**	**18,345**	**18,234**	**15,153**	**20,777**	**15,144**	**23,623**
% Split									
Grants	35.5%	32.3%	21.5%	27.9%	20.4%	21.9%	23.1%	27.8%	20.9%
Loans	64.5%	67.7%	78.5%	72.1%	79.6%	78.1%	76.9%	72.2%	79.1%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Appendix 4: Analytical Framework - Climate Change

Analytical Framework

The methodology developed, adopted and refined during the study linked climate and climate change variables to activity and responses by Government. The government Chart of Accounts was then scrutinised to identify projects, programmes and codes which included relevant activity.

The first stage of the analytical framework, prior to carrying out the analysis of climate budget and expenditure (and also the policy review), was to recognise climate variables and climate impact variables. The major climate variables, including those commonly and not commonly considered, identified for this purpose are shown in Table 41 below:

Table 41: Climate Variables Considered in Expenditure, Budget and Policy Review

Commonly Considered Variables	Not Commonly Considered Variable (but often important
Temperature Precipitations Sea Level Rise	Wind actions, speeds and directions Sunshine Humidity

Following on from identification of these fundamental Climate Variables, the impacts of these variables and the impacts on sectors were identified. The major climate and climate change impact variables (including the most impacted sectors) are listed in Table 42 below:

Table 42: Impact of Climate Variables and Climate Impacted Sectors81

Climate Impact Variables	Most Climate Impacted Sectors
Erratic Rainfalls	Agriculture (Crops)
Droughts	Agriculture (Crops,
Flooding (River, Flash and Tidal)	Household, Health Livelihoods Agriculture (Crops, Livestock, Fisheries)
Inundation	Livelihoods Agriculture (Crops)
Tidal Surge	Housing, Settlement Livelihoods, Health Agriculture (Crops, Livestock, Fisheries) Infrastructure
Cyclones Hurricanes	Housing Livelihoods, Health Agriculture (Crops, Livestock) Infrastructure
Water-logging	Livelihoods, Health Agriculture (Crops, Livestock)
Erosion	Settlement Livelihoods Agriculture (Crops)
Salinity Intrusion Salinity Contamination	Agriculture (Crops) Livelihoods Health

The next stage in the development of the analytical framework was to conceptualize climate expenditure. Broadly, climate expenditure is incurred by activity to develop climate resilience, but

[81] Source: Center for Environmental and Geographic Information Service (CEGIS) Bangladesh (2011)

also to promote a low carbon economy. In other words, expenditure incurred to enhance the resilience to climate in nature, livelihoods and socio-economic infrastructure. Climate and climate change expenditure is, by definition, focussed on activity dealing with the impacts and consequences arising from climate variables. These impacts and consequences broadly comprise categories, direct and indirect, tangible and intangible, immediate and long term. Each category is outlined below:

Direct expenditure is incurred in physical activities with usually 'visible' effects (e.g., expenditures to cyclone shelters, polders) to protect from adverse impacts

Indirect expenditure is the spending on consequences of climate and climate change, revealed through interruption and disruption of economic and social activities. Indirect activities can involve both short and long run.

The results of expenditures can be categorised as belonging broadly to two further categories; tangible and intangible.

Tangible activities are those which have visible effects; whereas intangible activities are considered as those for which effects are not visible (e.g., training, advocacy and awareness). Provision of social capital (e.g., education, health) and enhancing community capacity to protect themselves from climate and climate change impacts may also be categorised as intangible.

To summarise therefore, the definition of climate expenditure developed and used in the study is characterised as any expenditure incurred to take measures to reduce risks, mitigate or address the impacts of climate change. A summary linking climate variables, impacts and likely investments is shown at Table 43 below:

Table 43: Conceptualising Expenditure - Climate Variables, Impacts and Likely Investments82

Climate Variables	Impacts	Likely Investment
Cyclones (increased frequency and severity)	Storm surges Wind speed	Early warning systems Cyclone shelters and *killas* Dykes/embankment construction
Heavier, erratic rainfall in monsoon	Higher river flows Drainage congestion Flooding in rural/urban areas	Early warning systems Improved O&M of embankments Design upgradation of flood protection Irrigation / water supply projects Improved water management Homestead raising Raising roads / railway tracks Flood proofing Improved / resistant crops, changes in cropping systems
Lower and more erratic rainfall in other seasons	Droughts and scarcity of drinking water	Improved irrigation and water management Provision of drinking water Improved / resistant crops, changes in cropping systems
Melting of Himalayan glaciers	Often higher river flows in short to medium term Often reduced flows and increased saline intrusion	Dykes / embankment construction Provision of clean water
Sea level rise	Coastal embankments overtopped Saline intrusions into surface water and groundwater Drainage congestion Migration and higher urbanization in main lands	Design upgradation of coastal protection Improved O&M Improved / resistant crops, changes in cropping systems Improved and redesigned drainage system Provision of portable water Human relocation Industrial relocation
Warmer and more humid weather	Increased prevalence of disease and disease vectors	Health education / awareness / knowledge development Immunization Other prevention programmes Provision of clean water Provision of sanitation

The analytical framework developed provided a reasonably robust framework which was applied to the Chart of Accounts to identify codes in the development budget and non-development budget. However, this approach also relied on local knowledge and qualitative subjective judgements in determining the activities within projects. Some limitations were found that would require further and more detailed research to improve the precision, accuracy and certainty of the figures. The financial analysis should therefore be regarded as both indicative and broad. A summary of the main limitations noted during applying the definition and framework are noted below:

Private expenditure (e.g. community/household level) is not addressed in the analysis.

The non-availability of some Development Project Pro-formas (DPP) was a major constraint[83]

[82] Source: CEGIS (2011)

As mentioned above, the selection of projects, programmes and codes was subject to qualitative and, ultimately, subjective judgement despite the development of the analytical framework.

The analysis was constrained by time.

The geographic focus of programmes, on climate sensitive districts, was not always immediately or fully identifiable. Further research would be required identify the geographic sensitivity of these programmes. This is of particular importance when considering large scale Social Protection schemes which are of value in building climate resilience as part of Theme 1 (Social Protection) of the BCCSAP.

The analytical framework enabled identification of programmes with a climate dimension in their activities. This does not mean that the whole of the activities are directly relevant to climate or climate change. Accordingly, a further analysis of relevance was conducted. This is more fully elaborated in Review of Programmes with a Climate Dimension – Relevance Analysis.

A Note on Mitigation

The analytical framework developed in the study reflected adaptation activity in government plans and budgets and focussed on the specific impacts in Bangladesh on a practical level. However, the codes identified also took account of mitigation and low carbon actions. In broad terms, the OECD definition of mitigation was used. As with adaptation activity, codes from the Chart of Accounts were identified using the definition and are included in the financial analysis. The OECD definition is shown below in Table 44.

Table 44: Definition of Mitigation (OECD)

Mitigation	
OECD Definition: An activity should be classified as climate change mitigation related if it contributes to the objectives of stabilisation of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration (OECD, 2011)	
Sector	Example activities
Forestry	Protection and enhancement of sinks and reservoirs of GHGs through sustainable forest management, afforestation and reforestation
Water and sanitation	Methane emission reductions through waste management or sewage treatment
Energy Transport Industry Agriculture	GHG emission reductions or stabilisation in the energy, transport, industry and agricultural sectors through application of new and renewable forms of energy, measures to improve the energy efficiency of existing machinery or demand side management (e.g. education and training)

[83] A total of around 35 DPPs were consulted.

Appendix 5: Methodological Note - Identification of Climate Spend

In terms of financial significance a weight was allocated to each of the 849 codes[84] identified in the review of budgets and expenditure. It is, again, important to note that there is no internationally agreed methodology for measuring the exact share of activity and expenditure within programmes that contribute to climate change adaptation or mitigation. This is particularly true given the complex linkages within development. It is also evident that there is a wide range of Ministries and Divisions delivering an equally wide range of project activities relating to climate. Some of the projects contribute directly in addressing the climate vulnerability whilst others help communities indirectly to achieve outcomes that build towards resilience and development.

In the absence of such an agreed methodology an approximate quantification of expenditure, inevitably using with qualitative judgements based on local knowledge as well as a review of thirty five development pro-formas, within each programme was apportioned and a weighted average for each band of relevance was calculated. The weighted averages from each band are shown below, from selected available data, in **Table 45** and **Table 46**:

Table 45: Weighted Averages Development Budgets

Weighted Averages (Development)	Revised 2009/10	Revised 2010/11	Original 2011/12
R1 - % of Budget Attributed to Climate Activity	78.0%	80.1%	80.7%
R2 - % of Budget Attributed to Climate Activity	54.8%	53.1%	54.7%
R3 - % of Budget Attributed to Climate Activity	33.3%	33.8%	33.6%
R4 - % of Budget Attributed to Climate Activity	16.5%	17.1%	18.2%

Table 46: Weighted Averages Non-Development Budgets

Weighted Averages (Non Development)	Revised 2009/10	Revised 2010/11	Original 2011/12
R1 - % of Budget Attributed to Climate Activity	99.9%	99.8%	99.8%
R2 - % of Budget Attributed to Climate Activity	50.0%	50.0%	50.0%
R3 - % of Budget Attributed to Climate Activity	30.2%	30.3%	30.1%
R4 - % of Budget Attributed to Climate Activity	18.8%	19.0%	18.8%

Using the percentages applicable to each code and hence the weighted averages of each band an overall indicative figure was developed for climate budgets within GoB. A fuller outline of the methodology is shown at **Appendix 10: Assessment of Relevant Climate Budgets - Weightings Methodology**. A summary[85] of the outcome of this analysis is shown in Table 22 below:

[84] 669 ADP Codes and 180 Non-Development Codes

[85] Full calculation of the indicative climate budgets are shown at Table 51 at Appendix 11: Estimate of Climate Budgets Within Climate Programmes

Appendix 6: Annual Development Programme Ministry Programmes 2009/10 to 2011/12

Table 47: Development Programmes By Ministry Summary 2009/10 to 2011/12

Ministry / Division (Number of Programmes)	2009/10	2010/11	2011/12
Local Government Division, Local Government	102	96	87
Water Resources	48	59	60
Agriculture	42	51	76
Roads and Railway Division, Communication	39	47	57
Environment and Forest	29	39	26
Fisheries and Livestock	24	27	31
Energy and Mineral Resources Division, Power, Energy and Mineral Resources	13	15	17
Education	13	26	21
Health and Family Welfare	12	11	3
Shipping	9	7	9
Disaster Management and Relief Division, Food, Disaster Management and Relief	7	8	8
Rural Development and Cooperative Division, Local Government	7	9	9
Chittagong Hill Tracks Affairs	7	6	5
Primary and Mass Education	6	5	5
Defence	6	5	4
Housing and Public Works	5	5	4
Planning Division, Planning	4	4	5
Land	4	4	3
Prime Minister's Office	3	4	3
Public Administration	3	3	3
Power Division, Power, Energy and Mineral Resources	3	3	2
Food Division, Food, Disaster Management and Relief	2	2	1
Textile and Jute	2	2	2
Science, Information and communication Technology	2	4	2
Industry	2	3	3
Women and Child Affairs	1	2	3
Social Welfare	1	1	1
Bank and Financial Institute Division, Finance	1	1	1
IMED, Planning	1	1	0
Youth and Sports	1	2	1
Commerce	0	0	1
Cultural	0	0	1
Civil Aviation and Tourism	0	1	2
Expatriates Welfare and Overseas Employment	0	1	2
Home Affairs	0	1	4
Total	**399**	**455**	**462**

Appendix 7: Comparison of Overall ADP Funding with Funding of ADP Programmes with a Climate Dimension

Table 48: Comparison of Overall ADP Funding with ADP Climate Programme Funding 2009/10 to 2011/12

	ADP Climate					ADP Overall		
LAKH TAKA	**Revised Budget 2009/10**	**Revised Budget 2010/11**	**Original Budget 2011/12**		**LAKH TAKA - ADP Overall**	**Revised Budget 2009/10**	**Revised Budget 2010/11**	**Original Budget 2011/12**
Total	1,642,987	2,098,909	1,895,554		Total	3,050,000	3,850,000	4,600,000
Increase Year on Year		27.7%	-9.7%		Increase Year on Year		26.2%	19.5%
Funding Analysis					**Funding Analysis**			
GoB	1,015,985	1,324,757	1,199,965		GoB	1,413,500	1,970,000	2,479,500
Donor	627,002	774,152	695,589		Donor	1,636,500	1,880,000	2,120,500
	1,642,987	**2,098,909**	**1,895,554**			**3,050,000**	**3,850,000**	**4,600,000**
Loan	362,113	482,283	575,896		Loan	1,167,500	1,425,000	1,665,000
Grant	264,889	291,869	119,693		Grant	469,000	455,000	455,500
	627,002	**774,152**	**695,589**			**1,636,500**	**1,880,000**	**2,120,500**
Donor / GoB	**Revised Budget 2009/10**	**Revised Budget 2010/11**	**Original Budget 2011/12**		**Donor / GoB**	**Revised Budget 2009/10**	**Revised Budget 2010/11**	**Original Budget 2011/12**
GoB	61.8%	63.1%	63.3%		GoB	46.3%	51.2%	53.9%
Donor	38.2%	36.9%	36.7%		Donor	53.7%	48.8%	46.1%
	100.0%	**100.0%**	**100.0%**			**100.0%**	**100.0%**	**100.0%**
Split of Donor					**Split of Donor**			
Loan	57.8%	62.3%	82.8%		Loan	71.3%	75.8%	78.5%
Grant	42.2%	37.7%	17.2%		Grant	28.7%	24.2%	21.5%
	100.0%	**100.0%**	**100.0%**			**100.0%**	**100.0%**	**100.0%**

Appendix 8: Combined Ministry Budgets 2009/10 to 2011/12

Table 49: Combined ADP and Non Development Budgets By Ministry

Ministry Lakh Taka	Non Dev & ADP 2009/10	% of Total	Non Dev & ADP 2010/11	% of Total	Non Dev & ADP 2011/12	% of Total
Local Government Division	624,328	23.3%	703,905	20.5%	710,036	22.8%
Agriculture	528,719	19.8%	699,397	20.4%	588,366	18.9%
Disaster Management and Relief Division	473,498	17.7%	579,909	16.9%	564,069	18.1%
Roads and Railway Division, Communication	138,419	5.2%	157,337	4.6%	236,402	7.6%
Water Resources	99,260	3.7%	156,824	4.6%	147,637	4.7%
Social Welfare	91,960	3.4%	137,079	4.0%	136,050	4.4%
Primary and Mass Education	212,158	7.9%	213,400	6.2%	112,154	3.6%
Planning Division	67,887	2.5%	161,414	4.7%	109,046	3.5%
Environment and Forest	63,234	2.4%	93,458	2.7%	93,968	3.0%
Women & Children Affairs	74,873	2.8%	91,843	2.7%	88,710	2.9%
Rural Development and Cooperative Division, Local Government	28,860	1.1%	43,077	1.3%	50,154	1.6%
Education	8,712	0.3%	52,265	1.5%	46,911	1.5%
Prime Minister's Office	12,355	0.5%	27,175	0.8%	30,931	1.0%
Fisheries and Livestock	18,249	0.7%	26,640	0.8%	30,409	1.0%
Chittagong Hill Tracks Affairs	19,196	0.7%	35,574	1.0%	30,334	1.0%
Energy and Mineral Resources Division, Power, Energy and Mineral Resources	19,015	0.7%	54,722	1.6%	29,913	1.0%
Housing and Public Works	43,437	1.6%	41,743	1.2%	29,226	0.9%
Shipping	5,379	0.2%	24,812	0.7%	24,499	0.8%
Expatriates Welfare and Overseas Employment	0	0.0%	4,000	0.1%	13,858	0.4%
Public Administration	5,439	0.2%	7,828	0.2%	8,178	0.3%
Home Affairs	1,480	0.1%	1,413	0.0%	5,462	0.2%
Defence	9,513	0.4%	4,433	0.1%	4,933	0.2%
Land	9,932	0.4%	6,779	0.2%	4,331	0.1%
Food Division	2,046	0.1%	3,782	0.1%	2,866	0.1%
Power Division, Power, Energy and Mineral Resources	4,384	0.2%	4,850	0.1%	2,486	0.1%
Health and Family Welfare	108,833	4.1%	93,910	2.7%	1,790	0.1%
Civil Aviation and Tourism	0	0.0%	550	0.0%	1,700	0.1%
Science, Information and Communication Technology	804	0.0%	2,602	0.1%	1,588	0.1%
Textile and Jute	1,625	0.1%	1,325	0.0%	881	0.0%
Cultural Affairs	0	0.0%	522	0.0%	830	0.0%
Commerce	0	0.0%	0	0.0%	612	0.0%
Bank and Financial Institute Division, Finance	411	0.0%	71	0.0%	541	0.0%
Industry	384	0.0%	446	0.0%	478	0.0%
Youth and Sports	119	0.0%	265	0.0%	81	0.0%
IMED, Planning	123	0.0%	10	0.0%	0	0.0%
Jute & Textile	328	0.0%	411	0.0%	0	0.0%
Statistics	0	0.0%	11	0.0%	0	0.0%
Totals	**2,674,960**	**100.0%**	**3,433,782**	**100.0%**	**3,109,430**	**100.0%**

Appendix 9: Climate ADP and Non Development Budgets Analysed By Relevance

Table 50: Climate Programmes Analysed By Relevance

ADP (Lakh Taka)	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	78,497	4.8%	63,033	3.0%	48,609	2.6%
2 Significantly	163,312	9.9%	187,731	8.9%	188,094	9.9%
3 Somewhat	468,828	28.5%	748,706	35.7%	791,900	41.8%
4 Implicitly	932,350	56.7%	1,099,114	52.4%	866,951	45.7%
Climate Total (Development)	**1,642,987**	**100.0%**	**2,098,584**	**100.0%**	**1,895,554**	**100.0%**
Development Budget Total	**2,850,000**	**57.6%**	**3,588,000**	**58.5%**	**4,600,000**	**41.2%**
GDP	**69,432,400**	**2.4%**	**78,750,000**	**2.7%**	**89,967,000**	**2.1%**

Non Dev Relevance (Lakh Taka)	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	55,818	5.4%	70,561	5.3%	70,596	5.8%
2 Significantly	62,871	6.1%	80,579	6.0%	80,638	6.6%
3 Somewhat	241,279	23.4%	273,133	20.5%	304,583	25.1%
4 Implicitly	672,005	65.1%	910,600	68.2%	758,057	62.4%
Climate Total (Non Development)	**1,031,973**	**100.0%**	**1,334,873**	**100.0%**	**1,213,874**	**100.0%**
Non Development Budget Total	**8,481,000**	**12.2%**	**9,732,400**	**13.7%**	**12,079,900**	**10.0%**
GDP	**69,432,400**	**1.5%**	**78,750,000**	**1.7%**	**89,967,000**	**1.3%**

TOTAL BUDGET LAKH TAKA	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	134,315	5.0%	133,594	3.9%	119,205	3.8%
2 Significantly	226,183	8.5%	268,310	7.8%	268,732	8.6%
3 Somewhat	710,107	26.5%	1,021,839	29.8%	1,096,483	35.3%
4 Implicitly	1,604,355	60.0%	2,009,714	58.5%	1,625,008	52.3%
Climate Total (All Budgets)	**2,674,960**	**100.0%**	**3,433,457**	**100.0%**	**3,109,428**	**100.0%**
GoB Total Budget	**11,331,000**	**23.6%**	**13,320,400**	**25.8%**	**16,679,900**	**18.6%**
GDP	**69,432,400**	**3.9%**	**78,749,500**	**4.4%**	**89,967,000**	**3.5%**

Appendix 10: Assessment of Relevant Climate Budgets - Weightings Methodology

- In assigning weights, the following aspects, among others, were contemplated:
    - Location
    - Known hotspots
    - Potential vulnerability
    - Project activities (from DPPs, where possible)

  For example, an embankment located in the South West and North West will have different weights. Expert judgment plays a role in the weights assigned.

- A good number of disasters and or their intensities would be the result of climate change. Budgets for disasters and climate change may be synonymous.
- Any expenditure which is incurred in projects similar to BCCRF- programmes / projects can readily be treated as containing climate expenditures.
- If the project location is in
    - Flood prone areas
    - Tidal surge-prone areas
    - Drought prone areas or any other critical regions
- Roads also act as protection usually in some cases such as in the South West regions. Culverts are considered relevant where they facilitate drainage and water congestions / logging and facilitates agricultural production.
- Roads also indirectly have relationship to Climate Change (e.g. through livelihoods enhancement, poverty reduction, augmentation of marketing facilities). In particular, roads are considered to play a positive role in disaster management especially in char lands.
- Bridges are not usually considered to have direct bearing on climate change related sub sectors, except in some locations.
- Water supply and sanitation are considered to have relationship with Climate Change adaptation through comprehensive disaster management.
- Railways are considered pro-poor and considered to have a small component of mitigation. Jetty, ports, except a few cases in SW region, are not usually considered related to CC activity. Flyovers, overpass projects are not directly related to climate change activity.
- Most maintenance activity in relevant sectors are associated with creating resilience and hence CC relevant, particularly depending on locations.
- Some activities relate to more than one BCCSAP themes. However, when considering this, the review limited the number of themes to four per project.
- New embankments, polders (but newly designed) considered “significantly relevant”
- Rehabilitation of embankments, polders, water logging considered “somewhat relevant”
- Rehabilitation of embankments, polders with up-gradations considered “significantly relevant”
- New efforts for removing water logging considered “significantly relevant”
- Most projects (e.g., irrigation, drought, drainage etc) are climate related, either “significantly relevant” or somewhat relevant”, depending on locations and vulnerability factors
- River training and bank protection regarded as “implicitly relevant”. Generally, expenditures incurred in the improvement of environments are associated with climate expenditure too.
- Study, Feasibility and similar are regarded as “implicitly relevant”
- Generally, activity on some roads (especially elevated ones) are considered protection to flood victims directly or indirectly for taking refuges and or generating employment) (either “somewhat relevant” or “Significantly relevant”)
- Expenditure on forestry development, conservations, plantations, bio-diversity is considered to helping mitigation (“Significantly’ or “Strongly relevant”
- Normally, where there is significant research expenditure, it is also considered associated with some capacity enhancement. In fact, a considerable number of. projects are considered to generate some capacity building due to investment.

Qualitative judgment was combined with the above criterion, particularly in assigning weights within ranges. Results were cross checked by examining project activities elaborated in DPPs, where possible, on a sampling basis. A recent Bangladesh Institute of Development Studies (BIDS) study shows that nearly 100 per cent of water management projects and 60 per cent of agricultural projects have a climate change dimension. This generally corroborates the findings of the CPEIR analysis. In total, around 35 DPPs have been consulted. Where feasible, BIDS-UNDP Study findings, particularly vulnerability assessments of a sample of investment projects, were used.

Appendix 11: Estimate of Climate Budgets Within Climate Programmes

Table 51: Calculation of Climate Budgets Based on Weights

ADP (Lakh Taka)	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	78,497	4.80%	63,033	3.00%	48,609	2.60%
2 Significantly	163,312	9.90%	187,731	8.90%	188,094	9.90%
3 Somewhat	468,828	28.50%	748,706	35.70%	791,900	41.80%
4 Implicitly	932,350	56.70%	1,099,114	52.40%	866,951	45.70%
Climate Total (Development)	**1,642,987**	**100.00%**	**2,098,584**	**100.00%**	**1,895,554**	**100.00%**
Development Budget Total	**2,850,000**	**57.60%**	**3,588,000**	**58.50%**	**4,600,000**	**41.20%**
GDP	**69,432,400**	**2.40%**	**78,750,000**	**2.70%**	**89,967,000**	**2.10%**

Non Dev Relevance (Lakh Taka)	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)
1 Strongly	55,818	5.40%	70,561	5.30%	70,596	5.80%
2 Significantly	62,871	6.10%	80,579	6.00%	80,638	6.60%
3 Somewhat	241,279	23.40%	273,133	20.50%	304,583	25.10%
4 Implicitly	672,005	65.10%	910,600	68.20%	758,057	62.40%
Climate Total (Non Development)	**1,031,973**	**100.00%**	**1,334,873**	**100.00%**	**1,213,874**	**100.00%**
Non Development Budget Total	**8,481,000**	**12.20%**	**9,732,400**	**13.70%**	**12,079,900**	**10.00%**
GDP	**69,432,400**	**1.5%**	**78,750,000**	**1.7%**	**89,967,000**	**1.3%**

TOTAL BUDGET LAKH TAKA	2009/10 Revised	2009/10 Revised (%)	2010/11 Revised	2010/11 Revised (%)	2011/12 Original	2011/12 Original (%)

1 Strongly	134,315	5.00%	133,594	3.90%	119,205	3.80%
2 Significantly	226,183	8.50%	268,310	7.80%	268,732	8.60%
3 Somewhat	710,107	26.50%	1,021,839	29.80%	1,096,483	35.30%
4 Implicitly	1,604,355	60.00%	2,009,714	58.50%	1,625,008	52.30%
Climate Total (All Budgets)	**2,674,960**	**100.00%**	**3,433,457**	**100.00%**	**3,109,428**	**100.00%**
GoB Total Budget	**11,331,000**	**23.60%**	**13,320,400**	**25.80%**	**16,679,900**	**18.60%**
GDP	**69,432,400**	**3.9%**	**78,750,000**	**4.4%**	**89,967,000**	**3.5%**
Weighted Averages (ADP	**Revised 2009/10**	**Revised 2009/10**	**Revised 2010/11**	**Revised 2010/11**	**Original 2011/12**	**Original 2011/12**
R1 - % of Budget Attributed to Climate Activity	78.00%	61,228	80.10%	50,489	80.70%	39,227
R2 - % of Budget Attributed to Climate Activity	54.80%	89,495	53.10%	99,685	54.70%	102,887
R3 - % of Budget Attributed to Climate Activity	33.30%	156,120	33.80%	253,063	33.60%	266,078
R4 - % of Budget Attributed to Climate Activity	16.50%	153,838	17.10%	187,948	18.20%	157,785
		460,680		**591,186**		**565,978**
Weighted Averages (Non Development)	**Revised 2009/10**	**Revised 2009/10**	**Revised 2010/11**	**Revised 2010/11**	**Original 2011/12**	**Original 2011/12**
R1- % of Budget Attributed to Climate Activity	99.90%	55,762	99.80%	70,420	99.80%	70,455
R2 - % of Budget Attributed to Climate Activity	50.00%	31,436	50.00%	40,290	50.00%	40,319
R3 - % of Budget Attributed to Climate Activity	30.20%	72,866	30.30%	82,759	30.10%	91,679
R4 - % of Budget Attributed to Climate Activity	18.80%	126,337	19.00%	173,014	18.80%	142,515
		286,401		**366,483**		**344,968**
Estimated Climate Budget Based on Weights	**Revised 2009/10**	**Revised 2009/10**	**Revised 2010/11**	**Revised 2010/11**	**Original 2011/12**	**Original 2011/12**

Development		460,680		591,186		565,978
Non Development		286,401		366,483		344,968
Estimated Climate Budget		**747,081**		**957,668**		**910,946**
As % of Programmes		**27.9%**		**27.9%**		**29.3%**
As a % of GoB Budget		**6.6%**		**7.2%**		**5.5%**
As a % of GDP		**1.1%**		**1.2%**		**1.0%**

Appendix 12: BCCSAP Programmes By Thematic Activity

Theme	Prog Ref	Programme Name	Immed.	Short	Med	Long
T1	P7	Water and sanitation programme in climate vulnerable areas		1	1	1
T1	P8	Livelihood protection in ecologically fragile areas		1	1	1
T1	P9	Livelihood protection of vulnerable socio-economic groups (including women)		1	1	1
T1	P3	Adaptation against drought		1	1	
T1	P1	Institutional capacity for research towards climate resilient cultivars and their dissemination			1	1
T1	P2	Development of climate resilient cropping systems			1	1
T1	P4	Adaptation in fisheries sector			1	1
T1	P5	Adaptation in livestock sector			1	1
T1	P6	Adaptation in health sector			1	1
T2	P1	Improvement of flood forecasting and early warning	1	1	1	1
T2	P3	Awareness raising and public education towards climate resilience	1	1	1	1
T2	P2	Improvement of cyclone and storm surge warning	1			
T2	P4	Risk management against loss on income and property			1	1
T3	P1	Repair and maintenance of existing flood embankments	1			
T3	P2	Repair and maintenance of cyclone shelters	1			
T3	P5	Adaptation against Floods			1	1
T3	P6	Adaptation against tropical cyclones and storm surges			1	1
T3	P7	Planning and design of river training works			1	1
T3	P3	Repair and maintenance of existing coastal polders			1	
T3	P4	Improvement of urban drainage			1	
T4	P1	Establishment of a centre for knowledge management and training on climate change	1	1	1	1
T4	P2	Climate change modelling at national and sub-national levels	1	1	1	1
T4	P3	Preparatory studies for adaptation against sea level rise		1	1	1
T4	P4	Monitoring of ecosystem and biodiversity changes and their impacts			1	1
T4	P5	Macroeconomic and sectoral economic impacts of climate change			1	
T5	P7	Afforestation and reforestation programme	1	1	1	1
T5	P4	Renewable energy development	1			

Theme	Prog Ref	Programme Name	Immed.	Short	Med	Long
T5	P6	Management of urban waste	1			
T5	P1	Improved energy efficiency in production and consumption of energy			1	1
T5	P2	Gas exploration and reservoir management			1	1
T5	P5	Lower emission from agricultural land			1	1
T5	P3	Development of coal mines and coal fired power stations			1	
T6	P1	Revision of sectoral policies for climate resilience	1			
T6	P2	Main-streaming climate change in national, sectoral and spatial development programmes	1			
T6	P4	Strengthening institutional capacity for climate change management	1			
T6	P5	Main-streaming Climate Change in the Media	1			
T6	P3	Strengthening human resource capacity		1	1	

Appendix 13: List of Approved Project of Bangladesh Climate Change Trust Fund (BCCTF)[86]

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
1	Farm Productivity and Food security Enhancement of the Vulnerable Farmers in the Char Areas of Jamalpur and Sherpur Districts.	Bangladesh Agricultural Research Institute	99.46	May-10 To April-12	Food Security, Social Protection and Health
2	Innovation & Extension of rice based technology to reduce the adverse impact of climate change.	Bangladesh Rice Research Institute	600.00	July-09 To June-12	Food Security, Social Protection and Health
3	Water supply & Social Security for the women & Children of the adverse area due to Climate Change.	Department of Women Affairs.	300.00	June-10 To May-12	Food Security, Social Protection and Health
4	Risk reduction and adaptive measures in the context of Climate Change impact on health sector in Bangladesh	Health promotion and Climate Change unit, Ministry of Health and Family Welfare	1604.34	April-10 To March-12	Food Security, Social Protection and Health
5	Up gradation of early **warning and agro-meteorological forecasting system to save crop from adverse impact of climate change and improvement of food security by increasing agricultural production**	Bangladesh **Meteorological** Department	550.00	January-11 To December-12	Food Security, Social Protection and Health
6	Re-construction of CDSP Embankment at the Muhuri accreted area & the development of sluice regulator in the Mirrshorai Upazilla	Bangladesh Water Development Board	1756.52	July-11 To June-12	Food Security, Social Protection and Health
7	Stress tolerant rice, wheat, pulses & oil seed production, processing & distribution project.	Bangladesh Agricultural Development Corporation.	2458.00	July-11 To June-13	Food Security, Social Protection and Health
8	To develop the water supply & Sanitation system in the flood prone area to reduce the adverse impact of climate change.	Department of Public Health Engineering.	853.50	July-11 To June-13	Food Security, Social Protection and Health
9	Ensure livelihood security & Poverty eradication through environmental conservation & management.	Rangamati Hill Tracks District Administration	688.00	July-11 To June-13	Food Security, Social Protection and Health
10	"Safe Water Supply, Sanitation & Bio-gas Technology for Rural Livelihood Improvement in Climate Victim People of	Centre for Irrigation & Water Management.	1398.00	July-11 To June-14	Food Security, Social Protection and Health

[86] Per Ministry of Environment and Forest website. Extracted January 2012. Note that the units of taka is not stated on the original documents. It has been assumed that this is Lakh Taka.

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
	Bangladesh."	Rural Development Academy (RDA), Bogura			
11	Environmental Improvement of Rangunia Pourasava to tackle climate change impacts.	Rangunia Pourasava, Chittagong	261.75	October-11 To September-12	Food Security, Social Protection and Health
12	Construction of Cyclone Resistant Houses at Char Area in Aila Affected District of Khulna	Department of Relief & Rehabilitation.	2441.65	April-10 To March-12	Comprehensive Disaster Management
13	Construction of Cyclone Resistant Houses at Char Area in Aila Affected District of Barisal.	Department of Relief & Rehabilitation.	2441.45	April-10 To March-12	Comprehensive Disaster Management
14	Construction of Cyclone Resistant Houses at Char Area in Aila Affected Districts of Chittagong, Barisal & Khulna	Department of Relief & Rehabilitation.	2440.40	April-10 To March-12	Comprehensive Disaster Management
15	Deposited Polythine and Others Waste Removal from Burigonga & Turag river.	BIWTA	2150.00	May-10 To June-11	Infrastructure
16	Dredging of Bolesshor river from Bagmara to Dopara (Via Khontaghata Platoon, kochua bazaar & Adajuri))	Bangladesh Water Development Board	850.00	2009-10 To 2011-12	Infrastructure
17	To eradicate the problem of water flow of Rangunia & Boalkhali Upazilla under Chittagong District.	Department of Rural Local Govt. Engineering.	500.00	2009-10 To 2011-12	Infrastructure
18	Re-Sectioning of Embankment And Revetment Works on eroded river banks at Sarafvata on left bank and Mariumnagar & Betagi on right bank of Karnafuli river plus West shantieketon on left bank and North Parua & East Shabdinagar- Goazpara area on right bank of Ichamati river in connection with Karnafuli Irrigation Project (Ichamati), Rangunia, Chittagong.	Bangladesh Water Development Board	2038.50	2010-2012	Infrastructure
19	Protection and Repair of damage Sea-dyke & others infrastructure ofthe coastal polder no-63/1 A	Bangladesh Water Development Board	100.00	2009-10 To 2010-12	Infrastructure
20	Development of Dredging System of Chittagong City Corporation	Chittagong City Corporation	399.00	May-10 To June-11	Infrastructure
21	Re-excavation of Drainage Khal of Madaripur Beel Route Chabnnel (MBR) of Gopalgonj District due to Climate Change Under Climate Change Trust Fund.	Bangladesh Water Development Board	502.37	July-10 To June-11	Infrastructure

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
22	Estabilish the Gide wall in the kumira ferry Ghat.	Chittagong District Administration	248.76	July-10 To June-12	Infrastructure
23	Deposited Polythine and Others Waste Removal from Haikker Khal of Raer Bazar, Dhaka & Charargope of Naraongong.	BIWTA	2218	July-11 To June-13	Infrastructure
24	Reduction of Carbon emission through establishment of Sonaichari Botanical Garden Bangladesh	Forest Department.	1842.00	July-10 To June-13	Infrastructure
25	Project on Construction of Embankment & Infrastructure at the boundary of Char Anda .	Bangladesh Water Development Board	1000.00	July-10 To June-12	Infrastructure
26	Land Reclamation by Constructing Char Anda – Char Montaz Cross-Dam.	Bangladesh Water Development Board	1210.00	March-11 To June-12	Infrastructure
27	Land Reclamation by Constructing Char Mynka – Char Islam- Char Montaz Cross-Dam.	Bangladesh Water Development Board	2379.00	January-11 To June-12	Infrastructure
28	Re-embankment Works and construction of Infrastructure (s) at different locations of eroded banks of Karnafuli, Halda,Ichamoti rivers & Shilok khal and their tributiries in different upazilas of Chittagong district.	Bangladesh Water Development Board	1999.50	2010-11 To 2011-12	Infrastructure
29	Protection of Eroded left Bank of Sangu River (at South Chorti and North Brahmandanga points of Chorti UP) in Satkania upazila under Chittagong district.)	Bangladesh Water Development Board	178.52	2010-11 To 2011-12	Infrastructure
30	Re-excavation of drainage Khal in Upazilla Kalkini, under Madaripur District	Bangladesh Water Development Board	676.42	April-11 To June-12	Infrastructure
31	Re-excavation of 24 (Twenty four) nos drainage Khals in Upazilla-Rajoir & Madaripur Sadari under Madaripur District	Bangladesh Water Development Board	1891.77	April-11 To June-12	Infrastructure
32	Protection of Eroded left Bank from Katakhali River to Kamaler para at Gaibandha district due to the adverse impact of climate change.	Bangladesh Water Development Board	1196.00	2010-11 To 2011-12	Infrastructure
33	Dredging system of Ichamoti river at shibaloy Upazilla of Manikgonj district due to the adverse impact of Climate Change.	Bangladesh Water Development Board	400.90	May-11 To December-11	Infrastructure
34	(Project proposal on Re-	Bangladesh	406.88		Infrastructure

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
	protection & development of the embankment of the Polder No-66/1.)	Water Development Board			
35	Protection of haor area at the Abdullahpur village of Kishoregonj District to reduce the adverse impact of climate change.	Bangladesh Water Development Board	625.33	2011-12	Infrastructure
36	Feasibility Study for Establishment of a Ship Recycling Facility in Bangladesh	Green Dock House: 40(4th Floor), Road No. 27(old), Dhanmondi, Dhaka.	200.00	March-10 To June-10	Research and Knowledge Management
37	Innovation of Sustainable Crop System for Drought Prone and Coastal/saline Area to Face Climate Change Impact.	Bangladesh agriculture Research Institute	318.00	May-10 To April-12	Research and Knowledge Management
38	Innovation of various mutenants Crop System for Drought Prone and Coastal/saline Area to Face Climate Change Impact	Bangladesh Autonomic agriculture Research Institute	488.00	July-2010 To June-2013	Research and Knowledge Management
39	Establishment of the permanent observation network & mathematical model study to identify the salinity of underground water level at the coastal area of Bangladesh due to Climate Change.	Bangladesh Water Development Board.	2064.21	2010-13	Research and Knowledge Management
40	Expansion and Capacity Building of Bangladesh Space Research & Remote Sensing Organization (SPARRSO) for CC Research & Impact Study	SPARRSO	1293.40	July-10 To June-12	Research and Knowledge Management
41	Research Capacity building for Knowledge Management on Climate Change	Dr. Wazed Research Institute under the Begum Rokeya University	99.95	May-10 To April-12	Research and Knowledge Management
42	Forest Information Generation and Networking System	Forest Department	818.587	April-12 To March-13	Research and Knowledge Management
43	Waste Reduce, Reuse and Recycle (3R) Initiative in Gulshan, Baridhara and Dhanmondi areas of Dhaka and Nasirabad and Khulshi areas of Chittagong cities .	Department of Environment	1909.80	April-10 To March-12	Mitigation and Low Carbon Development
44	Plantation of BWDB's Embankment in the Coastal Belt and its adjacent Char Areas.	Forest Department	1175.60	January-10 To June-11	Mitigation and Low Carbon Development
45	Raising of Seedling for afforestation to adverse impact	Forest Department	1578.00	January-10 To June-11	Mitigation and Low Carbon Development

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
	of Climate Change .				
46	Programmatic CDM' through utilization of waste in all towns (Municipalities) of Bangladesh.	Department of Environment	1391.58	April-10 To March-12	Mitigation and Low Carbon Development
47	Climate Change Resilient Afforestation in the Core Zone of Central Circle.	Forest Department	700.00	May-10 To June-12	Mitigation and Low Carbon Development
48	Introduction of Solar Powered irrigation pump as well as Power management and Distribution system to mitigate energy Crisis and Climate Change	Rural Electrification Board	1111.47	April-10 To April-12	Mitigation and Low Carbon Development
49	Prepare baseline, capacity building of entrepreneurs to develop CDM project proposal and evaluation of DNA under Clean Development Mechanism project	Department of Environment	100.00	May-10 To December-11	Mitigation and Low Carbon Development
50	Revegetation of Madhupur Forest Through Rehabbilitation of Forest Dependant Local and Ethnic Communities	Forest Department	1545.00	April-10 To June-12	Mitigation and Low Carbon Development
51	Community Based Adaptation in the Ecologically Critical Areas Through Biodiversity Conservation and Social Protection	Department of Environment	1500.00	July-10 To June-13	Mitigation and Low Carbon Development
52	Enviornmental management system at the parky Beech area .	Department of Environment	191.50	April-10 To March-12	Mitigation and Low Carbon Development
53	Motivate community people to conserve & vote for Sundarbons to select as new seven wonders inthe world heritage.	Forest Department	189.618	October -10 To November-11	Mitigation and Low Carbon Development
54	Coastal afforestation to combat adverse impact of climate change .	Forest Department	1990.00	November-10 To June-13	Mitigation and Low Carbon Development
55	Reducing carbon emission and increase uses of alternative energy through extension of Bio-gas and Improved oven .	BCSIR	931.25	May-11 To April-13	Mitigation and Low Carbon Development
56	Installation of Solar Powered Plant at Army Headquarters and all Formation Headquarters to Mitigate Low Carbon Emission and Development of Renewable Energy (T5P4);	Bangladesh Army	1200.00	May-11 To June-13	Mitigation and Low Carbon Development
57	Pilot project of Renewable energy dependent electricity generation in the remote haor area	Bangladesh Power Development Board.	2030	July-11 To December-12	Mitigation and Low Carbon Development
58	Electrification in local area (Upazilla Complex) by using	Bangladesh Rural	2460.80	July-11 To June-13	Mitigation and Low Carbon Development

SL. No.	Project Name	Implementing Organization	Total Cost	Implementing Time	Thematic area
	solar energy.	Electrification Board.			
59	Strengthening Institutional Capacity of Climate Change Unit of the Ministry of Environment and Forests.	Ministry of Enviornment & Forests	550.00	January-10 To December-11	Capacity Building and Institutional Strengthening
60	Institutional Strengthening of Climate Change Study Cell at BUET for Knowledge generation and human resource Development	BUET	300.00	June-10 To May-12	Capacity Building and Institutional Strengthening
61	Modernization & Extention of Chittagong divisional Labrotary of Department of Enviornment to strengthening the monitoring & assessment system due to the adverse impact of climate change.	Department of Environment	1236.75	April-11 To March-13	Capacity Building and Institutional Strengthening
62	"Building Institutional Capacity to Address Climate Change."	Ministry of Enviornment & Forests	460.00	January-11 To December-13	Capacity Building and Institutional Strengthening

Appendix 14: BCCRF - Annualised Estimate

Currency	Amount	Exchange as at 27/01/12		
US$	110,000,000	1		
Taka	9,020,000,000	82		
Crore	10,000,000			
Lakhs	100,000			
Taka Crore	902			
Taka Lakhs	90,200			
Budget Attributed to Climate Activity (Overall GoB) (Lakh Taka)	**Revised 2009/10**	**Revised 2010/11**	**Original 2011/12**	**Average**
Development	460,680	591,186	565,978	
Non Development	286,401	366,483	344,968	
Estimated Climate Budget	**747,081**	**957,668**	**910,946**	**871,898**
As % of Programmes	**27.9%**	**27.9%**	**29.3%**	**28.4%**
As a % of GoB Budget	**6.6%**	**7.2%**	**5.5%**	**6.4%**
As a % of GDP	**1.1%**	**1.2%**	**1.0%**	**1.1%**
Assuming Fund Is For 4 Years				**22,550**
BCCRF as Annualised % of current climate funds				**2.6%**

Appendix 15: Roles and responsibilities of UPs, Upazila Parishads and Paurashavas

Roles and Responsibilities of Union Parishad	Main roles and responsibilities of Upazila Parishad	Main roles and responsibilities of Paurashava
— Preparation of a comprehensive Union Plan and inclusion of inter-ward development projects after identification and prioritization. — Assist and cooperate for the development of primary schools, supervise their functioning and motivate people for spreading literacy. — Ensure provision of health services at the Union Health Centers, supervise family planning related activities and services and monitor the same. Arrange for supply of safe drinking water and promote sanitation program. — Construction of inter-ward roads, maintenance of the same, management of small scale irrigation and water resources. — Implementation of operation program along the Union Parishad roads and all earthen embankments. — Peaceful resolution and amicable settlement of inter ward disputes. — Promote social resistance over violence against women, terrorism, all types of crimes and cooperate with administration for maintenance of law and order. — Up-to-date registration of birth, death and marriages based on report received from Gram Parishad. — Assist Upazilla parishad in the preparation of inter ward agricultural and fisheries development projects and take necessary action. — Cooperate with and advise all agencies within the Union	— Five-year development plan along with other development plans for short, medium and long term. — Implementation, supervision and coordination of different activities by the government vested on Parishad. — Construction, repair and maintenance of Intra union roads. — Maximize the use of different water bodies and develop and execute government plans for Irrigation. — Ensure public health, nutrition and family planning services. — Ensure drinking water and sanitation. — Improvement of Hygine and Sanitation drinking and provide safe drinking water. — Provide support and awareness campaign for education at Upazilla level. — Provide support and coordination with institutions for the improvement of secondary and Madrasha education. — Work for the establishment and evelopment of small industry at Upazilla. — Provide support and necessary coordination for Cooperatives and NGOs. — Provide support and implement programs for children, women, sports, cultural activities. — Take initiatives and implement programs for the development of agriculture, livestock, fisheries and forest. — Help in maintaining peace and law and order and submit regular report to the police on law and order situations.	— Provide all the facilities to the citizens under this Paurashava in line with the established ordinance and rules of this institution. — To coordinate with the administration of Paurashava and government officials and staff to take well coordinated initiatives. — Developing infrastructure, controlling urban establishment and designing, planning and implementing urban development in an aim to serve the urban facilities to its citizens. — Ensuring safety, security and maintaining discipline in Paurashava — Supplying safe water for residential, industrial and commercial areas — Water and Sanitation — Waste management — Developing plan to ensure economic and social justice — Construction, roads, walkways terminals for better mobility of citizen and goods — Providing birth registration and death certificate to its inhabitants — For better transportation, providing better traffic system, street lights, parking, shelters, bus stoppage and bus station for passengers. — Maintaining urban health and sustainable environment, tree plantation and maintenance — Management of local markets and slaughtering houses — Create enabling environment for education, recreation, sports and cultural upliftment and beatification of urban

having credit programs and help rural poor to participate in the same. — Increase awareness for women and child development and take concrete actions where necessary. — Encourage people to undertake cottage industries with good potentials and facilitate the involvement of disadvantaged and poor people in various income generating activities.	— Provide necessary support to the government for self employment and poverty reduction, — Coordinate, supervise and support the activities of Union Parishad. — Create public awareness on violence against women and children. — Take necessary measure to tackle the issues of smuggling, drugs, stealing, looting etc. — Take programs for sustainable environment and social forestation. — Perform other task assigned by the Government	space. — Implement activities as and when directed by governance rules and ordinance — Take initiatives for poverty reduction; ensure primary education, public health, better transportation.

Appendix 16: Breakdown of climate change expenditure by UPs and Pourashava study areas

Union Parishad/Pourashava	Schemes	Budget (taka)	Climate Sensitivity	Climate sensitive budget (taka)
COASTAL REGION				
Padmapukur Union Parishad	ADP	300,000	10%	30,000
	LGSP/LGSP LIC	2,400,000	10%	240,000
	KABIKHA	3,500,000	20%	700,000
	TR	1,500,000	5%	75,000
	100 day employment scheme	8,000,000	60%	4,800,000
	REOPA	250,000	5%	12,500
	Other (schemes relevant to climate change)	160,000	5%	8,000
	Other (schemes not relevant to climate change)	3,095,823	0%	0
	Total union budget	**19,205,823**		**5,865,500**
	Climate sensitive budget (% of total union budget)			**31**
Gabura Union Parishad	ADP	400,000	10%	40,000
	LGSP/LGSP LIC	2,400,000	10%	240,000
	KABIKHA	3,800,000	20%	760,000
	TR	1,500,000	5%	75,000
	100 day employment scheme	4,831,850	60%	2,899,110
	Other safety net programmes (e.g. VDF, VGD)	1,000,000	50%	500,000
	Other (schemes relevant to climate change)	4,500,000	5%	225,000
	Total union budget	**18,431,850**		**4,739,110**
	Climate sensitive budget (% of total union budget)			**26**
Satkhira Pourashava (Municipality)	Development Budget	64,303,774	20%	12,860,755
	UGIIP-2	77,300,000	20%	15,460,000
	Revenue Budget	64,259,564	5%	3,212,978
	Other (schemes relevant to climate change)	21,040,530	20%	4,208,106
	Total union budget	**226,903,868**		**35,741,839**
	Climate sensitive budget (% of total union budget)			**16**

TOTAL CLIMATE SENSITIVE BUDGET IN COASTAL REGION (TAKA)				**46,346,449**
AVERAGE CLIMATE SENSITIVITY OF BUDGET IN COASTAL REGION (PERCENTAGE)				**24**
FLOODPLAIN REGION				
Kunder Char Union Parishad	ADP	300,000	8%	24,000
	LGSP/LGSP LIC	850,000	10%	85,000
	KABIKHA	240,000	10%	24,000
	TR	180,000	20%	36,000
	100 day employment scheme	198,000	40%	79,200
	Other (schemes relevant to climate change)	80,000	5%	4,000
	Other (schemes not relevant to climate change)	1,757,000	0%	0
	Total	**3,605,000**		**252,200**
	Climate sensitive budget (% of total union budget)			**7**
Jajira Pourashava (Municipality)	Development Budget	30,108,450	15%	4,516,268
	Revenue Budget	4,893,640	10%	489,364
	Total union budget	**35,002,090**		**5,005,632**
	Climate sensitive budget (% of total union budget)			**14**
TOTAL CLIMATE SENSITIVE BUDGET IN FLOODPLAIN REGION (TAKA)				**5,257,832**
AVERAGE CLIMATE SENSITIVITY OF BUDGET IN FLOODPLAIN REGION (PERCENTAGE)				**11**
BARIND REGION				
Deopara Union Parishad	ADP	500,000	10%	50,000
	LGSP/LGSP LIC	1,200,000	10%	120,000
	KABIKHA	1,100,000	5%	55,000
	TR	1,000,000	15%	150,000
	100 day employment scheme	1,750,000	20%	350,000
	DASCHO	1,434,300	10%	143,430
	HYSAWA	1,500,000	10%	150,000
	Other (schemes not relevant to climate change)	2,910,934	0%	
	Total union budget	**11,395,234**		**1,018,430**
	Climate sensitive budget (% of total union budget)			**9**

Rishikul Union Parishad	ADP	600,000	15%	90,000
	LGSP/LGSP LIC	2,000,000	10%	200,000
	KABIKHA	4,550,000	5%	227,500
	TR	1,000,000	10%	100,000
	100 day employment scheme	3,570,000	20%	714,000
	DASCHO	1,434,300	10%	143,430
	HYSAWA	6,150,000	10%	615,000
	Other (schemes not relevant to climate change)	5,395,627	0%	0
	Total union budget	**24,699,927**		**2,089,930**
	Climate sensitive budget (% of total union budget)			**8**
Godagari Pourashava (Municipality)	Development Budget	99,755,547	10%	9,975,555
	Revenue Budget	18,596,899	5%	929,845
	Total union budget	**118,352,446**		**10,905,400**
	Climate sensitive budget (% of total union budget)			9
TOTAL CLIMATE SENSITIVE BUDGET IN BARIND REGION (TAKA)				**14,013,760**
AVERAGE CLIMATE SENSITIVITY OF BUDGET IN BARIND REGION (PERCENTAGE)				**9**
Total UP and Pourashava funds identified in study areas				**457,596,238**
Total climate sensitive budget identified in study areas (taka)				**65,618,040**
Average climate sensitivity of all study areas (percentage)				**14.33972457**

Appendix 17: Analysis of climate sensitivity of household spending

Union Information		HHs Type					CCI Experience
		Extreme Poor	Landless	Poor	Middle Income	Rich	
Lata	Monthly Income	2,000	2,500	3,000	6,000	50,000	Aila 2009 Sidr 2007 Tidal Flooding (annual)
	CCI Damage	30,000	40,000	60,000	45,000	90,000	
	Receipt Money	30,000	30,000	30,000	23,000	5,000	
Garau-khali	Monthly Income	2,300	2,400	4,000	7,000	70,000	Aila 2009 Sidr 2007 Tidal Flooding (annual)
	CCI Damage	35,000	35,000	40,000	30,000	300,000	
	Receipt Money	35,000	35,000	30,000	5,000	0	
Gabur a	Monthly Income	2,400	3,100	3,700	6,500	35,000	Aila 2009 Tidal Flooding (annual)
	CCI Damage	45,000	65,000	78,000	300,000	1,300,000	
	Receipt Money	150,000	150,000	150,000	50,000	25,000	
Padma -pukur	Monthly Income	2,100	2,700	3,700	6,500	50,000	Aila 2009 Tidal Flooding (annual)
	CCI Damage	75,000	60,000	100,000	280,000	2,700,000	
	Receipt Money	150,000	150,000	150,000	65,000	12,500	
Paler – Char	Monthly Income	2,400	3,500	4,800	7,000	60,000	Flooding, River Erosion (annual)
	CCI Damage	25,000	25,000	35,000	40,000	80,000	
	Receipt Money	30,000	30,000	30,000	23,000	0	
Kunde r- Char	Monthly Income	2,200	3,500	5,000	8,000	50,000	Flooding, River Erosion (annual)
	CCI Damage	25,000	35,000	40,000	30,000	75,000	
	Receipt Money	5,000	35,000	30,000	5,000	0	
Rishik-ul	Monthly Income	1,800	2,400	3,000	6,500	40,000	Irrigation and Safe Drinking Water (annual)
	CCI Damage	4,000	5,000	6,000	8,000	25,000	
	Receipt Money	3,000	2,000	2,000	5,000	0	
Deuo-para	Monthly Income	1,800	2,500	3,200	6,200	40,000	Flooding 2008
	CCI Damage	10,000	15,000	20,000	30,000	300,000	
	Receipt Money	5,000	10,000	15,000	5,000	0	

This analysis relies heavily on an arbitrary data collection and analysis methodology and should not be used as empirical data source. The calculation is based on one year timeframe and covers all types of support received or possessed by households, such as cash, assets (house), rice, wheat, water and other daily necessities. The non-cash component has been translated into a monetary value for analysis.

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