Supported by: GREEN CLIMATE FUND

Interim Evaluation of

Enhancing Adaptive Capacities of Coastal Communities, Especially Women, to cope with Climate Change Induced Salinity Project

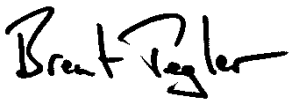
FP069 – Bangladesh (UNDP PIMS+ 5724)

July 2022

Project Summary Table

Project Title:	Enhancing adaptive capacities of coastal communities, especially women, to cope with climate change induced salinity
Project ID#	FP069 - Bangladesh
UNDP PIMS+	5724
Interim Evaluation Time Frame	Evaluation timeframe – 1st February to 31st July 2022
Region and country	Asia and the Pacific, Bangladesh
Accredited Entity	United Nations Development Programme (UNDP)
Executing Entity / Beneficiary	Ministry of Women and Children Affairs (MoWCA) Beneficiary: Total 719,229 direct and indirect beneficiaries
Interim Evaluation Team Members	International Consultant: Brent Tegler National Consultant: Atikul Islam
Result Areas	Increased resilience of: • Most vulnerable people and communities • Health and well-being, and food and water security
Project Period	6 years: October 12th 2018 to October 12th 2024
Project Budget	GCF: USD $24,980,000; Co-finance USD $8,000,000

Report Submitted: July, 2022



Brent Tegler PhD
Interim Evaluation Team Leader

Atikul Islam PhD
National Evaluation Team Member

Executive Summary

Description of Project

1. Bangladesh is one of the worst affected countries to global climate change. The coastal areas are particularly disaster prone and vulnerable to climate change related hazardous events that are affecting the lives and livelihoods of communities, disrupting agricultural productivity and drinking water security.

2. Women play a lead role in water security and household level resilience, while at the same time women face socio-economic marginalization. Climate change threats to water security to agricultural livelihoods due to increasing salinity in coastal communities disproportionately affects women and girls.

3. The "Enhancing adaptive capacities of coastal communities, especially women, to cope with climate change induced salinity1" project aims for gender-transformative results by improving the water security and livelihood options of women through actions that target women's access to resources, increased participation in decision-making and to support women as leaders in building community adaptive capacity.

4. The objective of the Gender-responsive Coastal Adaptation (GCA) project is:

   To support the Government of Bangladesh (GoB) in strengthening the adaptive capacities of coastal communities, especially women, to cope with impacts of climate change-induced salinity on their livelihoods and water security

5. The GCA project objective will be achieved through the following three inter-related project outputs and their associated activities:

Output 1 Climate-resilient livelihoods, focusing on women, for enhanced adaptive capacities of coastal agricultural

- **Activity 1.1** Enterprise- and community-based implementation of climate-resilient livelihoods for women
- **Activity 1.2** Strengthened climate-resilient value-chains and market linkages for alternative, resilient livelihoods
- **Activity 1.3** Community-based monitoring and last-mile dissemination of Early Warnings (EW) for climate-risk informed, adaptive management of resilient livelihoods

Output 2 Gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions

- ***Activity 2.1*** Participatory, site-specific mapping, beneficiary selection, and mobilization of community-based management structures for climate-resilient drinking water solutions
- ***Activity 2.2*** Implementation of climate-resilient drinking water solutions at Household (HH), community, and institutional scales
- **Activity 2.3** Community-based, climate-risk informed Operation and Maintenance (O&M) and management of the resilient drinking water solutions

Output 3 Strengthened institutional capacities, knowledge and learning for climate-risk informed management of livelihoods and drinking water security

- ***Activity 3.1*** Strengthen Ministry of Woman and Children's Affairs (MoWCA's) technical and coordination capacities for design and implementation of gender-responsive, climate-resilient coastal livelihoods
- **Activity 3.2** Strengthen Department of Public Health and Engineering (DPHE) capacities for climate-risk informed innovation and management of drinking water solutions across the Southwest coast
- **Activity 3.3** Establish knowledge management, evidence-based learning and Monitoring and Evaluation (M&E) mechanisms to promote long- term, adaptive capacities of coastal communities

[1] The full project name has been shortened to "Gender-responsive Coastal Adaptation" project (GCA).

Interim Evaluation Ratings and Achievement Summary Table for GCA Project

Measure	Interim Evaluation	Achievement Description
Project Strategy	N/A	N/A
Progress Towards Results	Objective Achievement Rating: ***Unsatisfactory***	The GCA project will not achieve many of its end of project targets, particularly those associated with Outcomes 1 and 3 due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the Learning Oriented Realtime Impact Assessment (LORTA)
	Outcome 1 Achievement Rating: ***Unsatisfactory***	The GCA project is not expected to achieve project targets that demonstrate sustainable adoption of climate-resilient livelihoods due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the LORTA
	Outcome 2 Achievement Rating: ***Moderately Satisfactory***	The GCA project is expected to achieve project targets installing RWHS, there is concern there will be insufficient time to ensure sustainable O&M, implementation of the fee-based model and capacity development of Local Government Institutions (LGI) for community based water options due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19
	Outcome 3 Achievement Rating: ***Unsatisfactory***	The GCA project is not expected to achieve project targets to fully demonstrate the capacity of the government to sustainably implement gender-sensitive climate-risk informed management and planning of livelihoods and drinking water security due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the LORTA
Project Implementation & Adaptive Management	***Satisfactory***	Most components of GCA project management are highly satisfactory, contributing to efficient and effective project implementation. The disruption caused by Covid-19 is unprecedented and led to delays that could not be comprehensively mitigated by alternative implementation strategies and adaptive management. Lessons have been learned to improve adaptive management.
Sustainability	***Moderately Unlikely***	There are significant risks to sustainability due to a lack of time to embed mechanisms to sustain RWHS, to support the introduction of novel climate-resilient livelihood options and to create and implement structural changes in government practices to implement gender-sensitive climate-risk informed management and planning of livelihoods and drinking water security

[2] See **Appendix 10** for an explanation of the achievement summary rating system used

Summary of Interim Evaluation Findings

6. The GCA project has encountered significant overlapping and interacting challenges associated with super-cyclone Amphan (May 2020), the global Covid-19 pandemic (March 2020 to present) and selection of the GCA project for LORTA (2020). The occurrence of these events in the second and third years of the project prevented or severely curtailed the crucial foundation interactions among stakeholders and beneficiaries (i.e., sensitization, training of trainers, trainings, regular meetings, group formation, workshops, etc.). The GCA project has utilized an adaptative management approach, particularly among stakeholders with access to the technologies that permit virtual meetings, but it has not been able to achieve the same level of interaction virtually, that face-to-face meetings or workshops would, especially for larger groups and where novel, innovative concepts are being introduced. And in regard to rural areas, and for beneficiaries in particular, virtual meetings or training sessions are generally not possible and implementation of activities in the field has been postponed and scheduled to begin in 2022.

7. Considering the project activities completed and the project budget expended to December 31st, 2021, as well as the project schedule established in the Project Implementation Plan (PIP), the GCA project is 1.5 to 2 years behind schedule. The remaining three years of the project will not be sufficient to complete all activities in a meaningful and sustainable manner and implement an orderly exit strategy that ensures: 1. climate-resilient livelihood activities and market-value chains are well established and self-sustaining; 2. the inter-dependent components providing gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions are all fully functional and working synergistically; and 3. the GoB has the demonstrated the capacity to effectively plan and manage solutions for climate-risk informed livelihoods and drinking water security with plans and budgets in place for the scaling-up that is needed across all coastal areas of Bangladesh.

8. Due to the delay in implementation of project activities, the IE has not made the anticipated full assessment of the efficacy of GCA's three project outputs given the fact that none of the activities have been fully implemented (no mid-term targets defined in the Logical Framework indicators have been achieved).

9. Nonetheless, based on the analysis that has been completed the IE has identified factors that indicate the GCA project has the potential for successful and sustainable completion of all project activities that can provide significant and much needed benefits to the direct beneficiaries and enhance the capacity for the GoB to address the larger need within all coastal areas. The analysis of the GCA Theory of Change (ToC) demonstrates a logical framework supported appropriated activities. The project management structure is in place, including the large technical capacity of the Project Management Unit (PMU) and engagement of Ministry of Women and Children's Affairs (MoWCA), Department of Women's Affairs (DWA) and Department of Health Engineering (DPHE) is capable of implementation. With appropriate ongoing management and training of implementing Non-government organizations (NGOs), the implementation of activities in the field with women and youth can be efficient, effective and sustainable.

10. The GCA project has the capacity to be gender-transformative for the GoB with MoWCA taking the lead role as Executing Entity, and GCA project activities aimed at the integration and mainstreaming of gender-responsive climate-resilient planning and management into the development activities of other participating government departments such as DPHE.

11. The GCA project can also be gender-transformative for the women and communities engaged in the project. Reducing the burden of work for women and girls through the provision of RWHS and supporting new opportunities for women to participate in climate-resilient livelihood activities can significantly change the status of women in the community. A regular component of GCA project activities is the introduction of the concept of women's

unpaid work, to sensitize community members and promote a sharing of the responsibility of unpaid work among all community members, men and women.

Interim Evaluation Recommendations

Recommendation	Responsible Party(ies)	Timeline
1. To permit effective and sustainable completion of project activities and to ensure adequate time is available for an orderly exit strategy, it is recommended the GCA project request an eighteen month extension with project completion date 12 April 2026. This may be a no cost extension based on the GCF and GoB budget remaining (Table 5) for project implementation, including the budget available for project staff.	Project Board and Project Steering Committee	2nd Quarter, 2022
2. Final approval of the GCA project Grievance Redress Mechanism (GRM) by MoWCA should be expedited as soon as possible to support project implementation.	MoWCA	complete by end of 2nd Quarter, 2022
3. The Indigenous Peoples Plan (IPP) should be finalized and implemented immediately with the results of implementation monitored and adjusted as necessary.	PMU	complete by end of 2nd Quarter, 2022
4. The Operational Manual on Social and Environmental Safeguards should be finalized and implemented immediately with the results of implementation monitored.	PMU	complete by end of 2nd Quarter, 2022
5. Complete recruitment of a woman empowerment officer.	PMU	complete by end of 2nd Quarter, 2022
6. When HH RWHS are fully functioning and have filled during the wet season monitoring should be conducted to determine adequate storage capacity to meet HH needs. If storage capacity is determined to be inadequate, in consultation with DPHE and beneficiaries a strategy to address the shortage in supply should be developed.	PMU	begin 2nd Quarter, 2022 complete by end of 1st Quarter, 2023
7. For community based RWHS options, including tanks and ponds, experience and monitoring of pilot installations should be used to continue to refine RWHS designs and implementation methods.	PMU	continuous until project completion
8. Seasonal water quality monitoring of both HH and community-based RWHS should be conducted to verify the potability of the water and performance of the newly introduced treatment devices and where necessary improve RWHS filtration and treatment systems.	PMU	continuous until project completion

Recommendation	Responsible Party(ies)	Timeline
9. Additional effort should be made to engage Local Government Institutions (LGI) with a focus on making LGI fully conversant with the GCA ToC and the innovative approach to implementation to encourage LGI to advocate on behalf of the GCA project. Engagement of LGI should include awareness raising of their contribution to sustaining HH and community RWHS and climate-resilient livelihood activities and in this regard the GCA project may provide appropriate training to ensure LGI can contribute to sustainability. Monitoring of LGI engagement, capacity enahancement and demonstrated commitment to sustainability should be undertaken and additional GCA support provided as needed.	PMU	begin 2nd Quarter 2022 and conitinue until project completion
10. Further review of LogFrame indicators should be completed by the PMU to address issues identified in the SMART analysis (**Appendix 7. Table 7-1**). In addition to indicator data disaggregation by gender, data disaggregation should also include persons with disability and indigenous persons as identified in the IPP.	PMU	begin 2nd Quarter, 2022 complete by end of 3rd Quarter 2022
11. At the request of implementing partner NGOs, explore mechanisms to enhance communication, collaboration and coordination of day-to-day GCA field implementation activities through more frequent (minimum monthly) meetings (virtual or in-person) between the PMU and implementing partner NGOs	PMU	begin 2nd Quarter, 2022 and continue until project completion
12. Review and update GCA Monitoring and Evaluation (M&E) Guideline to enhance Quality Assurance/Quality Control (QA/QC) components and implement recommended changes	PMU	begin 2nd Quarter, 2022, complete update by end of 3rd Quarter
13. The GCA project should produce human-interest stories, photo essays and articles – especially ones that are gender-related given the focus of the project. There are some visible results emerging from project interventions and these should be captured well and disseminated widely.	PMU	begin 2nd Quarter, 2022 and continue until project closure

Interim Evaluation Lessons Learned

12. Comprehensive introduction of a project at the local level, directed at LGI, Civil Society Organizations, community residents should be conducted, preferably, in the first year of a project. Sensitization to the project is intended to promote project understanding, engagement and advocacy and to avoid conflicts that may arise from unrealistic or misunderstood expectations to be derived from the project. Sensitization should include a good understanding of project design, including the ToC, project risks and proposed mitigation measures, roles and responsibilities of stakeholders, beneficiary selection process, GRM, what the project benefits are and who receives them, project implementation methods and timetable, and the project's exit strategy with a sustainability plan that includes replication and scaling-up.

13. Engagement of local elected government officials can be beneficial where they advocate LGI and community members to engage, support and participate in the project. Local government officials should not be permitted to circumvent criteria established by the project for community and/or beneficiary selection, to influence community and/or beneficiary selection based on politically motivated self-interest criteria.

14. Adequate training of enumerators and testing of data collection methods related to baseline survey data, such as the ATM (Adaptation Tracking and Measurement), is crucial to the provision of high quality, error-free data, forming part of the project's foundation. Baseline data are important because they may be used in beneficiary selection and they will be used to measure the success of the project, providing data for some indicators.

15. Baseline data collected during project design and which may be included in the FP may not be a true reflection of the situation at project start-up. Provision to update baseline at project start-up should be included as part of project inception.

16. In coastal areas of Bangladesh increasing salinity of surface and groundwater is impairing water quality for everyone. In a development project such as GCA, it is appropriate to target women and the most vulnerable when introducing HH RWHS to provide access to a safe and reliable climate-resilient drinking water solutions. Nonetheless, it may be possible to address the needs of everyone through a scaled beneficiary selection process whereby community members who are most in need (e.g., criteria such as, women headed HH, extreme-poor, person with disability, ethnic groups, etc.) are targeted first and other community members may participate by providing partial or full financing of RWHS based on HH income (or other criteria).

17. To minimize misunderstandings of community members regarding the beneficiary selection process, the community should be made fully aware of the intended objective, outputs and activities of a project and the mechanism for beneficiary selection. It is also advisable to hold a second round of public meetings prior to publicizing the potential beneficiary list, to permit further discussion and understanding of the beneficiary selection process.

18. In the coastal areas of Bangladesh there is a strong preference for HH RWHS over community-based systems, because community members want to have control over the security of the HH's drinking water supply.

19. Successful field-level implementation of a project is highly dependent on the quality of work conducted by ward (local) facilitators as the "change initiators". Facilitators, who may be hired by implementing partner NGOs, must have the experience and capacity (knowledge, tools, support) to effectively engage remote communities of people that may be fearful and wary of outsiders. Experienced facilitators have a good understanding of appropriate methods to skillfully work collaboratively with the rural poor and to ensure the inclusion of disadvantaged groups (women, poor, disabled, ethnic groups, elderly, etc.). Taking the time required to ensure development of the capacity of partner NGO field facilitation staff is crucial to ensuring uniform and sustainable project progress.

20. Prior to the introduction of climate-resilient solutions, there is a need to conduct adequate research and testing to ensure a reliable, disaster-proof technology is being invested in. Beneficiaries of the GCA project's RWHS, will be relying on these water supply systems to provide a year-round, safe and reliable climate-resilient drinking water solution for many years to come.

21. The site-selection process for community-based RWHS options is a complicated task involving many issues such as, social norms, willingness of the land owner, approval of the water management committee, consideration of the users and safeguard issues. To ensure an efficient process to securing sites a thoughtful, transparent and collaborative site-selection process involving all relevant stakeholders, including those who will utilize the water supply, should be undertaken within the community.

Table of Contents

Acronyms and Abbreviations

AE	Accredited Entity
APR	Annual Performance Reports
ATM	Adaptation Tracking and Measurement
AWP	Annual Work Plan
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BRDB	Bangladesh Rural Development Board
BFRI	Bangladesh Fisheries Research Institute
CPP	Cyclone Preparedness Programme
DAC	Development Assistance Committee
DMC	Disaster Management Committee
DPHE	Department of Public Health Engineering
DPP	Development Project Proforma
DWA	Department of Women Affairs
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EW	Early Warning
EWS	Early Warning System
FAA	Funded Activity Agreement
FAO	Food and Agriculture Organization
FD	Forest Department
FP	Funding Proposal (GCF)
FPIC	Free, Prior and Informed Consent
GAP	Gender Action Plan
GBV	Gender Based Violence
GRM	Grievance Redress Mechanism
GCA	Gender-responsive Coastal Adaptation (project name commonly used)
GoB	Government of Bangladesh
HH	Households
IE	Interim Evaluation
IEU	Independent Evaluation Unit
IPP	Indigenous People's Plan (not yet finalized)
IPPF	Indigenous People’s Planning Framework
iTAP	independent Technical Assessment Panel
LGI	Local Government Institutions
LORTA	Learning Oriented Real-Time [Impact] Assessment
M&E	Monitoring and Evaluation
MoWCA	Ministry of Woman and Children Affairs
NIM	Nationally Implementation Modality
NSDS	National Sustainable Development Strategy (Bangladesh)
NPD	National Project Director
NPDM	National Plan for Disaster Management (Bangladesh)
NGF	Nowabenki Gonomukhi Foundation
OECD	Organisation for Economic Co-operation and Development
O&M	Operation & Maintenance
OMSES	Operational Manual on Social and Environmental Safeguards
PB	Project Board
PIC	Project Implementation Committee
PIP	Project Implementation Plan
PMF	Performance Measurement Framework
PMU	Project Management Unit

PPI	Public Private Initiative
PRA	Participatory Rural Appraisal
PSC	Project Steering Committee
PSF	Pond Sand Filter
PUS	Pond-based Ultra-filtration System
ProDoc	UNDP Project Document
RMF	Results Management Framework
RWHS	Rainwater Harvesting System
SDG	Sustainable Development Goals
SES	Social and Environmental Standards
SESOM	Social and Environmental Safeguard Operational Manual
TAG	Technical Advisory Group
ToC	Theory of Change
ToR	Terms of Reference
ToT	Training of Trainers
UNO	Upazila Nirbahi Officer (Upazila level Chief Executive Officer)
WHO	World Health Organization
WLG	Women Livelihood Groups
WMC	Water Management Committee
WUG	Water User Groups

Interim Evaluation Report for project FP069 Bangladesh

Enhancing adaptive capacities of coastal communities, especially women, to cope with climate change induced salinity

1 Introduction

1.1 Purpose of the IE and Objectives

22. The Interim Evaluation (IE) assesses progress towards the achievement of the "Enhancing adaptive capacities of coastal communities, especially women, to cope with climate change induced salinity[3]" project objective and three outcomes as specified in the GCF Funding Proposal (FP), GCF Funded Activity Agreement (FAA), and the UNDP Project Document (ProDoc). The IE also reviews the project's strategy and risks to sustainability.

23. The purpose of the IE is to assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The IE also reviewed the GCA project's strategy and any risks to sustainability of project activities.

24. The findings of the IE are intended to be used by the Accredited Entity (UNDP), the Executing Entity [Ministry of Woman and Children Affairs (MoWCA) and Department of Public Health and Engineering (DPHE)] to, where necessary, make changes that ensure the GCA project is on-track to achieve its intended results. The IE also provides an independent assessment to GCF of achievement of the FAA. The IE may also be used by other parties, including, government and civil society organizations, to inform efforts to replicate and scale-up GCA project activities.

25. The Terms of Reference (ToR) for the IE are provided in **Appendix 1**.

1.2 Scope & Methodology

26. The IE methods and reporting follow the direction provided in IE Terms of Reference (TOR) and GCF Evaluation Policy, along with guidance provided by the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) (OECD 2021 Applying Evaluation Criteria Thoughtfully). A comprehensive draft and final Inception Report detailing the proposed methodology, evaluation questions, stakeholders, field mission and document list for review was prepared for and reviewed by the UNDP CO (**Appendix 2**).

27. The scope of the IE is to assess the following ten categories of project progress:

    (i) Implementation and adaptive management - to identify challenges and propose additional measures to support more efficient and effective implementation. The following aspects of project implementation and adaptive management will be assessed: management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications.

    (ii) Risks to sustainability - to assess the likelihood of continued benefits after the project ends. The assessment of sustainability at the IE stage considers the risks that are likely to affect the continuation of project outcomes.

[3] The full project name has been shortened; the name used in most project documents and correspondence is the "Gender-responsive Coastal Adaptation" project (GCA).

(iii) Validate the risks - as identified in the FP, ProDoc, Annual Project Performance Reports (APR), and the ATLAS Risk Management Module and whether the risk ratings applied are appropriate and up to date.

(iv) Relevance, effectiveness and efficiency of projects and programmes - to assess the appropriateness in terms of selection, implementation and achievement of FAA and project document results framework activities and expected results (outputs, outcomes and impacts).

(v) Coherence in climate finance delivery with other multilateral entities – to assess how GCF financing is additional and able to amplify other investments or de-risk and crowd-in further climate investment

(vi) Gender equity – to ensure integration of understanding on how the impacts of climate change are differentiated by gender, the ways that behavioral changes and gender can play in delivering paradigm shift, and the role that women play in responding to climate change challenges both as agents but also for accountability and decision-making;

(vii) Country ownership of projects and programmes – to examine the extent of the emphasis on sustainability post project through country ownership; on ensuring the responsiveness of the GCF investment to country needs and priorities including through the roles that countries play in projects and programmes;

(viii) Innovativeness in results areas - focuses on identification of innovations (proof of concept, multiplication effects, new models of finance, technologies, etc.) and the extent to which the project interventions may lead to a paradigm shift towards low-emission and climate-resilient development pathways;

(ix) Replication and scalability - the extent to which the activities can be scaled up in other locations within the country or replicated in other countries; and

(x) Unexpected/unintended results, both positive and negative – to identify the challenges and the learning, both positive and negative, that can be used by all parties (governments, stakeholders, civil society, Accredited Entity (AE), GCF, and others) to inform further implementation and future investment decision-making.

28. The IE was conducted by an evaluation team, consisting of two independent evaluators with no previous involvement in the GCA project. The evaluation team included a national evaluator familiar with the region where the GCA project was operating and who was able to undertake necessary in-country travel to meet face-to-face with stakeholders and beneficiaries, communicating in both Bengali (Bangla) and English as required. The international evaluation team member provided leadership developing the evaluation methodology in consultation with UNDP and through collaboration with the national evaluation team member, to meet the requirements outlined in the ToR.

29. Steps taken to provide quality assurance of evaluation data collection included a preliminary field visit to identify locations for project site visits to inform and confirm stakeholders participating in the IE. In addition, at the initiation of stakeholder interviews by the national evaluation team member, there was immediate reporting back to the international evaluation team member. This was done to permit a review of the information collected leading to a refinement of follow-up interview questions in order to obtain a more in-depth understanding of the complex interdisciplinary (social, economic, environment, cultural, governance, etc.) context of stakeholder responses.

30. The IE has assessed gender equity by reviewing the selection of direct beneficiaries, formation of groups and the participation of women in GCA project activities. The IE has reviewed the gender assessment and implementation of the gender action plan. The IE has also considered how the project collects and reports on gender disaggregated data,

including data on persons with disability and extreme and ultra-poor populations, and ethnic minorities.

31. The international evaluation team member was the lead report author for the Inception Report and IE Report. The national evaluation team member reviewed early drafts and provided edits and comments that were incorporated into final reports.

32. The IE methods included a comprehensive review of the available documents (**Appendix 3**), a field mission to conduct key informant interviews and group discussions (**Appendix 4**) with project staff, government officials, implementing NGOs, project beneficiaries and with relevant government, academic and development professionals not directly involved in the GCA project. Where necessary virtual interviews using available and appropriate technologies such as Zoom, WhatsApp, etc. were conducted to reach stakeholders that are not available for in-person meetings.

33. The selection of stakeholders and beneficiaries was made in consultation with UNDP and the PMU, and based on information identifying stakeholders in relevant documents, such as the IE TOR, the GCF FP, the UNDP ProDoc and APRs. In addition, during the field mission discussion with some stakeholders led to the identification of additional relevant persons that were included for interviews. Stakeholder selection included persons who are directly involved in the project as well as persons not directly involved the GCA project, but who are knowledgeable of the environment where the GCA project operates and able to comment on GCA project activities. Project beneficiary selection for interviews was made to sample across the region where the GCA project operates and based on two days of preliminary site visits. All project beneficiaries included in consultations are women.

34. A summary stakeholders and beneficiary Upazila visited is provided in **Table 1**. In total consultations were held with 124 individuals, which included 84 women beneficiaries.

Table 1: Summary table of stakeholders and beneficiaries who participated in the interim evaluation data collection

Stakeholder Category/Stakeholder	# of Females	# of Males	Total	Comments
National Government				
DPHE (Sub-assistant Engineer, Upazila level)	-	5	5	5 Sub-assistant Engineers from 5 Upazilas of the study area
Deputy Director of the Department of Local Government (DDLG), Khulna	-	1	1	
UNO/AC land	-	2	2	One UNO and one AC land were interviewed
Upazila Agriculture officer	-	1	1	
Upazila Fisheries officer	-	1	1	
Upazila Women & Children Affairs Officer (UWCAO), MoWCA	-	3	3	
Local Government				
Local public representative (Chairman)	-	2	2	

Stakeholder Category/Stakeholder	# of Females	# of Males	Total	Comments
GCA project				
UNDP PMU	2	5	7	
UNDP Khulna Regional Office	-	5	5	
UNDP Bangkok Office	-	1	1	
PIC /PSC /PB	1	2	3	
NGOs				
Implementing NGOs	-	5	5	Project Managers of GCA project partner NGOs
Beneficiaries of GCA project				
Assasuni Upazila	20		20	13 (1 FGD with livelihood & drinking water solutions received group), 2 (RWHS), 5 (group discussion with livelihood & drinking water solutions received group)
Dacope Upazila	16		16	13 (1 FGD with livelihood & drinking water solutions received group), 1 (hydroponic livelihood beneficiary) and 1 (Aquageoponics livelihood beneficiary), 1 (RWHS)
Koyra Upazila	24		24	24 (2 FGD with livelihood & drinking water solutions received group)
Paikgacha Upazila	12		12	11 (1 FGD with livelihood & drinking water solutions received group), 1 (RWHS)
Shyamnagar Upazila	12	-	12	12 (1 FGD with livelihood & drinking water solutions received group)
UN organizations / INGO				
FAO, World Vision, UNICEF	-	3	3	
Think tanks				
Academia	-	1	1	
Totals	**87**	**22**	**109**	

35. The IE assembled credible data to report on the ten categories of project progress identified noted above. An evaluation matrix is provided in **Appendix 5** showing the ten IE categories with evaluation questions, indicators, data sources and evaluation methodology. The evaluation matrix was constructed based on the format provided in the IE ToR Annex C (**Appendix 1**). The evaluation categories, questions and review criteria used in the evaluation matrix are derived from the IE TOR detailed scope for the IE (**Appendix 1**). Indicators, data sources and methodology outlined in the evaluation matrix were developed by the IE team in consultation with UNDP CO and the GCA project team.

36. Data coding to transform the information collected from reports and from stakeholder and beneficiary interviews and group discussions was accomplished by collating, cross-checking

and validating information that provided an evaluation of the questions and review criteria in the evaluation matrix. This information was then assembled into cohesive narrative reporting on the evaluation questions/review criteria in a report format that followed the structure provided by the evaluation categories in the evaluation matrix (**Appendix 5**).

37. The IE verified the results reported by triangulating data available from a wide variety of sources, including the FP, FAA, ProDoc, APRs, Annual Work Plans (AWP), GoB documents, Project Board (PB) minutes, Project Steering Committee (PSC) minutes and Project Implementation Committee (PIC) minutes, and the many documents supporting project implementation of the GCA project (see **Appendix 3**), as well as information gathered through field site visits and interviews with project stakeholders and beneficiaries.

38. Data triangulation was used to assess proposed achievements identified in the FP, FAA, ProDoc and AWP against reported achievements in the APR. Data triangulation was accomplished through field site visits made by the National Evaluation Team member who interviewed project implementing staff, local government staff and beneficiaries and who made direct observations of on-site project infrastructure installation activities. In addition, an effort was made to interview persons who were not directly associated with the GCA project, including representatives from the Food and Agriculture Organization (FAO) and World Vision, to ensure unbiased, corroborating evidence was used in data triangulation.

39. The table of contents used for the IE report follows the direction provided in the IE TOR and as presented in the GCA IE Inception Report (**Appendix 2**) reviewed by UNDP and the PMU.

1.3 Limitations and Challenges of the Interim Evaluation

40. A limitation of the IE was the Covid 19 pandemic travel restriction that prevented the international IE team member from travelling to Bangladesh and reduced the overall number of face-to-face meetings conducted by the national IE team member. Due to the remote location of some field sites and the limited time to conduct field site visits, it was not possible to conduct face-to-face interviews in all areas. Also some interviews were scheduled but were not conducted due to the absence of the interviewee during the field mission.

    Some government staff contacted declined to participate in interviews; UWCAO, MoWCA Koyra Upazila). Some stakeholders scheduled for interviews were found to not have a good understanding of the GCA project and they could not therefore provide information; such as the agriculture and fisheries officers in Paikgacha.

41. The international IE team member, performing the roles of team leader and primary report author, was constrained due to a more limited contact with project stakeholders, including no contact with beneficiaries. It should also be noted that interviews conducted remotely do not include normal non-verbal communication cues, which may contribute 50% or more to in-person communication. So while the IE is able to review and document successful components of the GCA project relatively well, the evaluation of less successful or challenging components of the project was more difficult. It was not possible to conduct in-depth interactive discussions that occur when the international and national evaluation team members work together in the field interviewing project stakeholders and beneficiaries. These collaborative investigations probe underlying causes to better understand project barriers and highlight proposed options used to overcome them.

42. There is also the fact that GCA project activities are behind schedule (see **Section 3.4**) and without the completion of activities as intended at the mid-way point in the project, there are severe limitations to analyzing the many IE evaluation criteria (see Evaluation Matrix **Appendix 5**) because outputs are still at the inception phase. For example, under Output 2, tests were conducted to assess the performance of Rain Water Harvest Systems (RWHS)

and the innovative pre-filter system, but the bulk of RWHS intended for beneficiaries have not gone through a complete wet season/dry season cycle to permit an analysis and discussion with stakeholders and beneficiaries regarding implementation, the quality and quantity of water, introduction of fee-based model and Operations and Maintenance (O&M). GCA project activities associated with Output 1, climate-resilient livelihood options have recently completed the beneficiary selection process and training is scheduled for 2022, no livelihood activities have started that can be evaluated.

43. In an attempt to overcome these limitations the national and international evaluators communicated regularly via WhatsApp. Notes taken by the national evaluator during interviews were immediately communicated back to the international evaluator for review and comment leading to follow-up questions which, in some cases, required to the national evaluator to conduct short follow-up interviews in-person where possible but also remotely via mobile phone. This ensured an in-depth understanding used to inform the IE.

44. Despite limitations noted above, the national evaluator conducting the field mission was able to visit 4 or 5 project Upazila offices and beneficiaries in 8 of 39 project Unions. This is considered adequate to ensure comprehensive geographic coverage is reflected in evaluation results. A broad range of individual stakeholders (total 43) were interviewed, some of which were remote, virtual interviews where both the national and international evaluator participated. The stakeholders interviewed included UNDP Bangkok (regional), UNDP Dhaka (country) and UNDP Khulna (regional project office) staff, government staff at the national, District, Upazila and Union levels and other independent observers not directly associated with the GCA project, including an environmental specialist from FAO, a WASH technical advisor from World Vision, and an environmental science professor from Khulna University.

2 Project Description and Background Context

45. Bangladesh is one of the worst affected countries to global climate change. The coastal areas are particularly disaster prone and vulnerable to climate change related hazardous events that are affecting the lives and livelihoods of communities, disrupting agricultural productivity and drinking water security.

46. Recent socioeconomic conditions and livelihood practices are changing within coastal areas, notable internal migration is increasing, salinity in agricultural lands is rising, there is increasing scarcity of freshwater resources, there are decreasing yields from shrimp aquaculture and increasing frequency and intensity of natural disasters that are reflected in the baseline survey of the GCA project (see FP and Environmental and Social Management Framework).

47. In 2020 super cyclone Amphan resulted in devastating damage in all the unions of project working area. Many people lost their houses, livelihoods and access to safe drinking water. The onset of Covid-19 in 2020 and through 2021 resulted in lockdowns, travel restrictions and health concerns that also impacted the livelihoods of beneficiaries in the project area. The GCA project has had the opportunity to give additional attention to the vulnerable people who have been severely affected by super cyclone Amphan and Covid-19.

48. Women play a lead role in water security and household level resilience, while at the same time women face socio-economic marginalization. Climate change threats to water security to agricultural livelihoods due to increasing salinity in coastal communities disproportionately affects women and girls. Therefore, the GCA project has a primary focus on working with women and girls.

49. The project targets support to (i) climate-resilient livelihoods through a market-based approach, (ii) access to safe and reliable climate-resilient drinking water solutions (iii) institutional and policy reforms coupled with adaptive learning. The project will empower target communities, especially women, as 'change-agents' to plan, implement, and manage resilient livelihoods and drinking water solutions.

50. The GCA project supporting the GoB's overall development framework and is in line with GoB's Seventh Five Year Plan (SFYP, 2016-2020) which articulates the country's commitment to addressing climate and the Climate Change Gender Action Plan (2013) which prioritizes integration of gender and climate change.

51. The objective of the Gender-responsive Coastal Adaptation (GCA) project is:

> *To support the Government of Bangladesh (GoB) in strengthening the adaptive capacities of coastal communities, especially women, to cope with impacts of climate change-induced salinity on their livelihoods and water security*

52. The GCA project objective will be achieved through the following three inter-related project outputs and their associated activities:

Output 1 Climate-resilient livelihoods, focusing on women, for enhanced adaptive capacities of coastal agricultural

Activity 1.1 Enterprise- and community-based implementation of climate-resilient livelihoods for women

Activity 1.2 Strengthened climate-resilient value-chains and market linkages for alternative, resilient livelihoods

Activity 1.3 Community-based monitoring and last-mile dissemination of Early Warnings (EW) for climate-risk informed, adaptive management of resilient livelihoods

Output 2 Gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions

Activity 2.1 Participatory, site-specific mapping, beneficiary selection, and mobilization of community-based management structures for climate-resilient drinking water solutions

Activity 2.2 Implementation of climate-resilient drinking water solutions at Household (HH), community, and institutional scales

Activity 2.3 Community-based, climate-risk informed Operation and Maintenance (O&M) and management of the resilient drinking water solutions

Output 3 Strengthened institutional capacities, knowledge and learning for climate-risk informed management of livelihoods and drinking water security

Activity 3.1 Strengthen Ministry of Woman and Children's Affairs (MoWCA's) technical and coordination capacities for design and implementation of gender-responsive, climate-resilient coastal livelihoods

Activity 3.2 Strengthen Department of Public Health and Engineering (DPHE) capacities for climate-risk informed innovation and management of drinking water solutions across the Southwest coast

Activity 3.3 Establish knowledge management, evidence-based learning and Monitoring and Evaluation (M&E) mechanisms to promote long- term, adaptive capacities of coastal communities

53. The project Outcome will strengthen the adaptive capacity and reduce exposure of vulnerable coastal households, especially women, to climate change induced salinity risks and impacts on their freshwater-dependent lives and livelihoods through a switch to climate-resilient livelihoods for enhanced capacities of communities, focusing on women and those adolescent girls who are solely responsible for household income generation; gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions; and strengthened institutional capacities, knowledge, and learning for climate-resilient drinking water and livelihoods security.

54. A total of 39 Unions (18 in Satkhira and 21 in Khulna) are the target area of the project (**Figure 1**). These Unions were chosen based on the level of exposure to salinity, including projected salinization, and the percentage of extreme and ultra-poor populations most vulnerable to negative climate change impacts. The project will enhance the ability of the GoB to strengthen the adaptive capacities of coastal communities, especially women, to cope with the impacts of climate change-induced salinity on their livelihoods and water security through the three Output's activities. Recognizing the crucial role that women play in water security and household level resilience, and the socio-economic marginalization of women that leads to their increased vulnerability, the proposed solution will empower women in selected communities, as 'change-agents' to plan, implement, and manage resilient drinking water solutions and livelihoods in the face of worsening impacts of climate change. The GCA FP estimated 719,229 people (245,516 direct, 473,713 indirect) will benefit from the project.

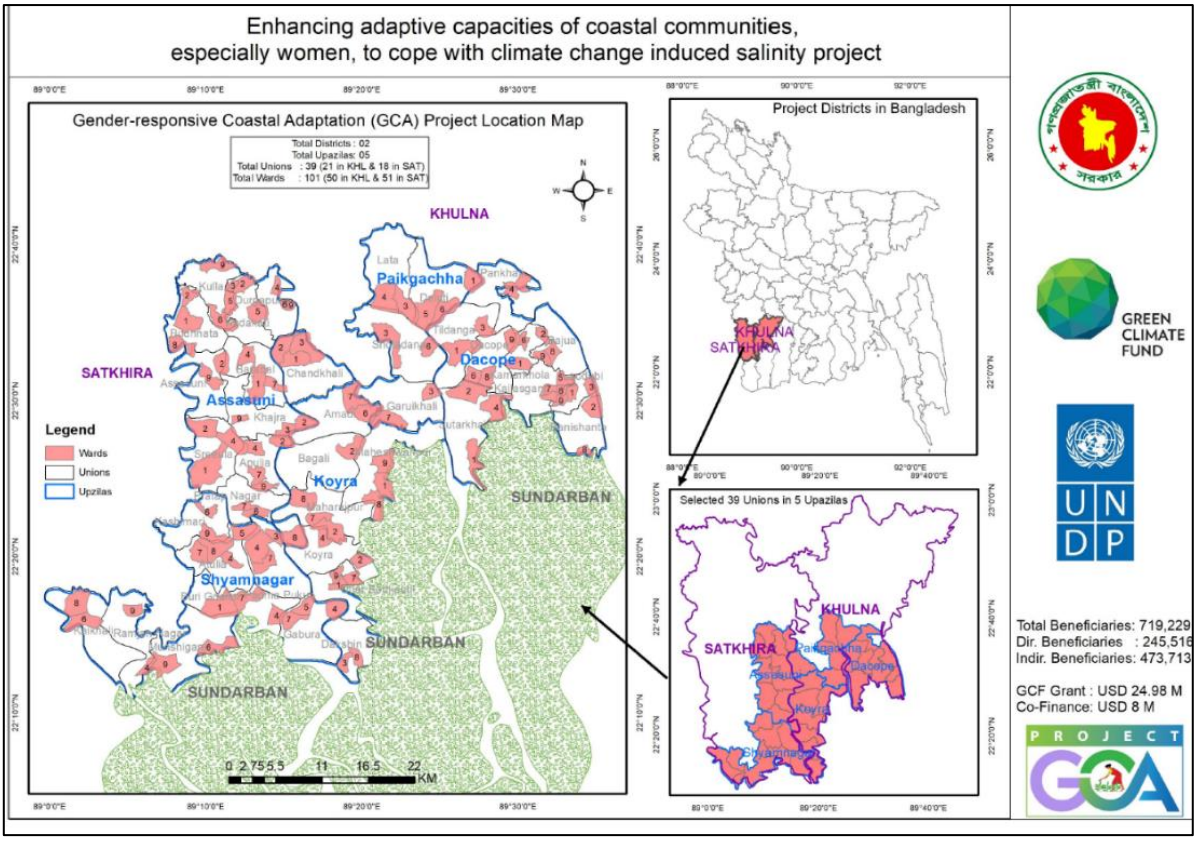


Figure 1. Location of GCA project in Bangladesh (source, Revised GCA Project Implementation Plan)

55. In summary, through collaboration with Union Parishad of targeted Upazilas of the coastal districts of Khulna and Satkhira the GCA project will lead to a **paradigm shift in climate vulnerable communities** by implementing the following project activities:

- Introducing and adopting diversified, climate-resilient livelihood options (including fisheries, agriculture etc.) that will improve assets and income from climate resilient livelihoods;
- Enhancement of women's participation in training on implementation of climate-risk reduction strategies and on results monitoring of livelihoods;
- Improved access to markets for women through value chain market assessments;
- Improved access to timely, gender-responsive early warning information for all community members;
- Engagement of school and community-based communications training to increase the awareness of girls and boys through "adaptive learning";
- Establishment of year-round access to reliable, climate-resilient, potable water systems in the most salinity-affected wards within the project districts through the introduction of Rainwater Harvesting Systems (RWHS) at the institutional, community and household levels and community pond-based systems with filtration and Ultraviolet (UV) treatment technologies;
- Ensure women participate in the mapping, planning, installation and management of RWHS that will reduce the time women spend collecting and carrying water;
- Introduce policies and programs in other sectors that ensure the integration of gender and climate change;

- Introduce social audit protocols and operations across 39 Unions for participatory monitoring of resilient livelihoods; and
- Provide training of government staff across MoWCA and DPHE to strengthen their institutional capacity on climate-risk informed planning and management for sustainable livelihoods and drinking water security with consideration of gender-based issues.

56. The GCA project aims for **gender-transformative results** by improving the water security and livelihood options of women through actions that target women's access to resources, increased participation in decision-making and to support women as leaders in building community adaptive capacity.

57. The GCA project is being implemented following UNDP's National Implementation Modality (NIM). The executing entity for the GCA project is the MoWCA. Responsible parties for programme implementation are:

    - DWA (under MoWCA), responsible for activities under Output 1;
    - DPHE, responsible for activities under Output 2; and
    - MoWCA, DWA and DPHE for activities under Output 3.

58. At the field level Local Government Institutions (LGI) are engaged and selected NGOs are working directly with beneficiaries on implementation of climate-resilient livelihoods for women.

59. **Figure 2** below outlines the GCA project management and implementation structure.

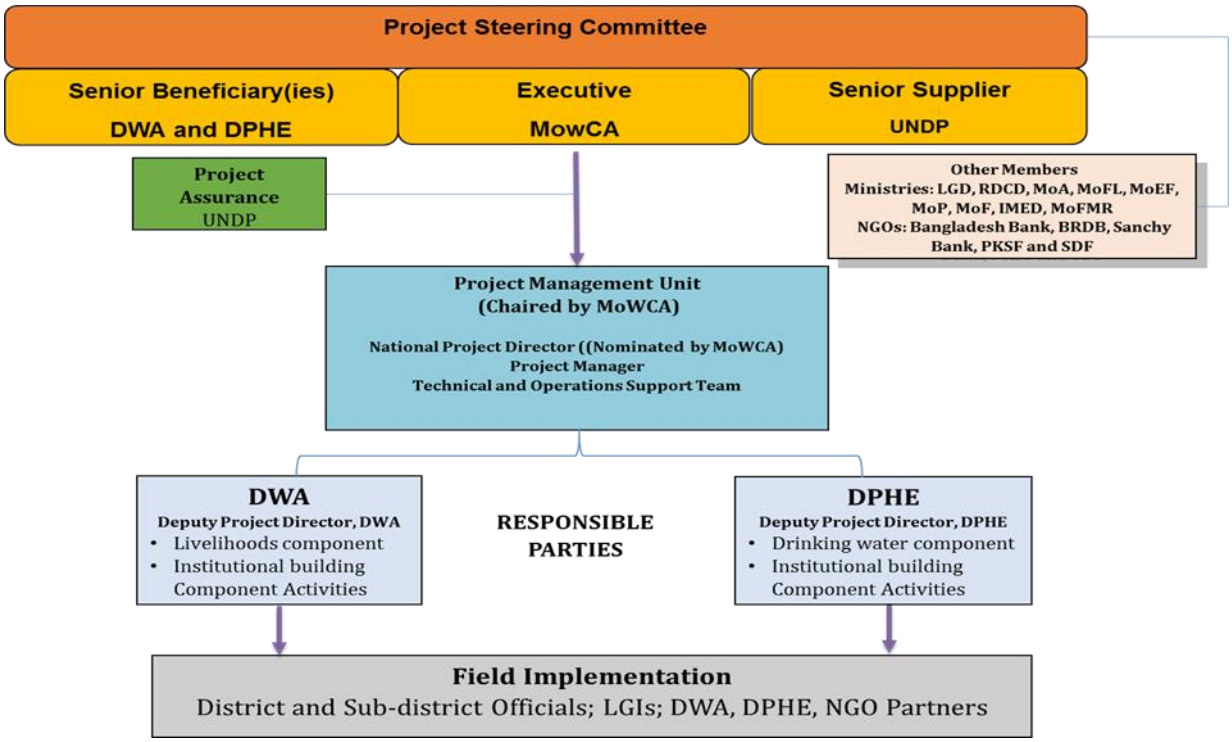


Figure 2. GCA Project Management and Implementation Structure (source GCA Development Project Proforma)

60. The GCA project is for six (6) years, with a start date of 12th October 2018 (FAA Effectiveness)and end date of 12th October, 2024 (Completion date). . The revised Project Implementation Plan (PIP) includes a detailed quarterly timetable that runs from August 2020 to August 2025 showing a timeline for all project activities. The PIP identifies the following start-up meetings with stakeholders to share the project implementation process, roles and responsibilities of stakeholders and their required support and participation:

    - **Stakeholders' workshop at District level:** stakeholders include, DPHE, DWA, Journalist, Local Government Division, Rural Development and Cooperatives Division, Department of Agriculture Extension, Department of Fisheries and Livestock, Department of Environmental and Forest, Department of Disaster Management and Relief, Bangladesh Fisheries Research Institute (BFRI), BRDB, Palli Karma-Sahayak Foundation (PKSF) and Social Development Foundation (SDF).
    - **Stakeholders' workshop at Upazila level:** stakeholders include, DPHE, DWA, Journalist, Local Government Division, Rural Development and Cooperatives Division, Department of Agriculture Extension, Department of Fisheries and Livestock, Department of Environmental and Forest, Department of Disaster Management and Relief, BFRI, Bangladesh Rural Development Board (BRDB), Cyclone Preparedness Programme (CPP), Upazila Nirbahi Officer (UNO) and NGOs.
    - **Stakeholders' workshop at Union level:** stakeholders include, DPHE, DWA, Journalist, Local Government representative, Disaster Management Committees (DMC), CPP volunteers and NGOs.

61. Following GCA start-up meetings noted above, NGOs engaged to work on the GCA project conducted 3-4 day community sensitization meetings to describe on the GCA project goal, objective, target group, approach, scope and limitations of the project, as well as to build rapport with target project communities.

3 Findings

3.1 Project Strategy

3.1.1 Analysis of GCA Theory of Change

62. The GCA Theory of Change (ToC) and interim progress toward the achievement of the project's long-term goal or "ideal state" is presented and assessed in **Appendix 6 Tables 6-1** and **6-2**. The long-term goal, as articulated by the GCA project's objective, is to achieve a strengthened adaptive capacity and reduced exposure to climate risks among the vulnerable communities, especially women, of the southwest coast of Bangladesh.

63. The ToC outlined in **Table 6-1** provides the analytical framework used to assess the GCA project's ToC impact in **Table 6-2**. The framework constructed by the evaluation team includes Impact Drivers (ID) and Assumptions (A) that are based directly on outputs (activities) associated with the GCA's objective and three outcomes as presented in the GCA Logical Framework (LogFrame) (**Appendix 6**). The Intermediate State (IS) has been assessed by the evaluation team to identify the level of achievement of outputs leading to the establishment of foundation elements that provide stepping stones towards achievement of the long-term goal.

64. The FP documents the science and background studies that inform the GCA ToC. The ToC is based on the science of climate-change impacts, including cyclones, storm surges and rising ocean levels, which increase the salinity of surface and groundwater and impact food security and livelihood activities in coastal areas of Bangladesh. In response the GCA ToC leads to the inclusion of activities to provide climate-resilient solutions for urgently needed safe and secure drinking water supplies, climate-resilient livelihoods and the ability of government to expand their support for these needs throughout Bangladesh's large coastal-area populations.

65. The ToC approach addresses the need to target women based on background studies and existing information that identifies women's traditional responsibility for provision of HH water supply and the potential for women to participate in climate-resilient livelihoods with the introduction of accessible HH and community-based RWHS. As the ToC focus is on women, the MoWCA is the appropriate executing agency for the GCA project.

66. The GCA ToC provides a logical pathway to addressing the impact of climate change on HH water supply and the need for climate resilient livelihoods in affected communities. It also addresses the need for ongoing support to GCA project outputs and the need for scaling up and replication in communities not reached by the GCA project through capacity building of responsible government departments.

67. While the "poorly achieved" ratings reflect a lack of progress in achieving interim targets (for the causes of project delays see report **Section 3.4**), the analysis of the ToC assumptions and impact drivers support the ability of the GCA project to make meaningful progress towards the long-term goal through the likely achievement of the project objective and outputs if sufficient time is provided to fully implement GCA project activities.

68. The following issues identified through ToC analysis were discussed with project staff to better understand how the GCA project will achieve successful implementation of project activities.

    - the very poor and vulnerable who are selected as beneficiaries may be risk adverse and unwilling to select novel climate-resilient livelihood options, despite their potential to provide significant benefits. The GCA project includes up to three cycles introducing novel climate-resilient livelihood options, such that, successful uptake by a limited number of beneficiaries in the first cycle can be used to demonstrate and

provide knowledge exchange to encourage additional uptake by beneficiaries in the second and third cycles of introduction. In addition, the GCA is supporting market value chains to maximize the benefits derived from climate-resilient livelihood products.

- GCA enhancement of early warning and preparedness is directed at reaching women and HHs in the most remote locations of coastal areas to ensure everyone has access to timely information that can assist in avoiding the work impacts of climate-related disasters. The impact of climate events, such as severe cyclones and storm surges, cannot be completely avoided, even with early warning. Developing crops and newly established aquaculture cannot be harvested early and they may be destroyed in a severe climate disaster. As part of early warning and preparedness training activities, the GCA project will identify unavoidable impacts and encourage beneficiaries to retain a portion of harvests and/or earnings to provide the climate-resilience required to withstand recurring unavoidable losses that can result from the most severe climate disasters.
- the GCA project is using a fee-based model for the supply of potable water provided by the RWHS constructed. Determination of the fee charged is based on a comparison with other potable water systems (e.g., reverse osmosis), water transportation costs, production costs and affordability for beneficiaries. The cost of ongoing O&M required for the sustainability of RWHS, was not included in the fee calculation. The GCA project is currently collecting data to forecast O&M costs to verify if fees will be sufficient to cover costs. Responsibility for moderate repairs is shared with LGI and major repairs with DPHE. During the project period, a three year support service has been included in the contract with DPHE to address any required repairs and maintenance of community-based and institutional RWHS during the project period. Day to day repair and maintenance of HH RWHS are the responsibility of the owners of the system.

69. As stated in the ToC overall findings (**Table 5-2)**, despite the delay in the implementation of GCA project activities, a solid foundation for project implementation is in place, in terms: of the ToC and LogFrame; the engagement of government partners; the formation of and meetings undertaken by the Steering Committee; the formation of a functioning Project Management Unit (PMU); the selection of implementing partners; and the selection and engagement of beneficiaries. There is evidence the GCA project can successfully implement project activities based on the activities that have been initiated and the ToC analysis indicated these activities have the capacity to introduce climate-resilient livelihoods to vulnerable women living in coastal communities, to provide sustainable RWHS to overcome the impact of climate-induced increases in water salinity and to strengthen government capacity to support and replicate activities implemented by the GCA project.

3.1.2 Evaluability of the GCA project's indicators

70. The IE assessed the extent to which the project can be evaluated in a reliable and credible fashion. This involved a review of the GCA project's ToC, including consideration of the logic of assumptions made regarding key causes and barriers and the likely ability of proposed project activities (impact drivers) to achieve outputs, intermediate results and the project objective in support of a global GCF level impact (goal).

71. Evaluability of the GCA project's indicators as presented in the FP's LogFrame is shown in **Appendix 7 Table 7-1.** The indicators have been numbered sequentially, 1 to 12 and they have been assessed using "SMART" criteria (Specific, Measurable, Achievable, Relevant, and Time-bound) with the rating shown as green for "compliant", yellow for "questionably compliant", and red for "not compliant".

72. Four of the twelve indicators are not compliant in regard to being “specific” and questionably compliant in regard to be “measurable”. The indicators are as follows:

    - Indicators 1 and 4 are dependent on the results of several other indicators in the logical framework and no approach to combining results is proposed;
    - Indicator 6 refers to “timely” access to Early Warning (EW) information, without defining what would qualify as timely access to EW; and
    - Indicator 10 includes a complex matrix of factors to measure regarding how effectively government staff apply skills developed by the GCA project in regard to climate-risk informed planning and management of livelihoods and water.

73. Eight of the twelve indicators are questionably compliant in regard to being “achievable” based on no mid-term targets having been achieved, putting in question the ability of the GCA project to achieve the end of project targets within the current project timeframe. These indicators may be achieved if sufficient time is provided for implementation of the associated project activities.

74. Fund-level indicators 2 and 3 are redundant, duplicating output indicators 5 and 8 respectively.

75. GCA project staff have reviewed the FP’s LogFrame and ProDoc to prepare a M&E Guideline (February, 2022). Given the GCA project began in January 2019 and the fact M&E is a foundational element of a project, often requiring the establishment of indicator baselines, preparation of a M&E guideline and the establishment of indicator baselines should occur earlier in the project cycle, preferably during the inception phase.

76. The GCA M&E Guideline has identified detailed methods to report on indicators. For many indicators, the indicator has been re-phrased to more clearly identify and break out multiple components to be measured. The GCA M&E Guideline also provides definitions for key terms used in indicators, which provide clarity on what is to be measured to report on indicators.

77. The GCA M&E guidance for the Fund-level indicator 1 (*Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions: Total Number of direct and indirect beneficiaries; Number of beneficiaries relative to total population; disaggregated by gender*) is, direct beneficiaries to be measured are to include persons participating in any of the following GCA activities:

    - climate-resilient livelihoods; and/or
    - access to secure, safe year-round water supply; and/or
    - timely, gender-responsive EW information.

78. As such, the indicator does not provide a true measure of direct beneficiaries who have both increased resilience and enhanced livelihoods. Beneficiaries who only participate in EW information may benefit from increased resilience, but they would not experience enhanced livelihoods.

79. There is a need to conduct further review of all indicators to ensure they meet SMART criteria and where necessary ensure the required baseline information is collected.

3.1.3 Analysis of Funding Proposal Risk Ratings and Mitigation Measures

80. The FP assessed 21 potential risks in the following three categories; social and environmental (15), technical and operational (5), and other (1). A summary of the IE analysis of risks identified in the FP is shown in **Table 2;** the full analysis of risks is provided

in **Appendix 8 Table 8-1**. Overall the FP risk ratings remained unchanged in the IE analysis. Nineteen of the risks were rated as "medium" in the FP and of these, fifteen remained unchanged in the IE analysis, being rated as "moderate". The two risks rated as "low" in the FP, also remained "low" in the IE analysis.

Table 2. Summary of FP and IE risk rating analysis

Risk Evaluation	Risk Ratings (# of risks)			
	Low	Medium/ Moderate	Substantial	High
Funding Proposal	2	19	n/a	0
Interim Evaluation	3	16	2	0

81. FP risk 12, rated the contamination of surface water during installation of RWHS tanks as "medium". The IE considered this a "low" risk based on a *low likelihood* with implementation of a sediment control plan and a *minor impact* should it occur, given the relatively small footprint required for RWHS tanks.

82. The FP assessed the impact of extreme weather events on project progress in risk 15 as "medium". The IE has increased the risk rating to "substantial" based on the *moderate likely* occurrence of cyclones (every 1-3 years) and their potential *extensive impact* (30-50% of planned activities). In addition to the mitigation measure identified in the FP (high embankments for pond-based RWHS), the IE recommends climate-resilient livelihood activities should acknowledge the on-going risk of impacts from cyclones and the need for HHs to establish financial savings sufficient to endure and recover from their impacts.

83. The FP assessed risk 17, insufficient water storage in HH RWHS tanks, as "medium". The IE analysis increased this rating to "substantial" based on a *moderately likely* finding that the GCA provision of 2000 litres may not be sufficient for larger HH (> 5 members), and the 2 litre/day/person calculation used in the FP may not be sufficient during dry, hot periods. DPHE is currently installing 3000 litre HH RWHS. The IE recommends mitigation measures include flexibility and adaptive management in RWHS design to permit future expansion should capacity prove to be insufficient.

3.2 Relevance

84. In designing the GCA project background studies of the environmental changes associated with climate change in the southwest coastal area of Bangladesh documented increased surface and groundwater salinity that is impacting the availability of potable water and a loss of agricultural productivity dependent on fresh water. Further, the GCA project assessed

GCA HH RWHS Supply

We considered average family size (4.5 persons) of Bangladesh for tank size calculation. The size of the water tank we have chosen is 2000 liters. If we get six months of rain in these areas. And if there is 400 millimeters of rain, our tanks will be full and for one family this quantity is enough for the whole year. We calculated that a family may need on average 1800 liters of drinking water a year. Here we have 200 liters surplus quantity.

(Md. Zahidur Rahman, O&M Officer, UNDP Khulna Regional Office)

GCA project is providing 2000 liters tank which will not be enough to serve water for a family year around. That's why DPHE is providing 3000 liters water tank to the households.

(Md. Aminul Islam, Sub-assistant Engineer - DPHE, Paikgacha)

these impacts in the context of the dominant role of women in water and household security and the traditional cultural practices that largely exclude women from participating in economic livelihood development whether paid work or self-employed income generating activities.

85. GCA project Output 1 *Climate-resilient livelihoods, focusing on women, for enhanced adaptive capacities of coastal agricultural* and Output 2 *Gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions* are relevant with beneficiary targets that are 100% women.

86. GCA Output 3 *Strengthened institutional capacities, knowledge and learning for climate-risk informed management of livelihoods and drinking water security* is also relevant in the context of the need for ongoing government support to sustain GCA project activities in the target communities and more importantly the urgent need to replicate and scale-up the activities of Outputs 1 and 2 within all southwest coastal communities of Bangladesh.

87. The GCA project is relevant in the context of the issues, policies, strategies and priority actions identified by the GoB in their GoB 7th Five Year Plan (2016-2020), GoB 8th Five Year Plan (2020-2025), Climate Change and Gender Action Plan (2013), Bangladesh Climate Change Strategy and Action Plan (2009), National Plan for Disaster Management (2016-2020).

88. The GCA project is relevant in the context of the three UNDP Country Programme priorities, providing economic opportunities for women, addressing structural inequalities by including women as active participants in project implementation and ongoing community groups [Water User Groups (WUG), Water Management Committees (WMC), Women's Livelihood Groups (WLG)], and building the resilience of rural families through improved water security and climate-resilient livelihood activities.

3.3 Effectiveness and Efficiency

89. In the context of LogFrame indicator mid-term (interim) targets, the GCA project has not been effective as none of the interim targets established in the FP have been achieved (see **Appendix 9**). The reasons for the lack of effectiveness are provided in **Section 3.4**, which to a large degree are related to the global Covid-19 pandemic. The GCA project activities that were to be completed in the first three years of the project are, based on the FP, well designed and sequenced to produce effective results had there not been the impacts of super cyclone Amphan and Covid-19.

90. The GCA project has effectively engaged government stakeholders (DWA, DPHE),LGI, implementing NGOs and members of the PB, PSC and PIC as evidenced from meeting minutes, interviews with stakeholders and their participation in project training and implementation activities. This engagement will contribute to the effective implementation of GCA project activities as the impact of the global Covid-19 pandemic diminishes.

91. The GCA project has an efficient management structure, staffed with technical experts that have the capacity to oversee successful implementation of project activities with due consideration for the Gender Action Plan, Indigenous Peoples Plan and Social and Environmental Standards. Establishment of a regional PMU office is an efficient mechanism to work closely with LGI and implementing NGOs and it facilitates project M&E and regular visits to project sites and with beneficiaries.

92. The efficiency of GCA project implementation has been reduced as a result of Covid-19 restrictions and the associated delays. The engagement and training of stakeholders and beneficiaries is most efficient when conducted larger groups with face-to-face meetings as opposed to virtual meetings (e.g., Zoom). The co-finance report (2021) reported higher costs

to host two training events due to Covid-19 health security requirements. APR (2020) reported additional costs incurred due to the longer storage period of RWHS tanks purchased, as these could not be transported to the field as planned to due Covid-19 delays and cyclone Amphan recovery needs in the project sites. As the impact of the Covid-19 pandemic diminishes and barring the occurrence of large cyclone events, the IE team has not identified any major barriers to achieving efficient implementation of the remaining GCA project activities.

Figure 3. Sesame Cultivation – GCA project beneficiaries, who are members of a Women's Livelihood Group (WLG), are mixing the soils after spreading sesame seeds in the land of Ward no. 8 of Bajua Union, Dacope Upazila, Khulna.

3.4 Progress Towards Results

93. The project was initially planned to go into the field implementation stage from the third quarter of 2019. However, during the first year (2019) of the GCA project, six months was required to complete approval of the Development Project Proforma (DPP) at the Executive Committee of the National Economic Council (ECNEC). The DPP is required to permit formal execution by partner agencies and the project personnel recruitment process. Field implementation scheduled for the third quarter of 2019 was postponed to the first quarter of 2020.

94. The initiation of GCA project field activities proposed for 2020 and 2021 were severely hampered by three factors:

    (i) Early in 2020 there was the emergence of the global pandemic of Covid-19 which resulted in restrictions on travel, closure of government offices, the infection of some participating stakeholders and staff and widespread concern over Covid-19 generally, which led many people to remain close to home. Delays associated with Covid-19 persisted through 2020 and 2021. The APR 2020 and 2021 provide detailed documentation of delayed project activities. One example is the delay in resolving climate-resilient livelihoods beneficiary selection through the Grievance Redress Mechanism (GRM), which was completed late in 2021 and the associated cancellation of climate-resilient livelihood training that was scheduled to be completed for all beneficiaries in 2021. This represents a delay of 12 to 18 months of a key project activity of Output 1 and no reporting on achievement of the interim target of 19,069 women beneficiaries.

    (ii) In May 2020 Bangladesh was struck by super cyclone Amphan causing widespread damage, including in the region of the GCA project. Relief Web reported 2.6 million people were affected, 205,368 houses were damaged, and 55,767 houses were

destroyed in the 19 affected districts. A total of 26 people lost their lives. In addition, 40,894 latrines, 18,235 water points, 32,037 hectares of crops and vegetables, 18,707 hectares of fish cultivation area, 440km of road, and 76km of embankments were damaged. Further impact occurred in 2021, due to active monsoon conditions and lack of sustainable repair of embarkment, a strong tidal surge impacted cyclone-affected communities again in Khulna and Satkhira Districts. The level of disruption to the GCA project was very significant and the time required for recovery is in ongoing when the secondary impact of 2021 is considered. The overall delay of GCA project activities resulting from super cyclone Amphan is difficult to quantify, trainings and meetings were delayed four to six months, installation and operation of RWHS has been delayed one year due to need for tanks to fill during a wet season and then be utilized during a dry season.

(iii) In 2020 the GCA project was selected by GCF's Independent Evaluation Unit (IEU) to embed an impact evaluation within the project implementation cycle. The Learning Oriented Realtime Impact Assessment (LORTA) is utilizing a phased-in approach for impact evaluation of climate-resilient drinking water solutions and livelihood activities. The combined factors of delays in the implementation of project activities resulting from Covid-19 and super cyclone Amphan and the phased-in LORTA approach suggest the GCA project will require an extension of 12 to 18 months to permit sufficient time to complete project activities and complete the LORTA.

95. Project activities such as stakeholder sensitization meetings and workshops, training of trainers, beneficiary selection and activities working directly with beneficiaries have been postponed or severely curtailed during year 2 and 3 of project implementation (2020 and 2021). The 2021 APR, which marks the half way point in the six year GCA project, did not report the achievement of any of the mid-term targets established in the FP for the twelve LogFrame indicators due to the factors discussed above.

96. The IE reviewed the available data for each indicator and made an assessment of progress that concurs with the 2021 APR. The IE also assigned an achievement rating for each indicator using a three point rating system for progress towards meeting the final targets prior to project closure (October 12th, 2024). The achievement ratings used are: Achieved; On Target to be Achieved; or Not on Target to be Achieved. The full indicator analysis, along with justification of the IE indicator rating, is provided in **Appendix 9 Tables 9-1 and 9-2**. A summary of the ratings for fund level and program level indicators is provided in **Table 3**.

Table 3. Summary of IE Indicator Achievement ratings for GCA project

LogFrame Indicators (12)	IE Achievement Rating		
	Achieved	On Target to be Achieved	Not on Target to be Achieved
Fund Level Indicators (3)	**0**	**1**	**2**
Program Level Indicators (9)	**0**	**3**	**6**

97. The LogFrame indicators on target to be achieved before project closure are associated with Output 2 *Gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions*. Project activities related to beneficiary selection and the procurement of materials and initiation of RWHS installation have progressed despite Covid-19 restrictions. In the remaining three years of the project Output 2 activities working directly with beneficiaries and the government in training and capacity development for O&M and the implementation of a fee-based model for drinking water can likely be achieved before project closure.

98. Successful implementation of Output 2 has the potential to result in key paradigm shifts in regard to empowerment of women and in the adoption of an innovative RWHS. For women

the paradigm shift is a result of reduced workload for women and girls responsible for securing a HH water supply, thus permitting greater opportunity for young women to participate in education and adult women to participate in income generating activities supported by the GCA project. For the RWHS the inclusion of an inexpensive, pre-filtration system that is easy to operate and maintain represents an innovation contributing to the quality of drinking water which is likely to be widely adopted. In addition, community managed O&M committees, combined with support from LGI and where necessary DPHE, creates a robust three tiered O&M structure ensuring a safe, reliable drinking water supply.

99. The LogFrame indicators not on target to be achieved before project closure are those associated with Output 1 *Climate-resilient livelihoods, focusing on women, for enhanced adaptive capacities of coastal agricultural communities* and Output 3. *Strengthened institutional capacities, knowledge and learning for climate-risk informed management of livelihoods and drinking water security*. Project activities associated with these outputs include meetings, workshops, and training sessions, for a wide range of stakeholders that could not be initiated as planned during year 2 and 3 of the project (2020, 2021) due to combined factors of delays in the implementation of project activities resulting from Covid-19 and super cyclone Amphan and the phased-in LORTA approach.

100. The success and sustainability of these outputs requires a sequential process of learning, attempting and testing, and adaptive learning and knowledge sharing to build successful outcomes. It is not possible to compress the activities of outputs 1 and 2 into a shortened time frame to achieve a successful, sustainable outcome. For example, the introduction of novel livelihood activities is planned to occur over several cycles to develop market value chains and to allow those who are risk averse to learn and potentially adopt the successful implementation practices other beneficiaries demonstrate.

101. The selection of women who will participate in Output 1 activities is nearing completion and consultation on which locally appropriate activities will be supported by the GCA project and the capacity development needs for these activities, including market chain analysis, has been initiated. The GCA project has a logical and robust approach to supporting women climate resilient livelihood activities, including the formation of WUG, multiple opportunities for women to engage in novel livelihood activities, shared learning, primary and follow-up training, government engagement and support and women's involvement in marketing.

102. Output 3 has the potential to create a paradigm shift among government departments, including Agriculture Extension, Fisheries and Livestock, Environmental and Forest and DPHE, which do not currently systematically undertake gender-sensitive and responsive planning for, and management of, sustainable, climate resilient and secure livelihoods. Training components and toolkits are currently under development and these are to be introduced to government staff through multiple training sessions combined with opportunities for integration into current government practices.

103. As stated in the GCA ToC analysis (Section 3.1.1) the three project outputs have the capacity to introduce climate-resilient livelihoods to vulnerable women living in coastal communities, to provide sustainable RWHS to overcome the impact of climate-induced increases in water salinity and to strengthen government capacity to support and replicate activities implemented by the GCA project. The barrier to successful, sustainable completion of the GCA project is the combined factors of delays in the implementation of project activities resulting from Covid-19 and super cyclone Amphan and the phased-in LORTA approach.

104. A rating and description of GCA project achievement of progress towards results, project implementation and adaptive management and sustainability is provided in **Table 4**.

Table 4. IE Ratings and Achievement Summary Table for GCA project

Measure	Interim Evaluation Rating[4]	Achievement Description
Project Strategy	N/A	N/A
Progress Towards Results	Objective Achievement Rating: ***Unsatisfactory***	The GCA project will not achieve many of its end of project targets, particularly those associated with Outcomes 1 and 3 due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the Learning Oriented Realtime Impact Assessment (LORTA)
	Outcome 1 Achievement Rating: ***Unsatisfactory***	The GCA project is not expected to achieve project targets that demonstrate sustainable adoption of climate-resilient livelihoods due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the LORTA
	Outcome 2 Achievement Rating: ***Moderately Satisfactory***	The GCA project is expected to achieve project targets installing RWHS, there is concern there will be insufficient time to ensure sustainable O&M, implementation of the fee-based model and capacity development of Local Government Institutions (LGI) for community based water options due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19
	Outcome 3 Achievement Rating: ***Unsatisfactory***	The GCA project is not expected to achieve project targets to fully demonstrate the capacity of the government to sustainably implement gender-sensitive climate-risk informed management and planning of livelihoods and drinking water security due to disruption of activities caused by super cyclone Amphan, delayed implementation of activities caused by Covid-19 and a phased-in approach for climate-resilient livelihood activities proposed by the LORTA
Project Implementation & Adaptive Management	***Satisfactory***	Most components of GCA project management are highly satisfactory, contributing to efficient and effective project implementation. The disruption caused by Covid-19 is unprecedented and led to delays that could not be comprehensively mitigated by alternative implementation strategies and adaptive management. Lessons have been learned to improve adaptive management.
Sustainability	***Moderately Unlikely***	There are significant risks to sustainability due to a lack of time to embed mechanisms to sustain RWHS, to support the introduction of novel climate-resilient livelihood options and to create and implement structural changes in government practices to implement gender-sensitive climate-risk informed management and planning of livelihoods and drinking water security

[4] See **Appendix 10** for an explanation of the achievement summary rating system used

Figure 4. Aqua-geoponic Activities - GCA Project beneficiary Anita Rani Gain, from Aadharmanik Village of Ward No 3 at Dacope Upazila, Khulna working at her Aqua geophonic farm.

105. The GCA project compliance with FAA reporting requirements is shown in **Table 5**. The Inception Report and Baseline Study report were completed after the FAA prescribed date; three months and five months respectively. The delay was due to the GoB requirement for the preparation of a DPP which commenced after the FAA effective date and its approval by ECNEC. This process required six months, after which work commenced on the Inception Report and Baseline Study report, as such it was not possible to meet the FAA prescribed date.

Table 5. GCA project compliance with FAA Clause 8 Reporting, Monitoring and Evaluation Schedule requirements for timing of submissions.

FAA Submission Requirements	Prescribed Date	Calendar Date	Actual Date
Start of Project Implementation	Effective Date	October 12th, 2018	October, 12th, 2018
Inception Report	Within six months after effective date	April 12th, 2019	July 12th, 2019
Baseline Assessments	Within six months after effective date	April 12th, 2019	September, 2019
Independent Mid-term Evaluation Report	Within nine months after three years from effective date	July 12th, 2022	to be completed
Project Completion Report	Within three months after completion date (October 12th, 2024)	January 12th, 2025	to be completed
Independent Final Evaluation Report	Within three months of submission of Project Completion Report, but not later than six months after completion date	Not later than April 12th, 2025	to be completed

106. The GCA project has not met interim targets that would permit reporting on impact as measured by LogFrame indicators. Nonetheless, the GCA project has the potential to meet the impacts identified in the GCF FP, including: 1. the adaptation impact potential through increased resilience of target beneficiaries arising from secure water supply and participation in climate-resilient livelihood activities; 2. a paradigm shift of MoWCA adopting a lead role in gender-responsive, climate resilient planning and management with other government agencies and women (and girls) who are relieved of the burden of time required for HH water security actively participating in paid and income generating activities; and 3. sustainability of impacts assured through O&M structure and training supporting RWHS and government capacity development that will sustain, replicate and scale-up GCA activities.

107. The above conclusions are supported by the analysis of the GCA ToC which demonstrates a logical framework supported appropriate activities. The project management structure currently in place, including the large technical capacity of the PMU and the engagement of MoWCA, DWA and DPHE are sufficient for effective management of GCA project implementation. With appropriate ongoing management and training of implementing NGOs, the implementation of proposed activities in the field with women and youth can be efficient, effective and sustainable.

3.5 Remaining Barriers to Achieving the Project Objective

108. Covid-19 infection rates, hospitalizations and deaths are reported to be declining in Bangladesh (Institute for Health Metrics and Evaluation web data April 22nd, 2022). With this major barrier to GCA project implementation removed and if there are no major cyclone events in the project region, the implementation of GCA project activities has the opportunity to proceed normally.

109. Three interacting factors, super-cyclone Amphan impacts, Covid-19 restrictions and the associated health impacts, and LORTA's phased implementation have resulted in the GCA project being 1.5 to 2 years behind the PIP schedule. The major barrier to achieving the project objective, is therefore, the fact that the remaining three years of the project is not sufficient to complete all activities in a meaningful and sustainable manner and implement an orderly exit strategy. It is not advisable to attempt to compress all activities into the remaining three years, as this will affect the quality of implementation and the sustainability of outcomes.

110. There remain challenges to implementing GCA project activities, but these are not considered major barriers to achieving the project objective. Recommendations to address challenges are provided in **Section 4.2**, which the PMU has the capacity to address.

3.6 Project Implementation and Adaptive Management

3.6.1 Management Arrangements

111. The project management arrangements among the Accredited Entity (UNDP), the Executing Entity (MoWCA and DPHE), and the implementing partners (NGOs) logically assigns roles and responsibilities for successful implementation of project activities. As the accredited entity UNDP's role is to monitor and ensure the quality and timeliness of project implementation. Government executing agencies MoWCA, DWA and DPHE lead the implementation of project activities, developing their knowledge, skills and experience to sustainably support and replicate gender-responsive climate-resilient livelihoods and drinking water solutions in coastal communities.

112. Local implementing partner NGOs play an important role in building a positive, supportive relationship between the GCA project and participating project communities by utilizing their knowledge of local cultural norms, issues and language. Implementing partner NGOs form the front line in the development of new technical skills around RWHS and climate-resilient

livelihoods, establishing and building new community groups that support sustainability and bringing government-lead initiatives that improve the climate-resilience of women and youth into target communities.

113. While MoWCA, DWA and DPHE have an important role in GCA implementation, LGIs have an important long-term role sustaining activities introduced through the GCA project. LGIs have expressed an interest in greater participation in the implementation of project activities. While this may be driven, in part, through a desire to acquire access to project funds, effective GCA project communication and engagement should be recognized as a priority given the long-term expectation of, and reliance on, LGI support to successful sustainability of project activities. Just as capacity development of MoWCA, DWA and DPHE contribute to sustainability in the context of replication and scaling-up to introduce project activities into all coastal communities, so to capacity development of LGIs is needed to ensure sustainability of project activities once they have been introduced.

114. UNDP support in regard to procurement and financial management has contributed to timely acquisition of materials required for implementation of HH RWHS. UNDP experts provide important ongoing support and advice as recorded in PSC and Project Implementation Committee (PIC) meeting minutes.

115. The Project Management Unit (PMU) with staff in Dhaka and in the field in Khulna is responsible for preparing work plans and progress reports and overseeing the day-to-day implementation of project activities. The PMU is led by a National Project Director (NPD), appointed by the GoB, responsible for the overall direction, strategic guidance, and timely delivery of GCA project outputs. The PMU also has a Project Coordinator (PC), recruited by UNDP, responsible for the day-to-day management of project implementation with assistance from PMU staff providing technical and operational support.

116. The GCA project has a dedicated climate change specialist and gender specialist who provides guidance to the implementation of all the project components. To address water issues, including both the RWHS and water-related livelihood activities, the project has a water and sanitation expert. An adaptive livelihood expert works on livelihood issues with a market development officer working on market-chain assessment, both of whom collaborate with the gender specialist.

117. There is also a communication officer and knowledge management expert to capture and advocate GCA project lessons learned and success stories. Staffing for M&E includes a M&E specialist at the UNDP CO responsible for the overall management and implementation of GCA M&E, and a M&E officer in the regional office, who is responsible for the management of field-level monitoring conducted by the three NGO implementing partners, with each NGO having a dedicated M&E staff person. The APR 2021 documented recruitment of a woman empowerment officer, this position was not yet filled.

118. The GCA PMU has the required capacity in terms of staff and expertise for successful implementation of the project. Given the project's focus on women beneficiaries, the position for woman empowerment officer should be filled as soon as possible.

119. While the GCA project has a strong focus on reaching women beneficiaries, the GCA APR and Gender Action Plan (GAP) do not include information on strategies related to promoting, ensuring or reporting on the inclusion of women in GCA project management and implementation roles, such as in the PMU or Implementing Partner NGOs. The GCA project has ensured the participation of women in management roles at the local level through their participation in WLG (all women members), WUG (all women members) and WMC (10 of 13 members women) (see Section 3.12 Gender Equity).

3.6.2 Work planning

120. GCF approved a Funded Activity Agreement for the GCA FP on August 28th, 2018. The effective date for the project established by UNDP was October 12th 2018, with project completion date of October 12th 2024. While UNDP was able to initiate some activities early in 2019 such as approval of a staff recruitment plan for the PMU, GoB approval of the DPP for the GCA project did not occur until July 2019. The DPP is essential for the initiation of GCA project activities, because it approves GoB co-financing (USD $8 Million) for the project, the deployment of a GoB NPD and the operationalization of NIM to manage project finances.

121. The GCA FP included a start-up year to accommodate the time required for project start-up, including GoB approval of the DPP. In this regard, the work planning for the first year (January to December 2019) of the GCA project is considered successful, as following GoB approval of the DPP, an inception workshop was held, a baseline assessment was completed, four key posts in the PMU were filled, procurement of tanks for RWHS was initiated and a procurement process for selection of implementing partner NGOs was started.

122. The IE acknowledges the sagacity of the GCA FP, for its inclusion of a start-up year to complete the tasks required to fully operationalize the project. The remaining five years of the project are to implement project activities, including an orderly closure of the project.

123. Just as the GCA project was poised to begin implementation of project activities in January 2020, the World Health Organization (WHO) declared the outbreak a public health emergency of international concern in response to Covid-19 and on March 11th, 2020 the WHO declared a global pandemic. The Covid-19 restrictions, which in large measure have continued up to the end of 2021, included restrictions on travel, public gatherings and staff attendance in government offices, combined with the legitimate concerns of the public to the pandemic, severely impacted the implementation of most GCA project activities scheduled for the period March 2020 to December 2021. Many of the start-up activities of the GCA project require stakeholders (UNDP, PMU, GoB, NGOs, beneficiaries) to travel and/or meet in small and large groups, including ToT, awareness raising, capacity building, participatory mapping, GoB/NGO/beneficiary training, group formation and group meetings.

124. The GCA project activities, including the beneficiary selection process planned for 2020, was also delayed as a result of emergency operations implemented in response to super cyclone Amphan in the project locations. Local authorities and the general public were fully engaged in emergency relief and recovery operations.

125. GCA work planning did not have reasonable options that would have allowed better progress of most project activities over the past two years given Covid-19 restrictions that have been place. Work planning did proceed with the procurement and installation of RWHSs as these activities were not impacted by Covid-19 restrictions.

126. A results-based approach to GCA project work planning is evident in AWPs and APRs that track proposed fund allocations and project progress for individual project activities against project targets. Delays encountered are acknowledged and explained and any lessons learned are recorded; providing information that can be used in an adaptive management approach.

127. The GCF IEU selected the GCA project to embed a LORTA. Inclusion of the LORTA impact evaluation's phased-in approach has delayed the implementation of project livelihood activities in 36% of project targeted wards (APR 2021). The project will resume livelihood activities in 25 Union in 2022 and 14 Union in 4th quarter of 2023.

128. The GCA M&E Guideline completed in February 2022 reviewed all indicators in the LogFrame and has provided a clear methodology for results-based monitoring on indicators established by the FP and ProDoc. The M&E Guideline is intended to ensure ongoing tracking of performance to inform project planning and adaptive management, provide transparent accountability and contribute to project learning and advocacy. The GCA M&E Guideline includes direction for disaggregating data in regard to sex, ethnicity, disability and geographic location.

3.6.3 Finance and co-finance

129. The financial costs of climate-induced increases in salinity of freshwater sources and periodic destruction of agricultural and aquaculture livelihoods due to cyclones, storm surges and rising sea levels are enormous considering the large coastal areas and coastal populations in Bangladesh. There are also costs associated with secondary impacts to human and livestock health from increasing salinity and to communities that receive "climate-refuges" migrating away from coastal areas.

130. Storage of a reliable and abundant rainwater supply available during each rainy season is a cost-effective, locally appropriate strategy to address climate-induced increased salinity of freshwater sources. The GCA project budget of USD $13,981,516 for Output 2 ($9,894,381 GCF; $4,087,135 GoB co-finance) proposed to provide year-round access to safe, reliable climate-resilient drinking water to 136,110 persons, of whom 68,327 are women. This represents a onetime cost of USD $102.72 per person, which when amortized over a 20 year lifespan for a water tank, is USD $ 5.14 or approximately 444 Bangladesh Taka (BDT) per year. The FP design for RWHS is to provide two litres of potable water per day for one person over a 100 day period in the dry season; this is equivalent to 200 litres. Purchasing 200 litres of potable water in rural areas of Bangladesh would cost approximately 200 BDT, based on a cost of 1 BDT per litre. The GCA project investment will therefore be returned in less than three years.

131. The GCA project's provision of potable water in communities and HHs will reduce the workload of women and girls who previously spent an average of 2.5 hours each day to collect water according to the FP. The reduced burden of water collection can provide women greater opportunity to participate in income generating activities, as a secondary cost benefit to investment in RWHS.

132. The GCA project is investing approximately USD $11,482,101 in Output 1($8,501,953 GCF; $2,980,148 GoB co-finance) to assist women to engage in climate-resilient livelihoods as well early warning information and social audit protocols to support livelihood security. A total of 25,425 women beneficiaries are targeted. Based on figures provided in the FP, the livelihood options may provide an income ranging from USD $83 in 4 months for homestead gardening and up to $235 for sesame grown in 3.5 months. Using a conservative annual income estimate of $200/women/year, the total cost benefit is USD $5,085,000/year based on 25,425 women beneficiaries. In five years the income earned by women from climate-resilient livelihoods ($5,085,000*5 = estimated $25,425,000) would therefore be projected to more than double the GCA project investment.

GCA Project Contribution to Women

We are happy to get the HH RWHS tank and are hopeful that the selected livelihood options will make us financially self-sufficient. The provision of RWHS and community-based drinking water system will save our daily time spent on water collection which will enable us to engage in various household and livelihood activities. We are hopeful that we will continue to work after the project. We are also willing to take responsibilities of maintaining the HH RWHS tank

(Women Beneficiaries, West-para Deyara, Moharajpur, Koyra)

133. The FP identifies an investment of USD 2,598,315 (Activities 3.1 & 3.2) to strengthen the capacity of MoWCA and DPHE to enhance gender-sensitive, climate-risk informed planning and management of livelihoods and drinking water security. An estimated 20 million people live in areas impacted by climate-induced increases of salinity in coastal areas of Bangladesh (Rabbani, Munira and Saif 2019[5]). Investment in capacity development of the GoB has the potential to replicate cost benefits generated by successful GCA project activities. The GoB has begun plans to install 100,000 HH RWHSs in southwest coastal areas of Bangladesh, which based on GCA project costs, is equivalent to a cost benefit of over USD $50M (GCA activities 2.1, 2.2 & 2.3 and capital purchases) when implemented.

134. Detailed financial planning and reporting with appropriate controls are evident in the APR Section 3 Financial Information spreadsheet and in AWP tables. Reviewing the APR 2021 financial information, **Table 6** shows at the end of the third year of the project 75% of the GCF grant and 94% of GoB co-financing remains to be utilized in the remaining three years of the project. As determined in report **Section 3.2**, the activities associated with 8 of 12 LogFrame targets will not be achieved before project closure. By extrapolation, it must be concluded the approved budgets associated with implementation of project activities associated with these targets, will not be utilized before project closure.

135. The adoption of an adaptive project management strategy of rapid implementation of project activities to fully utilize the total approved budget is not recommended as this will lead to unsustainable outcomes. Project activities that require training, capacity development and the start-up of novel activities must be implemented sequentially and iteratively, allowing knowledge uptake, learning by trial and error, knowledge sharing and behavioural change to be successful and more importantly, sustainable following project closure. To complete all project activities and fully expend the GCA budget the project will require an extension.

Table 6. GCA project budget and expenditure from January 1st, 2019 to December 31st, 2021

Financing Type	Total Approved Budget	Cumulative Expenditures (to 31st December 2021)	Percent of Approved Budget Remaining
GCF Grant	$24,980,000	$6,545,577	74%
GoB Co-financing	$8,000,000	$458,368	94%

136. Analysis of the budget utilization rate, **Table 7**, highlights the inability of the GCA project to implement planned activities over that past two years due to the general uncertainty of stakeholders due to Covid-19 and more specifically the restrictions put in place to reduce the impact of Covid-19. It is hoped that a greater proportion of GCA activities planned for 2022 will be implemented and that this will be reflected in an increased budget utilization rate at the end of the year.

Table 7. GCA project budget utilization rate

Budget Utilization Rate (to 31st December 2021)	GCF	GoB Co-Finance
Cumulative Expenditures / Cumulative Budget	32.9%	6.4%

[5] Golam Rabbani, Sirazoom Munira and Samia Saif. 2019. Coastal Community Adaptation to Climate Change-Induced Salinity Intrusion in Bangladesh. Agricultural Economics - Current Issues

137. Current GoB co-finance commitments to the GCA project are shown in **Table 8**. The explanations provided for variance, in larger measure, are related to Covid-19 restrictions that have curtailed planned project activities as seen by underspending on project Outputs 1 and 2 and project management as well as overspending on Output 3, due to Covid-19 related higher costs to host training events.

138. The total aggregate amount of co-financing remaining is USD $7,517.244 (from **Table 8)**. This will require large co-financing budget commitments for each of the next three years of the project (USD 2,280,000 per year). It is unlikely applying this level of co-financing is possible, nor is it advisable based on the time required to achieve meaningful and sustainable changes associated with climate-resilient livelihoods, a fee-based model with community O&M to provide a safe secure water supply and greater capacity and integration of government in gender-sensitive, climate-risk informed planning and management for livelihoods and water.

139. UNDP maintains a comprehensive database of information for ongoing projects in Khulna and Satkhira Districts where the GCA project is being implemented. There are currently 25 projects operating, with funding from a wide variety of international donors and co-financing from the GoB. Due to the nature of the climate emergency in these two districts, the projects address climate change issues, with project activities that focus on climate-resilience in; agriculture, aquaculture, water supply systems, livelihood activities, sanitation facilities and government capacity building. The GCA project activities are consistent with those identified for other projects in terms of addressing the widespread need for a safe and secure water supply, climate-resilient livelihood options and enhancement of government to sustain and scale-up these activities. The coherence of donor and GoB climate financing is achieved through monthly meetings organized by the District Commissioner’s office

Table 8. GCA project co-financing budget, confirmed spending and variance for reporting period January 1st to December 31st 2021 and for all co-finance spending since the project started.(figures in USD)

GCA Project Output	Total aggregate amount committed for the project	Cumulative Budget through the end of 2021 (A)	Committed budget for 2021 APR reporting period (B)	Confirmed co-finance applied to reporting period (C)	Total aggregate amount applied since the project start (D)	Variance % for 2021 budget year (C/B*100)	Variance % for all project spending to date (D/A*100)	Explanation of variances from committed budget
1	2,980,148	2,698,299	514,777	80,632.59 (Cash)	97,593.25 (Cash) 762.58 (In- Kind)	15.7 %	3.7%	The project is yet to select 17,575 beneficiaries to cover by the co-financing. So this amount could not be spent.
2	4,087,135	3,746,603	356,266	91,160.69 (Cash)	106,822.10 (Cash) 508.38 (In- Kind)	25.6 %	2.9%	Major portion of the allocation was for community based RWHSs. Site selections have been completed but actual work is yet to be initiated, so the allocated amount could not be materialized.
3	298,588	243,685	72,553	136,312.54 (Cash)	137,742.81 (Cash)	187.9 %	56.5%	Due to COVID situation, two training events had to organize in highly secured place that contributed in higher cost than the allocation.
Project Management	634,129	434,249	216,403	68,395.00 (Cash) 26,384.75 (In- Kind)	89,825.27 (Cash) 49,501.16 (In-Kind)	43.8 %	32.1%	Full-time assignment of the NPD was effective from Aug 2021. Co-finance materialization for this line item will be regularized from 2022.
TOTALS	**8,000,000**	**7,122,836**	**1,159,999**	376,500.82 (Cash) 26,384.75 (In-Kind) **402,885.57 (Total)**	431,983.52 (Cash) 50,772.12 (In-Kind) **482,755.64 (Total)**	**34.7 %**	**6.8%**	

3.6.4 Project-level monitoring and evaluation systems

140. A comprehensive M&E Guideline has been prepared to coordinate monitoring of LogFrame indicators, contributions to Sustainable Development Goals (SDG), GCF M&E requirements and the project budget. Tools required to support monitoring are included in the M&E Guideline. The GCA M&E Guideline is currently undergoing review by the Centre for Evaluation and Development (C4ED) team.

141. Staffing for M&E include a M&E specialist (UNDP CO) responsible for the overall management and implementation of GCA M&E. The GCA regional office has a M&E officer responsible for management of field-level monitoring conducted by the three NGO implementing partners that each have a dedicated M&E staff person.

142. For many of the LogFrame indicators targets are based on "number of individuals". In some cases the GCA M&E Guideline proposes to use attendance records (i.e., # of persons attending training session or workshop) as the data source for indicators. While attendance measures the presence of an individual in a project activity, it does not measure the uptake and application of knowledge by participants or the expected benefits for participants. For example, indicator 2 (also indicator 5):

> *Number of males and females benefiting from the adoption of diversified, climate-resilient livelihood options (including fisheries, agriculture, etc.)*

143. The GCA M&E Guidelines states:

> *This indicator will count the number of male and female beneficiaries (all members of the beneficiary households) who have received input for adoption of various diversified and climate-resilient livelihood options (including training) from a list of 8 options decided by the project*

144. The proposed data sources to measure the indicator are training attendance sheets and input distribution muster roll. While attending training and receiving tools are important, they do not measure successful adoption of, and benefits derived from, diversified, climate-resilient livelihood options. The GCA project should consider developing measures of successful adoption and benefits derived which are appropriate for the climate-resilient livelihood options being introduced.

145. To enrich LogFrame indicator data the M&E Guideline has identified additional data sources that may be reported for some indicators, such as baseline and endline surveys, the Adaptation Tracking and Measurement (ATM), water quality monitoring reports and O&M survey results, government meetings demonstrating actions, etc.

146. The M&E Guideline provides some guidance for data quality assurance, including the requirement of adequate training of staff engaged in data collection and management. Data collection forms are to include detailed guidelines for consistent collection of data and electronic data tools will include data validation rules to minimize errors. The M&E Guideline also refers to a chain-of-review process to maintain data quality whereby supervisors will conduct physical random checks of data collected by staff and digital data will undergo logical checks using computer software. The proposed data quality assurance mechanisms could be enhanced by defining a more specific and rigorous quality assurance/quality control process. This may include reporting on the quality assurance guidelines already in place and adding additional measures, such as: initial testing and refinement of data collection forms with evaluators; conducting repeat data measurement with different evaluators; a systematic, randomized data checking protocol for incoming data; and regular follow-up field checking of data by supervisors.

147. The GCA APR reviewed by the IE team show M&E has not yet captured and reported on LogFrame indicators because project activities have not advanced sufficiently to generate data. The APR does provide remarks on the partial progress of LogFrame indicators.

148. The GCA project has been selected for implementation of LORTA, the results of which will assist the GCA project in the analysis of the impacts of the project activities on the proposed livelihood interventions in targeted areas. The baseline LORTA report is still in preparation.

149. The M&E Guideline identifies all GCF M&E requirements and budgets supported by the GCF grant. The budgets identified are considered sufficient for completion of the required tasks.

3.6.5 Stakeholder engagement

150. In the first year of the GCA project the 2019 APR reported there was no stakeholder engagement. In 2020 Covid-19 limited face-to-face stakeholder engagement meetings and lead to the use of virtual meetings. The 2020 APR noted the GCA Stakeholder Engagement Plan would be fully operationalized in 2021 when project field level activities start. However ongoing Covid-19 restrictions resulted in most stakeholder meetings being conducted virtually.

151. At the national level, government stakeholder engagement is reflected in PSC meetings (three meetings, with first meeting in November 2020), PB meetings (two meetings, with first meeting in March 2021) attended by DWA and DPHE as well as other government sectors such as fisheries, agriculture. Two PIC have been formed, one for DWA and one for DPHE each having hosted four PIC meetings starting in March 2020. To ensure good communication and coordination there is cross representation of DWA and DPHE in each PIC meeting.

152. At the regional level a divisional level orientation workshop was held in Khulna District in December 2020 to engage LGI stakeholders in the GCA project. in January 2021 a District level workshop was held with government officials, elected representatives, journalists, and NGOs. Upazila level orientation workshops were held in five project Upazilas of two districts during the first quarter of 2021. In November 2021 a project review workshop was held with Union Parishad Chairmen of all Unions of three project Upazilas in Khulna.

153. Engagement of beneficiaries (all women) has occurred through the beneficiary selection process, the initiation of HH RWHS installation and the formation of Women Livelihood Groups (WLG). Training sessions for RWHS O&M and climate-resilient livelihood options have not been initiated due to Covid-19 restrictions.

154. Engagement of the private sector is evident in the signing of an MoU with the NGO Nowabenki Gonomukhi Foundation (NGF) to participate in the sustainable production and management of . crab farming and crab nursery. Further engagement of the private sector may occur through GCA's market-chain analysis to establish appropriate public-private market linkages for climate-resilient livelihood options that are intended to maximize benefits received by women beneficiaries.

155. Covid-19 has delayed and reduced stakeholder engagement during the first three years of the GCA project. In addition, virtual meetings do not deliver the same level of engagement that occurs in face-to-face meetings within the project communities.

156. While at the national and regional level there is good stakeholder engagement, at the local level and among beneficiaries, engagement has been limited, in part as a result of Covid-19. The impact of this is reflected in the challenges encountered in beneficiary selection, the lack of cooperation from local electoral bodies in some project locations and the need to work through the GCA GRM to make the final selection of beneficiaries. Also at the local level, LGI that are seeking to participate in the GCA project present an opportunity for increased LGI stakeholder engagement going forward to provide long-term support to sustain project activities.

Stakeholder Engagement

Due to the pressure of the local government (Chairman and Members) the partner NGO stopped the project work in some places since Chairman and Members were unhappy about the beneficiary selection.

(Pobitro Kumar Das, Upazila Fisheries Officer)

If the local government had been directly involved in the project, there would have been biasness in the selection of beneficiaries and the distribution of money. Since the local government was not included in the beneficiary selection, it can be said that it has positively influenced the entire project.

(Md Saidul Islam, Ministry of Women and Children Affairs, Assasuni)

157. The mapping of market value-chain stakeholders was completed in 2021, but there have been no stakeholder meetings as of yet. The engagement of these stakeholders through value-chain stakeholder meetings is essential to create an organizational structure that will foster connections between women producer groups and value chain actors, with assistance from the government to maximize benefits derived through equitable and functional market value chains.

3.6.6 Social and Environmental Standards (Safeguards)

158. The Environmental and Social Management Framework (ESMF) completed for the GCA project conducted an impact risk assessment using UNDP's Social and Environmental Screening Procedure for project Output activities. As reported in the APR 2021 *The project risks identified during design stage remains relevant. There were no major issues encountered during the reporting period and the overall Environmental and Social (E&S) risk category of the project remains as "Moderate."* The IE team has not identified any new risks and agrees with the assessment made in the APR 2021.

159. The GCA safeguards team has developed an operation manual for the ESMF and provided training on safeguard issues to implementing partner NGOs

160. The E&S risks identified for Output 1, *Climate-resilient livelihoods, focusing on women, for enhanced adaptive capacities of coastal agricultural communities*, remain relevant and as livelihood activities begin to be introduced in 2022 it will be critical to fully implement the proposed mitigation measures to avoid the environmental and social impacts identified in the ESMF. Continued assessment of risks, reporting and adaptive management, where necessary, will be important to achieve the Social and Environmental Standards (SES).

161. Under Output 1 a social and environmental impact assessment is being undertaken by the GCA safeguards team of the proposed collection of brine water from within the Sundarbans waterways to support development of crab hatcheries. Mitigation measures identified by the safeguards team will be included in the MOU to be signed with the Bangladesh Forest Department.

162. The E&S risks identified for Output 2, *Gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions*, are relevant and the GCA project has implemented risk management measures including use of the GRM to resolve beneficiary selection issues, site evaluations to consider and avoid social needs and environmental impacts and inclusion of SES in contracts for RWHS construction. Continued assessment of

risks during the first wet season will be important in the context of O&M mitigation measures to ensure high quality potable water.

GCA RWHS Water Quality Testing

The quality of the water should be tested from different steps (for example after filtration, before collection after collection) available in the system to get idea about efficiency of the system. So periodic surveillance is necessary for supplying safe water

(Md. Mostafizur Rahman, Sub-assistant Engineer - DPHE, Assasuni)

163. Under Output 1 the ESMF and GRM have effectively addressed issues identified and raised by community members. These include insuring appropriate site selection for RWHS, maintenance of surface water drainage and prevention of water logging, preventing the removal of trees, conflicts regarding land ownership and conversion of agricultural land, and ensuring the beneficiary selection process included all eligible persons. The GRM resolved 2,451 written grievances, which required visiting 874 HH and the review of 120 cases by the Upazila GRM committee. The GRM committee review resulted in a positive appraisal of all 120 cases, following which they were included as GCA project beneficiaries.

164. The E&S risk identified for Output 3, *Strengthened institutional capacities, knowledge and learning for climate-risk informed management of livelihoods and drinking water security* is considered “low” with no mitigation measures proposed. While capacity development in itself may have low risk, it will be crucial for government staff tasked with implementing gender-responsive, climate-resilient livelihoods and drinking water solutions are knowledgeable of the associated E&S risks and mitigation measures.

165. In addition to the GRM, other ESMF tools include the guideline for Free, Prior and Informed Consent (FPIC) which has been utilized during the beneficiary selection process by implementing partner NGOs that have received training in the use of the FPIC.

166. Two additional supporting tools of the ESMF are the Indigenous People's Plan (IPP) and the Social and Environmental Safeguard Operational Manual (SESOM). Both have been drafted and are undergoing final review and vetting process. To assist in effective implementation of the ESMF it is preferable for both the IPP and SESOM to be completed and put in use much earlier in the project cycle The IPP is particularly relevant to the beneficiary selection process while also providing a field-level operational plan for the protection of rights and their cultural resources, ensuring equal distribution of project benefits and addressing the risks and impacts related to indigenous people. The SESOM is relevant to all project activities and it is currently needed for Output 2 RWHS construction activities which have already commenced. The AGCA GCA project is encouraged to finalize both documents as soon as possible.

3.6.7 Reporting

167. The APR 2019 to 2021 prepared by the GCA project provide comprehensive and concise written documentation of project progress for each year of project implementation. The IE team noted timely completion of APR before the end of 1st quarter following the year on which they report.

168. The APR presents an assessment of implementation challenges that have been encountered and reports on how challenges are being overcome. Lessons learned are also noted to inform future project planning which might avoid challenges where possible or include appropriate mitigation measures to be better prepared to overcome challenges and thereby avoid delays. For example, installation of RWHS has faced road transportation challenges of water tanks and other materials due to the timing of activities during the rainy season, the generally poor road conditions and the remote location of vulnerable communities in coastal areas. The GCA project is overcoming this challenge by using water-

based transportation options. In future this challenge could be avoided by ensuring transportation for construction activities is during the dry season.

169. Review of PB and PSC meeting minutes found both progress and major challenges faced by the project are carefully reviewed. Proposed modifications to adjust and improve project implementation are discussed and recommendations are approved. In addition, based on the issues discussed guidance is also given to the appropriate PIC to provide further input into reviewing and resolving issues of concern. In summary, there is excellent reporting and communication within a robust GCA project oversite, management and implementation structure.

3.6.8 Communications & Knowledge Management

170. The GCA project PMU has Knowledge Management Expert to support effective knowledge capture and sharing. The GCA project portal for web-based knowledge management to broaden stakeholder engagement has not yet been created. Completion of this activity should proceed quickly to capture knowledge associated with ongoing project activities. Expected date of completion is end of 2nd quarter 2022.

GCA Project Communication

The project doesn't have website that could be help in replication of project activities

(Sharid Bin Shafique, Upazila Women & Children Affairs Officer)

171. Communication among stakeholders in government nationally and in the region where the GCA project is operating has been facilitated by the regional inception workshop held in December 13th, 2020 to orient and strengthen LGIs. The three implementing partner NGOs have participated in capacity building workshops to fully understand the GCA project objective and outputs.

172. The GCA project has enhanced its visibility through active participation in international events such as International Women's Day, World Water Day, and the International Day of Rural Women. For example the GCA project observed the International Women's Day by sensitizing community men and women, through role reversal demonstrations on coastal women's burden of unpaid care in their HHs. After participating in the event male participants committed themselves to contributing to unpaid care in their HH.

GCA Project Support to Gender Issues

On World Water Day, 101 meetings were held in 101 wards where men were motivated to cooperate with women in drinking water collection.

(Sudeb Kumar Das, M&E Officer, UNDP Khulna Regional Office)

173. The GCA project has a Facebook page with regular posts reporting in English and Bangla on project activities and presenting stories from beneficiaries. The UNDP Bangladesh website has a limited amount of information available; under the "news and updates" tab there has not been update since 2018. The GCA project could benefit by providing relevant project information which may be uploaded to the MoWCA website under the "ongoing projects" tab.

174. The GCA project has an opportunity to create women human-interest stories with photo essays and articles that highlight the gender focus of the GCA project. As GCA project activities progress an effort should be made to capture stories as they emerge, from their inception, trial and error and resulting transformative changes.

3.7 Sustainability

Financial risks to sustainability

175. Tier 1 O&M of RWHS is the responsibility of WUG which is dependent, in part, on revenue from the fee-based model for safe and reliable climate-resilient drinking water solutions. Determination of the fee charged has not yet considered long term tier 1 O&M costs that may need to be covered by water revenues. Without proper tier 1 O&M, water quality may be compromised and beneficiaries may avoid community-based RWHS that are in poor repair and in need of maintenance. The GCA project is calculating tier 1 O&M costs to forecast the financial needs the results of which, may be used to adjust the fee charged for water as necessary to ensure tier 1 O&M costs are covered.

GCA RWHS O&M

If we can do O&M which is mentioned in the project proposal than the community systems will sustain. But we are now not in position to comments about sustainability of options since piloting work is yet to complete. We will require project extension to sustain O&M mechanism mentioned in the project. That will also make the water options business model sufficient.

(AHM Khalequzzaman, GCA Deputy Project Director and Executive Engineer, DPHE, Dhaka)

176. The GoB will take on responsibility of introducing safe and reliable climate-resilient drinking water solutions and climate-resilient livelihood options to the many coastal communities not included in the GCA project. During the IE DPHE reported a project was recently approved to install 1,13,000 HH RWHS that will cover most of the coastal salinity-prone areas. It is recommended that as part of the exit strategy of the GCA project the PMU work with relevant government staff to develop a five year plan identifying priority regions and activities that can be implemented by the appropriate government staff with an annual budget included in GoB finances.

Socio-economic risks to sustainability

177. The GCA project is intended to be gender-transformative, changing women's role in water management and enhancing their participation in climate-resilient livelihoods. In a strongly patriarchal society benefits derived by women from RWHS and their participation in livelihood options may be viewed by men as threatening the status quo. Men may not support women's participation in GCA project activities, and may therefore be at risk of obstructing the success and sustainability of women's participation. The GCA project should include sensitizing activities that include all men, communicating the benefits of the GCA project and ensure LGI and political bodies understand, support and promote the role of women in the GCA project.

178. To participate in climate-resilient livelihoods, including effective marketing of goods there is a need to effectively empower women whose cultural traditions may not include engagement with the wider community. Effective empowerment training sessions by the GCA market development officer, combined with knowledge sharing by women with experience in leadership roles, can lead to significant transformation of women beneficiaries whereby they can learn effective marketing skills and an ability to advocate for their participation in climate-resilient livelihood activities, including marketing locally and outside the community.

Institutional framework and governance risks to sustainability

179. The GCA project's introduction of novel climate-resilient livelihood options is supported by training, tools, market value chain assessment and linkages, formation of WLG and monitoring and adaptive management for up to three cycles of production. In addition, there is capacity development of LGI to provide support to WLG. With full implementation of these GCA activities, the financial risk to sustainability of livelihood options is low. However, as

GCA project implementation has been delayed the full benefit of livelihood support activities may not be achieved increasing the risk to the sustainability of livelihood options.

180. Preference has been shown by beneficiaries for HH RWHS over community-based RWHS. Independent observers of the GCA project who were interviewed raised similar concerns which may have a potential impact on, support for and the sustainability of, community-based RWHS. Factors which may contribute to the sustainability of community-based RWHS are a well-established O&M framework, such as is proposed by the GCA project, which includes WUGs, with support from LGI and DPHE and a well-managed O&M fund derived from selling water. Establishing community-based RWHS within existing institutions, such as schools, can also contribute to their sustainability.

Environmental risks to sustainability

181. Sustainability of RWHS is dependent on the quantity and quality of drinking water production. Environmental contamination may occur through improper or a lack of O&M, which is discussed in part as a financial risk to sustainability above. The GCA project contributes to sustainability through training and formation of functional WUGs that take responsibility for O&M. There is limited time remaining in the project which creates a low risk if training is not adequate or WUGs are not fully functional.

182. The FP and ProDoc document potential environmental risks associated with chemicals used in agriculture, harvesting of native stocks from aquatic environments to support aquaculture and biosecurity risks of infection to both aquaculture and native aquatic environments. Robust mitigation measures outlined in the FP and ProDoc should be followed to avoid these environmental risks to sustainability.

GCA RWHS for Drinking Water

We have done research in our R&D department of DPHE for about one year searching for suitable water treatment technology. Finally, we are happy that after the pilot test of 5 filtration methods we have selected the best and easy method for water filtration. So the technology developed will be used in future water related projects.

(Engr. AKM Khalequzzaman, DPHE, Dhaka)

3.8 Country Ownership

183. Country ownership is demonstrated through the active participation of the Executing Entity MoWCA, with DWA and DPHE, leading implementation of the project as recorded in PSC, PB and PIC meeting minutes.

184. The GCA project supports and is aligned with many plans, policies and projects of the GoB which are actively engaged in addressing issues of climate-change, gender and livelihoods for sustainable development in coastal areas of Bangladesh. The GoB has identified the challenges and presents strategies and plans of action in the following government documents:

- National Sustainable Development Strategy (NSDS)
- National Plan for Disaster Management (NPDM)
- National Adaptation Programme of Action (NAPA)
- GoB 7th and 8th Five Year Plans
- Bangladesh Climate Change Strategy and Action Plan (BCCSAP)
- Bangladesh Climate Change and Gender Action Plan (BCCGAP)

185. GCA project Output 1 and 2 activities are lead the GoB. DPHE is leading the installation of community based water options, maintaining a database of RWHS installed and has the long

term responsibility for major O&M costs. DWA is leading the introduction of climate-resilient livelihoods for women in collaboration with other relevant government sectors such as fisheries and agriculture.

186. GCA involvement and training of participating government sectors will build essential and much needed capacity and ownership to sustainably replicate activities within the large coastal environment of Bangladesh.

3.9 Innovativeness in Results Areas

187. The science of climate-change impacts in coastal areas of Bangladesh is well documented and research is providing sustainable solutions to address issues of disaster preparedness, increasing salinity of surface and groundwater, food security and climate-resilient livelihoods. Also well documented are the gender issues of, the greater vulnerability of women, the burden of unpaid HH work, including provision of water, and the lack of opportunity to participate in decision making and livelihood activities. Conventional development approaches to address climate change and gender issues related to drinking water and livelihood options, such as sesame and crab rearing, would engage government sectors related to water, agriculture and aquaculture as lead agencies with a requirement to include a gender focus.

188. The GCA project has taken an innovative approach to addressing the combined issues of climate change and gender equity by engaging MoWCA as the Executing Entity and only selecting women as direct beneficiaries. A significant outcome of the GCA project will be the recognition and empowerment of MoWCA as a principal agent of change for sustainable climate-resilient development in Bangladesh.

189. The GCA project is implementing an innovative approach to providing gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions. The innovation is reflected in the comprehensive suite of inter-reliant components that address the social, environmental and economic aspects to provide a sustainable drinking water supply that is gender responsive, safe (potable) and climate-resilient. Social aspects include the beneficiary selection process targeting vulnerable women and the management of the drinking water supply by women through the formation of WUG (all women) and WMC (10 of 13 positions women). The environmental issues of climate security and resilience are addressed by capturing sufficient quantity of the available freshwater source (rainwater), using an innovative pre-filtering system prior to storage to supply HHs and communities with drinking water over the dry season, with tank and roof construction methods designed to withstand cyclones, and an innovative three-tiered O&M approach shared by WUG, LGI and DPHE. The economic needs of O&M are ensured through the use of an accessible, fee-based model, to obtain drinking water and the shared responsibility by of O&M utilizing LGI and DPHE government budgets.

3.10 Unexpected Results, both Positive and Negative

190. It is normal for development projects to exclude those persons that do not meet beneficiary criteria. In the case of the GCA project target beneficiaries are vulnerable women. Nonetheless there may circumstances where a project may find opportunities to address those most in need, while also creating mechanisms for other less vulnerable persons to participate. This is not the conventional development model, but development agencies are looking more frequently to engage the private sector.

191. In the case of the GCA project the beneficiary selection process used for HH RWHS selected women who are most vulnerable and who will benefit the most from access to a safe and reliable climate-resilient drinking water solution located in close proximity to their HH. This is the conventional development model.

192. Unexpectedly, during project implementation some community members who were not selected as beneficiaries (i.e., they are not women, they are too affluent, etc.) requested permission to participate in the GCA project by putting forward their own funds to purchase a HH RWHS. The GCA project did not the capacity or an implementation strategy and mechanism to accommodate these requests.

193. An unconventional development approach might allow a project, such as the GCA project, to include the provision of HH RWHS to beneficiaries who are willing and able to finance part or all of the cost of HH RWHS. In other words, beneficiary selection could include criteria that first meets the needs of the most vulnerable, while also providing an opportunity for other community members to participate based on HH income (or other criteria), with these latter beneficiaries providing partial or full financing of RWHS and the project providing partial financial support as needed, technical support and procurement support to install HH RWHS.

3.11 Replicability and Scalability

194. GCA's comprehensive approach to providing safe and reliable climate-resilient drinking water solutions, which includes a durable design to withstand cyclones, an innovative pre-filtration system and a three tiered O&M involving WUG, LGI and DPHE has been replicated by DPHE in Bangladesh and UNDP in other projects in the region.

195. GCA market value-chain analysis conducted to support sustainable livelihood options can provide important information and experience to inform the viability of replication and the scaling up of livelihood options supported by good market demand.

196. GCA Output 3 which provides capacity development and integration of gender sensitive climate-risk informed management is intended to support the replication and scaling up of climate-resilient livelihoods and drinking water security by the GoB. The intent being that MoWCA, which as a government department has limited field staff, will build the capacity of government departments with large community outreach/extension programs with field staff, to better plan for and manage gender sensitive, climate-risk informed programs that reach community members, including women and girls.

Replication of GCA Climate-Resilient RWHS for Drinking Water

Government of Bangladesh HH RWHS

The GoB is planning to install 100,000 HH RWHSs in the southwest coastal area of Bangladesh based on the design installed in the GCA project. The GoB RWHS will increase the rainwater tank size from 2000 litres to 3000 liters. The Executive Committee of National Economic Council (ECNEC) is currently reviewing the plan for approval. The implementing agency will be DPHE.

(Engr.Arif Anowar, DPHE, Dhaka)

GIZ Community-based RWHS

With implementing partner CNRS three pond-based (10,000 litres/day) and two institutional tank-based (45,000 litre) RWHS are being constructed in two coastal districts utilizing a design based on the GCA project.

(CNRS Office, Khulna)

3.12 Gender Equity

197. The GCA project is gender-transformative for the GoB as demonstrated by MoWCA taking the lead role as Executing Entity, and GCA project activities aimed at the integration and mainstreaming of gender-responsive climate-resilient planning and management into the development activities within other participating government departments such as DPHE.

198. The GCA project is also gender-transformative for the women and communities engaged in the project. Reducing the burden of work for women and girls through the provision of HH RWHS and supporting new opportunities for women to participate in income-generating climate-resilient livelihood activities can significantly change the status of women in the

community. As a regular component of GCA project activities the concept of women's unpaid work is acknowledged to sensitize community members and encourage HHs to promote a sharing of the responsibility of unpaid care work among all community members, men and women.

199. Through the GCA project women will participate in activities that challenge traditional gender norms of participation in technical roles, paid employment and income generation. For example, the in GCA project, women directly participate in technical aspects of RWHS site selection, the review of proposed RWHS construction and RWHS O&M. Women will be more visible through active participation in GCA project implementation and in new roles they will continue to occupy associated with RWHS O&M and climate-resilient livelihood options.

200. At the project management level, the GCA project has a designated gender team that works with other thematic teams (Water, Livelihood, Early Warning, Safeguard, Knowledge Management) to mainstream gender, ensuring their implementation strategies, tools, documents and events include a gender focus. The GCA project hiring and procurement encourages women's participation; 50% of enumerators were women, and procurement contracts include clauses that encourage employment of women and ensuring equal wages for women and men. And the project raises the profile of women and gender issues through the support and participation in events such as, International Woman's Day, World Water Day, International Day of Rural Women.

Figure 5. Tapashi Mondol from Chandpara village of Ward no. 9 of Bajua Union, Dacope Upazila is a Water beneficiary of GCA project, fetching water from household based rainwater harvesting system.

201. The GCA project has a primary focus to work with women, with a beneficiary selection process that only selects vulnerable women, including women of ethnic minorities, to participate in the activities of Output 1 (climate-resilient livelihoods) and Output 2 (HH

RWHS). In addition, the GCA project empowers women through the formation of WLG (all women members), WUG (all women members) and WMC (10 of 13 members women who may be: elected members of Union Council, school head/assistant head/senior teachers, elected president of WLG, school management committee member, owner of private area, local water team member, early warning team member, women and girls volunteer group member). Early results show that on average two hours per day is saved when HH RWHS are installed. Output 3 activities provide training for GoB staff to mainstream gender-responsive planning and implementation in all departments.

202. Through the Gender Action Plan (GAP), GCA project activities ensure the needs of women are identified by engaging with women beneficiaries to give voice to, document and prioritize their concerns and needs into actionable change. For example, women engaged in livelihood options participate in training and market value-chain assessment to ensure their participation in producing goods for markets is equitable. Similarly, to ensure the needs of women are included and to ensure women receive timely early disaster warnings, women and girl volunteer groups are being formed and trained to work with the existing CPP warning system.

203. The GAP identifies indicators and end of project targets for 17 Output 1 activities, 12 Output 2 activities and 12 Output 3 activities. The APR provide annual updates on progress towards achievement of targets. APR 2021 reporting on the GAP, shows the establishment of a strong foundation for all Output activities which can contribute to the achievement of targets identified in the GAP.

204. In regard to Output 1, the activities completed to date constitute the foundation work required for climate-resilient livelihood options. This includes selection of 100% of women-headed households in targeted wards as beneficiaries, development of livelihood profiles of WLGs and production of a WLG manual. Market value chain actors (213 input market actors, 1 woman, 212 men and 914 output market actors 27 women, 887 men) have been identified to collaborate with WLG. MOUs are being put in place to supply crablets and access water. EW to support climate-resilient livelihoods, has been initiated through the development of a protocol for the formation of Women and Girls Volunteer groups and initial meetings have been held with the CPP at Upazila and District levels.

205. Output 2 activities completed to date (May 2022) are also largely foundational, with beneficiary selection complete (30,934 women), 100% of HH RWHS installation construction completed, and site preparation for 142 community/institution-based RWHS and 41 pond-based system underway. Among the prepared community/institution-based and pond-based sites, construction of RWHS is ongoing in most of the sites. A WMC and WUG formation guideline has been drafted and an O&M strategy drafted. WMC have been formed in many of the prepared sites and O&M training has also been provided to a few sites.

206. For Output 3 adaptive livelihood scenario modelling is underway to support development of a toolkit for ToT of GoB staff, to strengthen their capacity to design and implement gender-responsive, climate-resilient livelihoods. Training on the gender-climate nexus has been conducted for 75 GoB staff (33 women, 42 men) from national and local level. Development of a web-portal co-hosted by MoWCA has started, to provide a knowledge-hub for gender responsive, climate change adaptation tools and practices. There is ongoing collection of background information and stakeholder meetings to develop a ToR for a consultant to design a campaign and toolkits to promote adaptive learning among adolescent women and men.

4 Conclusions, Recommendations and Lessons Learned

4.1 Conclusions

207. The GCA ToC, with MoWCA leading the project to target women beneficiaries, has been assessed as an innovative and logical approach that has the capacity to achieve the project's objective and is sustainable with evidence that the necessary scaling-up and replication in coastal areas has been started by the GoB and other development initiatives utilizing some aspects of the GCA model.

208. Successful completion of the GCA project will be gender transformative for the women beneficiaries who will spend much less time working to meet HH water supply needs, who have an opportunity to engage in livelihood activities, and for those women who will be visible in the community participating in volunteer and paid roles managing and maintaining community RWHSs. Gender transformation will also occur in the context of MoWCA leading a major development project and through MoWCA's implementation of GCA activities integrating gender-responsive policies, planning and management within other government departments.

209. The GCA project has encountered challenges from cyclones and the selection of the GCA project for LORTA, but most significantly from Covid-19 restrictions that prevented or severely curtailed the crucial interactions among stakeholders (sensitization, ToT, training, meetings, group formation, workshops, etc.) on which the project is built. While the GCA project has, to the degree possible, utilized an adaptative management approach, particularly among stakeholders with access to the technologies that permit virtual meetings, it must be acknowledged it is difficult to achieve the same level of interaction on a screen virtually versus face-to-face meetings or workshops, especially if the group number is greater than two or three and where novel, innovative concepts are being introduced. And in regard to rural areas, and for beneficiaries in particular, virtual meetings or training sessions are generally not possible nor advisable.

210. The GCA project LogFrame includes 12 indicators with mid-term and end-of-project targets. Analysis of LogFrame indicators using SMART criteria raised concerns in regard to the measurability of some indicators (**Appendix 7. Table 7-1)**. Recent completion of the GCA M&E Guideline has resolved some issues, but there remains a need for further clarification of indicators based on IE analysis. The IE review of LogFrame indicator mid-term (interim) targets ascertained the GCA project has not achieved any of the 12 mid-term targets established in the FP (**Appendix 9. Tables 9-1 and 9-2**) due to the challenges discussed above.

211. Considering the project activities completed and the project budget expended to December 31st, 2021, as well as the project schedule established in the PIP, the GCA project is 1.5 to 2 years behind schedule. The remaining three years of the project will not be sufficient to complete all activities in a meaningful and sustainable manner and implement an orderly exit strategy that: 1. ensures climate-resilient livelihood activities and market-value chains are well established and self-sustaining; 2. the inter-dependent components providing gender-responsive access to year-round, safe and reliable climate-resilient drinking water solutions are all fully functional and working synergistically; and 3. the GoB has the demonstrated the capacity to effectively plan and manage solutions for climate-risk informed livelihoods and drinking water security with plans and budgets in place for the scaling-up that is needed across all coastal areas of Bangladesh.

212. Due to the delay in implementation of project activities, the IE has not been able to assess the efficacy of GCA's three project outputs. The RWHS will go through their first cycle with the rainy season of 2022, final selection of beneficiaries and livelihood option choices followed by training and support to commence climate-resilient livelihoods begins in 2022,

and GoB demonstration of skills and policy integration of climate-risk informed planning and management for livelihoods and water is not yet available.

213. Nonetheless the IE has identified factors that indicate the GCA project has the potential for successful and sustainable completion of all project activities that can provide significant and much needed benefits to the direct beneficiaries and enhance the capacity for the GoB to address the larger need within all coastal areas. The analysis of the GCA ToC demonstrates a logical framework supported appropriated activities. The project management structure is in place, including the large technical capacity of the PMU and engagement of MoWCA, DWA and DPHE is capable of implementation. With appropriate ongoing management and training of implementing NGOs, the implementation of activities in the field with women and youth can be efficient, effective and sustainable.

Figure 6. A beneficiary member of WLG from Koikhali Union of Shymnagar Upazila, Satkhira working on her homestead garden.

4.2 Recommendations

Recommendation	Responsible Party(ies)	Timeline
1. To permit effective and sustainable completion of project activities and to ensure adequate time is available for an orderly exit strategy, it is recommended the GCA project request an eighteen month extension with project completion date 12 April 2026. This may be a no cost extension based on the GCF and GoB budget remaining (Table 5) for project implementation, including the budget available for project staff.	Project Board and Project Steering Committee	2nd Quarter, 2022
2. Final approval of the GCA project GRM by MoWCA should be expedited as soon as possible to support project implementation.	MoWCA	complete by end of 2nd Quarter, 2022

Recommendation	Responsible Party(ies)	Timeline
3. The IPP should be finalized and implemented immediately with the results of implementation monitored and adjusted as necessary.	PMU	complete by end of 2nd Quarter, 2022
4. The Operational Manual on Social and Environmental Safeguards should be finalized and implemented immediately with the results of implementation monitored.	PMU	complete by end of 2nd Quarter, 2022
5. Complete recruitment of a woman empowerment officer.	PMU	complete by end of 2nd Quarter, 2022
6. When HH RWHS are fully functioning and have filled during the wet season monitoring should be conducted to determine adequate storage capacity to meet HH needs. If storage capacity is determined to be inadequate, in consultation with DPHE and beneficiaries a strategy to address the shortage in supply should be developed.	PMU	begin 2nd Quarter, 2022 complete by end of 1st Quarter, 2023
7. For community based RWHS options, including tanks and ponds, experience and monitoring of pilot installations should be used to continue to refine RWHS designs and implementation methods.	PMU	continuous until project completion
8. Seasonal water quality monitoring of both HH and community-based RWHS should be conducted to verify the potability of the water and performance of the newly introduced treatment devices and where necessary improve RWHS filtration and treatment systems.	PMU	continuous until project completion
9. Additional effort should be made to engage LGI with a focus on making LGI fully conversant with the GCA ToC and the innovative approach to implementation to encourage LGI to advocate on behalf of the GCA project. Engagement of LGI should include awareness raising of their contribution to sustaining HH and community RWHS and climate-resilient livelihood activities and in this regard the GCA project may provide appropriate training to ensure LGI can contribute to sustainability. Monitoring of LGI engagement, capacity enahancement and demonstrated commitment to sustainability should be undertaken and additional GCA support provided as needed.	PMU	begin 2nd Quarter 2022 and conitinue until project completion
10. Further review of LogFrame indicators should be completed by the PMU to address issues identified in the SMART analysis. In addition to indicator data disaggregation by gender, data disaggregation should also include persons with disability and indigenous persons as identified in the IPP.	PMU	begin 2nd Quarter, 2022 complete by end of 3rd Quarter 2022

Recommendation	Responsible Party(ies)	Timeline
11. At the request of implementing partner NGOs, explore mechanisms to enhance communication, collaboration and coordination of day-to-day GCA field implementation activities through more frequent (minimum monthly) meetings (virtual or in-person) between the PMU and implementing partner NGOs	PMU	begin 2nd Quarter, 2022 and continue until project completion
12. Review and update GCA M&E Guideline to enhance QA/QC components and implement recommended changes	PMU	begin 2nd Quarter, 2022, complete update by end of 3rd Quarter
13. The GCA project should produce human-interest stories, photo essays and articles – especially ones that are gender-related given the focus of the project. There are some visible results emerging from project interventions and these should be captured well and disseminated widely.	PMU	begin 2nd Quarter, 2022 and continue until project closure

4.3 Lessons Learned

214. Comprehensive introduction of a project at the local level, directed at LGI, Civil Society Organizations, community residents should be conducted, preferably, in the first year of a project. Sensitization to the project is intended to promote project understanding, engagement and advocacy and to avoid conflicts that may arise from unrealistic or misunderstood expectations to be derived from the project. Sensitization should include a good understanding of project design, including the ToC, project risks and proposed mitigation measures, roles and responsibilities of stakeholders, beneficiary selection process, GRM, what the project benefits are and who receives them, project implementation methods and timetable, and the project's exit strategy with a sustainability plan that includes replication and scaling-up.

215. Engagement of local elected government officials can be beneficial where they advocate LGI and community members to engage, support and participate in the project. Local government officials should not be permitted to circumvent criteria established by the project for community and/or beneficiary selection, to influence community and/or beneficiary selection based on politically motivated self-interest criteria.

216. Adequate training of enumerators and testing of data collection methods related to baseline survey data, such as the ATM (Adaptation Tracking and Measurement), is crucial to the provision of high quality, error-free data, forming part of the project's foundation. Baseline data are important because they may be used in beneficiary selection and they will be used to measure the success of the project, providing data for some indicators.

217. Baseline data collected during project design and which may be included in the FP may not be a true reflection of the situation at project start-up. Provision to update baseline at project start-up should be included as part of project inception.

218. In coastal areas of Bangladesh increasing salinity of surface and groundwater is impairing water quality for everyone. In a development project such as GCA, it is appropriate to target women and the most vulnerable when introducing HH RWHS to provide access to a safe and reliable climate-resilient drinking water solutions. Nonetheless, it may be possible to address the needs of everyone through a scaled beneficiary selection process whereby

community members who are most in need (e.g., criteria such as, women headed HH, extreme-poor, person with disability, ethnic groups, etc.) are targeted first and other community members may participate by providing partial or full financing of RWHS based on HH income (or other criteria).

219. To minimize misunderstandings of community members regarding the beneficiary selection process, the community should be made fully aware of the intended objective, outputs and activities of a project and the mechanism for beneficiary selection. It is also advisable to hold a second round of public meetings prior to publicizing the potential beneficiary list, to permit further discussion and understanding of the beneficiary selection process.

220. In the coastal areas of Bangladesh there is a strong preference for HH RWHS over community-based systems, because community members want to have control over the security of the HH's drinking water supply.

221. Successful field-level implementation of a project is highly dependent on the quality of work conducted by ward (local) facilitators as the "change initiators". Facilitators, who may be hired by implementing partner NGOs, must have the experience and capacity (knowledge, tools, support) to effectively engage remote communities of people that may be fearful and wary of outsiders. Experienced facilitators have a good understanding of appropriate methods to skillfully work collaboratively with the rural poor and to ensure the inclusion of disadvantaged groups (women, poor, disabled, ethnic groups, elderly, etc.). Taking the time required to ensure development of the capacity of partner NGO field facilitation staff is crucial to ensuring uniform and sustainable project progress.

222. Prior to the introduction of climate-resilient solutions, there is a need to conduct adequate research and testing to ensure a reliable, disaster-proof technology is being invested in. Beneficiaries of the GCA project's RWHS, will be relying on these water supply systems to provide a year-round, safe and reliable climate-resilient drinking water solution for many years to come.

223. The site-selection process for community-based RWHS options is a complicated task involving many issues such as, social norms, willingness of the land owner, approval of the water management committee, consideration of the users and safeguard issues. To ensure an efficient process to securing sites a thoughtful, transparent and collaborative site-selection process involving all relevant stakeholders, including those who will utilize the water supply, should be undertaken within the community.