

# **The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh**



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# **The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh**

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***In partial fulfillment of the requirements for the degree of  
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**2022**

## DECLARATION

I do hereby declare that the thesis entitled “*The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh*,” submitted to the Department of Environmental Science and Management, Independent University, Bangladesh for the degree of Master of Science (MSc.) in Climate Change and Development is exclusively an original work conducted by myself. No part of it, in any form, has been submitted to any other university or institute for any degree, diploma, or other similar purposes.

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## CERTIFICATE

It is to certify that the content and form of the thesis entitled “*The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh*,” prepared by M Manjurul Islam, Student ID: 2131150, has been found satisfactory for submission to Department of Environmental Science and Management, Independent University, Bangladesh in partial fulfillment of the requirements for the degree of Master of Science (MSc.) in Climate Change and Development.

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## **Abstract**

Climate change is one of the most serious environmental concerns that humankind is now facing. It significantly impacts various sectors, including food security, natural ecosystems, freshwater supply, and human health. Bangladesh is one of the most vulnerable countries regarding climate change's consequences. Floods, droughts, cyclones, riverbank erosion, salt intrusion, and water logging are all prevalent in the country. These all affected food, water, health, energy security, and people's livelihoods. Bangladesh's government and non-governmental organizations-initiated attempts to tackle the climate change disaster via community-based adaptation, which has certain limitations in making the community more resilient. Locally driven adaptation has risen to the top of the global and local agendas, intending to implement adaptation measures through local authorities. However, development community has for many years CBA was being practiced, but LLA is more exhaustive and more politically challenging. Therefore, this thesis looks into the understanding of LLA and the difference between LLA and CBA, participation and decision-making under LLA, roles of community leaders, and the community's encountered challenges and expectations broadly. This study relies mainly on qualitative research methods, with very few quantitative approaches used. Key Informant Interviews (KIIs) with government and non-governmental organization (NGO) workers were used to collect information about locally led adaptation (LLA). Focus Group Discussions were also used to gather community people's perspectives on LLA initiatives, including their utilization, effectiveness, and prospects. Overall characteristics of LLA were calculated for the projects of NGOs and GOBs; the results showed that both types of organizations fell within the moderate level of LLA features. Most of the respondents could not clearly define the term, but their attempts to define LLA were significant, and their thoughts were linked to their experience and knowledge. Participation in the project design and planning phase is low among the communities due to the complex procedures of organizations. Local actors advocate on behalf of the people in the community to receive benefits from NGOs. NGOs invite the community to MEL activities to a limited extent, whereas GoB has no scope for communities; besides, communities have limited access to the project's progress and financial information. NGO initiatives collaborate better with CSO and CBOs at the community level than GOB projects. They are implementing LLA projects or initiatives affected mainly by the power dynamics at the local level and limited or no access to financial resources. Besides, local political influence also causes the problem of implementing the LLA process. Lack of transparency in the implementation process and lack of accountability of

community people are critical governance challenges at the grassroots level. Communities and local actors lack of capacity to implement the LLA initiatives to make their communities resilient in most cases. The policy provision necessary for locally-led adaptation requires the government to launch a one-of-a-kind effort to establish particular policy choices for LLA and to incorporate LLA into all climate change plans and strategies. Besides, a local-level MEL system should be in place to track progress and ensure accountability and learning mechanisms.

Keywords: Locally-led Adaptation, Climate Change, Climate Vulnerable, Bangladesh

## Table of Contents

|                                                                           |    |
|---------------------------------------------------------------------------|----|
| Acknowledgment .....                                                      | 5  |
| Abstract.....                                                             | 6  |
| CHAPTER-1 .....                                                           | 13 |
| 1.1 Background.....                                                       | 13 |
| 1.2 Problem Statement.....                                                | 14 |
| 1.3 Research Questions.....                                               | 16 |
| 1.4 Study Objectives.....                                                 | 16 |
| 1.5 Literature Review .....                                               | 17 |
| CHAPTER-2 .....                                                           | 20 |
| 2.1 Study Method .....                                                    | 20 |
| 2.2 Study Area .....                                                      | 20 |
| 2.3 Population and Unit of Analysis.....                                  | 21 |
| 2.4 Sampling Procedure and Strategy.....                                  | 21 |
| 2.5 Data Sources .....                                                    | 22 |
| 2.6 Tools and Techniques of Data Collection .....                         | 22 |
| 2.7 Field Work.....                                                       | 23 |
| 2.8 Data Management, Analysis and Processing.....                         | 23 |
| 2.9 Expected Outcomes.....                                                | 23 |
| 2.10 Ethical Consideration.....                                           | 24 |
| 2.11 Study Limitations.....                                               | 24 |
| CHAPTER-3 .....                                                           | 27 |
| 3.1 Socio-demographic Features.....                                       | 27 |
| 3.2 Project Profile Analysis .....                                        | 28 |
| 3.2.1 Project Categories and Implementation (in Years).....               | 28 |
| 3.2.2 Projects Objectives .....                                           | 29 |
| 3.2.3 Projects Major Activities .....                                     | 29 |
| 3.2.4 Project Budgeting Status .....                                      | 30 |
| 3.2.5 Sex-wise Beneficiaries Coverages.....                               | 31 |
| 3.2.6 Project Monitoring & Evaluation (M&E) System.....                   | 32 |
| 3.2.7 SWOT Analysis for NGO and GOB Projects.....                         | 33 |
| 3.2.8 Locally-led Adaptation (LLA) of Indicators Analysis .....           | 35 |
| 3.3 Conceptualizing Locally-led Adaptation .....                          | 37 |
| 3.3.1 Understanding of Communities on LLA .....                           | 37 |
| 3.3.2 Understanding of Local Actors/Leaders on LLA .....                  | 37 |
| 3.3.3 Understanding of Project/Initiative Lead/Representative.....        | 38 |
| 3.4 Nature of Climate Change Adaptation Projects and Key Activities ..... | 39 |
| 3.4.1 Communities Response: .....                                         | 39 |
| 3.4.2 Community Actors/Leaders Response .....                             | 39 |

|                                                                                                                                 |    |
|---------------------------------------------------------------------------------------------------------------------------------|----|
| 3.4.3 Response of Project/Initiative Lead/Representative .....                                                                  | 40 |
| 3.5 Inclusion and Participation in Project Development Phase .....                                                              | 41 |
| 3.5.1 Community Responses: .....                                                                                                | 41 |
| 3.5.2 Community Actors/Leaders Response .....                                                                                   | 42 |
| 3.5.3 Response of Project/Initiative Lead/Representative .....                                                                  | 42 |
| 3.6 Decision-making process during Project Implementation .....                                                                 | 43 |
| 3.6.1 Community Response: .....                                                                                                 | 43 |
| 3.6.2 Community Actors/Leaders Response .....                                                                                   | 44 |
| 3.6.3 Response of Project/Initiative Lead/Representative .....                                                                  | 44 |
| 3.7 Differences between Locally-led Adaptation (LLA) & Community-based Adaptation (CBA) .....                                   | 45 |
| 3.7.1 Communities Ability: .....                                                                                                | 45 |
| 3.7.2 Community Actors/Leaders Response .....                                                                                   | 46 |
| 3.7.3 Response of Project/Initiative Lead/Representative .....                                                                  | 47 |
| 3.8 Community Actor's Interests in Local Adaptation Process .....                                                               | 47 |
| 3.8.1 Community Response: .....                                                                                                 | 48 |
| 3.8.2 Community Actors/Leaders Response .....                                                                                   | 48 |
| 3.8.3 Response of Project/Initiative Lead/Representative .....                                                                  | 49 |
| 3.9 Participation in Monitoring, Evaluation, and Learning (MEL) Process .....                                                   | 49 |
| 3.9.1 Community Response .....                                                                                                  | 50 |
| 3.9.2 Community Actors/Leaders Response .....                                                                                   | 50 |
| 3.9.3 Response of Project/Initiative Lead/Representative .....                                                                  | 51 |
| 3.10 Access to Project and Financial Information .....                                                                          | 51 |
| 3.10.1 Communities Response: .....                                                                                              | 52 |
| 3.10.2 Community Actors/Leaders Response .....                                                                                  | 52 |
| 3.10.3 Response of Project/Initiative Lead/Representative .....                                                                 | 53 |
| 3.11 Connection with Local Level Networks, CBO, or CSO to Implement Climate Change Adaptation Initiatives and their Roles ..... | 53 |
| 3.11.1 Community Response .....                                                                                                 | 54 |
| 3.11.2 Community Actors/Leaders Response .....                                                                                  | 54 |
| 3.11.3 Response of Project/Initiative Lead/Representative .....                                                                 | 54 |
| 3.12 Key Challenges/barriers to Implementing Locally-led Adaptation Initiatives .....                                           | 55 |
| 3.12.1 Community Response .....                                                                                                 | 55 |
| 3.12.2 Community Actors/Leaders Response .....                                                                                  | 56 |
| 3.12.3 Response of Project/Initiative Lead/Representative .....                                                                 | 56 |
| 3.13 Governance Challenges to Implementing Locally-led Actions .....                                                            | 57 |
| 3.13.1 Community Actors/Leaders Response .....                                                                                  | 57 |
| 3.13.2 Response of Project/Initiative Lead/Representative .....                                                                 | 57 |
| 3.14 Initiatives for Local Representatives/Leader Capacity Building .....                                                       | 58 |
| 3.14.1 Community Actors/Leaders Response .....                                                                                  | 58 |
| 3.14.2 Response of Project/Initiative Lead/Representative .....                                                                 | 58 |

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| 3.15 Expectation for Implementing Locally-led Adaptation Interventions ..... | 59 |
| 3.15.1 Community Response.....                                               | 59 |
| 3.15.2 Community Actor/Leaders Response .....                                | 60 |
| 3.15.3 Response of Project/Initiative Lead/Representative .....              | 60 |
| 3.16 Propose Framework for Scaling Up Locally-led Adaptation.....            | 61 |
| CHAPTER-4 .....                                                              | 64 |
| 4. Discussion .....                                                          | 64 |
| CHAPTER-5 .....                                                              | 72 |
| 5. Conclusion .....                                                          | 72 |
| 5.1 Recommendations .....                                                    | 73 |
| References .....                                                             | 75 |
| Annexure.....                                                                | 79 |
| Annex-1: Project Information Sheet.....                                      | 79 |
| Annex-2: FGD Guideline for Community.....                                    | 84 |
| Annex-3: KII Guideline for Community Leaders/Actors.....                     | 86 |
| Annex-4: KII Guideline for Project Leads/Representatives .....               | 88 |
| Annex-5: FGD and KII data collection Photos.....                             | 90 |

## List of Figures

|                                                         |    |
|---------------------------------------------------------|----|
| Figure 1: Study Areas Map .....                         | 21 |
| Figure 2: Project Categories and Project Timeline ..... | 28 |
| Figure 3: Project Budget Spending Trends .....          | 31 |
| Figure 4: Beneficiaries Covers by Projects.....         | 32 |
| Figure 5: Proposed framework for Scaling-up LLA.....    | 62 |

## List of Tables

|                                                                                         |    |
|-----------------------------------------------------------------------------------------|----|
| Table 1: Sampling Strategy for Project Selection .....                                  | 22 |
| Table 2: Sampling Strategy for FGDs Participants and Key Informants Selection .....     | 22 |
| Table 3: Socio-demographic Features of Focus Group Discussion (FGDs) Participants ..... | 27 |
| Table 4: Projects Objectives Category-wise .....                                        | 29 |
| Table 5: Projects Monitoring & Evaluation System Status .....                           | 33 |
| Table 6: SWOT Analysis: Non-government Organization (NGO) Projects.....                 | 34 |
| Table 7: SWOT Analysis: Government (GO) Projects.....                                   | 34 |
| Table 8: Locally-led Adaptation (LLA) of Indicators Analysis.....                       | 36 |

## Abbreviation

|        |                                                         |
|--------|---------------------------------------------------------|
| BCCSAP | Bangladesh Climate Change Strategy and Action Plan      |
| BDT    | Bangladeshi Taka                                        |
| CBA    | Community-based Adaptation                              |
| CBO    | Community-based Organization                            |
| CC     | Climate Change                                          |
| CCA    | Climate Change Adaptation                               |
| CPRD   | Center for Participatory Research and Development       |
| CRI    | Climate Risk Index                                      |
| CSO    | Civil Society Organizations                             |
| CVF    | Climate Vulnerable Forum                                |
| FGD    | Focus Group Discussions                                 |
| GDP    | Gross Domestic Production                               |
| GOB    | Government Organizations                                |
| HVG    | Health Village Groups                                   |
| ICCCAD | International Centre for Climate Change and Development |
| IIED   | International Institute for Environment and Development |
| IRB    | Institutional Review Board                              |
| IUB    | Independent University, Bangladesh                      |
| KII    | Key Informant Interviews                                |
| LGI    | Local Government Institution                            |
| LLA    | Locally-led Adaptation                                  |
| M&E    | Monitoring and Evaluation                               |
| MCPP   | Mujib Climate Prosperity Plan                           |
| MEL    | Monitoring, Evaluation and Learning                     |
| MSC    | Master of Science                                       |
| NAPA   | National Adaptation Programme of Action                 |
| NDC    | Nationally Determined Contributions                     |
| NGO    | Non-government Organization                             |
| PMU    | Project Management Unit                                 |
| PSF    | Pond and Sand Filter                                    |
| RTI    | Right to Information                                    |
| SWOT   | Strengths, Weakness, Opportunities and Threats          |
| UNO    | Upazila Nirbahi Officer                                 |
| UP     | Union Parishad                                          |
| WASH   | Water, Sanitation and Hygiene                           |

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|----------------|
| <b>1</b>       |
| <b>CHAPTER</b> |

# Introduction

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# CHAPTER-1

## 1.1 Background

Climate change is one of the most severe environmental concerns confronting humankind today. It has significant implications for food security, natural ecosystems, freshwater availability, and human health, among other things (Bhuiyan, 2015). Bangladesh is one of the most vulnerable and unpredictable states subject to climate change. Extreme climatic events frequently occur in the country: floods, droughts, cyclonic storm surges, riverbank erosion, salinity intrusion, and water logging cause large-scale loss of life, damage to infrastructure and economic assets, have a negative impact on food, water, health, and energy security, and affect the lives and livelihoods of many people, particularly the poor. (Alam et al., 2017; Jordan, 2014). Therefore, Bangladesh is becoming more vulnerable to frequent and harsh climatic phenomena, such as extensive changes in rainfall patterns, weather extremes, droughts, and powerful cyclones (Delaporte & Maurel, 2016). Bangladesh ranks 9th in yearly casualties among all nations, 37th in fatalities per 100,000 people, 13th in losses, and 37th in losses per unit GDP in the Climate Risk Index for 2000-2019. Bangladesh ranks 7th largest in this index category since only six nations have a lower CRI Score for the period 2000-2019 (Eckstein et al., 2021). Scientific prediction and proof are currently observable, and they also forecast that the impacts of climate change will persist into the future. To address the crisis, Bangladesh will need more effective and systematic adaptation measures that would enable the country to react to unpredicted circumstances in the near future. In the past two decades, community-based adaptation (CBA) has been a popular way to ensure that the adaptation mechanism is in place at the local level. However, CBA itself has several problems in order to meet the expectations of the local people. Several studies have indicated that the bottlenecks of the CBA may be found at the community level. In most circumstances, the people who live there are not suited for external dominance and influence. The adaptation that is led locally can reduce the negative consequences of climate change; however, the resources and capacity that are now available are not sufficient to meet the ambitions held by the local community. Comprehensive climate change adaptation strategies and indigenous knowledge of climate change and their capacity to adapt should be given high priority. Moreover, the adaptation strategies must be locally led by the local actors, and the adaptation mechanism needs to be followed by the locally led adaptation principal already endorsed by many states.

## 1.2 Problem Statement

Bangladesh's high sensitivity to climate change and man-made disasters and pressures results in the loss and damage of productive capital such as agriculture, livestock, and infrastructures, contributing to food insecurity and poverty. Coastal zones, in particular, are especially susceptible to floods, salt intrusion, storm surges, and fast geomorphological changes. (Ali 1996, 1999; Brammer 2014). Bangladesh's southwest coastline territory is one of the most disaster-prone places in the nation, suffering both slow-onset and sudden-onset calamities. The region is a heavily populated area, with an estimated population of 14 million, or nearly 9% of the overall population of Bangladesh (Bangladesh Bureau of Statistics, 2015). The two specific districts, Khulna and Bagerhat, are the most exposed in this region. Both districts are impacted by climate change in the form of rapid onset disasters (extreme incidents) such as cyclones, storms, tidal flooding, and increased salinity as a long-onset catastrophe (Alam et al., 2013). In order to meet the difficulties of climate change, the government of Bangladesh and non-governmental organizations have undertaken a variety of adaptation programs to deal with these changes. In 2005, the National Adaptation Programme of Action (NAPA), the Bangladesh Ministry of Environment and Forests proposed mainstreaming adaptation into sectors, particularly regarding infrastructure to forestry, while concentrating on disaster management, water, agriculture, and industry (Huq et al., 2019). The Ministry of Environment and Forests (MoEF) published the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2009, which organized the country's climate change mitigation and adaptation goals around six pillars: food security, social protection and health, comprehensive disaster management; infrastructure; mitigation and low-carbon development; research and knowledge management; and capacity building and institutional strengthening (Chow et al., 2019). In recent times to tackle the short- and long-term climate change challenges, Bangladesh formulated Bangladesh Delta Plan 2100. Furthermore, as a leader of the Climate Vulnerable Forum (CVF) states, Mujib Climate Prosperity Plan (MCP) 2021 has been prepared to accelerate its adaptation capacities. Competent long-term adaptation approaches are critical for rectifying the detrimental effects of climate change by offering a feasible route to climate resilience while delivering almost nothing to climate change.

In Bangladesh, adaption strategies are more comprehensive and robust, having been created primarily following national and international standards. The bottleneck of these strategies was that they hardly addressed the country's local context and were incapable of contextualizing the local vulnerabilities. While the socio-economic consequences of climate change are being

felt across all scales and sectors, they disproportionately affect vulnerable communities at the local level (Keskitalo et al., 2016). It is crucial to note that local and community adaptation cannot occur in isolation. It is often the effect of things occurring at several governance scales that may allow or prohibit communities, especially the most disadvantaged, from adjusting (Morchain, 2018). These include uneven power structures, unfair market incentives, top-down planning that ignores conflicts, local reality, insecure land tenure, patriarchal attitudes, and a lack of expertise and resources to engage in more participatory decision-making (Ziervogel et al., 2019). The propensity to neglect local realities and contextual subtleties is a well-documented contributing factor to poor growth at the local scale. CBA and other community-based strategies have made a real effort to incorporate the local environment better. However, there is still an overreliance on external "experts," which may impair local self-efficacy, agency (and hence total adaptive capacity (McNamara et al. 2020). Historically, numerous community-based adaptation projects have been implemented in coastal areas of Bangladesh through both government and non-government channels, where some of the characteristics of locally-led adaptation have already been demonstrated with significant properties and where some potential areas where locally led adaptation can be more effective to implement projects led by local people or actors.

Furthermore, locally driven efforts have several flaws that make the adaptation process weaker and less successful. Lack of appropriate long-term financing, institutional arrangements and governance, capacity development, limited information sharing mechanisms, lack of local priorities, short-term project and sector focused, leading by external drive, typical top-down paradigm, limited and no coordination, and failure to bring together experiential knowledge holistically and inclusively places locally led adaptation in a dilemma. This study is distinctively new in the context of Bangladesh and locally led adaptation. This study explored the status of government and non-governmental organizations (NGOs) implemented projects with adaptation local properties, focusing on climate financing, adaptation activities, current capacities including governance in communities and local institutions, monitoring, evaluation, learning and knowledge management systems, and their flexibilities. This research was also conducted to capture local experiences from local government and non-governmental organization experts and local actors' and communities' aspirations of successfully implementing climate change-related projects incorporating LLA components.

### 1.3 Research Questions

The research aims to explore the status of locally-led adaptation and the roles of different actors in climate-resilient communities in the coastal districts of Bangladesh. To serve the purpose of the study, the following research questions have been explored in this study:

**Research Question-1:** What is understood by LLA by all stakeholders (local government, practitioners, community)?

**Research Question-2:** Do the government and non-government climate change-related initiatives sufficiently address and implement adaptation projects with key elements of locally-led adaptation?

**Research Question-3:** How are adaptation projects designed and implemented at the local level, and are there any inputs included from the local level? What is the decision-making process for these projects?

**Research Question-4:** What are the distinctive silent features of locally-led adaptation in vulnerable coastal communities that differ from the community-based adaptation in coastal areas?

**Research Question-5:** Are community actors and leaders responsive to the adaptation process, and are they interested in locally-led adaptation processes to make their communities climate-resilient?

**Research Question-6:** What are the challenges/barriers and opportunities of locally-led adaptation for climate-resilient communities in coastal communities?

### 1.4 Study Objectives

The general objective of the research is to explore the status of locally-led adaptation and the roles of different actors in climate-resilient communities in the coastal districts of Bangladesh. To address the research questions of the study, the following specific objectives will be addressed: -

- (a) To review existing government and non-government initiatives/projects focusing on community-based adaptation and locally-led interventions.
- (b) To understand the knowledge, experience, and expectations of local actors and community representatives about implementing locally led actions/initiatives.
- (c) To identify the practice and expectations of community people to execute local actions for the climate-resilient community.

## 1.5 Literature Review

I struggled to locate relevant locally-led adaptation articles in the context of Bangladesh for this literature study. However, a fair portion of community-based adaptation literature is accessible for assessment. I began by researching and defining community-based adaptation, and my subsequent activities focused on locally-led adaptation and action, primarily on climate change-related issues.

Community-based adaptation (CBA) approach grew out of and was fueled by discourses about the climate vulnerable poor, the relative shortcomings of top-down techniques, and the relative advantages of bottom-up approaches for improving community-level adaptive capacity (Kirkby et al., 2017). Community adaptation is a concept that describes the capacity of the natural or human system to adapt to climate change and deal with its unavoidable impacts. Community-based adaptation takes place locally in communities particularly susceptible to climate change's effects (Ayers & Forsyth, 2009; Cannon, 2014). It finds, supports, and executes community-based development programs that help residents adapt to a riskier and less predictable environment (Haque, 2017). CBA to climate change is regarded as a community-led approach related to community goals, demands, knowledge, and capabilities that should enable people to prepare for and deal with the effects of climate change (Reid & Huq, 2014). Initially, CBA projects were mostly carried out by non-governmental groups on a local level. The emphasis was on 'bottom-up' participatory approaches for identifying the climate change challenge and developing suitable local solutions to it (Ayers & Forsyth, 2009). Using an empowerment-based approach, community-based adaptation fosters community-level leadership in analyzing, planning, prioritizing resource allocation, executing, and monitoring adaption strategies in a participatory manner. (Mfitumukiza et al. 2020). On the other hand, locally led adaptation (LLA) not only enables but strongly promotes local actors' leadership and agency throughout the design and implementation of an intervention (Tye & Suarez, 2021). Local actors are represented and participate in the planning and decision-making processes to determine priorities, investments to be made, and who will participate in different phases (Mfitumukiza 2020). When international and national governments share their hefty amounts of authority and resources with communities, the latter are empowered to develop their leadership and capabilities for long-term sustainability while reducing their reliance upon the systems that make them more vulnerable (IIED, 2020). There is growing evidence that community-based adaptation is shifting to locally-led adaptation. Local people are in charge of LLA, which is based on local realities, assures equality and inclusiveness, and is supported by

local networks and institutions. (Westoby et al., 2021). LLA is founded on a broader development paradigm shift, in which academics and practitioners both are shifting away from both "externally driven" and "community-based" methods in a variety of ways (The Movement for Community-led Development 2022). Further, LLA allows the move away from "community-driven" initiatives, in which external institutions "partner" with communities and place resources in the community's hands. This "partnering" has the unintended effect of diminishing local capacities, despite the best intentions of those involved (Westoby et al., 2021). As a consequence, rather than being "driven" by communities, the more recent idea of communities being "directed" by them represents a significant change toward expanded agency (Asugeni et al. 2019). Several obstacles to locally-led adaptation include funders' disinclination to invest in local actors, institutions, and organizations. These obstacles include external perceptions of risk, high operation costs, and inadequate subnational capacity of local governments and organizations to develop and implement projects (IIED 2017). Accessibility continues to be a barrier to locally driven adaptation since funds are "lost in cumbersome procedures" or are not tailored to local objectives. Local actors typically lack the funds and skills to plan and execute adaptation (Restle-Steinert et al. 2019). Addressing these gaps inside and outside initiatives should help make funding in locally driven activities more successful and appealing to investors. Local challenges include a lack of knowledge of the need for climate adaptation, poor policies, complex political dynamics, and insufficient financial allocations (IIED et al. 2016; Musah-Surugu et al. 2017). These variables influence how much financing reaches local levels and how many local players lead adaptation (Tye & Suarez, 2021). Concerns continue to be raised about the generalizability of site-specific and localized vulnerability assessments informed by the inequities and exclusion's fault lines (CPRD, 2022). It is improbable, given that current centralized planning practices and power dynamics are driven by individual and group interests (Alam et al., 2013), leaving little opportunities for excluded populations to connect. Bangladesh's previous climate-specific plans, such as the NAPA, BCCSAP, and, more recently, the NDCs, all followed a centralized planning process; they were not informed by area-specific vulnerabilities and challenges and did not incorporate a participatory, transparent, and accountable mechanism for determining actions and priorities. NAPA was a top-down assessment of adaptation requirements, choices, and priorities, while BCCSAP was a specialist-driven exercise finished by the organization of very few workshops in Dhaka (Raihan et al., 2010). Such a framework fundamentally precludes broad-based stakeholder engagement in the nationwide planning and decision-making processes (CPRD, 2022).

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| 2       |
| CHAPTER |

## Methodology

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## **CHAPTER-2**

### **2.1 Study Method**

This research is exploratory in nature, explaining the respondents' demographic and socioeconomic status. Qualitative approaches have been employed extensively for this research, while quantitative methods were used selectively. The qualitative research technique was used for primary data collecting because of two significant advantages: the subjects and issues discussed may be assessed in depth and detail, and the results have broad application in the context. The secondary review methodology was utilized to examine the project/initiative's funding sources, objectives, activities, and monitoring, evaluation, and learning system for the project/initiative. Key Informant Interviews (KIIs) were performed with government and non-governmental organization (NGO) personnel to gather project-related information about locally driven adaptation (LLA). Furthermore, Focus Group Discussions were applied to gather information from community members on their practice, experience, and expectations for LLA interventions.

### **2.2 Study Area**

The study areas of the locations are situated in Bagerhat and Khulna districts. The specific locations were selected based on poverty incidence, climate change vulnerability, and the exposure of the target population to food and water-related threats. Paikgachha and Koyra Upazilas in Khulna district and Morrelganj Upazila in Bagerhat district were prioritized for their similarity regarding the socio-economic and environmental conditions and climate vulnerability. As mentioned above, this study was conducted in three Upazilas, where Union representations were considered carefully. The map of the study areas is shown in Figure 3.

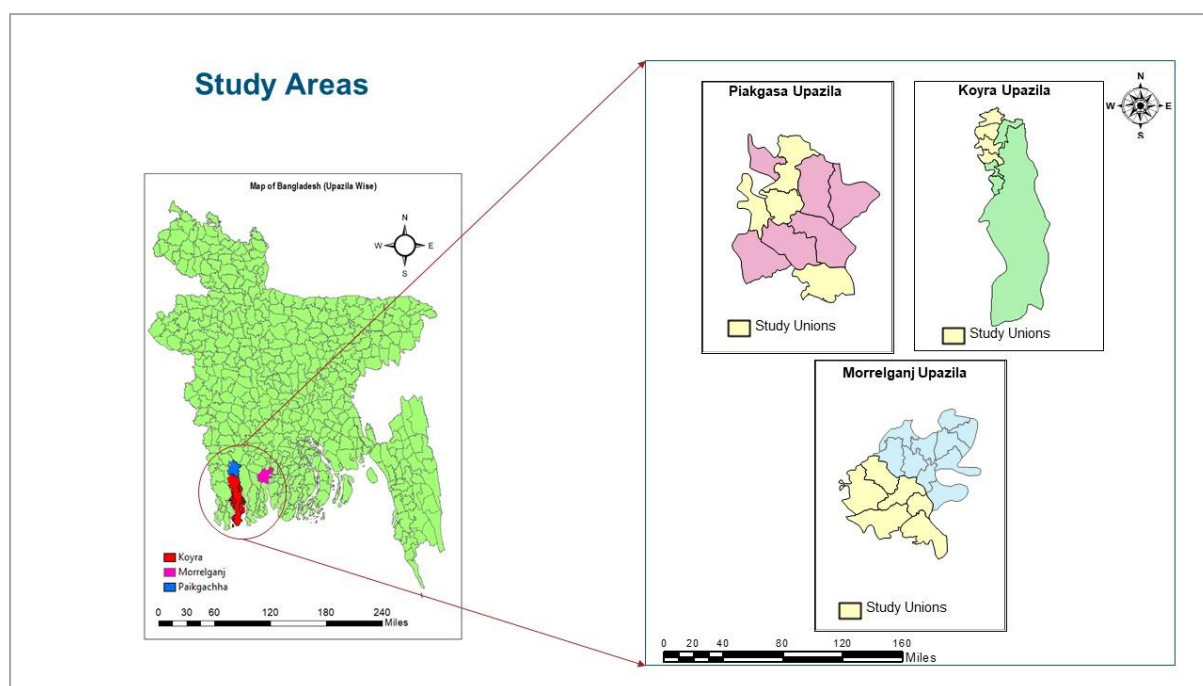


Figure 1: Study Areas Map

## 2.3 Population and Unit of Analysis

In terms of projects and initiatives, any government and non-government organizations that have adopted climate change-related projects and initiatives were considered as study populations. Under this category, the unit of analysis for this research was those projects completed within the last five years. Any project experts or implementation actors, as well as all community beneficiaries, were considered study populations. Furthermore, as a unit of analysis, those who have specifically implemented climate change projects in the study regions and direct beneficiaries of the targeted areas were regarded.

## 2.4 Sampling Procedure and Strategy

The research sites were chosen with climate change vulnerability in mind and climate change-related projects undertaken with the following research aim. To select study locations, a systematic sampling approach was used. Initially, the most vulnerable district in the Khulna division was chosen as Khulna and Bagerhat. Later, three Upazilas were selected systematically: Paikgasa, Koyra in the Khulna district, and Morrelganj in the Bagerhat district. Simple random sampling procedures were used to choose the project or initiatives most relevant to climate change adaptation and the coastal setting. Initially, project lists were

compiled from government and non-governmental organization (NGO) repositories. 03 projects were randomly picked from the government category and another 03 from the NGO category. The key informants and participants in the FGD were chosen using a purposive sampling technique. Selection criteria for KIIs participants included their affiliation to climate change-related projects, while for FGDs participants, their beneficiary status would be considered. See Table 1 and Table 2 for sampling strategies.

**Table 1: Sampling Strategy for Project Selection**

| Categories                                      | Upazilas under Khulna and Bagerhat districts     |                                                  |                                                  | Total                                                       |
|-------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------|
|                                                 | Paikgasa Upazila                                 | Koyra Upazila                                    | Morrelganj Upazila                               |                                                             |
| Govt Implemented projects                       | 1 Project                                        | 1 Project                                        | 1 Project                                        | <b>03 Projects</b>                                          |
| NGO implemented projects                        | 1 Project                                        | 1 Project                                        | 1 Project                                        | <b>03 Projects</b>                                          |
| <b>Total</b>                                    | <b>2 Projects</b>                                | <b>2 Projects</b>                                | <b>2 Projects</b>                                | <b>06 Projects</b>                                          |
| <b>Key informant's selections from Projects</b> |                                                  |                                                  |                                                  |                                                             |
| <b>KIIs</b>                                     | 1 From Govt.<br>1 From NGOs<br>From each project | 1 From Govt.<br>1 From NGOs<br>From each project | 1 From Govt.<br>1 From NGOs<br>From each project | <b>03 From Govt.<br/>03 From NGOs<br/>From each project</b> |
| <b>Total</b>                                    | <b>02 KIIs</b>                                   | <b>02 KIIs</b>                                   | <b>02 KIIs</b>                                   | <b>06 KIIs</b>                                              |

**Table 2: Sampling Strategy for FGDs Participants and Key Informants Selection**

| Data Collection Method                           | Upazilas under Khulna and Bagerhat districts |                       |                       | Total                         |
|--------------------------------------------------|----------------------------------------------|-----------------------|-----------------------|-------------------------------|
|                                                  | Paikgasa Upazila                             | Koyra Upazila         | Morrelganj Upazila    |                               |
| <b>FGDs</b>                                      | 2 FGDs at Union Level                        | 2 FGDs at Union Level | 2 FGDs at Union Level | <b>06 FGDs at Union Level</b> |
| <b>KII with Community Leaders/Representative</b> |                                              |                       |                       |                               |
|                                                  | Paikgasa Upazila                             | Koyra Upazila         | Morrelganj Upazila    |                               |
| <b>KIIs</b>                                      | 03 KIIs                                      | 03 KIIs               | 03 KIIs               | <b>09 KIIs</b>                |

## 2.5 Data Sources

In general, primary and secondary data sources were retained in this study to complete the research study. Primary data was collected through the administration of FGDs and KIIs. Secondary data/information and sources such as scientific journals, statistics, prior research data, and reports were utilized in addition to the primary data/information to achieve the study's objectives.

## 2.6 Tools and Techniques of Data Collection

The climate change project documents were evaluated in order to develop and establish the basis of insight and knowledge for this research. The sources of financing for the project and the goals, activities, and M&E information were gathered from the appropriate authorities. Some information was gathered through project reports and essential papers. A FGDs guideline was produced to have complete or in-depth information through Focus Group

Discussion (FGD) as part of the qualitative data-collecting process. For gathered data from project professionals and community participants, KII guidelines were developed. A FGD checklist in English was designed, comprising open and closed-ended discussion points. Likewise, KII guidelines were prepared for crucial questions. After both guidelines had been corrected, it was built and tested with respondents before starting the actual data collecting in the field. Some issues, such as specifying the measurement scale and re-sequencing the questions, were found during the pre-test and afterward added before being utilized to gather data from the field.

## **2.7 Field Work**

From the beginning of Mid of August 2022 to the end of October 2022, data were obtained from the study area using the FGD checklist and KII guidelines, and the field research assistant was asked and assemble the questions. Individuals with appropriate expertise, such as field supervisors and enumerators, were recruited for this research. They were given one training day to ensure they understood the research procedure and responsibilities. The field researcher and experienced research professionals enabled a sufficient number of FGDs by aggregating study participants and their border entities at various locations across the study areas.

## **2.8 Data Management, Analysis and Processing**

This research produced both qualitative and quantitative data through the data collection tools. As a result, the data were analyzed using qualitative and quantitative data analysis techniques. The focus group discussion (FGD) and KII data were categorized, transcribed, and presented in a narrative style. The qualitative data were compiled following the study's objectives and included in the quantitative results to enhance the findings. Different descriptive statistics have been used to analyze primary and secondary quantitative data. Figures and tables were intended to enable the audience to visualize the facts. MS Excel (for graphs and charts) and MS Word are used to demonstrate and explain statistical compilation or graphical display of processed data in order to communicate qualitative data. For quantitative data, MS Excel was utilized to maintain a database to analyze data throughout the results and findings chapter.

## **2.9 Expected Outcomes**

This research will explore the state of locally-led adaptation in climate-resilient communities in selected coastal districts of Bangladesh. If this study conducts systematically, the following outcome will be produced: -

- (a) The current state of locally-led adaptation will be evident through primary and secondary data.
- (b) Key implementer practice and experience will be documented and used as a reference to develop more effective result-based management for locally-led adaptation.
- (c) This research will provide community insights and capture all current practices and knowledge, which will be used to design future locally-led adaptation projects/programs.

## **2.10 Ethical Consideration**

Field researchers were trained to conduct the interviews open-mindedly, remaining nonjudgmental and respectful of respondents regardless of the range of responses given to avoid possible biases. FGD and KII guidelines were recited and carefully illustrated in front of participants since they willingly accepted to join the study. Informed verbal consent was taken from each respondent. Respondents were guaranteed that they might take out from the FDG discussion and KII at any time, and their withdrawal would not distress the study procedures. Furthermore, respondents' identity was kept confidential and not cited while reporting. Privacy was maintained in data management, as the data set was stored safely, and only researchers would access it.

## **2.11 Study Limitations**

This study tracked the current state of locally-led adaptation and triangulated the information by getting insight from the expert on a project implemented by govt and NGOs. The study examined the areas of communities' experience and desire for LLA intervention. Nevertheless, some limitations enclosed the operation of the study, which are given below:

- (a) Since locally driven adaptation is a relatively new discourse in climate change adaptation, there is limited literature exists, making it challenging to link concepts and ideas.
- (b) Access to project information was difficult; many project staff members have switched positions, and government officials are unwilling to release project information.
- (c) Experienced some non-cooperation from informants during KIIs and focus groups discussion.
- (d) The research area's limitations indicated the difficulties in obtaining information from community members who were illiterate and apathetic, among other things.
- (e) When some community members migrate quickly from one location to another in search of alternate livelihood, it was challenging to identify them for data gathering.

- (f) Respondents' limited awareness about locally led adaptation has put them in a difficult position to maintain communication.
- (g) Respondents and participants who are unwilling to provide accurate facts or data during data collection due to a lack of trust and relationship with researchers.
- (h) Time limitation is also a key challenge for this study, which can provide a strict deadline, and it would be difficult to manage all resources and potentiality with full range.

|         |
|---------|
| 3       |
| CHAPTER |

## Research Findings

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## CHAPTER-3

### 3.1 Socio-demographic Features

**Table 3: Socio-demographic Features of Focus Group Discussion (FGDs) Participants**

| Variable                                       | Frequency        | Percentage (%)        |
|------------------------------------------------|------------------|-----------------------|
| <b>Age</b>                                     |                  |                       |
| 15-24                                          | 6                | 11                    |
| 25-34                                          | 28               | 49                    |
| 35-44                                          | 18               | 32                    |
| 45-54                                          | 5                | 9                     |
| <b>Total</b>                                   | <b>57</b>        | <b>100</b>            |
| Age (Mean $\pm$ SD) in years, 33.16 $\pm$ 7.22 |                  |                       |
| <b>Sex Identity</b>                            | <b>Frequency</b> | <b>Percentage (%)</b> |
| Female                                         | 31               | 54                    |
| Male                                           | 26               | 46                    |
| <b>Total</b>                                   | <b>57</b>        | <b>100.0</b>          |
| <b>Place of Residence</b>                      | <b>Frequency</b> | <b>Percentage (%)</b> |
| Koyra (sub-district)                           | 19               | 33                    |
| Morrelganj (sub-district)                      | 19               | 33                    |
| Paikgasa (sub-district)                        | 19               | 33                    |
| <b>Total</b>                                   | <b>57</b>        | <b>100</b>            |
| <b>Education</b>                               | <b>Frequency</b> | <b>Percentage (%)</b> |
| No Education                                   | 5                | 9                     |
| Primary                                        | 5                | 9                     |
| Secondary                                      | 37               | 65                    |
| Higher Secondary                               | 2                | 4                     |
| Graduate and above                             | 8                | 14                    |
| <b>Total</b>                                   | <b>57</b>        | <b>100</b>            |
| <b>Occupation</b>                              | <b>Frequency</b> | <b>Percentage (%)</b> |
| Business                                       | 3                | 5                     |
| Driver                                         | 1                | 2                     |
| Farmer                                         | 18               | 32                    |
| Fisherman                                      | 5                | 9                     |
| Housewife                                      | 22               | 39                    |
| Services                                       | 4                | 7                     |
| Social Worker                                  | 4                | 7                     |
| <b>Total</b>                                   | <b>57</b>        | <b>100</b>            |

The age structure of respondents is essential for providing demographic information and socioeconomic background. Focus Group Discussions (FGDs) were held with members of the venerable costal community in this research. According to the data in Table 1, the majority of respondents (49.0 percent) were between the ages of 25 and 34, with the lowest (9 percent) being 45. The average age of the community was about 33 years, with a standard deviation of around 7 years. In this research, 54 percent of FGD individuals were female and 46 percent were male. Because the same percentage of participants participated in the FGDs, the numbers in the three sub-districts are the same. The majority of community members, around 65 percent,

obtained secondary-level schooling. It was evident that roughly 9 percent of respondents had no formal education but could sign their name, 9 percent had finished primary level education, and 14 percent of FGDs participants had completed tertiary level education. As the majority of participants in the FGDs were female, the predominant occupation was a housewife (39%), followed by a farmer (32%). A tiny minority of participants were service holders, social workers, business owners, and drivers. There also conducted KII with 09 local-level actors or leaders to understand their experience regarding LLA at the local level; there were 06 men and 03 women who participated in the research. In addition, the 06 KII has been carried out with the participation of the NGOs and the GOB project manager/leads/representative in order to investigate the information about the project interventions and their connections to LLA interventions.

## 3.2 Project Profile Analysis

### 3.2.1 Project Categories and Implementation (in Years)

In this study, a total of six projects were purposefully selected to analyze the approach in which they function and understand the nature of their foundation. Three projects were assessed on their status as non-governmental organizations (NGOs), and three were evaluated based on their status as government organizations (GOBs). Even though one project under GOB was allowed to take a maximum of 5 years and another GOB project was allowed to take a minimum of 2 years, the majority of the projects in both categories were implemented in three years on average. Within the two categories, project number three meets the criteria for the climate-resilient theme, while project number three is appropriate for the climate-adaptation theme.

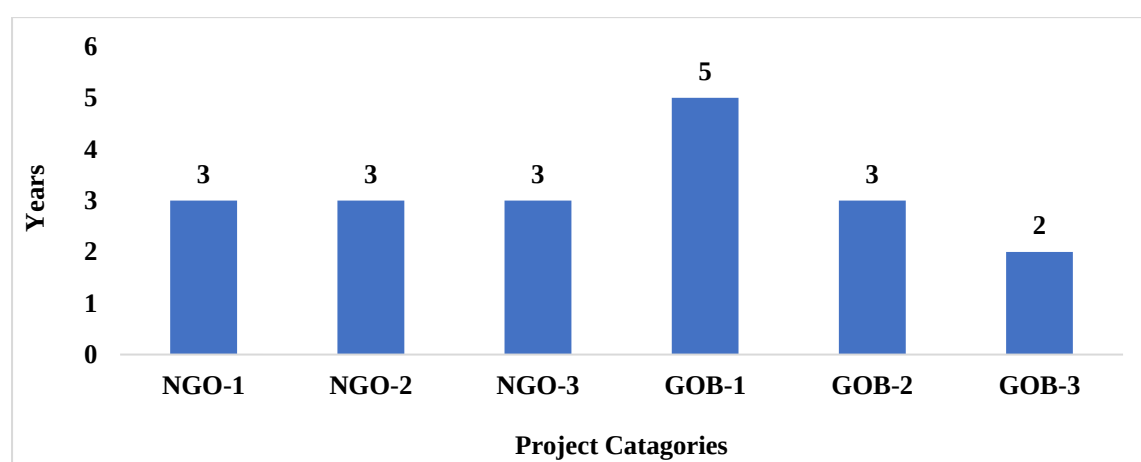


Figure 2: Project Categories and Project Timeline

### 3.2.2 Projects Objectives

Within this study's scope, six projects from the non-governmental organization (NGO) and government-owned business (GOB) sectors were chosen for research. Most of these projects aimed to tackle the climate crisis by bolstering the local level of resilience against climatic threats and concentrating on issues such as food security, agriculture, safe water, safe sanitation facilities, and resilient livelihoods. The primary and most important objectives of each project are represented in Table 3, which may be found beneath.

**Table 4: Projects Objectives Category-wise**

| <b>Project Categories</b> | <b>Main Objectives</b>                                                                                                                                                       |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NGO-1</b>              | Strengthening public and private actors, including local governments, to increase the resilience of climate-vulnerable, impoverished rural southwest coastal areas.          |
| <b>NGO-2</b>              | Enhance the resilience of coastal poor and extremely poor communities and families vulnerable to climate change threats to reduce poverty and empower them.                  |
| <b>NGO-3</b>              | Build resilience and prevent well-being losses in Southwest coastal disaster-prone climate change-affected disadvantaged communities, especially vulnerable women and youth. |
| <b>GOB-1</b>              | Increasing water sector resilience and developing climate-resilient drinking water solutions                                                                                 |
| <b>GOB-3</b>              | Restoring and training local communities, Union Parishads, and CSOs to conserve clean water supplies sustainably.                                                            |
| <b>GOB-4</b>              | Diversifying and selling demand-driven crops in changing climates to boost farmers' revenue and living standards.                                                            |

### 3.2.3 Projects Major Activities

This study summarized the primary activities conducted at the field level to meet the project objectives, categorizing them as governmental or non-governmental organization (NGO) projects. For a better understanding of the nature of the interventions that have been made to create positive impacts in Southwest coastal regions, the following is an overview of the most important activities:

- Promoting local employment for jobless, extremely poor people via vocational and skill training.
- Promoting climate-smart agriculture as a sustainable livelihood alternative for the extreme poor.
- Improved access to clean drinking water for poor and very low-income families
- Increased resilience of the world's poorest households and communities to the effects of climate change and natural catastrophes

- Assist local service providers in promoting current digital solutions for addressing the effects of climate change on livelihood activities.
- Give migrant families ideas and opportunities for using remittances for climate-resilient economic/livelihood activities.
- Improve the leadership capabilities of CC adolescents and women, including identifying possibilities for resilience building.
- Build the capacity of UPs to incorporate gender-inclusive CCA into decentralized local development plans and climate-sensitive budgets.
- Assist local governments in gaining access to climate funds.
- Build and expand the organizational ability of larger community networks (union/upazilla level) for collective action on shared livelihood interests.
- Maintain and create community options/facilities (joint schemes for common/collective benefit) (local infrastructure, PSF, surface water reserve facility, and so on);
- Encourage matching between the community and various public and private actors (service, advisory, input, output, and finance, for example);
- Organize school-based climate-sensitive intervention awareness, campaigns, and creative solutions.
- Raising Community Awareness on WASH.
- Capacity Building of Health Village Groups (HVGs) and Mothers Parliaments.
- Activating WASH Standing Committees of Union Parishads and Union Development.
- Formation and Training of WASH Budget Clubs for Monitoring WASH Budget at Upazila (Sub-district) Union Parishad Level.
- Strengthening Local Government Institutions (Union Parishad) on WASH Governance (Pond Sand-Filter systems, household level rain water harvesting tanks, household level water treatment solutions, sanitation facilities).
- The development of small WASH businesses to offer services to support WASH infrastructure maintenance.
- It is increasing the capacity of producer groups and networks.
- The establishment of collection centers, as well as collection center management training.
- Setting up and managing demonstration fields/ponds.
- Provide orientation training for pre-decision and remittance management.
- Women's youngsters are referred for skill development training.
- Entrepreneurial training for small-scale company growth.

### **3.2.4 Project Budgeting Status**

In order to successfully operate any project, there must be a continuous flow of funding to make the intervention more intense and ensure that the project's goals are met in a timely way. The budget scenario was investigated in this study based on three general categories: first, a review of the budget for human resources; second, a review of the budget for the execution of the project or the program; and third, a review of the budgets for the operations. The majority (see Figure-4) of NOGs spent their budget on human resources for project management,

implementation, and monitoring, which took up an average of 55% of the total budget. For the program, all the projects were spent, on average, 37% of the total budget, whereas the cost of operations comprised approximately 7% of the total cost of the project or interventions. This scenario is different for government projects. For human resources and programs, government projects spent roughly equal amounts of finances, on average 41% of the total budgets. However, for operations, government projects spent nearly 17% of their allocated budgets, which is more than double what NGOs spend on their operation budgets.

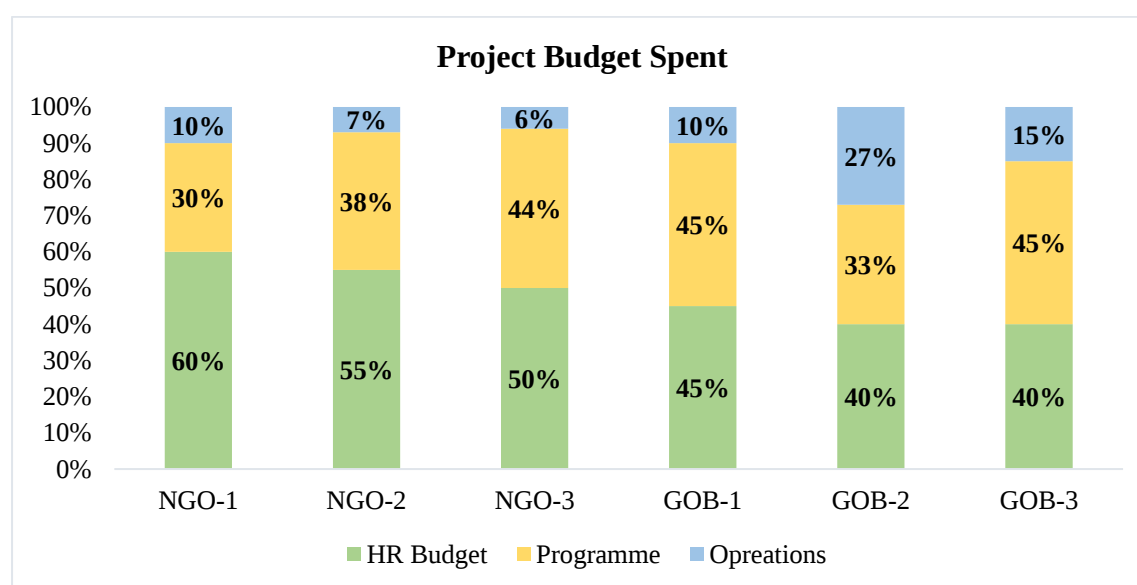


Figure 3: Project Budget Spending Trends

### 3.2.5 Sex-wise Beneficiaries Coverages

This study was to investigate the beneficiary's coverage from a gender identity perspective across all project categories. Under the NGO and GOB categories, this section investigates the female-to-male ratio to comprehend the percentage of beneficiaries covered by the various projects. The nature and activities of the project determine the specific gender ratio of participants. For example, some projects have a strong emphasis on the community. In these kinds of projects, the gender ratio of participants tends to stay relatively constant or to fluctuate only slightly between two ratios. According to this study, most cases identified a higher male ratio than a female ratio (see Figure 5). In comparison, just a handful of the cases found a higher female ratio than a male ratio.

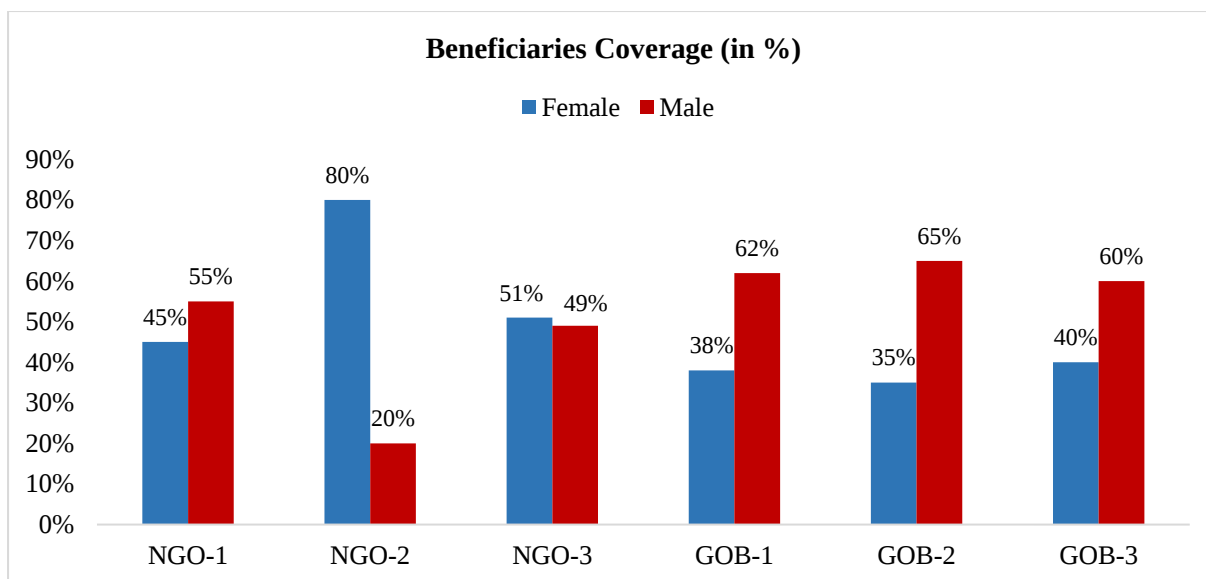


Figure 4: Beneficiaries Covers by Projects

### 3.2.6 Project Monitoring & Evaluation (M&E) System

This study investigates and analyzes the project's monitoring and evaluation system based on many key considerations. It has been observed that every NGO project has an M&E system to fulfill the project's requirements and the donors' obligations. In contrast, every single government-led initiative does not have an M&E system (see Table 4). A similar situation applies to receiving inputs from the community in the M&E aspect of projects. While government projects cannot receive community input, non-governmental organization (NGO) projects are equipped with a mechanism to receive feedback from the community. Only two projects are equipped with a mechanism to receive feedback from the community. Only two projects have this kind of structure regarding accountability and learning, which means the other projects do not have it. Only two of the total number of projects stated that they provide opportunities for community members to engage in monitoring and evaluation activities related to the projects; the majority do not have any joint monitoring system in place. The monitoring visits for most projects are carried out monthly, while the remaining projects carry them out quarterly. After the completion of the projects, only a select few projects have carried out the endline review. The project prepares a report every month for the internal reporting system, while the report it prepares for the external stakeholders is prepared on an annual basis. Very few projects even have a system for sharing information with the community, which allows the community to provide feedback and suggestions based on the consultation process.

**Table 5: Projects Monitoring & Evaluation System Status**

| <b>M&amp;E Specifics</b>                              | <b>NGO-1</b> | <b>NGO-2</b> | <b>NGO-3</b> | <b>GOB-1</b> | <b>GOB-2</b> | <b>GOB-3</b> |
|-------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Availability of M&E Plan/Framework                    | Yes          | Yes          | Yes          | No           | No           | No           |
| Welcoming Input from Communities                      | Yes          | Yes          | Yes          | No Scope     | No Scope     | No Scope     |
| Presence of Accountability and Learning Framework     | Yes          | Yes          | No           | No           | No           | No           |
| Community Participation in M&E Process                | Yes          | Yes          | No           | No           | No           | No           |
| Joint Monitoring Initiatives                          | Yes          | Yes          | No           | No           | No           | No           |
| Frequency of Monitoring Visits                        | Quarterly    | Quarterly    | Monthly      | Monthly      | Monthly      | Monthly      |
| Community Participation in Monitoring                 | Yes          | No           | No           | No           | No           | No           |
| Evaluation of the project                             | Yes          | No           | Yes          | No           | No           | No           |
| Reporting Frequency Internal                          | Monthly      | Quarterly    | Monthly      | Monthly      | Monthly      | Monthly      |
| Reporting Frequency External                          | Monthly      | Annual       | Annually     | Annual       | Annual       | Annual       |
| A mechanism for information sharing                   | Yes          | No           | Yes          | No           | No           | No           |
| Consider suggestive action for M&E system development | Yes          | Yes          | No           | No           | No           | No           |

### 3.2.7 SWOT Analysis for NGO and GOB Projects

Albert Humphrey developed the SWOT model at Stanford University in the 1960s and 1970s, and it is an acronym for its primary components: S-strengths, W-weaknesses, O-opportunities, and T-threats (Kajanus et al. 2012). It was used as a general strategic instrument in several scientific fields, including business, economics, law, environmental studies, and engineering. Additionally, it has been utilized in many case studies in managing water resources and engineering (Diamantopoulou and Voudouris 2008). A SWOT analysis was performed to determine the NGO and GOB's potential roles in LLA interventions at the local level for this research. Through the use of the SWOT analysis, here try to find the differences and similarities between the strengths, weaknesses, opportunities, and threats of the NGO and GOB interventions. These strengths, weaknesses, opportunities, and threats were recorded from the response of the project leads and representatives; see Tables 5 and 6.

**Table 6: SWOT Analysis: Non-government Organization (NGO) Projects**

| Strengths                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Weakness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Experienced in implementing Climate change and DRR projects</li> <li>The dynamic project management unit (PMU)</li> <li>Broader connections and accessibility to communities</li> <li>Community interest and participation</li> <li>Experienced and well-capacitated staff</li> <li>Trained staff on climate change issues</li> <li>Prioritized social inclusion</li> <li>Community contributions through local resources</li> <li>Collaboration with local LGIs and NGOs</li> <li>Local-level advocacy with govt. entities</li> <li>Public and private cooperation</li> <li>Established Monitoring and Evaluation system</li> </ul> | <ul style="list-style-type: none"> <li>Lack of cutting-edge climate technology</li> <li>Insufficient research data and information</li> <li>Insufficient funds for the interventions</li> <li>Limited capacity-building initiatives</li> <li>Drop-out of the root and central level staff</li> <li>LGI's staffs are not well trained and capacitated on CCA and DRR</li> <li>Local authorities spent minimal time monitoring activities</li> <li>The limited adaptive capacity of the project scope</li> <li>LGI's influence to allocate the project supports to their preferable persons</li> <li>Lack of govt. support in joint activities, especially for budget allocation</li> </ul> |
| Opportunities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Threats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>Climate funds and finances at national and global levels.</li> <li>Explore more vulnerable and underserved coastal areas</li> <li>Utilized existing government policies and plan to take appropriate climate change adaptation actions</li> <li>Engaging local people in the decision-making process for climate finance and actions</li> <li>Improve women's leadership to negotiate the rights and entitlements under CCA</li> <li>Climate resilience services and products</li> <li>Working under the loss and damage theme</li> </ul>                                                                                            | <ul style="list-style-type: none"> <li>Frequent events of natural disasters and hazards due to climate change</li> <li>Climate-vulnerable and disaster-prone areas</li> <li>Lack of freshwater impact crop cultivation and human health</li> <li>Waterlogged in more expensive areas hampered the livelihood and living condition</li> <li>Local LGIs influence and lobbying</li> <li>Global and national political instability</li> <li>Instable supply chain mechanism of service and products</li> </ul>                                                                                                                                                                               |

**Table 7: SWOT Analysis: Government (GO) Projects**

| Strengths                                                                                                                                                                                                                                                                                                                            | Weakness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Direct funds from government sources</li> <li>Connectivity with policy-level experts</li> <li>More comprehensive access to the community and networks</li> <li>Inter-ministerial linkages and coordination</li> <li>Adequate funding sources from global channel</li> </ul>                   | <ul style="list-style-type: none"> <li>Weaker governance system</li> <li>Dependency on a centralized authority</li> <li>Frequent alteration of management bodies</li> <li>Less connectivity with the community</li> <li>No joint initiatives with the community</li> <li>Limited capacity to implement local initiatives</li> <li>Lack of relevant LLA policies</li> <li>Poor distribution of the resources</li> <li>Limited technical skills and capacity</li> <li>Lack of required human resources</li> <li>Lengthy process of implementation</li> </ul> |
| Opportunities                                                                                                                                                                                                                                                                                                                        | Threats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>Funds from the private sector finance</li> <li>Finance from green climate funds (GCF)</li> <li>Local demand for adaptation projects</li> <li>The popularity of solar PSF and rainwater harvesting</li> <li>Government-funded CCA projects</li> <li>Scarcity of fresh water sources</li> </ul> | <ul style="list-style-type: none"> <li>Climate-induced natural disasters</li> <li>Lack of political will and Bureaucratic process</li> <li>Influenced by local political leaders</li> <li>Soil and water salinity</li> <li>The poor condition of the communication system</li> <li>Local power dynamics influenced the project's works</li> </ul>                                                                                                                                                                                                          |

### **3.2.8 Locally-led Adaptation (LLA) of Indicators Analysis**

Locally led adaptation has eight principles, such as (1) Devolving decision-making to the lowest appropriate level; 2) Providing patient & predictable funding that can be accessed more easily; (3) Investing in local capabilities to leave an institutional legacy; (4) Addressing structural inequalities faced by women, youth, children, disabled, displaced, Indigenous Peoples & marginalized ethnic group; (5) Building a robust understanding of climate risk & uncertainty; (6) Flexible programming & learning; (7) Ensure transparency & accountability; and (8) Collaborative action & investment (Soanes et al., 2021). I was given nine indicators to use in evaluating the present condition of the LLA, all of which are based on the principles of the LLA. Every one of the indicators was evaluated according to the five responses, which were as follows: 1 – Not a priority; 2 – Low priority; 3 – Medium priority; 4 – High priority; and 5 – Essential. The responses to these criteria have been included in the weighting of initiatives by nongovernmental and government-owned organizations. Following the application of the weighting factor to the total score, the results are rated here according to the three primary ranges: 1-15 is regarded to be a Low score, 16-30 is considered to be a Moderate score, and 30 is considered to be a High score. In this research, only two non-governmental organization (NGO) initiatives were found to have high attributes of LLA properties.

In contrast, one NGO project was found to have intermediate levels of LLA properties. In addition, it was determined that two non-governmental organization (NGO) projects had scores that qualified as moderate for the LLA component (18 and 16, respectively). In contrast, one had a score that was classified as low for the LLA component. However, when the overall characteristics of LLA were calculated for the projects of NGOs and GOBs, the results showed that both types of organizations fell within the moderate level of LLA features. The scores for NGOs were 23, and the scores for GOBs were 18.

**Table 8: Locally-led Adaptation (LLA) of Indicators Analysis**

| LLA Indicators                                                                                                                                                                                             | Scores    |           |           |           |           |           | NGO Average | GOB Average | Total Average |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|---------------|
|                                                                                                                                                                                                            | NGO-1     | NGO-2     | NGO-3     | GOB-1     | GOB-1     | GOB-1     |             |             |               |
| <b>Indicator-1:</b> Target communities and local govt. are being consulted during the project design, implementation, and monitoring phase                                                                 | 4         | 4         | 3         | 4         | 2         | 3         | 3           | 3           | 3             |
| <b>Indicator-2:</b> Addressing structural inequalities faced by women, youth, children, disabled, displaced, indigenous peoples & marginalized ethnic groups                                               | 5         | 5         | 4         | 3         | 3         | 2         | 4           | 3           | 3             |
| <b>Indicator-3:</b> Status of access to climate change adaptation funds at the local level by community/entities                                                                                           | 3         | 3         | 1         | 2         | 2         | 2         | 2           | 2           | 2             |
| <b>Indicator-4:</b> Empowering local organizations by helping financial management and ensuring technical support (participating in implementation and monitoring)                                         | 2         | 1         | 2         | 1         | 2         | 1         | 2           | 1           | 1             |
| <b>Indicator-5:</b> Communities are being consulted on present and future climate risks and impacts, and actions are taken accordingly under the project                                                   | 4         | 3         | 3         | 3         | 1         | 2         | 3           | 2           | 2             |
| <b>Indicator-6:</b> Project interventions/actions are monitored regularly and updated based on community needs, challenges, updated information, and captured learning.                                    | 3         | 4         | 4         | 2         | 3         | 2         | 3           | 2           | 3             |
| <b>Indicator-7:</b> All information (program and finance) is easily accessed by the communities without legal regulations, and project progress information is shared with the community and stakeholders. | 3         | 4         | 3         | 1         | 1         | 1         | 2           | 1           | 2             |
| <b>Indicator-8:</b> Regular consultation takes place with the relevant govt. agencies, CSOs, NGOs, and local communities, and co-financing is also welcomed at the local level                             | 4         | 4         | 4         | 1         | 1         | 1         | 3           | 1           | 2             |
| <b>Indicator-9:</b> Project interventions are gender-responsive and cover activities, finance, and MEL.                                                                                                    | 4         | 4         | 3         | 1         | 1         | 1         | 2           | 1           | 2             |
| <b>Total Score</b>                                                                                                                                                                                         | <b>32</b> | <b>32</b> | <b>27</b> | <b>18</b> | <b>16</b> | <b>15</b> | <b>30</b>   | <b>16</b>   | <b>23</b>     |

[Here, 1 – Not a priority; 2 – Low priority; 3 – Medium priority; 4 – High priority; 5 – Essential, and for a total score, (1-15: Low; 16-30: Moderate and <30: High)]

### **3.3 Conceptualizing Locally-led Adaptation**

The notion of locally led adaptation has not yet been defined in a way that can be widely recognized. There is a high probability that academicians and development practitioners may define LLA for specific purposes. In this research, FGDs and KII participants from each classification were asked about the definition of locally led adaptation by their context. Most of them could not clearly define the term, but their attempts to define LLA were significant, and their thoughts were linked to their experience and knowledge.

#### **3.3.1 Understanding of Communities on LLA**

Most responders lack a comprehensive and clear understanding of locally led adaptation. They are only aware of what they did with the assistance of various non-governmental organizations to adapt to the effects of climate change. They discussed the challenges they face due to climate change, concentrating primarily on issues about agriculture, drinking water, and sanitation facilities. Sometimes, individuals decide not to apply to the local government in order to get assistance with financial support.

Respondent argued- “...Yes, it is true that assistance will arrive, but it will not arrive immediately. As we are the ones experiencing the difficulty, we are responsible for resolving our issues as much as possible to overcome the circumstance. As seawater kills all the fish in our ponds, we attempt to construct a dam around the pond whenever it is damaged by flooding. If a road becomes damaged, we attempt to repair it promptly. To alleviate the dearth of potable water, we store rainwater in barrels. Humans cannot survive without water; only we know how unpleasant it is when we cannot locate a source of drinking water...”

#### **3.3.2 Understanding of Local Actors/Leaders on LLA**

Overall, they lack a clear understanding or conception of locally-led adaptation. All responders only comprehend how they adjust to their area's adverse environment. They mainly emphasized floods, waterlogging, saline water, a shortage of freshwater, riverbank erosion, land erosion, and others. Their adaptation techniques are primarily agricultural, water conservation, and sanitary latrine centered since their concerns are primarily water-related, and they attempt to engage the community to guarantee that their local activities are suitable. They seek government assistance by filing petitions and applications for their difficulties, which they

learned about via non-governmental organizations (NGOs). One women community leader articulated,

“...we do our utmost to warn people about the impending storm and work together to recover from the effects of natural disasters.... attempt to clean the drain to shift the water away from here. We strive to repair as much as we can. As a leader, I visit people's homes to learn about their problems, such as providing latrines with the assistance of the local government. Besides, sometimes inform the local administration of the people's difficulties and try to solve them by our actions...”

### **3.3.3 Understanding of Project/Initiative Lead/Representative**

#### **i) NGO Project Lead/Representative:**

During the KII, various forms of LLA understanding were established with project leads and representatives from NGOs. One person in charge of a project, for instance, mentioned that locally-led adaptation was the same as community-based adaptation, which members of the community direct with help from NGOs and funders. This idea is somewhat paradoxical in the context of locally-led adaptation (LLA) because LLA is more about local authority with local decision-making power and control over the resources. In most of these cases, the project leaders contextualized the LLA based on the nature of their projects and the context of the local reality. One project lead argued that,

“ ... The term "locally-led adaptation" refers to the ability to adapt to and live in the climate-related challenges that are present in marginal regions using one's capability and one's resources, with a limited level of impact from other people from the outside (NGOs, CSOs)...”

#### **ii) GOB Project Lead/Representative**

There was a lack of understanding by GOB project leaders and representatives about the locally-led adaptation. One of the leads argued that locally-led adaptation is more about local unity during disaster conditions when all local people collaborate to save their community. However, most of the leads argued that community-based adaptation was the best coping method for climate change. For example, when the coastal area was hit by flooding, the surrounding area's residents joined together to safeguard their community by fixing and repairing the dam to prevent water overflow. The GOB project lead did not adequately handle the LLA notion since their ability to engage with the LLA context was severely limited.

### **3.4 Nature of Climate Change Adaptation Projects and Key Activities**

Several kinds of projects are now being implemented at the level of the communities located along the coast. In particular, such projects are designed and carried out based on the needs and priorities of the local community. In this study, an effort is made to gain an understanding of the types of projects that are currently being implemented at the community level, as well as the types of activities that are being implemented to address the issues that are plaguing the community that connected to the crisis, vulnerability, and risks associated with climate change.

#### **3.4.1 Communities Response:**

Several individuals who participated in the FGDs mentioned several organizations mainly implementing climate change adaptation (CCA) projects. However, he knew that most projects were related to clean water. According to the participants who responded to the questionnaire, the most important aspects of the initiative are the supply of clean water, the installation of latrines, the construction of ponds and sand filters (PSFs), the renovation of ponds, and the provision of agricultural instruction and training. A few respondents brought up the subject of activities that are beneficial to one's health, but very limited extent. Some respondents mentioned tree planting, the construction of roads, and the digging of canals. Participating in these efforts allows community leaders and representatives to voice their concerns and provide advice on various topics.

One respondent reflects, “They have given four climates resilient latrines in this project's scope. Due to climate change, the lack of clean water is the primary issue where we live. Local NGOs gave us water for rainwater saving during the water crisis. We learned from their mechanics how to lift the tube well segment to be safe from waterlogging and floods..... Apart from this, modernization of agriculture is also done through this project for climate change adaptation.”

#### **3.4.2 Community Actors/Leaders Response**

The majority of respondents brought up climate change adaptation initiatives that non-governmental organizations supported. According to the interviewees' responses, most of the projects' primary emphases are on providing safe drinking water, hygienic latrines, the building of PSFs, the rehabilitation of ponds, and agricultural education training sessions. One of the responders mentioned that the CCA would include activities connected to people's health.

Several of the respondents referred to government initiatives such as the building of roads, the excavation of canals, and the planting of trees. Community leaders and representatives participate in these projects for several reasons. The primary one is to present their community's challenges to the implementing organization and offer their perspectives on various issues to obtain solutions for the community's adaptation to climate change.

One community actor said, "... I was asked to participate in a capacity-building program. Through that training, I gained the advocacy skills needed to challenge local governance and bring government services and goods to my people. I also worked with local UP members to approve more climate-resilient water tanks and hygiene facilities..."

### **3.4.3 Response of Project/Initiative Lead/Representative**

#### **i) NGOs Project Leads/Representative Response**

According to the findings of this study, nongovernmental organizations are responsible for most climate change adaptation project implementation. These integrated projects focus on ensuring food security, protecting against climate-induced migration, water security, and resilient livelihoods in coastal areas. Since they are in charge of leading this project, most of them have been involved in its planning and execution since its inception. All critical tasks are carried out under their direction, with assistance from the central project management unit, from project planning through project implementation.

#### **ii) GOBs Project Leads/Representative Response**

The GOB projects are not integrated into nature; instead, they are being carried out in a sector-specific manner. According to the findings of this research, most projects include the design and implementation of coastal water and hygiene infrastructure considering climate-resilient conditions. In addition, some projects work mainly on the development of coastal crops. These projects provide the community with the technical assistance necessary to cultivate salt-resistant crops and home-based vegetables and crops to ensure the food security of their households. The central management unit is responsible for designing most of the projects. The field-level team's only obligation is to carry out the activities listed in the plan for climate-resilient initiatives.

### **3.5 Inclusion and Participation in Project Development Phase**

Inclusion in the project and involvement in it entail giving the people of the community the opportunity to participate in the project's planning phase while taking into account their rights and responsibilities. In the development intervention, the implementers still struggle to engage and involve the community members in the design phase. The community is also a little uncertain to participate in this process because they have a small amount of fear of external influence and dominance. Nevertheless, in the absence of inclusivity and a participatory process, the planning for the project would not be relevant to the project and its activities, which are far more essential for the communities.

#### **3.5.1 Community Responses:**

The vast majority of participants had little understanding of the design process; other than that, they attended meetings to provide design input. An accurate statement was made by the one individual who said he was never invited to the project's planning stage. Only one individual mentioned his role in advising the resilient water project on the pond's proportions, height, and depth. Several individuals shared their thought, some key implementers invited a few community people before they launched the resilient water project in the community, and they approached the community to know the objective and key problems regarding water shortage due to climate change impacts.

One community member shared, “Yes, we participate in the meetings of such projects before providing any services to assist the organizers in determining who has the most need for the water tanks or any other assistance. We remain in the meeting throughout the project planning process before they are implemented. We discuss the requirements of the local population.”

This kind of situation occurs in the community only very seldom; this is an unusual occurrence. In particular, some of the community get advancements, seeing as how they were a member of the organization or project from a past period. The substantial majority of individuals do not have access to or get invitations to the project's design phase, and the process is not at all inclusive of those involved in the specific project's planning process.

### **3.5.2 Community Actors/Leaders Response**

The majority of respondents do not have a clear perception of the design stage/phase. However, they understand that they are invited to meetings to offer input, and it was verified that no implementation procedures or strategy choices were made. Only one responder said he does not get invitations throughout the project design stage/phase. In practice, feedback from the local community is seldom considered, which is critical for project development; without community insights, the design seems flawed and worthless.

One local UP member shared, "...Well, during the design phase, implementers do not come to me or ask anything I can offer to project planning, but they do come to me after a project is already in the field and operations have begun. It might benefit both parties if the project considers our feedback throughout the planning and execution stages..."

### **3.5.3 Response of Project/Initiative Lead/Representative**

#### **i) NGOs Project/Initiative Lead/Representative Response**

In this study, there was a mixed reaction regarding community members, leaders, and representatives participating in the project design stage/phase and expressing their opinions in the planning process. Most initiatives have welcomed us as root community leaders or representatives. They have chosen numerous people from various backgrounds who are in leadership positions in the community. For example, specify that inputs for agricultural support are required during proposal development, and some may need expert assistance. In a few situations, during the project design stage, the organizations did not directly or formally invite them. However, they met with the local community representative at various times to work in certain areas. The initiative was designed by identifying vulnerable regions in which local community leaders provide advice. In addition, despite not being explicitly invited, various measures were taken to develop the project in which we had direct participation. They conducted separate sessions with each of the communities.

#### **ii) GOBs Project/Initiative Lead/Representative Response**

Since a centralized team designs government initiatives, the people in the community are seldom asked for their involvement or their opinion on the matter. In addition, because of the bureaucratic procedure that the government follows, there is little opportunity to have direct contributions from the local people. However, some projects were incorporated jointly by the

government and non-governmental organizations (NGOs). Those projects take feedback from the people living in the community, but the scope of those projects is not very open to the community. Instead, only certain individuals who play an essential leadership role in the community are invited to participate in the process. There is also a problem with the community's political leaders who use their positions of authority to attempt to exert undue influence on the projects' activities.

### **3.6 Decision-making process during Project Implementation**

The decision-making process at the root level community is more complicated because the community members come from various socio-economic backgrounds and have different political beliefs and religious practices. It is difficult for external entities to have their representatives on the board so they can make decisions that are effective and suitable for the context. Development interventions always expect the community's people to be engaged in decision-making to make the project intervention more inclusive. However, the ground reality is not always suitable for welcoming external entities to engage local people in major decision-making processes.

#### **3.6.1 Community Response:**

Community members do not actively participate in the process of decision-making in any way. On the other hand, their opinions were sought by having them attend several different sessions in which they were invited to participate. According to one of the participants, the only person who showed up to the meeting where decisions were made was the UP chairman. According to the opinions of some other participants, the placement of either the tube well or the latrine is entirely up to the individuals in question; barely their opinion considers the select beneficiaries and service for the entire community. The community's leaders are fully aware of the requirements and standards that must be satisfied inside their community. They make it a point to base their decision-making on these criteria as much as is practically feasible. In some cases, community member decisions take into consideration for placing the products and services; it only happens in the community where the development organization advocates for the local government to select beneficiaries for service and product distributions.

One beneficiary illustrates that “...they come to us to get information on how a project should allocate its resources to intended users. Furthermore, we decided to remain there

and give them instructions to work in our favor. In order to guarantee that we will get the full benefit of their efforts, they need to involve us in it. Suppose implementers want to give someone a tube well, but they are not sure where to put it or where it will be ideal for them to use it. In this case, they will not be doing that person any favors by giving them the tube well, and they will not be able to benefit from it. As a result, they keep us involved in the projects to ensure everything is going as planned...”

### **3.6.2 Community Actors/Leaders Response**

During the initiatives that governments are implementing, monthly meetings are conducted to consider the public's climate change demands. Most respondents, who hold positions of authority in their communities, are involved in the decision-making process. Suppose there is a limited supply of water tanks and sanitary latrines available for the community. However, it is up to the community's leaders and representatives to select who gets what. Most of the time, leaders support those loyal to their groups or political parties. The decisions and thoughts of local leaders and actors do not carry much weight with those responsible for implementing the project.

Community actors from the vulnerable community shared, “They are managing the project in their own unique way. Only our viewpoint may be expressed here. I was never given a opportunity to have any input into the decision-making process for any of the projects that I connected to...”

### **3.6.3 Response of Project/Initiative Lead/Representative**

#### **i) NGOs Projects**

In a perfect world, the NGOs involved in the local initiative would enable community members, community representatives, and community leaders to participate in the decision-making process on the intervention. Although nongovernmental organizations (NGOs) permit them during the planning phase, they are not permitted to participate in the decision-making process with full authority throughout the intervention period when it is being implemented. On the other hand, specific initiatives make an exception to this rule and let community members decide on their behalf. For instance, there is a climate-resilient water service initiative in which groups of community members selected individual households to whom they would

allot water tanks for the purpose of collecting rainwater in order to meet the water demands at the household level.

## **ii) GOBs Projects**

Project implementers working for the government believe that including community leaders in decision-making might lead to many complications. Because they want to provide their party members with a greater variety of advantages, however, something like this should never happen in official government affairs. Because of this, they have been kept out of the discussion of the decision-making process. Even if they are entirely blocked out of the process, it will be impossible to do anything on the ground level. However, they will be eliminated through a diplomatic process.

## **3.7 Differences between Locally-led Adaptation (LLA) & Community-based Adaptation (CBA)**

Although community-based adaptation is an antiquated method, it is generally accepted in the academic community and development projects. On the other hand, a new discourse known as locally driven adaptation has recently emerged in the field of development and academia. Even though people in professional and community settings are becoming more familiar with community-based adaptation, a significant number of these individuals have either never heard of locally-led adaptation or have very little information about it. This is true even though people in professional and community settings are becoming increasingly acquainted with community-based adaptation. It is noteworthy to notice that, to some degree, they can distinguish and contrast these two notions by using the information and experience they have obtained through their real-life experiences. This is something that they can do. It is crucial to distinguish between locally led adaptation (LLA) and community-based adaptation (CBA) to gain in-depth insight into the latter's fundamental mode of operation and practice.

### **3.7.1 Communities Ability:**

While participants were asked of FGDs to compare LLA and CBA, most respondents mentioned a financial difference between the two agreements when doing so. LLA consistently faces difficulties in terms of its financial situation. One of the participants observed that it is challenging to carry out LLA in the absence of a solid political foundation. They feel unprepared to deal with LLA problems since they do not have sufficient expertise or experience

in this area. In addition, they say that CBA is more advanced than LLA in terms of the work sustainability it gives and that, as a result, CBA is the alternative that should be chosen since it is the better choice. There are a few significant people in the village, such as the Chairman and members of the Union Parishad, and when any project that comes under CBA is being carried out, these people decide together and carry out some activity; this is the limitation of participation, where LLA would give the full scope of participation of the community people. A project that is carried out under the umbrella of LLA is carried out in a quick manner, and just for the time being, it is happening due to external influences and limited financial access. The CBA project, on the other hand, ensures that the project's benefits will continue to accrue over an extended period.

One participant distinguished CBA and LLA with a bit of extensive effort, "...there is a difference between the two. Since every single kind of authority is unique, the LLA is responsible for grassroots initiatives. At the same time, CBA is responsible for carrying out activities centered in the community. Generally speaking, LLA projects are finished quickly and efficiently, at least for the time being. On the other hand, the benefits of a CBA project may be enjoyed over an extended period."

### **3.7.2 Community Actors/Leaders Response**

According to the vast proportion of participants, the primary distinction between LLA and CBA is financial. With LLA, they have challenges regarding a lack of financial resources. They have similar challenges with LLA on political problems, although CBA has more external and donor backing. They have the impression that, at present, LLA is not as well structured as CBA. Regarding the LLA, they perceive that they lack sufficient expertise and training and can act more responsibly. Some interviewees said that if they had sufficient financial resources for LLA, they would have been able to work with more enthusiasm than they did with CBA. One of them remarked that it is difficult to execute LLA if one does not have a solid political and socio-economic background.

One community actor argued, "The initiatives that LLA works on have limited budgets. However, there is no issue with the financing for CBA initiatives. To reiterate, LLA projects are afforded more flexibility in how they go about their business than CBA

programs are. Also, CBA is influenced by the local UP, whereas LLA is influenced by community leaders... that is what I can understand”

### **3.7.3 Response of Project/Initiative Lead/Representative**

The responses observed about the differences in the extracts of CBA and LLA have been mixed. Concerning the distinction between the two, the leaders of projects for nongovernmental organizations have provided their complete knowledge. The process of a community adapting to its conditions is referred to as community-based adaptation. Furthermore, adaptation driven by the community itself is a step above adaptation led by the community at large. To be more explicit, they noted that a community is a collection of individuals who live in the exact location or who have a particular trait in common.

On the other hand, local-led groups are a step up from communities. It is necessary to have a locally-led effort whenever community activities grow increasingly wide. However, these distinctions are not particularly explicit, and although their abstraction is essential, their articulation and expression do not provide enough information to clarify the differences between LLA and CBA. On the other hand, the leaders of the GoB projects cannot differentiate between LLA and CBA with solid examples since their capability and expertise are limited, leaving the distinction open to interpretation.

### **3.8 Community Actor's Interests in Local Adaptation Process**

Community actors' participation is crucial to achieving any development intervention's goals, whether those goals pertain to the community or the development process in and of itself. They may take on the position of a community representative in the capacity of a leader, or they may exercise influence over the implementers to urge them to provide more support for the community rather than acting as external actors. In any case, they may serve as a leader. In particular, their function is of the utmost importance in climate change adaptation intervention projects because they participate in selecting project beneficiaries and determining which community members are most vulnerable overall and which are most affected by climate change. In certain situations, they advocate on behalf of the people in the community to receive the benefits from the government to which they are legally entitled as well as the assistance and support offered by non-governmental organizations. In other words, they want the people to get what they are legitimately obligated to receive.

### **3.8.1 Community Response:**

The vast majority of the participants think that local actors are vital members of their community who provide advantages to their community without expecting anything in return. In addition, local actors maintain consistent lines of communication with the community's people and guide how they might become more resilient in the face of the consequences of climate change. Local actors in some regions are working on climate change adaptation projects to assist their communities in becoming more resilient to the effects of climate change in the years to come. These activities are being carried out in order to aid their communities. Because local actors are intimately familiar with the challenges and requirements of their community, they play an essential part in adapting to the impacts of climate change and collaborate closely with the initiatives and implementers of the government. Adaptation to the effects of climate change is a multi-stakeholder effort. They significantly impact the community by participating in activities encouraging the exchange of opinions and providing feedback to the group's members.

One female participant illustrates that “One of the most responsible people I know, our leader takes his duties seriously. She takes charge and organizes monthly meetings. Gather names of low-income households by going to the residence. We decided to attend a series of meetings at the Union Parishad. She has called us in response to a request from the Union Council. Our involvement in those events was therefore assured. As long as our leader is competent and well-versed in climate change, we will work even if there is no NGO to help us. Because our leader cares more about this and has properly directed us.”

### **3.8.2 Community Actors/Leaders Response**

Every person who participated in the survey expressed a significant degree of enthusiasm for locally driven adaptation strategies that would strengthen the climate resilience of their communities. They are in a crucial position to adapt to climate change because they are familiar with the challenges and requirements of their community. They are able to make a significant contribution if they participate actively in the decision-making process and openly express their opinions. They do not, however, have the financial resources necessary to conduct further interventions to address issues such as the availability of fresh water, the effect of salt, climate-resilient WASH systems, and sustainable livelihoods.

A representative from LGIs emphasized, "...when they (the community) had an issue, I urged them to do something to remedy it." For example, protecting crops from saline water. I do my best to guarantee the welfare of these people since I am the one that communicates with the authorities most of the time and so knows a little more than them."

### **3.8.3 Response of Project/Initiative Lead/Representative**

Within the framework of the NGO projects, numerous groups have been formed depending on the activities to speed up the implementation process within the project locations. The community leader acts as a leader and makes decisions on behalf of the community in many of the groups that have been created and are led by the community leader. Nevertheless, the decisions made by those group leaders are influenced by the staff of the NGOs, and the community leaders are obligated to follow the direction the NGOs gave to conduct the intervention on the ground successfully. There are community leaders who are engaged in community service and who are ready to bring about positive change for their community and its inhabitants. On the other hand, some leaders are not concerned with the group's interests; instead, they use the positions they have to exert control over the operations of projects and advance their self-interests. Since the projects that the GOB is working on do not have the potential to involve community leaders, they tactfully avoid the general public's engagement in their project interventions, especially those related to leadership.

## **3.9 Participation in Monitoring, Evaluation, and Learning (MEL) Process**

The activities of monitoring, evaluating, and learning for a project are developed, in general, for the project's internal mechanism, which may be for either the project or the program, and they are only for the project management unit. This is because the monitoring, evaluation, and learning activities are only for the project management unit (PMU). The development organization will occasionally create the potential for the mechanism to be participatory; however, as a result of a lack of ability on the part of the community, they are unable to participate in the process to the full potential of which they are proficient; as a consequence, more pressing issues come up during the discussion and decision-making processes. In some instances, it is ironic that project management does not feel comfortable giving community members scope in order for them to monitor or evaluate the functions of their project; as a result, they impose a shadow of complexity on the participation, and at times, they do not provide any orientation in order for community members to be members of joint monitoring

and evaluation visits. In other words, it is ironic that project management does not feel comfortable giving scope to community members in order for them to monitor or evaluate the functions of their project.

### **3.9.1 Community Response**

It was requested that some of the responders take part in the monitoring phase of the projects; however, none were familiar with the phases of evaluation and learning. The organization did not ask them to participate in the monitoring and evaluation activities linked with the project, despite their presence being required at this location. In addition, it was found that a substantial number of the participants do not have a working knowledge of the monitoring and evaluation process. Since they have never received any training about the procedure, nor have they taken part in it themselves. Despite this, women's options are often limited since they are not accorded the same welcome as males, which makes it more difficult for them to make decisions. On the other hand, the male members of their group are the ones who most often attend activities like these. Now, many use a variety of quality control strategies and procedures.

One female participant shared, “We did not get as many invites to participate in the monitoring activities as other people did because of the reality that we are female. The male members of our family are taking an active role in the process of monitoring and checking on the PSF's operations and installations. At the community level, we never participate in evaluations or events involving sharing knowledge or learning new things. It is of the utmost importance to bring to your attention that such opportunities were only presented to a select group of organizations, the majority of which did not extend an invitation to us.”

### **3.9.2 Community Actors/Leaders Response**

All respondents were invited to be involved in the "occasional" monitoring phase of the projects; however, this is not a practice that the implementers regularly carry out. Community representatives do not have a good understanding of the evaluation and learning phase of the projects because their institutions cannot assist them in carrying out activities of this kind. They confused the monitoring and evaluation activities with the selection of the beneficiaries, an activity unique to the implementation phase. It is quite evident that the representatives of the community lack the concepts necessary to develop community-based monitoring and evaluation activities. If action is taken to involve them in the process, they may have the chance

to get a more accurate understanding of the MEL process. This might cause a shift in their perspective, which would be advantageous.

One of the women leaders argued that "... following the effects of the natural disaster, many projects were implemented, once I received an invitation from a local NGO to monitor the progress of community people, but that is not formal or regular, I feel a bit awkward when they ask my opinion, how could I respond, as I have never performed such activities before...even I have not told what exactly monitor..."

### **3.9.3 Response of Project/Initiative Lead/Representative**

The monitoring, evaluation, and learning mechanism for NGO initiatives are considered to be more rigorous than that of government projects. Most of the project leads for the nongovernmental organizations (NGOs) indicated that they do not incorporate or ask community members to monitor the success of the interventions because there is no space for doing so in the project's design. According to the opinion of one representative, monitoring and evaluation call for a new kind of capability, which both the community leaders and the community members do not now possess. Because of bureaucracy and sensitivities about privacy, the GOB project does not let any wider community members participate in monitoring the project's progress. As per the GOB project lead,

"... Only monitoring is considered within our project strategy; a scope for evaluation and learning has not been established since our plan does not involve it. We carry out official monitoring following the design and the requirements, and there is no opportunity for the community to participate in joint monitoring with us."

### **3.10 Access to Project and Financial Information**

Under the accountability mechanism, projects and programs are required to disclose their most crucial information as well as their financial information with their respective beneficiaries. This allows for the establishment of downward accountability. This accountability practice is highly critical for climate change adaptation intervention, yet most organizations in coastal regions are not engaging in these measures. Bureaucratic flaws prevent the general public from accessing such details even if they ask for them or request them. Organizations are building roadblocks, and educated people have applied under the RTI 2009 legislation to access project

information. However, the process is drawn out and may often take so long that by the time the project is finished, no entities are accountable for sharing the information.

### **3.10.1 Communities Response:**

Even though most participants referred to regular meetings as a source of a project and financial updates, it is essential to remember that this is not a formal means of information exchange. A formal approach might be more efficient, even if it is a good practice. A lack of access to information of this sort is cited as one of the reasons for believing that non-governmental organizations (NGOs) hide their financial information by two respondents who hold this attitude. On the other hand, relatively few organizations, probably just 2% or 3% of all organizations, are more willing to provide information about project intervention and its funding. In certain instances, the projects are not willing to disclose information about the development of the projects, which shows that the projects are not responsible for sharing the information with the people who are benefiting from the projects.

One participant shares her positive experience, “we are aware of the cost of the budget for each meeting. In the end, we are told if any money is left over. For instance, “X” local NGO manages a project known as PSF installment in the community. That project had a cost of BDT 300,000/= allocated to it in its budget. We have been provided with extensive details regarding how much of this money has been spent in each installment and where it has been spent. Ultimately, we could go over the whole project and see how far it had come.”

### **3.10.2 Community Actors/Leaders Response**

Very few respondents said they had access to information about the project and its finances via meetings and reports. However, this was only to a limited level. The vast majority indicated they did not have precise financial information because NGOs kept it for themselves. Some people interviewed for the KII said that non-governmental organizations (NGOs) sometimes informed them that the information was confidential and that they could not share it with the community, which is fundamentally false. It is also clear that local non-governmental organizations (NGOs) are reluctant to share their information with the people participating in the initiative and other local institutions.

As per the community leader's response, "...No. Because of the limits they face in their situations, they choose not to discuss them. They do not want to identify where the budget will come from or where it will be spent because they do not want to be liable."

### **3.10.3 Response of Project/Initiative Lead/Representative**

Projects run by non-governmental organizations (NGOs) tend to be more open when sharing information about the projects with the people who benefit from them and the greater society, including information on the project's progress and finances. They believe that projects have a greater responsibility to the community, and to guarantee that projects as a whole have this accountability, they exchange information regularly. In some circumstances, disclosing financial information may affect the community or cause conflict amongst the members; hence, those in charge of projects are more conscious of the need to reduce the risks. In an ideal scenario, the projects would not be necessary to share the information with the community. However, the mission and dedication of the NGOs would allow them to share the information with the community. The GOB project leads have discovered a reversed scenario. According to their official regulations and rules, they are not mandatory to share financial information with the communities. In some cases, they believe it is better not to share all information with all the people in all the communities, especially financial information, due to confidentiality and privacy concerns. The manager of the GOB initiatives also suggested that sharing information can affect various groups within the local context and that this might cause conflicts within the community since people tend to look out for their interests.

## **3.11 Connection with Local Level Networks, CBO, or CSO to Implement Climate Change Adaptation Initiatives and their Roles**

In climate change adaptation interventions, project implementers favor collaborating with local-level networks, CBOs, and CSOs to reach the most significant possible degree of success and completion. This procedure is very significant in that the local entities are associated with various social and political entities, and their goals and missions are also distinct from those of one another. In the past, it was clear that the local initiatives that achieved the highest quality in terms of execution did so because they could adequately engage with all of the necessary local-level networks or groups. In this bit of the paper, the studies focus on whether or not CCA initiatives on the local level coordinate with one another considering locally led adaptation.

### **3.11.1 Community Response**

Combination against climate change is being waged with community-based networks, non-governmental organizations (NGOs), and organizations. According to the responses received, those participating include the Youth Group, Women Groups, Producer Group, the Disaster-relief committee, the Zilla officer, the Fisheries Officer, and the UNO. The efforts of the local leaders to give financial assistance are underway. In order to put the climate change adaptation initiative into action at the grass-roots level, the local networks also coordinate their efforts with one another. They mobilized the community to raise their voice and right to gain access to clean water, climate-resilient sanitation, and agricultural production, and they are much stronger than the other sorts of organizations. The youth and women's groups are especially potent compared to the other types of groups. Because these organizations are not registered with any governing authority, the continuation of their operations into the foreseeable future is uncertain, which is the one drawback of using them.

### **3.11.2 Community Actors/Leaders Response**

Some local-level networks, CBO and CSO, participate in implementing climate change initiatives under some NGO-funded projects. Respondents mentioned that Jubo Dol, Maa Sangsad, Krishok Dol, the Disaster-relief committee, the Zilla officer, Fisheries Officer, and UNO are involved and collaborate as necessary. Nevertheless, to make it a successful collaboration, they need financial support by which they can support each other and act for the community and the projects. Some participants emphasized that leadership is sometimes broken, confusing, and influenced by external influence, which hinders collaborative actions.

Local UP women members argued that “We have some volunteers. We have four volunteers in four villages. We allocate them during and after the disaster to assist the distressed community. Furthermore, we invited them to participate in the union-based climate resilience support initiative to assist local general community members.”

### **3.11.3 Response of Project/Initiative Lead/Representative**

In order to fulfill with the conditions of the climate change adaptation initiatives, a coordinated approach with community-based organizations and civil society organizations was necessary. I explored this collaboration with CBOs and CSOs as part of my study. Some of the NGOs are already working with local CBOs and CSOs in accordance with the design of their projects.

Their mission is to fulfill their mandate to ensure that local-level CSOs and CBOs are equipped with the resources necessary to ensure that local-level government institutions are more responsive to make the community more resilient to the effects of climate change. The argument was made by a project manager working with the NGO,

“... Collaboration between CSOs and CBOs is an efficient method for holding local governments accountable; however, CBOs and CSOs are only effective when a project is currently being carried out on the ground; unfortunately, these platforms become less active or are eliminated once the project has come to an end; its happened as there is a lack of ownership among CSO and CBO members.....”

According to the project scope and design, government projects are not required to collaborate with community service organizations and community-based organizations in the area. When it comes to the implementation of projects, they adhere to their own regulations. However, in other instances, government initiatives have been brought under the collaboration of NGOs, which indicates that there is no self-initiative on the part of the government.

### **3.12 Key Challenges/barriers to Implementing Locally-led Adaptation Initiatives**

All the different groups of respondents were asked what challenges remain in the way of the community's ability to implement local-level initiatives. They respond by drawing on the experiences and expertise they have gained via their participation in implementing CCA initiatives at the local level.

#### **3.12.1 Community Response**

One point that was brought up by every respondent was the need to establish a system for prioritizing CCA initiatives at the local level. Someone here said that the lack of collaboration with various governmental agencies is the single most critical challenge that has to be overcome. The initiative can only be hindered locally by destructive elements, such as salt water. The regular floods, which have impeded the activities of the locals for a considerable amount of time, make their way of life more difficult. A lack of financial assistance is one of the most critical challenges or impediments they face in adapting strategies driven at the local

level into practice. One of the responders mentioned the fact that they cannot put the measures into action. One of the people who responded pointed out the complexity of the administrative system, saying that it consumes a lot of their time and prevents them from putting any initiative into operation.

One community member (woman) expressed, "...we confront several challenges, and money is the most significant one. And monitoring these projects is another issue; if it is not adequately monitored, the project will be inadequate. We also need qualified, efficient community people that comprehend the concepts and can oversee the whole process..."

### **3.12.2 Community Actors/Leaders Response**

One of the most significant obstacles or impediments that they have in terms of implementing locally-led adaptation is a lack of financial backing. Someone who responded said they do not have the appropriate training to deal with LLA. One of the responders noted the intricacy of the bureaucratic system, which takes up a lot of their time and prevents them from putting any initiative into action. The cooperation between GOs and NGOs is not optimal, and it has to become more constructive to guarantee the appropriate planning and execution of the LLA initiative by the community.

One local representative thinks, "The matter in question is primarily one of the financial resources. This location does not involve the same level of administrative complexity as LLA. Nevertheless, there are problems in certain instances due to bureaucratic complexity and reluctance.

### **3.12.3 Response of Project/Initiative Lead/Representative**

LLA-related issues are already apparent on the ground; according to the experience of nongovernmental organizations (NGOs), local leaders and representatives are more aligned with political parties, and as a result, they are more engaged in political activities at the local level. The local level does not have sufficient financial resources, which is another reason they cannot implement appropriate plans. Both local people and local government institutions (LGIs) do not have a deep commitment to LLA procedures, and a lack of conceptual clarity is necessary for them. Even if some women are active in local initiatives, it is unlikely that they will be able to influence the decision-making process due to the low participation rate of women in these endeavors. In addition, the ownership of the community is another significant

barrier to implementing the LLA inactivates in the local context. As a result, they demonstrate dependent on outside support. Similarly, government bodies believe that there is a problem of political pressure at the local level, in addition to the fact that natural and financial resources are insufficient to fulfill the requirements of the LLA initiative at the local level.

### **3.13 Governance Challenges to Implementing Locally-led Actions**

#### **3.13.1 Community Actors/Leaders Response**

The community representative asked about the governance challenges, and they expressed their voice about their experience. The main challenges are a local level initiative that people lack trust in the local leaders, as well as the political influence, which mainly influences local initiatives to a great extent. Some local leaders and LGIs representative imposed their interests, making them less accountable for the community's well-being and trying to support only their group and people. In some government projects, local leaders are not transparent in sharing the project information with the community, specifically the financial one. Sometimes leaders share limited resources than they got from the donor or government.

As per the women community leader, "...obstacles emerge, for example, if I discuss a budget, they (UP representative) will ask why I am speaking to you? However, we are simply attempting to determine what suits the area's needs. They do not want to give people a chance to speak about anything."

#### **3.13.2 Response of Project/Initiative Lead/Representative**

Based on the knowledge gained by NGOs participating in local adaptation projects, the political party at the local level impacted the adaptation initiatives. They compile the list of vulnerable population members based on their preferences and do not consider any advice or suggestion from the outside. Due to the absence of accountability on the part of local leaders and a lack of transparency in the implementation process, allocating project support for disadvantaged groups is made more difficult in the context of the local environment. This causes the initiative to have an aimless outcome. Because of the local political influence and diplomacy, the local communities cannot participate in the decision-making process. As a result, the process of implementation is not inclusive; instead, it is a practice of "participatory exclusion," which is

part of the climate change adaptation process in the local context. One manager of a non-governmental organization (NGO) gave their perspective, saying,

"...the local government does not welcome us since we coordinate the entire task for the needs of the community." Even though we provide them with resources, they see us as persons from outside their community rather than as members of their group. Chairman, definitely do not let us choose the people who will benefit from the climate change adaptation initiative. All they are asking for is resources, and the process is not participatory and not transparent to anybody."

The heads of government projects or their representatives have just mentioned two challenges related to governance: first, the political entity at the local level strongly affects the process of making decisions regarding projects, and second, the process of projects is obstructed due to bureaucratic complications derived from the central authority.

### **3.14 Initiatives for Local Representatives/Leader Capacity Building**

#### **3.14.1 Community Actors/Leaders Response**

All of the respondents mentioned that the programs had measures to develop the ability of local leaders and representatives. Community leaders are chosen based on merits and leadership ability, and the population's capacity is rising. Projects conduct leadership and capacity-building training sessions. One of the respondents said that speaking out in frequent meetings helped them become more capable and self-assured. Two of them said they had more confidence now than they did before. One of the female representatives said that she seldom ever used to leave her home and almost never interacted with others, but now people respect her for her ability to lead. The local representative's or leader's ability to lead seems to have improved due to the programs.

#### **3.14.2 Response of Project/Initiative Lead/Representative**

Capacity-building initiatives for community leaders and representatives on climate change, gender equality, and leadership were part of a program supported by non-governmental organizations (NGOs). In most circumstances, the purpose of the endeavor to develop capacity is to make them more responsible by improving their leadership quality, in particular, to make their community more resistant to the effects of climate change. However, the development activities are limited, and not all nongovernmental organizations (NGO) projects contribute to

the capacity initiatives. On the other hand, the GOB initiative does not include provisions for providing capacity-building training in the same way NGOs do. The GoB programs give knowledge and instruction on growing crops, but not for the leaders or representatives of the community; rather, this training is solely provided for the general members of the community.

### **3.15 Expectation for Implementing Locally-led Adaptation Interventions**

The activities at the local level are now being carried out by adhering to the community-based adaptation measures carried out in the past, which were relatively influenced by the funders and implementers. People living in the community were asked about their expectations for the expansion of locally-led adaptation programs at the local level. Their inadequate ability to grasp the locally led adaptation resulted in various answers, some contradictory and lacking clarity.

#### **3.15.1 Community Response**

Most respondents agreed that concentrating on efficient water use and cleanliness was paramount. They also openly addressed disaster relief activities on a regional basis, such as canal building and tree planting. Local populations need to hold more ownership to take their initiatives with local support. They should make climate-resilient steps to guarantee access to clean water, suitable housing, and sanitary facilities. Most participants also emphasized the significance of reducing political impediments to locally-led adaptation that must be accelerated. However, one comment emphasized that challenges were unavoidable and that individuals should persevere at mobilizing LLA. To react to the present circumstances, people must utilize their initiatives and can utilize their local resources. Most community members stated that financial resources are necessary to carry out the locally-led endeavor and that capacity training is also essential for an effective LLA process in the coastal region. These factors were cited as necessary for an efficient LLA process.

As per one community member, “Local level adaptation should be carried out by the local people, and our leaders should lead us to make our areas more resilient to climate change, but we lack funds, which will significantly reduce our implementation capacity, and we want to avoid external influence, which always has an impact on our decision-making process at the local level....”

### **3.15.2 Community Actor/Leaders Response**

Overall, most responders suggested focusing on water conservation and sanitation with local leadership. They also highlighted that additional disaster relief initiatives, such as canal digging and afforestation, must come under local initiative and leadership. The salinity issue may be solved by building embankments with local support, but smooth financial flows need to be in place. People should explore other alternatives to grow vegetables, such as the floating technique, hanging technique, and platform technique, according to respondents and local technical capacity need to be enhanced. Sweetwater ponds must be maintained adequately with local management, and external influence needs to be reduced. They want to adopt climate-resilient efforts such as clean water, housing, and toilets, which will help people deal with climate change under the LLA. The majority of responders also suggested removing political impediments to achieving locally-led adaptation at the optimum level. On the contrary, one person said that there would be hurdles and that people should overcome them and go ahead. People should work on their initiative to adapt to present climatic circumstances and choose the best leader for the accelerated process.

Local leaders share his view that "...local people must realize the LLA process, but government and political power must be set aside so that the local community may do so independently, and financial resources must be mobilized, and everything should be managed under local leadership."

### **3.15.3 Response of Project/Initiative Lead/Representative**

Representatives of NGOs believe that there should be an expansion in the level of collaboration between the local community and the local government to ensure the successful implementation of LLA. Between the two entities, a formal communication channel must be established so that they may communicate with one another and work together to carry out more effective initiatives. It is necessary to lessen dependence on outside sources and to lessen the impact of outside forces on local initiatives. Additionally, local governments and people must be given complete autonomy over decision-making. Because resources are the primary issue, the local government, in conjunction with members of the community, is required to organize the collection of specific types of resources, particularly financial resources; in addition, the entire initiative must be directed by the local authority, with the priority of local leaders. The managers of government projects believe that they require authority at the local

level in order to make decisions and allocate resources. Additionally, they believe that their dependence on the central authorities must be reduced and that they must consider the local context for the initiative to achieve its goals. In addition, international financing mechanisms must be linked with local implementation for those funding organizations to seek out the local voice and the local need for the ground reality.

### **3.16 Propose Framework for Scaling Up Locally-led Adaptation**

I proposed framework for this study, which helped me trace the answers to research questions and achieve the study's goals. As a visual or written output, a conceptual framework "explains, either visually or narratively, the major subjects to be studied—the important components, ideas, or variables—and their underlying connections (Huberman, 1994). In a wider sense, "qualitative studies endeavor to define and explain a pattern of interactions, which can only be accomplished through the use of a set of logically determining categories" (Mishler, 1990). I attempted to construct the critical concept of community and local adaptation activities and the connections between the critical areas of all major and sub-category concepts. Several drivers suggested by Westoby et al (2021) include locally led decision-making, local capabilities and resource, local conditions, local vulnerabilities conditions and inequities, local metrics for assessing "success," and local agendas that should be supported or facilitated by external entities. These were selected as enabling factors for scaling-up LLA at the local level in the proposed frameworks. In this proposed framework, I regarded adaptation financing and the adaptation process as prerequisites for this study's locally-led adaptation. There are further consideration criteria for sub-categories of ideas such as significance, barriers, and the present state of locally-led action. To be scaling up the locally-led adaptation, there needs to consider the opportunities of LLA, drives to break the barriers, practice, experience, and knowledge of the current context of LLA, the process of enabling LLA, and the application of the LLA principles. Within this proposed scaling-up framework, the adaptation process has been adopted, indicating the planning, implementation, monitoring & evaluation, and accountability & learning (Dazé, Price-Kelly, and Rass, 2016). This process contributes to scaling the LLA interventions by enabling LLA principles.

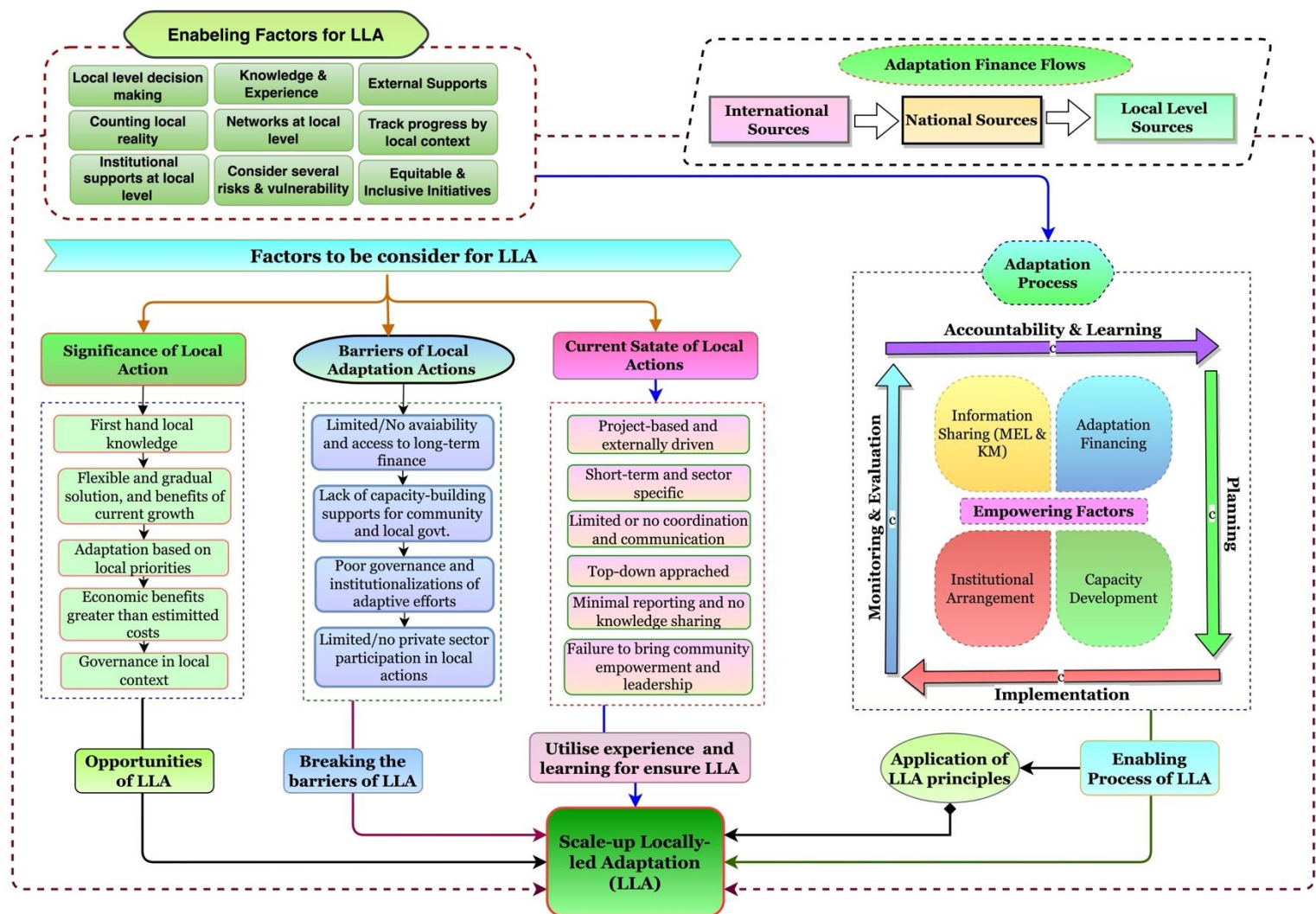


Figure 5: Proposed framework for Scaling-up LLA

# 4

## CHAPTER

## Discussion

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## CHAPTER-4

### 4. Discussion

Most of these projects aimed to tackle the climate crisis by bolstering the local level of resilience against climatic threats and concentrating on issues such as food security, agriculture, safe water, safe sanitation facilities, and resilient livelihoods. In this research, we considered three projects carried out by non-governmental organizations and three that the government carried out. In general, the projects that non-governmental organizations (NGOs) work on focus on making climate-vulnerable communities more resilient, whereas the projects that the government works on focus on making water infrastructure and climate-resilient crop production in coastal communities more resilient. Both categories of the project use project finance in three border areas, including operations, human resources, and programs. While most of the government's budget was allocated to various initiatives, non-governmental organizations (NGOs) spent a significant portion of their funds on human resources. Examine the proportion of females to males to better understand the percentage of people whose lives would be improved due to the different initiatives. The specific nature of the project and the activities that it entails will influence the gender distribution of the participants. While government projects do not have the ability to receive inputs from the community, non-governmental organization (NGO) projects are equipped with a mechanism to receive feedback from the community. Only two projects have this kind of structure regarding accountability and learning, which means the other projects do not have it. Every single government-led initiative does not have any M&E system at all; however, every non-governmental organization (NGO) project does have one to fulfill the project as well as the responsibilities of the donors. Non-governmental organization (NGO) projects, on the other hand, are equipped with a system to collect comments from the community, in contrast to government initiatives, which do not have the capability to take inputs from the community. In this study, a SWOT analysis was carried out on both nongovernmental organizations (NGOs) and government-led initiatives. The goal was to identify the contrasts and similarities between the NGO and government-led interventions' respective strengths, weaknesses, opportunities, and threats. Based on the LLA principles, nine indicators were assessed to investigate the LLA components' presence in the projects carried out by NGOs and the government, with the goal of defining LLA components more rigorously inside the project system. Each of the indicators was given a score based on one of the five possible replies, which were as follows: 1 – Not a priority; 2 – Low priority; 3 – Medium priority; 4 – High priority; and 5 – Essential. In this specific study, it was discovered

that only two non-governmental organization (NGO) projects had high levels of LLA properties. In contrast, one NGO project was shown to have moderate LLA characteristics. According to the results, both types of NGO and GOB projects were categorised as having a moderate degree of LLA features.

Since the LLA idea is newer to the academic and development fields, the LLA term is still poorly understood by the general public. Although the NGO and GOB are engaged in special local efforts, their conceptual clarity differs. Based on their knowledge and a context that is either unclear or lacking in development, community members, representatives, and leaders attempt to define the LLA. The local authority, decision-making at the local level, and an independent system for financial decision-making have been the topics of the most prolonged long arguments in communities. They are aware that the external authority or influence is not about locally led efforts, which they perceive to be flawed and comparable to community-based adaptation. Locally led action (LLA) is managed by the people in the area it is intended to improve, is based on their knowledge of the area, promotes equality and inclusion, and is supported by the existing infrastructure in the area. The origins of LLA may be traced back to a current movement away from "externally guided" and "community-based" methods in the development sector on the part of both practitioners and academics (Westoby et al., 2021). Government, development allies, civil society organizations, and private sector all play a role in local action (for advancing adaptation), which consists of a variety of complementary interventions designed to assist households, communities, and local governments in coping with the adverse effects of climate change and building resilience (Mfitumukiza et al., 2020)

The majority of projects are concerned with clean water. According to those who replied to the questionnaire, the essential parts of the project are providing clean water, installing latrines, building ponds and sand filters (PSFs), repairing ponds, and providing agricultural training and instruction. The key focuses of the projects include clean drinking water, sanitary latrines, the construction of PSFs, the repair of ponds, and agricultural education training sessions. NGO projects, from project planning to project execution, all key tasks are carried out under their leadership with assistance from the central project management unit. Whereas NGO projects follow the central management unit in charge of developing the majority of projects, the field-level team's only responsibility is to carry out the actions outlined in the plan for climate-resilient initiatives. In Bangladesh, projects have been executed using top-down approaches, in which a committee of specialists determines the project's objective and approach (Masud-All-

Kamal & Nursey-Bray, 2021). In other words, using the techno-managerial approach, some external specialists provide what they believe to be template answers to the climate change problems facing vulnerable communities (Lebel et al., 2018).

LLA process should involve local people and local leaders in the project designing, and the process should have scope to hear the views and opinions of local people. The LLA process should include local people and leaders in the project design. In particular, the community members are encouraged to express their expectations in the project intervention during the process. This allows the project to create activities and interventions following the requirements of the people. Although in this particular scenario, non-governmental organization (NGO) projects are significantly more advanced than government initiatives, they are still lagging behind progress because their planning and project design are based on the needs and requirements of the central authority. Local people's participation in the local initiatives is not up to the mark as the local representative or elected bodies unwilling to engage them in the development initiative activities (Waheduzzaman & As-Saber, 2015).

On the other hand, during the time that the projects are being implemented, the local people who live there need to have the ability to make decisions on behalf of the community. This will allow them to ensure that the projects are carried out in accordance with the people's needs and the initiative's objectives. The situation on the ground is not always conducive to embracing outside organizations and engaging local people in effective decision-making processes. There has been a variety of experiences, and on a local level, their opinions are seldom taken into account for the provision of services to the chosen beneficiaries and the community as a whole. Most of the time, leaders will demonstrate their support for those individuals who are likewise devoted to their organizations or political parties. The local political parties were a factor in the development of government initiatives, and their participation made the process more difficult. The use of regional expertise and collaborative work are essential components in the decision-making process for adaptation activities (Ayers and Forsyth 2009; Reid 2016). Nevertheless, using local expertise in the project's decision-making process is not always encouraged.

The responses observed about the differences in the extracts of CBA and LLA have been mixed. It is interesting to observe that, to some extent, kids can differentiate and contrast between these two ideas by using the knowledge and experience they have received via their real-life experiences, which is something that should be taken into attention; they can carry out this activity successfully. It is of the utmost importance to differentiate between locally led

adaptation (also known as LLA) and community-based adaptation (also known as CBA) to understand the primary mode of operation and practice of the latter. A further benefit of LLA is that it allows us to move away from "community-driven" systems, in which outside organizations "partner" with local groups to give them more power over their resources. This "partnering" has the unintended effect of diminishing local capacities, even when done with the best intentions (Westoby et al., 2021). Therefore, the move from communities being "driven" to communities being "led" offers a significant shift toward enhanced agency (Asugeni et al. 2019).

The engagement of community actors is essential to the attainment of the objectives of any development intervention, regardless of whether those goals belong to the community as a whole or to the development process in and of itself. They may take on the role of a community spokesperson in the leader position or exert influence over the implementers to encourage them to give the community greater support rather than acting as external forces. Either way, they could play a role in the community. They act on behalf of the community members to receive the benefits from the government to which they are legally eligible as well as the assistance and support offered by non-governmental organizations. Additionally, they advocate on behalf of the people in the community to receive the benefits from the government to which they are legally authorized. Put another way, they want the people to get what is lawfully owed to them as a part of their obligations. Formal institutions, via their respective communities of practice, contribute significantly to developing place-based capacities for implementing adaptation and mitigation methods in the agricultural sector. The obsessive focus on technologies, the failure to understand cultural elements, and the inability of formal institutional communities of practice to mediate and develop links with the different institutional communities of practice are all factors that continue to be hurdles (Islam & Nursey-Bray, 2017).

Occasionally, a development organization will provide the conditions for a fully participatory mechanism to emerge; however, because of a lack of capacity on the part of the community, they are unable to participate to the fullest extent that they are capable, and other, more pressing issues arise during the discussion and decision-making processes. Project management is often unwilling to delegate monitoring and evaluation responsibilities to the community, which may lead to a lack of orientation for community members who are asked to participate in joint monitoring and evaluation. Despite the need for their presence in this area, the organization has not asked members to take part in the monitoring and evaluation activities related to the project. Moreover, it was shown that many participants lacked a fundamental understanding of the

evaluation and monitoring procedure. MEL provides a chance to integrate local-level adaptation insights, data, and information into national and international stocktaking, enhancing decision-making processes and investments in adaptation programs.

Nevertheless, no universal measures have been established to guide MEL and measure adaptation results. Furthermore, MEL processes must be built around correctly specified purpose- and place data and information, with an emphasis on supporting knowledge-sharing and capacity-building at the local level (Mfitumukiza, 2021). As part of the accountability mechanism, all programs and initiatives are obligated to provide their respective beneficiaries with access to the information they deem most relevant to them, including their budgets and other financial details. Because of this, it is possible to create responsibility farther down the chain. The fact that the projects are unwilling to divulge the information on the development of the projects demonstrates that the projects do not consider it their responsibility to share the information with the people who would benefit from the initiatives. In certain instances, local non-governmental organizations (NGOs) and local government institutions (LGIs) are hesitant to share their information with the individuals taking part in the effort and with other local institutions. Since people tend to look out for their best interests, GOB initiatives have difficulties sharing information, which may influence a range of organizations operating within the local environment, potentially producing disputes within the community.

In the context of some NGO-funded programs, various local-level networks, CBOs, and CSOs participate in implementing climate change initiatives. According to the blueprints for their respective initiatives, a few NGOs are already collaborating with community-based organizations (CBOs) and civil society organizations (CSOs). Their objective is to fulfill their mandate, which is to ensure that local-level CSOs and CBOs are provided with the resource management necessary to ensure that local-level government bodies are more responsive in order to make the community more resilient to the effects of climate change. Their mission is to ensure that local-level CSOs and CBOs are prepared with the resource base required to ensure that local-level public institutions are responsive. In the past, it was crystal clear that the development agencies that achieved the best standards in terms of implementation did so because they were sufficiently capable of communicating with all of the required local-level networks or groups, so they were able to achieve the highest quality in terms of implementation.

The most significant obstacle must be addressed the absence of coordination with multiple governmental bodies. The endeavor can only be thwarted at the neighborhood level by

disruptive factors like salt water or other corrosive substances. The frequent flooding, which has for a significant length of time hampered the operations of the inhabitants, made their way of life more difficult. In terms of putting into practice adaptation techniques that are led at the local level, one of the most significant problems or obstructions they have is a lack of financial help. There was a discussion over the complexity of the bureaucratic system, which occupies a significant amount of their time and inhibits them from putting any idea into action. The degree of collaboration between government organizations and non-governmental organizations (NGOs) is not optimum. It has to become much more productive to ensure that the community's LLA project is appropriately planned and carried out. It may be difficult and time-consuming without investing time and effort into studying. It calls for careful assessment of both local factors and the estimates of climate change generated from climate models. In prior discussions on participation, participants have stated that it is difficult to attain this goal even in the best circumstances since it entails searching for forums where disadvantaged individuals can participate. The biggest problems are local-level projects, where people lack confidence in local leaders, and political power, which heavily influences local activities. Local leaders and LGIs representatives push their interests on the community, making them less responsible for the community's well-being and who aim to support just their group and people. Local leaders in specific government projects are not honest in sharing project information with the community, mainly financial information. Leaders must sometimes share limited resources received from donors or governments. The method for providing project funding for disadvantaged groups is made more difficult in the setting of the local situation due to a lack of responsibility on the part of local leaders and a lack of openness in the implementation process. The implementation process is not inclusive; instead, it is a kind of "participatory exclusion" that is part of the climate change adaptation process.

Communities should adopt climate-resilient efforts to ensure access to clean water, proper housing, and sanitary facilities. The local people have to take greater ownership of the situation and be empowered to pursue their initiatives with the community's backing. People have to rely on their own efforts and, to some extent, their own resources to respond to the current situation, and they may do this locally. The majority of people agreed that financial resources are required to carry out the locally-led initiative successfully. They also agreed that capacity building is essential for an efficient LLA process in the coastal area. People in the area have urged that further disaster relief projects, including constructing canals and planting trees, should be brought under the initiative and direction of locals. The people in the region have

also suggested that rainwater harvesting and sanitation be the primary areas of concentration. People should look at various methods of cultivating vegetables, such as floating, hanging, and platforms. Additionally, the local technical ability should be improved. People are anticipating the removal of political constraints in order to achieve locally-led adaptation at the highest possible level.

|                |
|----------------|
| <b>5</b>       |
| <b>CHAPTER</b> |

## **Conclusion**

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## CHAPTER-5

### 5. Conclusion

The consequences of climate change have been felt in Bangladesh, particularly in the country's coastal regions, and they are predicted to continue. In recent years, the impacts of climate change have been increasingly evident, and data has also shown that coastal regions and their populations are in the worst condition possible. Bangladesh focuses its efforts on mitigating climate change's effects on the southwest coastal parts of the country. These are the places where community-based adaptation is becoming more critical in order to address the difficulties caused by climate change. Over time, the consequences of climate change have become more severe, and the effectiveness of community-based adaptation has decreased due to how it operates and the nature of the challenge. The CBA has recently been criticized and is not entirely embraced by development practitioners and academics. In response to the local level adaptation, a new discourse has arisen and is referred to as locally led adaptation (LLA). LLA has now become more relevant to the local context regarding climate change adaptation initiatives and trying to make the community more resilient. There were server efforts revealed at the local level in Bangladesh, which indicated that the LLA process was already in existence and that the area's people were adopting steps based on their own needs. This research investigates the local-level NGOs and GOBs actions that cover LLA aspects considerably, and it also investigates the existing nature of the LLA in coastal communities. Specifically, this study focuses on coastal communities. Most adaptation efforts focus on building climate-resilient communities, with particular attention paid to issues of food security, climate-induced migration, and water and sanitation. Even though the local people have a limited articulation ability when defining the LLA and differentiating it from the CBA, they can nonetheless provide real-life instances based on their own experiences. Following the LLA, the involvement of the local people is insufficient, and there is also restricted autonomy to make decisions on behalf of the community. Community leaders also lack dedication to the local project, and a significant external interdependence exists that most strongly influences their actions. In the MEL project system, the stakeholders have a very constrained amount of space to engage, and the community members do not have complete access to the project's progress and financial information. In addition, there is an absence of CSO and CBO collaboration initiatives with NGOs and GOBs, which prevents the project from being more advantageous

for the people in the area. For the LLA intervention, there are challenges regarding finances, and another obstacle that prevents the successful implementation of the LLA interventions is a concern regarding governance.

## **5.1 Recommendations**

Considering the all key finding and discussion of this research, here proposed some recommendation for better locally led initiatives and project, these as follows:-

- (a) The government-implemented projects are the most deficient in implementing project-level monitoring and evaluation systems; a robust monitoring and evaluation system is required for the locally-led adaptation (LLA) project to track progress and ensure accountability and learning mechanisms.
- (b) Since climate change has disproportionately affected men and women, there should be a protocol to follow where local-level local level women leaders may participate in decision-making for the LLA intervention.
- (c) Locally-led adaptation is gaining relevance at many levels of government in Bangladesh and is being included in national plans and policies. Still, policy options for LLA are limited; the government should design and execute an LLA-specific strategy and plan that would guide LLA intervention appropriately.
- (d) At the local level, political influence, culture, and power dynamics affect climate change adaptation actions, impeding implementation. The government must develop a special regulation to regulate local political dynamics and make the LLA process autonomous.
- (e) As local government entities (Union Parishad) are significant actors in the LLA process, their capacity to lead the LLA process should be strengthened through particular capacity building, such as fundraising and utilization of LLA initiatives.
- (f) In the initiative to adapt to climate change at the local level, there is a lack of coordination among the various actors; consequently, there should be an increase in the level of coordination and collaboration among government organizations, civil society organizations, and community-based organizations at the local level.
- (g) Since the governance mechanism of the LLA is a significant problem, a sound governance system needs to be built into the local government's system to ensure the efficient execution of LLA initiatives without the appearance of any form of corruption.

- (h) At the local level, adaptation projects, which need coordination between the government and non-governmental organizations, should adopt a co-financing system that would ensure the efficient implementation of LLA at the grassroots level.
- (i) The projects that the government leads need to be operated in such a way as to adopt a decentralized and bottom-up approach. This would speed up the LLA projects and make them more effective and functional in achieving the intended goals.

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## Annexure

### Annex-1: Project Information Sheet

#### MSc. Thesis

### The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh

#### Project Information Sheet

| <b>A. Project Details</b>            |                                                |           |           |
|--------------------------------------|------------------------------------------------|-----------|-----------|
| Project Categories                   | Govt.-1                                        | NGO-2     |           |
| Name of the Project                  |                                                |           |           |
| Project Objective                    |                                                |           |           |
| Project Timeline                     |                                                |           |           |
| Project Donor                        |                                                |           |           |
| Under which theme funded             |                                                |           |           |
| Implementing Partner                 |                                                |           |           |
| Project Total Budget                 |                                                |           |           |
| Collect Breakdown (in %) if Possible | Total -<br>HR -<br>Programme -<br>Operations - |           |           |
| Project Beneficiaries                | Total:                                         | Male:     | Female:   |
| Project Location                     | Upazila:                                       | District: | Division: |

| <b>B. Project Activities</b>                                             |                 |
|--------------------------------------------------------------------------|-----------------|
| Main Activities                                                          |                 |
| Sub-Activities                                                           |                 |
| Does this project take any inputs from the community for implementation? | Yes-1      No-2 |
| If Yes, how they took                                                    |                 |

| <b>C. Project MEAL System</b>                                          | <b>Response</b> |
|------------------------------------------------------------------------|-----------------|
| Does this project have M&E Plan/Framework?                             | Yes-1      No-2 |
| If yes, does the community's input were considered?                    | Yes-1      No-2 |
| If Yes, why?                                                           |                 |
| If No, Why?                                                            |                 |
| Does this project have specific accountability and learning framework? | Yes-1      No-2 |
| If Yes, does the community take part in the planning process?          | Yes-1      No-2 |
| If Yes, how they participated?                                         |                 |
| If No, what reasons for not taking part there?                         |                 |

|                                                                                                   |                                                 |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Is there any initiative for a joint monitoring visit with the community?                          | Yes-1 No-2                                      |
| If Yes, how was it conducted?                                                                     |                                                 |
| If No, why?                                                                                       |                                                 |
| How frequently monitoring visits conducted in the field?                                          |                                                 |
| Does the community participate in the monitoring process?                                         | Yes-1 No-2                                      |
| If yes, how do they contribute?                                                                   |                                                 |
| If No, why they don't participate?                                                                |                                                 |
| Does any evaluation conduct under this project?                                                   | Yes-1 No-2                                      |
| If yes, do community people participate in the evaluation process?<br>How have they participated? |                                                 |
| Reporting Frequency Internal                                                                      | Monthly<br>Quarterly<br>Half Yearly<br>Annually |
| Reporting Frequency External                                                                      | Monthly<br>Quarterly<br>Half Yearly<br>Annually |
| Does the project report and information shared with community people?                             | Yes-1 No-2                                      |
| If Yes, how do you share the report/information?                                                  |                                                 |
| If No, why you don't share the information?                                                       |                                                 |
| Do have any suggestions for MEAL system development by engaging community?                        |                                                 |

**D.** What are the challenges to implementing the project by involving local people?

**E.** What are the lessons learned within this project; considering local people involvement?

**F.** What are the issues you will consider planning any similar project in the future?

**G. Locally-led Adaptation (Indicators for Analysis, please share response based on you experience)**

| Indicators                                                                                                                                    | Response from Project | Score                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------|
| G1. Target communities and local govt. are being consulted during the project design, implementation, and monitoring phase                    |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G2. Addressing structural inequalities faced by women, youth, children, disabled, displaced, indigenous peoples & marginalized ethnic groups  |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G3. Status of access to climate change adaptation funds at the local level by community/entities                                              |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G4. Empowering local organizations by helping financial management and ensuring technical support (participate implementation and monitoring) |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G5. Communities are being consulted on present and future climate risks and impacts and actions are taken accordingly under the project       |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |

| Indicators                                                                                                                                                                                     | Response from Project | Score                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------|
| G6. Project interventions/actions are monitored at regular intervals and regularly updated based on community needs, challenges, and updated information, and capture learning as well.        |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G7. All information (program and finance) are easily accessed by the communities without any legal regulations, and project progress information is shared with the community and stakeholder. |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G8. Regular consultation takes place with the relevant govt. agencies, CSOs, NGOs, and local communities, and co-financing is also welcomed at the local level                                 |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
| G9. Project interventions are gender-responsive and cover activities, finance, and MEAL.                                                                                                       |                       | 1 – Not a priority<br>2 – Low priority<br>3 – Medium priority<br>4 – High priority<br>5 – Essential |
|                                                                                                                                                                                                | <b>Total score</b>    |                                                                                                     |

**H. SWOT Analysis (Please put information based on you own analysis reference to project experience.**

| <b>Strengths</b>     | <b>Weakness</b> |
|----------------------|-----------------|
|                      |                 |
| <b>Opportunities</b> | <b>Threats</b>  |
|                      |                 |

**\*\*\* The End \*\*\***

## Annex-2: FGD Guideline for Community

MSc. Thesis

**Study Title: The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh**  
**Independent University, Bangladesh**

### **Guidelines on Focus Group Discussion (FGD)** **Participants: Community People**

|                                  |                 |                  |
|----------------------------------|-----------------|------------------|
| <b>Date of FGD:</b>              |                 |                  |
| <b>Name of FGD Facilitators:</b> |                 |                  |
| <b>Location/Place of FGD:</b>    |                 |                  |
| <b>Union:</b>                    | <b>Upazila:</b> | <b>District:</b> |

### **Identification of the FGD Male/Female (8-12) participants**

| Sl no | Name | Age | Gender | Education | Main Occupation | Phone number |
|-------|------|-----|--------|-----------|-----------------|--------------|
| 1     |      |     |        |           |                 |              |
| 2     |      |     |        |           |                 |              |
| 3     |      |     |        |           |                 |              |
| 4     |      |     |        |           |                 |              |
| 5     |      |     |        |           |                 |              |
| 6     |      |     |        |           |                 |              |
| 7     |      |     |        |           |                 |              |
| 8     |      |     |        |           |                 |              |
| 9     |      |     |        |           |                 |              |
| 10    |      |     |        |           |                 |              |

### **Focus Group Discussion (FGD) Topics:**

1. What do you understand by locally-led adaptation in your context (relevant to climate change adaptation)? Please briefly discuss.
2. In your area, what types of climate change adaptation projects implementing/implemented? Could you briefly describe their key activities and your participation in these projects/initiatives?
3. In the project designing stage/phase, do those organizations invite you to provide your opinions?
  - If Yes, how did you share your inputs, briefly explain?
  - If No, why did they not invite you? What is your opinion on this?
4. As the project is implemented at the local level, the project needs to decide by the local people. Do they engage you in any decision-making process?
  - If Yes, How did you take part in the decision-making process?
  - If No, why they don't engage you in the decision-making process?

5. Briefly describing locally led adaptation and community-based adaptation, they ask the participants to differentiate LLA & CBA and encourage them to identify some key features in their context.
6. From your community, do community actors and leaders are responsible for the adaptation process and what is their interest in a locally-led adaptation process to make their communities climate-resilient?
7. Do these projects invite you to any monitoring, evaluation, and learning (research, knowledge management) activities?
  - If Yes, how did you get involved, and what did you do in the process?
  - If No, please share your opinion on why they don't invite you.
8. Do these projects give you access to project information and financial information?
  - If yes, How do you get access to this information?
  - If No, what are the barriers to accessing this information?
9. Does this project involve any local level networks, CBO, or CSO to implement climate change adaptation initiatives, and what were their roles?
10. In your opinion what are the key challenges/barriers to implementing locally-led adaptation projects/initiatives to make ke community climate resilient. Please briefly discuss.
11. What are your recommendations for implementing locally-led adaptation to make your community more climate resilient? Please discuss this briefly.

**Thank you very much for giving your time and input to the discussion.**

## Annex-3: KII Guideline for Community Leaders/Actors

MSc. Thesis

**Study Title: The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh**  
**Independent University, Bangladesh**

**Guidelines on Key Informant Interview**  
**Respondent: Local leader/representative/actor**

### Key Informants Basic Information

|                         |                 |                  |
|-------------------------|-----------------|------------------|
| <b>KI Category:</b>     |                 |                  |
| <b>Name</b>             |                 |                  |
| <b>Gender</b>           | <b>Age</b>      |                  |
| <b>Education Level:</b> |                 |                  |
| <b>Location:</b>        |                 |                  |
| <b>Union:</b>           | <b>Upazila:</b> | <b>District:</b> |

12. What do you understand locally-led adaptation in your context (relevant to climate change adaptation)? Please briefly discuss.
13. In your area, what types of climate change adaptation projects implementing/implemented? Could you briefly describe their key activities and your participation as a community leader/representative in these projects/initiatives as a community leader?
14. In the project designing stage/phase, do those organizations invite you as a leader/representative of the community to provide your opinions?
  - If Yes, how did you share your inputs, and what opinions do you share? Briefly explain?
  - If No, why did they not invite you? What is your opinion on this?
15. As the project is implemented at the local level, the project should need to take the opinion of the local leader/representatives. Did they engage you in any decision-making process?
  - If Yes, How did you take part in the decision-making process?
  - If No, why they don't engage you in the decision-making process?
16. Briefly describe locally led and community-based adaptation, then ask the local leader/representative to differentiate LLA & CBA and encourage them to identify some key features of LLA in their context.
17. What is your role in the climate change adaptation process in your community, and what is your interest in locally-led adaptation to make their communities climate-resilient?
18. As a community leader/representative, have you ever been invited by these projects to any monitoring, evaluation, and learning (research, knowledge management) activities?

- If Yes, how did you get involved, and what did you do in the process?
  - If No, please share your opinion on why they don't invite you.
19. As a community leader/representative, did you access project and financial information?
- If yes, How do you get access to this information?
  - If No, what are the barriers to accessing this information?
20. Does this project involve any local level networks, CBO, or CSO to implement climate change adaptation initiatives? What were their roles?
21. Did these projects have specific initiatives on local representatives/leader capacity building?
- If Yes, How do they initiate the capacity building, and what areas do they cover?
  - If No, why they don't work on capacity building of local leaders/actors?
22. What are the governance challenges to implementing locally-led actions? Please describe briefly.
23. In your opinion, what are the key challenges/barriers to implementing locally-led adaptation projects/initiatives to make the community climate-resilient? Please briefly discuss.
24. What are your recommendations for implementing locally-led adaptation to make your community more climate resilient? Please discuss this briefly.

**Thank you very much for giving your time and input to the discussion.**

## **Annex-4: KII Guideline for Project Leads/Representatives**

**MSc. Thesis**

**Study Title: The State of Locally-led Adaptation (LLA) in Climate Vulnerable Communities in Selected Coastal Districts of Bangladesh**  
**Independent University, Bangladesh**

**Guidelines on Key Informant Interview**  
**Respondent: Project Lead/Manager/Representative**

### **Key Informants Basic Information**

|                             |                 |                  |
|-----------------------------|-----------------|------------------|
| <b>KI Category:</b>         |                 |                  |
| <b>Project Name:</b>        |                 |                  |
| <b>Position in Project:</b> |                 |                  |
| <b>Name:</b>                |                 |                  |
| <b>Gender:</b>              | <b>Age</b>      |                  |
| <b>Education Level:</b>     |                 |                  |
| <b>Location:</b>            |                 |                  |
| <b>Union:</b>               | <b>Upazila:</b> | <b>District:</b> |

### **KII Questions**

1. What do you understand locally-led adaptation in your project context (relevant to climate change adaptation)? Please briefly discuss.
2. What types of climate change adaptation it is? Could you briefly describe project outcome, outputs and key activities and its link with local context?
3. In the project designing stage/phase, do you invite community people and leader and representative to provide their inputs and opinions?  
If Yes, how did they share their inputs, and what opinions do they share? Briefly explain?  
If No, why did not invite them? What is your opinion on this?
4. As the project is implemented at the local level, the project should need to take the opinion of the local people and leader/representatives. Did you engage them in any decision-making process?  
If Yes, How did you engaged them in the decision-making process?  
If No, why you don't engage them in the decision-making process of project?
5. What are the differences between LLA & CBA and would you please describe some key features of LLA in your project context.
6. In your view, do community actors and leaders are responsible for the adaptation process led by local people and what is their interest in a locally-led adaptation process to make their communities climate-resilient?

7. As a project lead/manager, have you ever been invited local people/leader/representative to any monitoring, evaluation, and learning (research, knowledge management) activities?  
  
If Yes, how did you involved them, and what they did in the process?  
If No, please share your opinion on why you don't invited them?
8. Did you provide access the local people/leader/representative to project information and financial information?  
If yes, How did they get access to this information?  
If No, what are the barriers to accessing this information?
9. Does your project involve any local level networks, CBO, or CSO to implement climate change adaptation initiatives? What are their roles to ensure climate change adaptation in local level?
10. Did these projects have specific initiatives for local representatives/leader capacity building?  
  
If Yes, how do you initiate the capacity building, and what areas do you cover?  
If No, why you don't work on capacity building of local leaders/actors?
11. What are the governance challenges to implementing locally-led actions? Please describe briefly.
12. In your opinion, what are the key challenges/barriers to implementing locally-led adaptation projects/initiatives to make the community climate-resilient? Please briefly discuss.
13. What are your recommendations for implementing locally-led adaptation to make your community more climate resilient? Please discuss this briefly.

**Thank you very much for giving your time and input to the discussion.**

## Annex-5: FGD and KII data collection Photos



*Photo: FGD with Community Peoples*



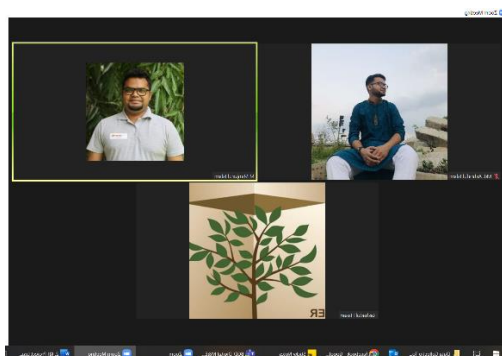
*Photo: FGD with Community Peoples*



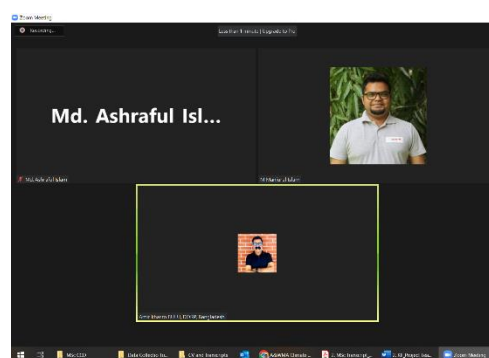
*Photo: KII with Local Actor*



*Photo: KII with Local Leader*



*Photo: KII with Project Lead*



*Photo: KII with Project Lead*