Initiative for Climate Action Transparency for Adaptation (ICAT-A)

Progress Report

Developing a National Framework for Adaptation M&E in Bangladesh

Methodologies and Approaches

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1. Introduction

Over the last decade or so, Bangladesh has made remarkable strides in combating climate change. The country has demonstrated significant political will in terms of mainstreaming climate change issues into national plans and policies and substantial financial resources have already been invested towards climate action. As such, policymakers are now increasingly recognizing the need for measuring adaptation success and there appears to be a growing interest towards developing methodologies for assessing the effectiveness of adaptation interventions. To ensure proper utilization of limited resources, it is important to verify whether adaptation efforts are being successful in enhancing resilience and reducing vulnerability of climate affected communities in Bangladesh. The need to develop a comprehensive, national framework for undertaking M&E of adaptation is thus more crucial than ever.

In line with the above, the Adaptation component of the Initiative for Climate Action Transparency (ICAT) has been initiated in February 2019 and is being piloted in four countries including Bangladesh, with the overarching aim of helping countries assess the impacts of their climate policies and actions and support greater transparency, effectiveness, ambition and trust in climate policies. The project intends to establish transparent and flexible systems for monitoring and evaluation (M&E) of adaptation action, through developing and testing tools by which to assess adaptation effectiveness.

The International Centre for Climate Change and Development (ICCCAD), a renowned climate change research and training institute, is acting the implementing partner for the ICAT project in Bangladesh

This report captures the progress made over the course of Phase 1 (February 2019 – February 2020) towards developing a framework for adaptation M&E in Bangladesh. It provides a brief summary of the building blocks that have been established till date to further the project's objectives and also elaborates on next steps for taking the agenda forward.

2. Building Blocks

This section delineates on the several activities and approaches undertaken till date to set up a foundation for establishing a stakeholder-driven, national framework for measuring adaptation progress in Bangladesh

2.1 National Stakeholder Consultation Workshop

To initiate the project in Bangladesh, a National Consultation Workshop was held on February 07, 2019. The workshop brought together a wide range of actors, both from the public and private sector, working within the climate change domain in Bangladesh. ICAT team presented on the need and value of such a project for the stakeholders and for Bangladesh overall during the workshop. Participants also expressed their recognition of this value and provided important feedback and suggestions for undertaking such an initiative forward in the country.

The workshop served to inform relevant climate change actors on the project's aims and goals, and through a participatory process, helped identify a key set of stakeholders that need to be engaged in order to accomplish the project's objectives. The need for establishing an Advisory Committee as well as a Working Group for the project, comprised of these stakeholders was recognized. In addition, a survey was undertaken to understand the priority sectors for tracking adaptation progress in the country.

2.2 Focus Sectors

For the Bangladesh case study under the project, two sectors have been identified as priority areas for tracking adaptation progress in, which are –

- **Agriculture**
- **Water Resources**

This selection was based on the country's NDC implementation roadmap, which highlights water and agriculture as two of the major adaptation domains of Bangladesh. Both these sectors are highly susceptible to the emerging impacts of climate change in the country. In addition, as a project kick-off activity, a National Stakeholder Consultation Workshop was organized, which brought together a wide range of relevant stakeholders working on issues related to climate change adaptation in the country. During the workshop, participants reaffirmed the priority of the above two sectors for adaptation in Bangladesh. Using these climate vulnerable sectors as pilot, the project aims to develop approaches and methodologies which can be replicated to track and measure adaptation progress across all climate relevant sectors in the country

2.3 Needs Assessment

Following the identification of relevant stakeholders and focus sectors for the project, a series of consultation meetings were held with some of the key actors to undertake a situation analysis and understand existing challenges and gaps, in regards to developing frameworks and approaches for measuring adaptation effectiveness in Bangladesh. This was supplemented by a desk-based review of relevant literature. Subsequently, a comprehensive **Country Needs Assessment Report** had been produced which captures the above.

Gaps and challenges

A number of prevalent issues have been identified by stakeholders, which need to be addressed in order to initiate a process of developing a framework for adaptation M&E in the county. These can be summarized as the following:

- **Difficulty in identification of climate change adaptation projects**

  To successfully measure adaptation success, there is a need to establish what adaptation means in the context of Bangladesh. However the following factors act as barriers.

- Need for improved knowledge and understanding on climate change adaptation
- Need for enhanced skills on applying M&E tools and approaches
- Low levels of awareness regarding the importance of measuring the effectiveness of adaptation interventions
- Technical inadequacies in terms of data collection and management skills
- Unavailability of necessary infrastructure (hardware and software)

- **Need for enhanced capacity of relevant stakeholders**

  Technical and institutional capacity to mainstream climate change adaptation into stakeholder functions is hindered by the following factors.

  - Need for improved knowledge and understanding on climate change adaptation
  - Need for enhanced skills on applying M&E tools and approaches
  - Low levels of awareness regarding the importance of measuring adaptation success
  - Technical inadequacies in terms of data collection and management skills
  - Unavailability of necessary infrastructure (hardware and software)

- **Challenges with quality and quantity of data**

  Establishing a national framework for adaptation M&E would require a large repository of accessible and comprehensible data relevant to climate change.

  - Lack of uniform baseline information on climate change
  - Limited accessibility of data
  - Lack of MIS for collection, storage and retrieval of data
  - Inconsistencies in data formats – higher costs for data processing and analysis
  - Complexities regarding the ownership of data
  - No common platform for data sharing

- **Need for better coordination amongst stakeholders**

  Better coordination amongst different stakeholders is crucial for developing a successful M&E framework for climate change adaptation projects in Bangladesh. But the following factors are persistent.

  - Limited coordination among agencies on planning, and knowledge and data sharing
  - No commonly agreed upon format/template for M&E within implementing agencies
  - Culture of low-priority on M&E – viewed merely as a means of reporting rather than learning and improving

Priority action areas

In light of the gaps identified, the following action steps have been recommended for the ICAT project in Bangladesh.

- **Development of a approaches and methodologies for measuring adaptation effectiveness**

    - **Identifying the adaptation components** within climate change and development projects within the water and agriculture sector. This includes developing criteria and definitions for understanding the additionality of adaptation

    - **Assess the effectiveness of adaptation interventions** in the water and agriculture sector in terms of building resilience and reducing vulnerability of communities. This includes developing metrics and indicators for tracking the success of adaptation projects

    - **Test validity and applicability** against a set of projects by employing expert and field level consultations.

- **Enhanced coordination and engagement amongst relevant stakeholders for knowledge sharing and data harmonization**

    - **Bring key stakeholders under one platform** to discuss priority needs and actions for initiating an M&E framework on adaptation in Bangladesh, and also to understand their different roles and functions for the process

    - **Establish a common set of guidelines for data management** in Bangladesh across all facets i.e. collection, processing, analysis, reporting, sharing

    - **Multilogue platform** for containing a broad range of stakeholders to promote continuous learning on the issue and ensure sustainability of the initiative's efforts

- **Assess capacity building needs of relevant actors for better assessment and reporting of adaptation actions**

    - **Development of a capacity building needs assessment tool** to assess the baseline institutional capacity cross several facets including planning, governance, human resources, infrastructure, M&E etc.

    - **Extensive bilateral meetings to assess institutional capacity** by employing participatory self-assessment to understand gaps in capacities and collective identification of strategies to address these gaps

    - **Undertake targeted capacity building interventions** across a range of areas including climate change knowledge, M&E tools and approaches, management skills etc. depending on the actor at hand

2.4 Stakeholder Mapping

To establish and foster national systems for adaptation M&E, active involvement of an array of relevant stakeholders would be required. An effective M&E system as such would comprise of all the different entities engaged in the climate change arena within a country, including governing bodies in charge of implementing national climate change policies, organizations with expertise in executing climate change interventions, actors engaged in the data management sector as well as entities responsible for reporting to international conventions.

As such, a comprehensive **Stakeholder Mapping Report** was produced, which outlines a preliminary profiling and mapping of key stakeholders in Bangladesh, relevant for establishing effective M&E practices for climate change measures and interventions in the country, especially within the focus sectors. The process of stakeholder identification, the roles and responsibilities of different actors, their priorities and influence on the issue, and planned approaches and strategies for ensuring their active engagement in the process are all highlighted in the report.

Stakeholder classification

Under the project, a comprehensive Stakeholder Mapping was undertaken to identify key actors, understand their roles and responsibilities as well as their priorities and influence on the issue. For the purpose of the Bangladesh case study, stakeholders had been classified into three broad clusters as follows:

1. **Data group**
2. **Knowledge Brokers group**
3. **Implementation group**

The above-mentioned clusters constitute actors and stakeholders across different scales, representing the national, regional as well as the local level, with particular emphasis on those engaged in the water and agriculture sector in the country.

The data group consist of different public and private agencies within the data management sector, associated with different facets of managing data including collection, processing, analysis, reporting as well as sharing. The knowledge brokers group entail those with significant expertise in climate change research and practice in Bangladesh and also those with experience of undertaking M&E tools and approaches. This includes researchers, academia, INGOs and other bilateral and multilateral organizations with prior experience of undertaking climate change adaptation interventions in the country. Lastly, the implementation group consist of governing and decision-making bodies, such as different ministries and government agencies that can drive decision-making on climate change related policies and practices in Bangladesh and also those who represent Bangladesh in global climate negotiations. Some overlaps among the three groups/clusters are expected and certain actors have multiple functions and contribute in more than one way to the project, and therefore belong to two or more groups.

Modalities of stakeholder engagement

To ensure continuous and effective engagement of stakeholders and enable dialogue among them, two committees were formulated under the scope of the project - the Advisory Committee and the Working Group.

The **Advisory Committee** consist of distinguished representatives from key national entities, specifically those in leadership positions and with decision-making authority within their respective organizations. The role of the advisory committee is much broader and includes providing overall guidance for the design and implementation of the project, as well as reviewing and validating project outputs.

The **Working Group** on the other hand consist of representatives nominated by the Advisory Committee with notable experience and knowledge on both climate change adaptation as well as applying M&E frameworks and approaches in Bangladesh. The main function of the working group is to provide both theoretical as well as technical input through-out the implementation of the project activities.

To facilitate a demand-driven, collective approach towards accomplish the aims and objectives of the project, regular meetings and workshops are organized with both the groups. These meetings provide a platform for different stakeholders to interact, share ideas and provide necessary guidance towards the project. **Terms of Reference (TOR)** documents have been developed for both the groups, outlining their roles and functions towards the project. In addition, **Letters of Agreement (LOA)** with members of both the groups have been signed to ensure their sustained commitment.

2.5 Capacity Building Needs Assessment

It has been recognized that building necessary capacity of a broad set of stakeholders would be imperative to guide effective M&E of adaptation measures and promote enhanced transparency and reporting of climate action in a country. Considering the cross-cutting and cross-sectoral nature of climate change action, it would be critical to build stakeholder capacity across a range of areas and using varied approaches.

In line with this, the Capacity Assessment Tool for Climate Action Transparency (CAT4CAT) has been designed under the project, as a structured tool that can be used to recognize and assess the capacity building needs of relevant stakeholders for undertaking in-country M&E of climate change adaptation. The tool does so by assessing institutional capacity of stakeholders across four key domains, and can be applied to stakeholders at the national, subnational and programmatic levels. The key objectives of the tool are to better understand the current institutional capacity for undertaking M&E of climate actions, to determine existing gaps in organizational capacity and to identify possible strategies and interventions to strengthen relevant capacity.

As such, a comprehensive **Stakeholders' Capacity Building Needs Assessment** report has been produced which presents the key findings and analysis from undertaking the capacity needs assessment exercise with relevant stakeholders in Bangladesh. Gaps and opportunities for engaging these stakeholders in national processes for adaptation M&E are also delineated in the report.

Stakeholder identification

For the purpose of the ICAT work in Bangladesh, understanding and assessing institutional capacity of a key set of stakeholders had been deemed as necessary. As such, a set of targeted stakeholders were selected from the broader stakeholder map, for the purpose of the capacity needs assessment exercise. These stakeholders represent all three clusters and constitute both the demand and supply side of necessary capacity building requirements for the project. The list of shortlisted organizations identified for this exercise are as follows:

1. Bangladesh Climate Change Trust (BCCT)
2. Independent Monitoring and Evaluation Division (IMED)
3. Bangladesh Bureau of Statistics (BBS)
4. Department of Agricultural Extension (DAE)
5. Bangladesh Water Development Board (BWDB)
6. Bangladesh Meteorological Department (BMD)
7. Palli-Karma Sahayak Foundation (PKSF)
8. BRAC
9. Centre for Participatory Research and Development (CPRD)
10. Practical Action

These organizations have had active representation in the different meetings and workshop held over the course of the project. The project has therefore established positive working relationships with them which serve as an important entry point for engaging these stakeholders in capacity building interventions under the project.

Application of the tool

The organizations were contacted and appointments for bilateral discussions were booked with relevant staff members. Extensive bilateral meetings were held with them, with climate change and M&E staff members within each organization interviewed for understanding the state of the organization in regard to the four domains identified in the tool. The questionnaire and the tool with instructions were also sent out to some of the organizations for self-evaluation. A request was made to include a range of staff members during this exercise so that all perspectives are included. Email exchanges and telephonic conversations were employed as follow up, to clarify and validate the findings from the assessment. Near the end of the project phase, a residential stakeholder workshop which brought together the identified stakeholders. The workshop further explored their capacity needs in regards to the ICAT project. In addition, the capacity assessment exercise has also been informed by a desktop review of organization websites, available annual reports, strategy documents and organization organograms which have been referred to when consulting with the stakeholders.

All of the above were undertaken between the months of August 2019 – December 2019 and as such, the results of the assessment exercise reflect the institutional capacity in place during this time period.

Key capacity building needs

Based on the results from the capacity building needs assessment exercise, following are some of the key areas in which stakeholders' capacities would need to be built, in order to facilitate a national framework for adaptation M&E in Bangladesh.

- **Mainstreaming climate action** - The issue of climate change is mainstreamed to varying extents across the different stakeholders interviewed. Organizations are increasingly integrating climate change issues within their strategies and plans, and climate action appears to be a priority particularly within the research and development organizations assessed. However, non-typical actors such as those belonging to the data cluster need to better consider climate action within their policies and plans of action.

- **Local community engagement** - Development of organizational plans and strategies should incorporate the perspectives of targeted stakeholders. When it comes to climate relevant action plans, inputs from local, vulnerable communities should be considered to ensure planned adaptation interventions are more effective in meeting their desired results. This is particularly important for actors belonging to the implementation group, who

- **Gender and social inclusion** - Gender and social inclusion within adaptation projects is recognized as an important cornerstone for successful resilience building and vulnerability reduction. Therefore, organizations engaged in the implementation and delivery of climate change projects, should have gender and social inclusion policies in place that are actively and the issue should be integrated within all domains of their work. Adequate understanding of gender and social inclusion needs to be built acros the organization

- **Access to climate funds** – Despite organizations acknowledging climate action as a priority, access to global climate funds is limited. While there is funding support for development activities in general, there is a need for increased mobilization of financial resources to support climate change specific aims and objectives within these organizations.

- **Intra-organizational coordination** – The stakeholders selected have all set up separate, dedicated units and teams for climate change related activities within their organizations. While there are different policies and procedures in place to ensure regular and effective interfunctional coordination, its effectiveness tends to vary in practice. Considering the cross-cutting nature of climate change interventions, there is a need for different units within organizations to increasingly engage and collaborate with their respective climate change units. By facilitating access to more technical support, this will allow organizations to better deliver their climate change related interventions.

- **Knowledge management** – Establishing a dynamic framework for adaptation M&E will require knowledge to be actively shared among relevant stakeholders in Bangladesh. A common platform, accessible by all relevant stakeholders, for sharing research findings, policy changes, project information and other emerging knowledge on climate change in Bangladesh is desirable. This will help avoid duplication of interventions and deter inefficient use of resources. Multi-stakeholder driven knowledge sharing platforms could be both online and offline in nature, and may constitute web portals as well as

dialogue platforms for stakeholders to meet and discuss. These platforms need to be well managed and have plans in place to ensure sustainability and continuous learning among stakeholders. In addition, efforts must be taken to ensure knowledge produced is of quality, and is meaningful and reliable in supporting climate action in Bangladesh. Research needs to be cross-disciplinary, participatory as well as action-oriented for it to be effective. To facilitate this, it would be important to build the capacity of researchers on how to conduct better research. There needs to be increasing funding support mobilized towards research and knowledge management driven climate change projects in the country, which is presently quite inadequate.

- **Data harmonization** – It is widely recognized among all the stakeholders consulted, that there is a need for accessible and reliable data to establish a framework for tracking adaptation progress in Bangladesh. While a lot of data is being generated and employed by the different actors working within the climate change sector, there is still a crucial need for data harmonization. An overarching national framework for data management on climate change is desirable. It would be useful to establishment a comprehensive, shared database for managing climate relevant information in Bangladesh. This database also needs to be well managed and regularly reviewed. In addition, there is a need for organizations undertaking climate change projects in the country, to establish necessary infrastructure to promote improved data collection and utility. ICT facilities will need to be scaled up and dedicated servers installed to set up and maintain robust data management systems on climate change.

- **Monitoring and evaluation (M&E)** – Currently, M&E systems employed by most organizations rely on traditional approaches of tracking financial and physical progress of interventions. There are very few instances of applying tools and methodologies for undertaking impact evaluation of interventions, especially in regards to climate change adaptation. While some monitoring systems have attempted to track adaptation outcomes of projects, they still have limitations. This is largely due to the complexity involved in defining, segregating and subsequently measuring adaptation elements within projects. However, there is now a growing body of research on the topic of assessing adaptation effectiveness, and initiatives are being undertaken worldwide to do so. As such, there is scope for stakeholders under the project to draw from these lessons and collaborate to collectively developing a national framework on adaptation M&E.

- **Climate change expertise** – While climate change is one of the most important concerns facing Bangladesh, it is a fairly new topic. Policymakers, researchers and practitioners engaged in in the development arena have only recently begun to develop expertise on the issue. Concurrently, the integration of climate change into post-secondary education and academic curricula is also fairly recent. As a result, there is still a need for enhanced understanding and awareness among organizational staff on the topic.

- **M&E skills for impact evaluation** – M&E as an important skillset has been largely undermined in the development arena. Most organizations only have a small M&E unit, and they are not particularly trained on monitoring and evaluating adaptation projects. There is even less understanding on undertaking impact evaluation of these projects. M&E staff also generally have limited access to relevant capacity building interventions. There is thus a need for M&E staff to be trained on understanding climate change issues and also on innovative tools and approaches for undertaking M&E. Particularly, staff working on the ground for data collection need to be capacitated on better generating climate relevant information.

Also, climate change units should consider including M&E personnel as a core member within all research and action projects.

- **Policy advocacy** – Organizations selected have varying scopes for policy influence and have some level of experience in advocating for policy reforms that promote climate action in the country. However, the issue of improved reporting and transparency of climate action to international conventions has received limited emphasis. There is scope for stakeholders to facilitate and organize policy dialogues that exert the importance of considering adaptation tracking within the policy sphere.

- **Broader stakeholder participation** – Government agencies that are directly associated with climate action, and development organizations (NGOs, INGOs etc.) working on the issue, already have substantial presence within the climate change domain of Bangladesh. They regularly participate in various meetings, workshops and conferences on the topic. However, participation of atypical stakeholders (in our case, IMED and BMD) have been relatively limited. There is a need to promote their participation across different platforms so that they can learn about the issue, and also contribute towards discussions on the topic. This will allow for better networking among different entities and facilitate the formation of new partnerships, which could be useful for delivering climate action in Bangladesh more effectively.

2.6 Stakeholder consultations

In order to guide the activities under the project, a series of meetings and workshops were held with relevant stakeholders.

The first **Advisory Committee meeting** was held on August 05, 2019 to introduce the ICAT-A project to the Advisory Committee and identify the operational modalities for the Committee. The members of the committee include leading environmental and development experts as well as policymakers within the country. The meeting present the Bangladesh needs assessment report for adaptation M&E and reviewed the stakeholder mapping for the project. The meetings also explored the different ways stakeholders can support and contribute to the process.

The first **Working Group meeting** was held on Wednesday, 09 October 2019. In addition to discussing the overall objectives of the project, this meeting also introduced the Capacity Building Needs Assessment Tool to stakeholders and explored how to undertake the needs assessment exercise.

Furthermore, a **2-day residential Stakeholder Consultation Workshop** was held from 24 – 26 November 2019, which brought together members from both the Advisory Committee and the Working Group to discuss in detail the different steps the project can undertake to move ahead with its aims. Capacity building needs of stakeholders and possible strategies for addressing them were also further explored.

3. Next Steps

Over the course of the year, the ICAT project has successfully identified barriers and opportunities for establishing a national framework for adaptation M&E Bangladesh, and vital building blocks have now been

set up to guide the process forward. The section describes key action steps that has to be undertaken in the upcoming phase to accomplish the objectives set out by the project in Bangladesh.

3.1 Developing approaches and methodologies for measuring adaptation effectiveness

Engagement and consultation with key stakeholders over the course of the project, have revealed the need for developing guidance materials and tools, that are collectively-owned and executed, for undertaking M&E of adaptation interventions in the country, However, stakeholders also recognized the complexity with setting up metrics and indicators for assessing adaptation effectiveness of projects. There are a number of existing M&E mechanisms that have been employed which could serve as a basis for developing such a framework. It was acknowledged that, instead of starting from scratch, it would be useful to build on these different frameworks and attempt to harmonize them.

Existing M&E frameworks

Bangladesh Climate Change Trust (BCCT) has established a template and framework for undertaking M&E of their funded interventions. These employ participatory processes, by engaging both the implementers as well as the beneficiaries. However, the present template for M&E mainly focuses on tracking financial and physical progress of their interventions, and does not have provisions for measuring their impact or results. The organization has a keen interest towards developing and integrating adaptation based indicators that consider locational, thematic and socioeconomic contexts, to ensure funded interventions are effective in reducing vulnerability and promoting resilience. There is also a need for the M&E framework to be able to evaluate the effectiveness of research driven interventions.

Independent Monitoring and Evaluation Division (IMED) is the division under the Ministry of Planning that is in charge of monitoring and evaluating the performances of development investments as laid out in the government's short-term and long-term development plans and strategies. It does so by collecting and analyzing information on project and programme results, originating from implementing organizations by careful analysis of programme outputs. This analysis is provided to the relevant bodies so that they can improve their performance if necessary. IMED employs its own M&E framework to monitor the performance of development interventions in Bangladesh. The framework consists of participatory approaches and active engagement with implementing ministries. IMED produces evaluation reports which analyzes performance of sectors and ministries against set targets. Where applicable, these reports also highlight why certain targets had not been met. This framework till date has largely focused on monitoring financial and physical progress, and there are not substantial considerations for assessing desired impacts of the project. The country's 7th Five Year Plan (2016-2020) outlined that IMED's M&E framework needs to go beyond fiscal records and should cover issues such as effectiveness of the project in creating targeted impacts. As such, IMED has a keen interest towards the objectives of the ICAT project.

To respond to BCCT's need for refining and enhancing their M&E framework, the **Bangladesh Centre for Advanced Studies (BCAS)** under their **Climate Finance Transparency Mechanism (CFTM)** project supported

by PROKAS, British Council and UKAID developed a draft **'Handbook on M&E Indicators for Climate Change Projects in Bangladesh'**. The handbook has been developed in consultation with a wide range of national experts working on climate change and MEL in Bangladesh. The methodology adopted for its development included a review of available literature, multiple stakeholder consultation meetings; both on national as well as local levels, in addition to bi-lateral discussions and interviews with organisations working on climate change in Bangladesh. The handbook is designed to contextualize the vulnerability components of climate change in terms of hazard, exposure, sensitivity and adaptive capacity with consideration to national strategy and planning documents. The sectors covered by the framework include: agriculture, water, human health, infrastructure, fisheries, livestock, and energy. While the overall handbook includes multiple sector-wise indicators maintaining a general framework, it also provides the scope for developing project/programme specific indicators by referring to the document and adapting as necessary.

The **Community Climate Change Project (CCCP)** was an adaptation project which ran from 2012 to 2016, aimed at 'enhancing the capacity of selected communities to increase their resilience to the adverse impacts of climate change.' The project was financed under the now-defunct Bangladesh Climate Change Resilience Fund (BCCRF) with Palli Karma Sahayak Foundation (PKSF) acting as a key implementing partner for community-level adaptation activities under the project. M&E for the project constituted the **Results-Based Monitoring (RBM)** system. Outputs were measured through the online ATOM system where organizations could log their progress and activities. Outcomes were monitored through an outcome assessment, using indicators developed by PKSF, measured on a Likert scale. Impacts were evaluated using a household survey questionnaire that was conducted at two points in the project. Through this project they identified several challenges and ways forward. First, there is significant cost in completing M&E, and that cost should be considered in the initial project budgeting. Second, the project staff and monitoring and evaluation personnel should have adequate knowledge and experience with conducting research. Third, the procurement of firms or individual consultants is a fundamental challenge for project evaluation and RBM. Finally, the professionalism and commitment of stakeholders is very important

Preparing guidance materials on adaptation

The above initiatives have developed an array of important knowledge products and resources, and brings forth experiences of best practices and lessons learned in regards to climate change M&E in Bangladesh. These could be leveraged to develop a set of guidance materials which can be used to assess the effectiveness of adaptation projects in the country. In the context of the ICAT project, the aim would be develop these guidance materials with respect to selected focus sectors of agriculture and water resources initially. These can be remodeled to cater to other climate relevant sectors in the country. The idea would be formulate a general set of guidelines that can be used by different stakeholders for undertaking results-based M&E a diverse range of adaptation projects. These guidance materials would include:

- Establishing criteria for identifying adaptation components within climate change and development projects under the water and agriculture sector
- Establishing indicators and metrics for assessing the effectiveness of adaptation projects under the water and agriculture sectors in building climate resiliency

In order to develop these guidance documents, the project intends to organize consultation workshops with the Advisory Committee and Working Group, where different actors can engage in dialogue and collectively

determine contents for the materials. It would be useful to share with them similar frameworks for adaptation M&E being employed in other countries, which they can draw inspiration from. A guided questionnaire can also be developed to help facilitate the process. Engaging stakeholders in the Knowledge Brokers cluster, which includes organizations with substantial experience of undertaking research and action projects on climate change in the country, would be particularly crucial. Their expertise would be crucial to identify appropriate metrics and indicators for measuring adaptation success. Furthermore, it would be important to also consult local communities in defining these criteria and indicators.

Testing the validity of guidance materials

In addition to developing the guidance materials, it would be important to test the applicability, reliability and overall validity of identified criteria and indicators for assessing adaptation outcomes, against a couple of ongoing projects in the two sectors. The following projects have been selected as case studies.

Case Study 1:

Name:	Research, Extension and Popularization of Vegetables and Spice Cultivation on Floating Bed
Duration:	July 2017– June 2022
Location:	BARI will implement its part in 25 districts and DAE will implement its part in 46 upazilas of 24 districts (Gopalganj, Fenchuganj, Sunamganj, Pirojpur, Barishal)
Implementing Agency:	Department of Agricultural Extension (DAE)
Executing partners / Stakeholders:	Farmers, SAO, Bangladesh Agriculture Research Institute (BARI)
Brief description:	The project objectives are as following: • To disseminate floating agricultural technologies to increase agricultural production to ensure food security in the target project area • Developing advanced and sophisticated technologies of floating agriculture invented by Bangladesh Agriculture Research Institute and popularize them among farmers • Extension of BARI and relevant organization developed vegetables and spice varieties using floating agriculture • To increase the concentration and versatility of crop production in water logged conditions and encourage small farmers to grow vegetables and spices in floating beds

	• To engage women in agricultural activities for engaging women in economic activities and contribute to women empowerment • To grow crop and ensure proper utilization of water hyacinth using floating technologies in areas with insufficient cultivable land

Case Study 2:

Name:	Haor Flood Management & Livelihood Improvement Project (HFM&LIP)
Duration:	July 2014 – June 2022
Location:	Brahmanbaria, Habiganj, Kishoreganj, Netrakona, Sunamganj
Implementing Agencies:	Bangladesh Water Development Board (BWDB); Local Government Engineering Department (LGED)
Executing partners / Stakeholders:	Ministry of Water Resources (MoWR), JICA
Brief description:	The objective of the project is to reduce the damages from flood, improve access to basic infrastructure and increase agriculture and fishery productivity by- • Rehabilitating and constructing the flood management facilities (will include the rehabilitation and construction of existing flood management facilities, such as full embankment, submergible embankment, regulators and canal re-excavation) • Rehabilitating and constructing the rural infrastructures (will include the upgrading and rehabilitating upazila, union and village roads, rehabilitation and construction of markets and ghats) and • Implementing agriculture and fishery promotion activities (will promote agriculture and fishery in the Haor areas will be implemented to improve people's livelihood) in the Haor areas in the upper Meghna river basin.

Testing the materials should constitute both qualitative and quantitative elements, and employ a combination of top-down and bottom-up approaches. The project will consult with and provide guidance to the implementing and executing agencies under the project. In addition, local communities and beneficiaries will also be consulted as means of verification.

Mainstreaming guidance materials

An important aim for the project would be to ensure that guidance materials are being used by different stakeholders in the country, and are mainstreamed within national M&E systems. To facilitate this process,

the project intends to hold a series of policy dialogues with relevant government agencies, particularly different ministries engaged in implementing adaptation projects in the country, beyond the selected focus sectors. The objective of these dialogues would be to share the adaptation M&E materials and tools produced under the project, and discuss the scope for their application within the broader climate change domain. These dialogues will be executed in close collaboration of BCCT and IMED, who have strong working relationships. The eventual aim would be to harmonize the M&E frameworks employed by BCCT and IMED to make them more unified and coherent, and subsequently integrate these materials and tools within a common, national framework for adaptation M&E in Bangladesh.

3.2 Data harmonization

It has been recognized that over the course of the project, that in order to set up an M&E framework for adaptation in Bangladesh, there is a vital need for enhancing the availability, accessibility and utility of climate relevant data. To address the prevalent challenges with data quality and quantity, stakeholders recognize data harmonization to be a priority.

Going ahead, the ICAT project intends to set up a mechanism for promoting improved data management. There is a need to set up a common platform for data identification and data sharing on climate change. This could be in the form of in-person, dialogue events and also constitute developing a easy-to-use, web-based data management platform. The goal would be to have a common repository of climate relevant data that is readily accessible by all relevant stakeholders in the country.

BBS, which is the national statistics agency and a key member of the Advisory Committee, can lead this process. Also, the Government of Bangladesh has very recently set up National Data Coordination Committee (NDCC) to coordinate data providing agencies with the BBS. The NDCC will also need to be consulted to explore how they can support the process.

3.3 Targeted capacity building interventions

The Capacity Building Needs Assessment exercise has helped an understanding of stakeholders' priority needs for executing frameworks for adaptation M&E. To initiate the process of delivering capacity building support under the project, a consultation workshop with the assessed stakeholders will be organized in the beginning of next phase. If applicable, other stakeholders from the Advisory Committee and Working Group will be invited to participate. The objective would be to share the needs assessment results with them, further discuss priority areas for capacity building, and also explore opportunities for stakeholders to support one another in developing relevant capacity. The workshop would seek to understand appropriate modalities for the delivery of required capacity building interventions. These modalities would be collectively established by targeted stakeholders, taking into consideration factors such as scale, frequency, target audience etc. If deemed necessary, a diagnostic tool could be prepared in advance that helps accomplish this in a more systematic manner.

Based on the results from the stakeholder consultation, targeted capacity building interventions will need to be designed with support and additional inputs from the Advisory Committee and Working Group.

Interventions will then be accordingly delivered and their outputs and outcomes monitored. As the project moves along, capacity needs assessment of additional stakeholders and organizations could be undertaken, and their role in the process accordingly identified. Following a year from now, the capacity needs assessment will need be undertaken again with the assessed organizations, to track any changes in institutional capacity as consequence of targeted capacity building interventions delivered to them.

It is acknowledged that the ICAT project in Bangladesh, due to its nature and limited scope, would only be able to address some of the key capacity building needs identified during the assessment. Capacity building interventions could be targeted at developing relevant knowledge and technical skills among stakeholders, and entail training workshops, short courses, seminars etc. Conversely, other means such as dialogue events, bilateral consultations, resource sharing could be employed to facilitate an enabling environment for that promotes enhanced institutional capacity of stakeholders across other areas.

Based on the priority needs, potential capacity building interventions could include:

- **Learning and sharing dialogues** with policymakers and leadership personnel within organizations, to promote the importance of adaptation M&E, and subsequent integration of climate change priorities within their goals and strategies.

- **Development on training modules** on climate change adaptation and M&E tools to enhance knowledge and understanding on these topics among relevant actors

- **Training interventions (workshops, short courses, seminars, webinars etc.)** on climate change adaptation can be delivered for organizations requiring enhanced expertise on the topic, and these should especially targeted at implementing actors as well as M&E units/departments within organizations

- **Skills development in M&E approaches and tools** of M&E units/staff for undertaking impact evaluation of adaptation can be undertaken via workshops and training courses

- **Guidance on developing strong funding proposals** may be provided to implementers and knowledge broker actors to facilitate enhanced access to climate finance for executing as well as tracking adaptation projects successfully

By applying a process of demand-driven, needs-based capacity building, it is expected that relevant stakeholders will over time develop necessary institutional capacity for establishing a comprehensive, national framework for adaptation M&E in Bangladesh