Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Main report and annexes

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Map of the Project Area

No map available

Please contact gis_team@ifad.org or request a map at:

https://xdesk.ifad.org/sites/opr/Pages/Map request form.aspx

Abbreviations and Acronyms

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BBS	Bangladesh Bureau of Statistics
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BIDS	Bangladesh Institute of Development Studies
BUET	Bangladesh University of Engineering and Technology
CALIP	Climate Adaptation and Livelihood Improvement Project
CC	Climate Change
CDRSSWRMP	Climate and Disaster Resilient Small-Scale Water Resources Management Project
CDSPIV	Char Development and Settlement Project Phase IV
COSOP	Country Strategic Opportunities Paper (IFAD)
CRALEP	Climate Resilience and Livelihoods Enhancement Project
CRELiC	Climate Resilient Local Infrastructure Center
DA	Designated Account
DPP	Development project pro forma (of the Government)
ERD	Economic Relations Division
FAO	Food and Agriculture Organisation
FD	Finance Division (of Ministry of Finance)
FFEWS	Flash Flood Early Warning System (for Haor)
FID	Financial Institutions Division (of Ministry of Finance)
FY	Financial year
FYP	Five year plan
GDP	Gross Domestic Product
GoB	Government of Bangladesh
hh/HH	household
HIES	Household Income and Expenditure Survey
HILIP	Haor Infrastructure and Livelihood Improvement Project
IFAD	International Fund for Agricultural Development
IA	Implementing Agency
IT	Information Technology
IWFM	Institute of Water and Flood Management
Killa	Bangladesh word for raised land for storage and shelter in Haor and other parts of the country
LCS	Labour Contracting Society (of LGED)
LGED	Local Government Engineering Department
ME	Microenterprise as defined by PKSF under its loan program
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MIS	Management Information System
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MSME	Micro, small and medium enterprise
NAP	National Adaptation Plan
NGO	Non–Governmental Organisation
p.a.	per annum
PACE	Promoting Agricultural Commercialization and Enterprises
PARTNER	Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh
PDR	Project Design Report
PKSF	Palli Karma-Sahayak Foundation, Government established apex development agency for MFIs/NGOs
PMU	Project management Unit (of RMTP)
PO	Partner Organization (of PKSF)
PROVATi[3]	Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information
PSC	Project Steering Committee
PY	Project Year
RCC	Reinforced Cement Concrete
RMTP	Rural Microenterprise Transformation Project
SACP	Small Scale Agricultural Competitiveness Project
SDG	Sustainable Development Goal
SGA	Subsidiary Grants Agreement
SLGA	Subsidiary Loan and Grant Agreement
SOE	Statement of Expenditure
Upazila	Sub-district
VC	Value chain
VCD	Value chain development
WA	Withdrawal Application
WFP	United Nations World Food Programme

In line with IFAD mainstreaming commitments, the project has been validated as:

☐ Be gender transformative ☑ Be youth sensitive ☐ Be nutrition sensitive ☐ Prioritize persons with disabilities ☐ Prioritize indigenous peoples ☑ Include climate finance ☑ Build adaptive capacity

Executive Summary

Introduction

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development. The project duration is set for six years. The Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C) will be the implementing agency.

National context

In 2023, 18.7% of Bangladesh's population was living below the poverty line, with 8.7% in extreme poverty. The national undernourishment rate stood at 9.7% (about 15.9 million people) from 2018 to 2020, and severe food insecurity affected 10.5% of the population. Moderate or severe food insecurity was at 31.9%, although dietary diversity has gradually improved.

The Haor and High Barind regions, targeted by the Climate Resilience and Livelihood Enhancement Project (CRALEP), are climate hotspots with significant vulnerabilities. These regions face unique challenges due to their geographical and climatic conditions, exacerbating issues of poverty and food security. National strategies, such as the Bangladesh Delta Plan 2100, the National Adaptation Plan (NAP), and the Nationally Determined Contributions (NDCs), outline the country's commitment to addressing climate change and building resilience. These strategies emphasize the importance of enhancing climate resilience, ensuring food security, and promoting sustainable rural development, aligning closely with the objectives of CRALEP.

Despite many efforts, policy implementation and resource allocation gaps remain. Key policy issues include the need for more targeted interventions to support vulnerable populations, increased investments in resilient infrastructure and innovative approaches (nature-based solutions) to enhance their sustainability, and human capital and local capacity building. Addressing these gaps presents both challenges and opportunities for CRALEP to significantly enhance climate resilience and livelihoods in the Haor and High Barind regions.

Rationale and IFAD's comparative advantage

The Haor and High Barind regions in Bangladesh face some of the highest poverty levels in the country: poverty ranges from 20.1% to 53.5% in six of eight CRALEP districts[1]. The Haor region is naturally inundated for 5-7 months each year, with annual floods, frequent flash floods, and wave actions eroding villages and endangering homesteads and livelihoods. Road communication is extremely difficult during the dry season, and access to safe drinking water and sanitation remains poor. The High Barind region, characterized by prolonged and frequent droughts and heat waves, suffers from depleting groundwater levels, poor soil quality, low agricultural productivity, and inadequate physical markets for distant villages.

In both regions, poor families rely heavily on agricultural labor and low-profit farming. Youth unemployment is alarmingly high, with approximately 41% of Bangladeshi youth inactive, not engaged in education, employment, or training. This issue particularly affects young girls due to early marriage, lack of job skills, and poor social conditions, resulting in a significantly higher inactivity rate among girls (61.71%) compared to boys (18.59%).

Despite progress, substantial challenges remain in enhancing women's economic capabilities and opportunities in agriculture, where 60% of employed women are engaged. Women, who constitute about 49% of the disadvantaged population, face limited employment opportunities, with a rural female labor force participation rate of only 38.6% compared to 80.3% for men.

The project will leverage IFAD's proven methodologies and lessons learned from previous initiatives, such as HILIP-CALIP and PROVATI3, which have demonstrated success in creating employment opportunities, enhancing food security, and building resilient communities. The project will introduce innovative approaches to climate adaptation and livelihood enhancement, ensuring that the most vulnerable populations are equipped to cope with and recover from climate-related shocks. IFAD's focus on gender equality and youth employment will also address the high inactivity rates among young people and improve economic opportunities for women, aligning with national priorities and the Sustainable Development Goals (SDGs).

Project/Programme Description

Targeting strategy. CRALEP employs a comprehensive targeting strategy to ensure that the most vulnerable and disadvantaged populations in the Haor and High Barind regions benefit from its interventions. This strategy is based on three primary targeting approaches: geographical targeting, poverty targeting, and beneficiary targeting.

- Geographic targeting: CRALEP focuses on 33 upazilas across eight districts, with twenty-four (24) upazilas in the Haor region and nine (9) in the High Barind region. The selection criteria for these areas include high climate vulnerability, high poverty incidence, and poor communication infrastructure and access to markets as well as alignment with other development

projects for synergies and to avoid potential overlap. The Haor region is particularly characterized by deep inundation and high wave action, affecting 17 of its upazilas either fully or partially.

- Poverty targeting: Most of the population in the target areas is poor, with a significant percentage being extremely poor. The main professions of the population in the project upazilas are agricultural labor, artisans, farming by marginal and small farmers, open water fishing, small non-agricultural producers, and poor young men and women.
- Beneficiary targeting: Young men and women from poor families will be specifically targeted for vocational and entrepreneurship training and sustainable livelihood development. CRALEP aims to directly benefit 311,820 households, translating to approximately 1.34 million individuals.

*Goal and objective***.** The goal of the project is 'To significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought-prone High Barind regions.' The project objective is 'to strengthen community resilience and well-being through climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services.'

Project Structure. The project employs two distinct strategies: creating economic opportunities and reducing risks. The project's climate risk reduction strategy is centered around livelihood enhancement and diversification through roads, market infrastructure, vocational training and entrepreneurship, but also involves protective infrastructure (physical barriers to erosion from floods and wave action) in the case of Haor. To achieve four interrelated outcomes, components 1 and 3 create economic opportunities and components 2 and 4 reduce risks. While Component-1 deals with climate resilient infrastructure (i.e., village roads, markets, and boat landing platforms) in both regions, Component-2 is specifically meant for building resilience for the Haor region by providing basic services such as community walkways, access to water, sanitation and some community spaces, building *killas,* and village protection walls combined with nature-based solution (using vetiver grass and treated bamboo). Component-3 is meant to develop income resilience by providing vocational and entrepreneurship training for wage- and self-employment for young women and men and sustainable livelihoods for the LCS members. Component-4 complements the other three components by strengthening the capacity of the newly formed Climate Resilient Local Infrastructure Centre (CReLIC) within LGED, producing early flash flood and drought warnings for Haor and Barind, respectively, and conducting research work on several infrastructure issues by LGED in collaboration with external institutions and/or experts. The four components comprehensively enhance the resilience of the communities by providing access to markets and social services, diversifying livelihoods, providing critical weather services and strengthening the critical institutional capacity of LGED. See Table A for major activities.

CRALEP is validated for building adaptive capacity, and the log frame includes two core indicators for climate change. Climate finance (adaptation finance) is validated as 78.5% of the total IFAD project cost or US $ 54,952,000.

Component, Sub-component and Activities

Component 1: Climate proofed village road connectivity and market improvement (USD 61 million). The outcome of Component 1 is 'Outcome 1: Increased market accessibility, improved livelihood options, and expanded access to social services for community members.' It is divided into four subcomponents: 1.1 Village Road connectivity in Haor areas; 1.2 Village Road connectivity in Barind area; 1.3 Rural market improvement in Barind and Haor; and 1.4 Boat landing platform (Ghat). This component focuses on connecting villagers with markets, institutions, and services, which in turn also encourages investments in the villages. All infrastructure will have enhanced engineering specifications to withstand the adverse effects of climate change.

Component 2. Village services for resilient communities in Haor region (USD 24 million). The outcome of Component 2 is 'Outcome 2: Improved village protection, living conditions, and resilience against wave action and severe weather events.' It is divided into three subcomponents: 2.1 Village internal services (walkways, safe drinking water and sanitation, common community space); 2.2 Killa for temporary storage of harvests and shelter; and 2.3 Low-cost nature-based village protection system in Shallow Haor (VPS). This component is to provide internal walkways, safe water and sanitation facilities, and nature-based low-cost protection for the homesteads and livelihoods, which in turn will also reduce climate migration. The project villages will be selected using predetermined criteria to prioritize poorer, vulnerable and remote villages with nonexistent internal services. The village communities will be organized and trained to maintain this minor infrastructure.

Table A: Main Project Target and Beneficiaries

Sub-comp.	Subcomponent Title	Main activities	Target	Direct beneficiaries (Persons)	Beneficiary HHs (#)	Population
1.1	Village Road connectivity in Haor areas	Village road construction (km)	141		16,920	72,756
1.2	Village Road connectivity in Barind area	Village and union road construction (km)	193		23,160	99,588

1.3	Village Market development and rehabilitation	Market development in Barind (#)	10		20.200	86,860
		Market rehabilitation in Haor (#)	48		96,960	416,928
1.4	Boat landing platform (Ghat)	Ghat construction (Haor and Barind)	34		Included in market	--
2.1	Village internal services in Haor (internal walkways, toilet blocks, tubewells)	Number of villages (#)	240		48,000	206,400
2.2	Killa for temporary storage of harvests and shelter in Haor	Number of killas (#)	72		3,600	15,480
2.3	Low-cost nature-based village protection system in Shallow Haor (VPS)	Number of villages	280		56,000	240,800
3.1	Vocational training for employment creation for youth (Haor and Barind)	Number of trainees (#)	34,000	34,000	34,000	146,200
3.2	Entrepreneurship training for youth	Number of trainees (#)	10,000	10,000	10,000	43,000
3.3	Sustainable livelihoods for LCS members	Number of LCS members (#)	2,980	2,980	2,980	12,814
	Total: Comp 1 to 3			**46,980**	**311,820**	**1,340,826**

Component 3: Livelihood diversification and resilience (USD 13.8 million). The outcome of this component is 'Outcome 3: Diversified wage and self-employment opportunities for young men and women and members of the LCS.' The subcomponents are: 3.1 Vocational training for employment creation for youth; 3.2 Entrepreneurship training for youth; and 3.3 Sustainable livelihoods for LCS members. This component focuses on the enhancement of technical and management skills of young men and women for preparing them for wage and self-employment. The unique feature of this component will be three interrelated elements: selection of young women and men from poor families, demand-driven vocational training and placement for wage-employment through a network of employers or assistance for self-employment, including access to credit. LCS members will be provided training on livelihoods to place them on an empowerment pathway to eradicate poverty.

Labour Contracting Society (LCS): The Labour Contracting Society (LCS) mechanism in Bangladesh is a community-based approach to labor contracting that aims to empower local communities, particularly the poor and marginalized groups, by involving them directly in infrastructure and development projects. Under the LCS mechanism, community members form societies or groups that are contracted to carry out specific tasks such as construction, maintenance, and other project-related activities. This approach not only provides employment opportunities and income to the local population but also fosters a sense of ownership and accountability towards the projects. LCS ensures that the benefits of development projects are more equitably distributed, and that the community has a direct stake in the success and sustainability of the initiatives. By utilizing local labor and resources, the LCS mechanism also promotes capacity building and skills development within the community, contributing to long-term socio-economic development.

Component 4. Capacity development, climate information services, and innovation (USD 1.5 million). The outcome of this component is 'Outcome 4: Strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies.' It is divided into four small subcomponents: 4.1 Capacity building of CReLIC; 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience; 4.3 Innovation in construction, materials, and livelihood diversification; and 4.4 Policy and dissemination. This component directly addresses climate issues by providing early flash flood and drought warning to the communities, as well as capacity building of LGED and piloting innovative ideas.

Sustainability, Scaling Up and Exit Strategy

Socio-Economic Sustainability. CRALEP aims to create lasting socio-economic benefits by improving connectivity, market access, and enhancing livelihoods. By providing vocational and entrepreneurship training, the project fosters self-sustaining economic activities, which are expected to continue generating income and employment opportunities long after the project concludes.

Institutional Sustainability. Institutional sustainability will be achieved by building the capacity of local institutions such as the Climate Resilient Local Infrastructure Centre (CReLIC) of LGED. Training LGED officials on climate change issues and integrating climate-resilient practices into their operations will ensure that project benefits are institutionalized. Additionally, partnerships with the Bangladesh Water Development Board (BWDB) and the Bangladesh Meteorological Department (BMD) will ensure continuity of early warning systems and climate forecasting capabilities.

Technical Sustainability. The enhanced engineering designs of roads and nature-based VPS will continue much beyond the project period. The project plans for numerous trainings on vetiver production and bamboo treatment for local communities, which is expected to enhance local skills.

Environmental and Climate Change Sustainability. CRALEP addresses environmental and climate change sustainability by promoting nature-based solutions and resilient infrastructure. Activities such as building low-cost village protection systems, improving water and sanitation facilities, and enhancing drought forecasting are designed to mitigate environmental impacts and adapt to climate change. Embedding these practices into local development plans ensures their continuation and scaling up.

Financial Sustainability. Financial sustainability is ensured through the integration of project activities into existing funding mechanisms. Maintenance of rural roads, for example, is mandated to the LGED and funded through the regular budget.

Scaling-Up Strategy. The vision for scaling up CRALEP's successful outcomes includes embedding project practices into LGED's overall programs. Key aspects of the scaling-up strategy involve identifying successful interventions, documenting best practices, and advocating for their inclusion in national policies and programs. This approach ensures that the benefits of CRALEP can be replicated and expanded across other regions facing similar challenges.

Innovation. CRALEP integrates several innovative practices with potential for scaling up. These include advanced early warning systems, and nature-based solutions for village protection. By mainstreaming these innovations, the project adds value and delivers sustainable solutions to rural development challenges.

Exit Strategy. This includes ensuring that local communities are organized and trained to maintain infrastructure, such as through the leasing of boat landing stations and markets, community maintenance of tube-wells and VPS. Roles and responsibilities will be clearly defined to ensure a smooth transition. For example, LGED will continue to manage and fund rural road maintenance, while partnerships with BWDB and BMD will ensure the sustainability of early warning systems. The project will also ensure that vocational training and livelihood activities result in self-sustaining employment opportunities for trainees.

Project Financing and EFA

Project cost: The total project cost inclusive of taxes and duties, and contingencies amounts to USD 103 million over a six-year implementation period with US$ 5.3 million in contingencies. All costs are estimated based on currently (May 2024) prevailing prices in Bangladesh. Project financing includes 4 percent price contingency and 1 percent physical contingency, respectively by components: US$ 61 million for Component 1, (59 percent of project costs), US$ 24 million for Component 2 (23 percent of project costs), US$ 13.8 million for Component 3 (13 percent), and US$ 4 million for capacity development and project management (4 percent of project costs).

Project financing: The IFAD loan will finance US$ 70 million of the total project cost (68%); the government will provide US$ 31.7 million (30.7%); and the Gate Foundation will provide US$ 1.5 million (1.5%). More details can be found in the project's COSTAB.

EFA. The EFA results show that the project is economically viable with a 34% economic internal rate of return (EIRR) and an 1.8 benefit-cost (B/C) ratio. The sensitivity analyses show that the project will be viable to face many foreseeable risk factors with adequate economic viability. The economic viability was re-estimated using a 12% discount rate to reflect a possible increase in the opportunity cost of capital and the results show the project is still viable.

Organizational structure of the project

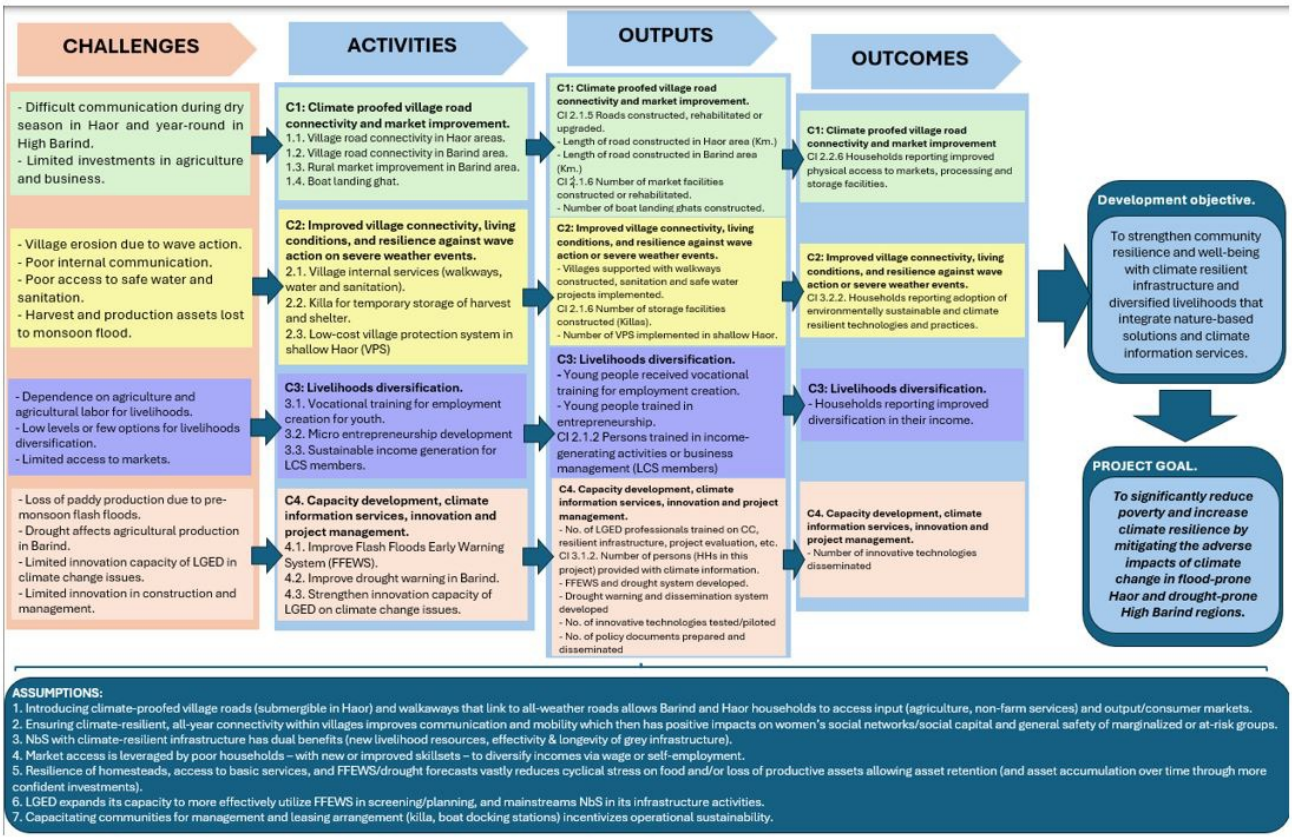
Borrower, EA and IA. The Government of Bangladesh, represented by the Economic Relations Division (ERD) of the Ministry of Finance, are the borrower of the loan. The Local Government Division (LGD) and the Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development, and Cooperative is the Executing Agency (EA) and Implementing Agency (IA), respectively. A Project Steering Committee (PSC) (i.e., implementation and steering committee IMSC), headed by the Secretary, Local Govt. Division (LGD), will be established, which will provide overall strategic guidance, monitor overall implementation progress, facilitate interagency coordination required for smooth project implementation, and resolve any outstanding issues requiring high-level decisions.

Project Management Unit. The LGED will establish a Project Management Unit (PMU) headed by a senior engineer as the Project Director. Several LGED officials will be deputed to the project. The project will hire the necessary contractual officials as stipulated in PDR. The PMU will have four tiers: PMU/Dhaka at LGED Head Quarters, three Regional Offices in Chapai Nawabganj, Kishoreganj and Sunamganj, eight District Offices (Haor Region: Netrakona, Kishoreganj, Sunamganj, Habiganj, and Brahmanbaria; High Barind Region: Rajshahi, Naogaon, and Chapai Nawabganj), and 33 Upazila LGED offices. All these PMU offices and respective project officials will be housed in LGED respective District Offices and Upazila Offices. The PMU will engage private construction contractors, NGOs, private, and government training providers as appropriate for implementation of the project activities and will sign partnership agreements with several national institutions such as the Bangladesh Forst Research Institute (BFRI), the Institute of Water and Flood Management (IWFM), the Bangladesh Water Development Board BWDB), and the Bangladesh Meteorological Department (BMD), for implementation of Component 4.

FM, Procurement, M&E. The project will have a financial and procurement management system to meet IFAD and government requirements. The project's MIS and M&E systems will monitor the project's progress and evaluate the project's achievements.

Collaboration with other projects. The project will coordinate with the HFLIM2 project, financed by JICA, which is to be also implemented by LGED in the Haor region, to avoid any overlap of project activities. Besides, the IFAD cofinanced irrigation project CDRSSWRMP will implement irrigation subprojects in all CRALEP project upazilas. In addition, the proposed IFAD-funded FAST project will implement value chain development subprojects in Haor and Barind targeting the poor, marginal and small farmers, and other producers to create employment opportunities. Beneficiaries of both projects will benefit from infrastructure developed under CRALEP.

Theory of Change



Mainstreaming Themes

In line with IFAD's mainstreaming commitments, the project/programme intends to:

☐ Be gender transformative; *[check box or delete if not applicable]*

☐ Be nutrition sensitive; *[check box or delete if not applicable]*

☒ **Be youth sensitive.**

☐ Prioritize persons with disabilities; *[check box or delete if not applicable]*

☐ Prioritize indigenous peoples; *[check box or delete if not applicable]*

☒ **Include climate finance.**

☒ **Build adaptive capacity.**

[1] Only in two districts out of eight, is the poverty rate around the national average [Brahmanbaria, Haor: 10.3%; Habiganj, Haor: 13.4%].

Chapter 1: Context

1.1 Project in brief

1. 1. The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being of particularly youth population by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to improve resilience of homesteads, and creating non-farm employment through skill development. The project duration is set for six years. IFAD will provide USD 70 million as loan and GOB will provide USD 31.7 million as counterpart funds for the project. The Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C) will be the implementing agency.

1.2 National or Regional Context

1. Bangladesh has continued to advance in social and economic development, securing its status as a lower-middle-income country since 2015. The national poverty rate dropped from 48.9% in 2000 to 24.5% in 2016, with extreme poverty decreasing from 34.3% to 13.0% during the same period. However, the rate of poverty reduction has decelerated in recent years, despite continued economic growth.
2. The COVID-19 pandemic caused a temporary slowdown in Bangladesh's GDP growth, which fell to 3.4% in 2020 due to pandemic-related restrictions. However, the economy bounced back, achieving an estimated GDP growth of 7.2% in FY 2022, driven by increased private consumption and investment. Inflation rose to 7.5% in July 2022, up from 5.3% the previous year, influenced by the global surge in commodity prices due to the war in Ukraine, disproportionately impacting poorer populations.
3. By 2023, 18.7% of Bangladesh's population was living below the poverty line, with 8.7% in extreme poverty[1]. The national undernourishment rate stood at 9.7% (about 15.9 million people) from 2018 to 2020, and severe food insecurity affected 10.5% of the population. Moderate or severe food insecurity was at 31.9%, although dietary diversity has gradually improved[2].
4. To achieve upper-middle-income status by 2031, Bangladesh needs to create jobs and enhance employment opportunities by developing a competitive business environment, diversifying exports, investing in human capital, building efficient infrastructure, strengthening the financial sector, and establishing a policy environment that attracts private investment[3].
5. The Haor and High Barind regions, targeted by the Climate Resilience and Livelihood Enhancement Project (CRALEP), are climate hotspots with significant vulnerabilities. These regions face unique challenges due to their geographical and climatic conditions, exacerbating issues of poverty and food security. National strategies, such as the Bangladesh Delta Plan 2100, the National Adaptation Programme of Action (NAPA), and the Nationally Determined Contributions (NDCs), outline the country's commitment to addressing climate change and building resilience. These strategies emphasize the importance of enhancing climate resilience, ensuring food security, and promoting sustainable rural development, aligning closely with the objectives of CRALEP.
6. Despite these efforts, policy implementation and resource allocation gaps remain. Key policy issues include the need for more targeted interventions to support vulnerable populations and increased investments in sustainable infrastructure, and human capital and local capacity building. Addressing these gaps presents both challenges and opportunities for CRALEP to significantly enhance climate resilience and livelihoods in the Haor and High Barind regions.

2. [1] https://pip.worldbank.org/country-profiles/BGD

3. [2] https://www.wfp.org/publications/wfp-bangladesh-country-brief

4. [3] https://oldweb.lged.gov.bd/uploadeddocument/unitpublication/1/1049/vision%202021-2041.pdf

1.3 Strategic Alignment

1. **National Priorities.** CRALEP supports Bangladesh's short, medium, and long-term plans as outlined in the ongoing 8th Five-Year Plan (2021-2025), the Perspective Plan 2021-2041, and the Delta Plan 2100. The 8th Five-Year Plan emphasizes agricultural diversification, sustainable infrastructure, employment growth, and climate adaptation. The Perspective Plan aims to eradicate poverty, while the Delta Plan envisions a climate-resilient and prosperous delta by the end of the 21st century. CRALEP's focus on climate-resilient infrastructure and sustainable livelihoods aligns well with these national strategies.
2. **National Adaptation and Climate Plans.** CRALEP is closely aligned with the National Adaptation Plan (NAP), the Mujib Climate Prosperity Plan, Bangladesh Climate and Development Platform (BCDP), and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP). These plans emphasize climate resilience, inclusive livelihoods, and gender and age-responsive strategies, particularly in vulnerable regions like Haor and High Barind. The project also aligns with the goals of the Bangladesh Climate and Development Platform, integrating climate and green dimensions into public planning and promoting locally led climate actions.
3. **SDGs, UNSDCF, and GBF.** The project contributes to multiple SDGs, including zero hunger and food security (SDG 2), poverty reduction (SDG 1), climate action (SDG 13), gender equality (SDG 5), reduced inequalities (SDG 10), and clean water and sanitation (SDG 6). It will contribute to UN's Sustainable Development Cooperation Framework (2022-2026)'s Strategic Priority 1 (Inclusive and sustainable economic development) through skill development, and increased and equitable opportunities for decent jobs and livelihoods, Strategic Priority 2 (Equitable human development and well-being) through investments in water, sanitation and hygiene (WASH), and Strategic Priority 3 (Sustainable, healthy and resilient environment) through reduced vulnerability to natural hazards and climate change adaptation as well as Strategic Priority 5 (Gender equality and eliminating gender-based violence) through gender-responsive and targeted livelihood opportunities. The Global Biodiversity Framework (GBF) recognizes nature-based solutions as crucial for mitigating climate change impacts and enhancing resilience. In the Haor region, which contributes significantly to national rice production, CRALEP's interventions are vital for maintaining food security and managing macroeconomic stability. Similarly, in the Barind region, the project's focus on mitigating drought impacts and enhancing irrigation is critical for sustaining rice production[1].
4. **Youth policy:** The Government of Bangladesh's latest strategies and policies for youth development are anchored in the **National Youth Policy 2017** and are reinforced by recent initiatives to address emerging challenges. The National Youth Policy 2017 serves as a comprehensive framework that aims to enhance the capacities and opportunities for young people in various domains such as education, employment, health, and civic engagement. A significant component of this policy includes the **National Youth Action Plan (NYAP)**, which outlines specific activities and resource allocations to ensure the effective implementation of youth-focused programs. This plan emphasizes inclusivity, particularly addressing the needs of marginalized groups, and aligns with the eighth Five Year Plan for holistic development. The government has been focusing on improving technical and vocational education and training (TVET) to better align with job market demands and promote a knowledge-based economy. Additionally, there is a growing emphasis on digital literacy and preparing the youth for the Fourth Industrial Revolution (4IR) by integrating Information and Communication Technology (ICT) into education systems. Moreover, the government is fostering youth entrepreneurship and collaborating with the private sector to create internships and on-the-job training opportunities. The integration of green skills and sustainable development practices is also prioritized to prepare the youth for future environmental challenges.
5. **COSOP and IFAD's Strategic Priorities.** CRALEP is aligned with the IFAD Country Strategic Opportunities Programme (COSOP) 2023-2028, specifically with Strategic Objective 1: strengthening the climate adaptation and mitigation capacities of vulnerable rural communities through resilient infrastructure and climate-smart agriculture. The project also supports IFAD's priorities of employment creation for the poor and youth, particularly for women and men in both farm and non-farm sectors.

5. [1] Mondol, M. A. H., Zhu, X., Dunkerley, D., & Henley, B. J. (2024). Living with technological drought: Experience of smallholding farmers of Bangladesh. *Environmental Development*, *50*, 100985.

1.4 Portfolio and Lessons Learned

1. IFAD's portfolio in Bangladesh has focused extensively on reducing extreme poverty and vulnerabilities, particularly in climate-sensitive areas. Key projects include PROVATI3, HILIP-CALIP[1], CDSPIV, and CDRSSWRMP, all of which target climate hotspots like river chars, coastal zones, the Haor region, and irrigation-deficient areas. These projects have built resilient communities through the development of climate-resilient infrastructure, such as roads, markets, protective embankments, basic sanitation facilities, safe water sources, and irrigation systems. Complementary IFAD-funded projects like SACP, PACE, RMTP, and PARTNER have organized smallholders and microenterprises, providing them with financial services and value chain development programs.
2. CRALEP incorporates IFAD's lessons on the benefits of climate-resilient rural infrastructure development, and skill development. A recent systematic review[2] of 14 evaluations (all Randomized Control Trials) of vocational and apprenticeship training programs globally found that vocational training through training institutes and involving certification are more effective than on-the-job training (e.g., by master craftsman) and programs that involve a combination of both. The study attributes this effect to the involvement of professional trainers, standardization of curriculum, and certification mechanisms that allow transferability of skills. This is the approach adopted by PROVATi3 and will be replicated and scaled through CRALEP (Sub-component 3.1), and at the same time, these lessons and best practices will inform the design of entrepreneurship training (sub-component 3.2) and LCS training (sub-component 3.3) during implementation.
3. The infrastructure encourages investments in production, facilitates access to markets and services, and improves mobility. The integration of climate resilient features into infrastructure design and construction enhances sustainability and reduces the vulnerability of local communities. Besides, an emphasis on climate-resilient livelihoods has produced excellent results. The project includes both aspects by including climate-resilient infrastructure development, skill development by vocational and micro-entrepreneurship training, and sustainable livelihoods for LCS members.
4. Two projects, the recently completed HILIP-CALIP and on-going PROVATi^3, provide strong evidence that climate resilient infrastructure, village protection against wave action in the Haor region, improved flash floods early warning to the Haor population, and skill development, especially in non-farm sectors increase resilience by creating economic opportunities and reducing risks. While LCS groups increase income immediately from market development they are put on sustainable livelihoods path by livelihoods training.
5. IFAD's impact evaluation of Coastal Climate Resilient Infrastructure Project (CCRIP), implemented between 2013-2019, found that income from sale of crops and fish increased significantly. CCRIP included improved markets, construction of market connecting roads that remained usable during the rainy season, and employment of women through LCS. There was no direct impact on productivity[3]. This is hypothesized as being due to persistent issues on access to high quality inputs during the monsoons, and limited access to capital. Despite these constraints, the impact evaluation found (a) an increase in produce that was sold, (b) an increase in sale at the market – from home or farm gate, (c) an increased propensity to grow cash crops, and (d) wage labour increase – all of which contributed to a large increase in income / on-farm income.
6. Higgins (2022)'s thesis[4] also examined markets and market-connecting roads of CCRIP. He found increased resilience to stressors for agricultural marketing, resulting in higher profitability regardless of initial resource endowments; higher benefits to poor households through agricultural income, total income and income diversification – but limited impacts in off-farm sector possibly owing to inadequate skills and lack of education; and widespread improvements in women's social capital.
7. The study also identified several areas of little or no impact and potential challenges. For example, limited evidence of women improving their income generating activity or household decision-making – indicative of the challenge of transformative gender impacts. It also raised a concern that increased market orientation of agricultural production may hinder improvements in dietary diversity – indicative of plausible trade-offs and how comprehensive approaches / partnerships with other projects may be needed.
8. Finally, Higgins (2022) also analyzed specific impacts on farm productivity and whether impacts varied by flood exposure. This analysis found that improving access to inputs was harder than for selling outputs – suggesting the need for complementary support. In this agro-climatic context, off-farm activities were an important complement to agricultural production, particularly since households with highest exposure to floods had some of the lowest productivity (output per hectare) and used fewer inputs. At the same time, households with high recurrent exposure to floods benefitted from sustained market access by avoiding detrimental coping strategies (such as sale of assets).
9. Based on these lessons, CRALEP plans to incorporate climate-resilient infrastructure, provide village internal services and nature-based village protection against wave action in Haor, improve flash floods early warning system for the Haor region, develop drought early warning for the Barind region, expand vocational training for non-farm sectors, and provide micro-entrepreneurship and livelihoods training.

6. [1] Completed in 2024

7. [2]https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4851428

8. [3] It is not evident if the evaluation had a separate indicator to assess post-harvest loss reduction, an important measure of productivity – particularly for perishable and higher-value horticulture crops or animal products. Since this project did not include Killa construction, reduction in on-farm production or harvest loss due to floods was likely not measured

9. [4]https://research.wur.nl/en/publications/rural-infrastructure-for-inclusive-rural-transformation-in-develo

1.5 Rationale and IFAD's comparative advantage

1. **Development Challenges.** The Haor and High Barind regions in Bangladesh face some of the highest poverty levels in the country. The Haor region is naturally inundated for 5-7 months each year, with annual floods, frequent flash floods, and wave actions eroding villages and endangering homesteads and livelihoods. Road communication is extremely difficult during the dry season, and access to safe drinking water and sanitation remains poor. The High Barind region, characterized by prolonged and frequent droughts and heat waves, suffers from depleting groundwater levels, poor soil quality, low agricultural productivity, and inadequate physical markets for distant villages.
2. In both regions, poor families rely heavily on agricultural labor and low-profit farming. Youth unemployment is alarmingly high, with approximately 41% of Bangladeshi youth inactive[1], not engaged in education, employment, or training. This issue particularly affects young girls due to early marriage[2], lack of job skills, and poor social conditions, resulting in a significantly higher inactivity rate among girls (61.71%) compared to boys (18.59%)[3].
3. Despite progress, substantial challenges remain in enhancing women's economic capabilities and opportunities in agriculture, where 60% of employed women are engaged. Women, who constitute about 49% of the disadvantaged population, face limited employment opportunities, with a rural female labor force participation rate of only 38.6% compared to 80.3% for men.
4. The project will leverage IFAD's proven methodologies and lessons learned from previous initiatives, such as HILIP-CALIP and PROVATI3, which have demonstrated success in creating employment opportunities, enhancing food security, and building resilient communities. The project will introduce innovative approaches to climate adaptation and livelihood enhancement, ensuring that the most vulnerable populations are equipped to cope with and recover from climate-related shocks. IFAD's focus on gender equality and youth employment will also address the high inactivity rates among young people and improve economic opportunities for women, aligning with national priorities and the Sustainable Development Goals (SDGs).

10. [1] Bangladesh Bureau of Statistics, Bangladesh Sample Vital Statistics Report of 2022. Please note that while Bangladesh's National Youth Policy 2017 defines youth as aged between 18-35 years of age and BBS tracks youth between ages of 15 and 29 years in the labour force, BBS used the age range of 15-24 years to determine the rate of inactive youth.

11. [2] According to UNICEF, Fifty-one per cent of young women in Bangladesh were married before their 18th birthday.

12. [3] Bangladesh Bureau of Statistics, Bangladesh Sample Vital Statistics Report of 2022.

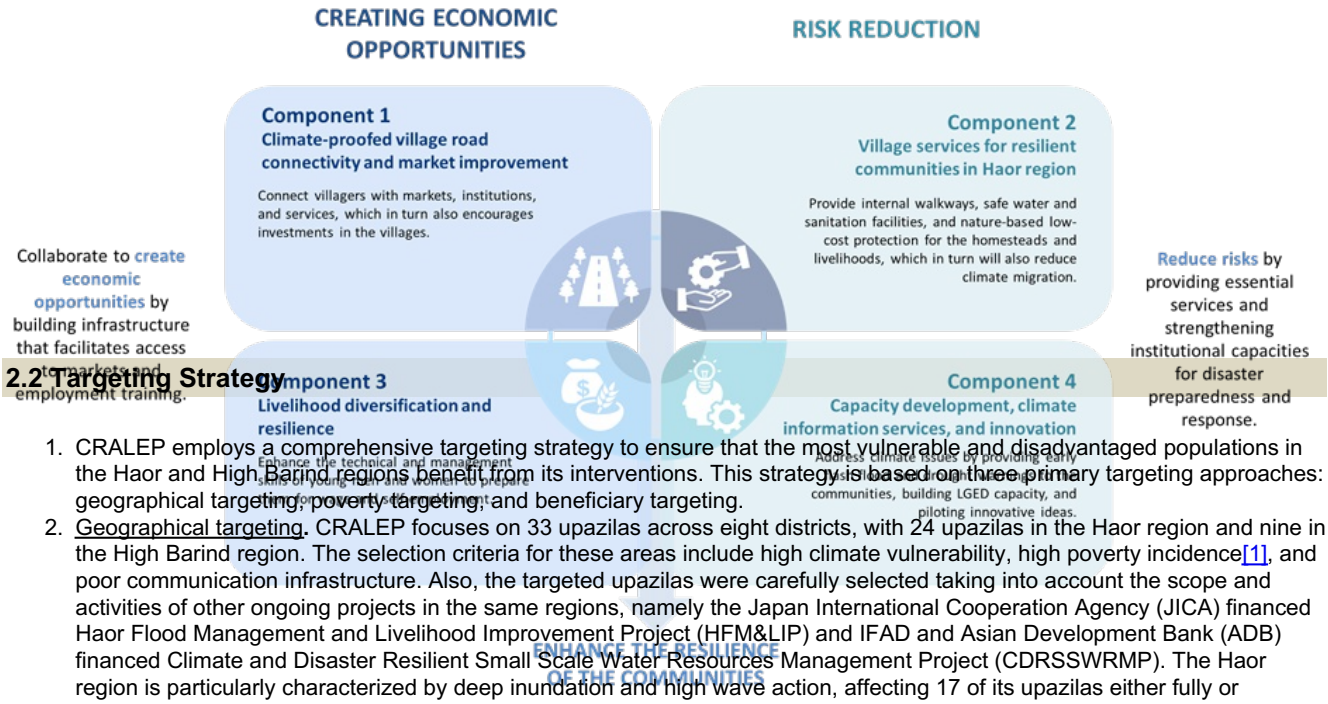
Chapter 2: Project/Programme Description

2.1 Theory of Change

1. The Theory of Change (ToC) for the Climate Resilience and Livelihood Enhancement Project (CRALEP) addresses key challenges in the Haor and High Barind regions through targeted interventions designed to improve connectivity, protect villages and provide basic services, diversify livelihoods, provide flash floods and drought early warning, and enhance institutional capacity. While both regions face similar challenges owing to climate change (prolonged excess heat, rainfall variability, tropical cyclone, lightning), the key climate challenge in Haor is floods and flash floods and in High Barind is drought. The project's goal is to significantly reduce poverty and increase climate resilience by mitigating the adverse food security and livelihood impacts of climate change in these regions. In Haor, the nature of climate risks (extended flooding, flash floods, wave action) with impacts on physical and mental well-being as well as homes and productive assets necessitates additional investments in basic and protective infrastructure (focus of component 2).
2. The impact development pathways of CRALEP are designed around a series of causal relationships leading from immediate outputs to long-term impacts. Improved road connectivity increases market accessibility, facilitating better livelihood options for adults and youth, and access to social services. Village protection measures, such as nature-based solutions and improved infrastructure, enhance resilience against severe weather events (reducing risks of loss of homestead / productive assets) and result in better living conditions. Diversified income sources from vocational training and micro-entrepreneurship will support economic empowerment, improved gender equality and social inclusion. The project's development outcomes and impacts are, of course, contingent on households and communities effectively utilizing and leveraging skills, services, and connectivity. Strengthening LGED's capacity for innovation that integrates nature-based solutions and early warning systems will enhance preparedness for climate events, reduce agricultural production and asset losses, decrease maintenance costs of grey infrastructure, and promote sustainable and resilient communities. CRALEP is validated for building adaptive capacity, and adaptation finance is validated as 78.5% of the total IFAD project cost or US $ 54,952,000.
3. The Haor region faces difficult connectivity during the dry season and use boats where roads are absent or during the flooded season, and the High Barind region struggles with connectivity year-round due to poor village roads; additionally, while upazila roads are well developed in Haor, some upazila roads are poorly developed in Barind. This limited connectivity hinders investments in agriculture and business, by increasing perception of risks and reducing incentives[1]. That is, farmers currently grapple with high cost of transport (for harvests), relatively less ease of accessing quality inputs from markets, and increased risk of post-harvest losses (particularly for horticulture crops and fish / livestock products) due to time / distances involved and poor access to early warning and climate information. The resultant high cost of production and climate risks are implicit disincentives to, for example, agricultural diversification from rice to more profitable and/or climate-resilient fruits, vegetables, livestock and fish, and reduces net profits. Haor households have been forced to rely on waterways for substantive portion of the year, and even with climate-proofed connecting roads, this is likely to continue when such roads are submerged. In High Barind region, boats are also used for navigation in wetlands and rivers / streams. Therefore, CRALEP will also upgrade boat landing stations– this encompasses the roads and pathways connecting the boat stations to markets. Finally, while upazila-level markets in Haor are fairly developed and require upgrades (drainage, internal pathways,

composting), similar markets in Barind require development. Improving the buying and selling conditions at the market and strengthening Market Management Committees for maintenance and management will contribute to the organization and functioning of markets. CRALEP aims to connect villages with markets, institutions and higher-level road networks t. The expected outcome is improved physical access to markets, improved livelihood options, and expanded access to social services for community members.

4. Village services for resilient communities in Haor areas addresses the unique physical resilience measures that Haor villages require, in the absence of which asset retention and accumulation is challenged. Village erosion due to wave action, poor internal communication, lack of safe water and sanitation, and loss of harvests and productive assets to monsoon floods and flash floods are significant issues in the Haor region. CRALEP proposes building low-cost nature-based village protection systems, developing internal walkways, constructing tubewells for drinking water and toilets blocks, and constructing killas (elevated storage/shelter). The outcome will be improved village protection, living conditions, and resilience against wave action and severe weather events through adoption of environmentally sustainable and climate resilient technologies and practices.
5. In both regions, livelihoods are heavily dependent on agriculture and agricultural labor, with few options for diversification. Limited access to markets exacerbates this issue. CRALEP addresses this through vocational training for young men and women, micro-entrepreneurship development with a focus on agri-business opportunities, and sustainable income generation for Labor Contracting Society (LCS) members. Strong linkages with existing projects and partners (PKSF) will be developed to ensure that micro-entrepreneurs can access credit to incubate or further develop their businesses. Typically, PKSF and its POs also provide business development support as a part of credit programs and this will complement CRALEP training.
6. The overall approach of the project establishing linkages between households and both input providers and off-takers through improved village roads connecting to local markets, facilitating easier access to inputs and sales of agricultural outputs. Effective market management is highlighted as essential, as roads and markets together enhance household income sustainability, access to social services, and overall resilience when integrated with other project activities. Efforts to engage Market Management Committees are intended to ensure the upkeep of developed market infrastructure.
7. The expected outcome is diversified wage and self-employment opportunities for young men and women and members of the LCS.
8. The regions also face loss of paddy production due to pre-monsoon flash floods in Haor and droughts affecting agricultural production in Barind. CRALEP aims to improve flash floods early warning system (FFEWS) in Haor, enhance drought warning in Barind, and strengthen LGED's innovation capacity on climate change issues through Component 4: Capacity development, climate information services, innovation, and project management. The outcome is strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions.
9. The project focuses on socioeconomic empowerment of youth in the Haor and High Barind regions by improving village road connectivity to all-weather roads. This infrastructure upgrade is critical for facilitating market access, reducing transportation costs, and boosting local trade opportunities. By linking remote villages to markets and enhancing market facilities, CRALEP supports agricultural production and trade, particularly fisheries in Haor and crop farming in Barind. Improved road connectivity also enables youth to access social services and diversify their income through vocational training and micro-entrepreneurship. Village protection measures against severe weather improve living conditions and safeguard assets, while early warning systems enhance preparedness for climate events. These combined interventions create a pathway for youth socioeconomic empowerment by providing necessary skills, infrastructure, and opportunities to thrive in a resilient and sustainable environment.
10. A diagram, outlining the intercomponent complementarity is provided below, demonstrating the combined benefits of the project initiatives:



2.2 Targeting Strategy

1. CRALEP employs a comprehensive targeting strategy to ensure that the most vulnerable and disadvantaged populations in the Haor and High Barind regions benefit from its interventions. This strategy is based on three primary targeting approaches: geographical targeting, poverty targeting, and beneficiary targeting.
2. Geographical targeting**.** CRALEP focuses on 33 upazilas across eight districts, with 24 upazilas in the Haor region and nine in the High Barind region. The selection criteria for these areas include high climate vulnerability, high poverty incidence[1], and poor communication infrastructure. Also, the targeted upazilas were carefully selected taking into account the scope and activities of other ongoing projects in the same regions, namely the Japan International Cooperation Agency (JICA) financed Haor Flood Management and Livelihood Improvement Project (HFM&LIP) and IFAD and Asian Development Bank (ADB) financed Climate and Disaster Resilient Small Scale Water Resources Management Project (CDRSSWRMP). The Haor region is particularly characterized by deep inundation and high wave action, affecting 17 of its upazilas either fully or partially.

14. **Table 1: Project Upazilas**

Haor Districts	**Climate vulnerability index (LGED)[2]**	**District poverty rate (HIES 2016)[3]**	**Upazilas**	**Haor classification**	**Total project Upazilas (#)**
Kishoreganj	0.49	53.5%	Austagram, Itna, Mithamoin, Nikli	Deep haor: Austagram, Itna, Mithamoin, Nikli (part)	4
Netrakona	0.52	34%	Khaliajhuri, Kamlakanda, Madan, Mahanganj	Deep haor: Khaliajhuri, Kamlakanda, Madan (part), Mahanganj (part)	4
Sunamganj	0.51	26%	Bishwambarpur, Derai, Dharmapasha, Dowarabazar, Jagannathpur, Jamalganj, Sulla, Sunamganj sadar, Dakshin Sunamganj (Shantiganj) and Tahirpur	Deep Haor: Bishwambarpur, Dharmapasha, Jamalganj, Sulla, and Tahirpur (part)	10
Habiganj	0.47	13.4%	Ajmiriganj, Baniachong, and Lakhai	Deep Haor: Ajmiriganj, Baniachong, and Lakhai.	3
Brahmanbaria	0.43	10.3%	Nabinagar, Nasirnagar, and Sarail	Deep Haor: Nasirnagar	3
SUB-TOTAL					**24**
High Barind Districts			**Upazilas**	**Drought classification**	

15. [1] Over the decades, several studies have also analysed how idiosyncratic household assets or climate shocks and perception of risks can adversely impact livelihoods and agricultural productivity by indirectly influencing attitudes to risk – increasing uncertainty and disincentivizing investment – and directly through damaging productive assets and infrastructure (Morduch 1990, Rosenzweig and Wolpin 1993, World Development Report 2014, Carter, Cheng and Sarris 2016).

Rajshahi	0.47	20.1%	Tanore and Godagari	Very high Kharif & Pre-Kharif drought risk. Moderate to very low water-holding capacity.	2
Naogaon	0.50	32.2%	Patnitala, Shapahar, Porsha, Dhamurhat, and Niamatpur		5
Chapai Nawabganj	0.48	39.6%	Nachole and Gomastapur		2
Sub-TOTAL					**9**
TOTAL					**33**

15. 3. Poverty Targeting: Most of the population in the target areas is poor, with a significant percentage being extremely-poor[4]. CRALEP prioritizes these groups to ensure that the interventions reach those who are most in need. For example, village internal services (walkways, sanitation, and safe water) and village protection system, will benefit villages where most of the households are poor or extremely-poor. Road connectivity removes remoteness that benefits all villagers, mostly the poor.

16. 4. Beneficiary Targeting: The main professions of the population in the project Upazilas are agricultural labor, artisans, farming by marginal and small farmers, open water fishing, small non-agricultural producers, and poor young men and women. The road connectivity benefits the farming community by increasing farm prices and reducing transportation costs. Improvements in the market will also directly benefit small producers in the project areas. The vocational training will be exclusively offered to young men and women from the poor and extremely poor families. The LCS members will be from extremely poor families only (80% women).

17. 5. Targeting women and youth. CRALEP also focuses on enhancing the livelihoods of women and youth (between 18-35 years per GOB definition), recognizing their critical role in both community resilience and overall development. Women, who often face greater barriers to economic participation, are provided with vocational training and entrepreneurship opportunities to diversify their income sources. Young men receive skill development training to reduce unemployment rates and improve their economic prospects.

18. 6. Social inclusion. The project places emphasis on social inclusion to ensure the participation of vulnerable and disadvantaged groups including the extremely poor and most excluded. These measures consider the needs related to age, gender, youth, ethnic minorities, and persons with disabilities. By addressing these factors, CRALEP aims to foster an inclusive environment where all community members can benefit equitably from the project's interventions.

19. 7. CRALEP will be implemented across two different regions and multiple Upazilas. To ensure the equitable distribution of resources and prevent elite capture or the domination of interest groups, the programme will implement measures to promote transparency, accountability, diversity, and inclusion. These measures will include: i) open community discussions, advocacy, and sensitization where all community members can voice their opinions and feedback; and ii) leadership coaching to the most marginalized members who hold active roles within market access committee, to build confidence an ensure they can effectively voice the needs, views, and interests of the marginalized groups.

20. 8. Target Groups. CRALEP aims to directly benefit 311,820 households, translating to approximately 1.34 million individuals (see Table 3). The target population includes agricultural laborers, artisans, marginal and small farmers, fishing communities, other small producers, non-agricultural producers, and poor young men and women.

21. [1] Source: WFP and BBS. Poverty Maps of Bangladesh 2016, Key Findings.

22. [2] The climate vulnerability index was based on available secondary data for 1991-2020 from various sources (Survey of Bangladesh, Bangladesh Bureau of Statistics, Center for Environmental GIS, LGED) and geospatial analysis. CVI is a function of exposure, sensitivity and adaptive capacity, and based on numbers CVI score is classified as very low (≤0.44), low (0.44-0.47), moderate (0.47-0.50), high (0.50-0.53) and very high (≥0.53). About 28% of 64 Bangladesh districts fall in the moderate category, 31% in the high category, and 3% in the very high category.

23. [3] The two districts with lower poverty rates in Haor were selected on the basis of climate vulnerability and poor rural infrastructure, as these Haors are classified as “Deep Haors” that are subject to heavy flooding and wave action. We also note that four upazilas selected within these two districts also have poverty rates higher than district average i.e., four upazila poverty ranges between 17.1%-21.3%. Habiganj district:13.4%. Selected upazilas: Ajmiriganj: 21.3%, Baniachong; 17.1%, Lakhai: 18.3%. (Source: BBS 2016) Brahmanbaria district: 10.3%. Selected upazilas: Nabinagar 5.4%, Nasirnagar 18%, and Sarail 9.8%. (Source: BBS 2016).

24. [4] Source: WFP and BBS. Poverty Maps of Bangladesh 2016, Key Findings.

2.3 Project/Programme Objectives

1. The goal of the project is 'To significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought-prone High Barind regions.' The project objective is 'to strengthen community resilience and well-being of particularly youth population through climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services'.
2. Project Structure. The project through four components creates economic opportunities and reduces risks: Components 1 and 3 create economic opportunities, and component 2 and 4 reduce risks and create the enabling conditions for mainstreaming actions and innovations. The project is divided into four technical components and project management and coordination. While Component-1 deals with climate resilient infrastructure (i.e., village roads, markets, and boat landing platforms) in both regions, the component-2 is specifically meant for building resilience for the Haor region by providing basic services such as community walkways, access to water, sanitation and some community spaces, building *killas,* and nature-based village protection using vetiver grass and treated bamboo. The component-3 is meant to developing income resilience by providing vocational and entrepreneurship training for wage- and self-employment for young women and men, and sustainable livelihoods for the LCS members. Component 4 complements other three components by strengthening capacity of the newly formed the Climate Resilient Local Infrastructure Centre (CReLIC) within LGED, early flash flood and drought warning for Haor and Barind respectively, and research work on several infrastructure issues by LGED in collaboration with external institutions and or experts. The four components comprehensively enhance resilience of the communities by providing access to markets and social services, diversifying livelihoods, and by providing critical weather services and strengthening critical institutional capacity of LGED. The project management, M&E and KM all bind the project together for proper implementation.

25. **Table 2: Nature of project interventions in Haor and High Barind**

Type of intervention (Sub-component)	**Haor**	**High Barind**
Village road connectivity (1.1, 1.2)	Yes	Yes
Rural market improvement or rehabilitation (1.3)	Yes	Yes
Upgrade boat landing platform (1.4)	Yes	Yes
Village internal services (2.1)	Yes	No
Killas (raised land for harvest storage and shelter, 2.2)	Yes	No
Village protection walls (2.3)	Yes	No
Vocational training (3.1)	Yes	Yes
Entrepreneurship training (3.2)	Yes	Yes
Sustainable livelihoods for LCS members (3.3)	Yes	Yes

2.4 Component, Sub-component and Activities

1. Components. The project is divided into four components with corresponding outcomes, as follows (see Table 3 for project activities with physical targets):

26. **Component 1: Climate proofed village road connectivity and market improvement (USD 61 million).**

1. The outcome of Component 1 is 'Outcome 1: Increased market accessibility, improved livelihood options, and expanded access to social services for community members.' It is divided into four subcomponents: 1.1 Village Road connectivity in Haor areas; 1.2 Village Road connectivity in Barind area; 1.3Rural market improvement in Barind and Haor; and 1.4 Boat

landing platform (Ghat). This component focuses on connecting villagers with markets, institutions, and services, which in turn also encourages investments in the villages. As a matter of practice, LGED and target communities engage in Participatory Rural Appraisal (PRA) at the start of activities. PRAs gather essential and early information on stakeholders' perception of needs, select activity sites (including identification of *khas* - public lands), assess who may be affected by the activity (positively or negatively), ensure participation of local stakeholders in activity planning and implementation, and gain informed consent. PRAs are critical to convey expectations and confirm that beneficiaries are willing and able to take full responsibility for operation and maintenance of built structures.

2. **Subcomponent 1.1 Village Road connectivity in Haor areas**. The objective of this subcomponent is to provide improved village road connectivity, that is, last mile connectivity between remote villages either directly to markets or to higher-level roads that connect to markets, for men and women living in project Haor Upazilas to access markets and social services. The activities will be to build a) submergible village roads, b) associated cross-drainage (CD) structure (i.e. culverts, causeway etc.), and c) in some instances, village access/approach walkway using Uniblock[1].
3. Selection of village roads in Haor Upazilas**.** The submergible roads that connect multiple villages, rural markets, educational institutions, and other service centers, and ultimately links with an upper tier road such as Union Road or Upazila road, benefits many households, and connect remote poorer villages, will be selected for development. The rural road network database and maps of LGED will provide updated information about completed roads and household information. Since the JICA-funded HFMLIP-2 project will make significant investments in road infrastructure in Sunamganj district, CRALEP will build paved roads in project Upazilas of Netrakona, Kishoreganj, Habiganj and Brahmanbaria districts. CRALEP will coordinate with HFMLIP-2 to avoid any overlap of infrastructure in the GOB's DPP.
4. Construction method and quality assurance. It will be mandatory for the CRALEP-PMU to conduct a topographic survey along with soil investigation and pre-design assessment to ensure climate resilience and location specific customized design of all village roads. All roads in Haor will be of submergible[2] type (RCC road) except for the part that either starts from a village or ends connecting another village but still RCC road (no Bituminous Concrete Road is foreseen in Haor subdistricts). All submergible roads will be built on existing government approved alignment and must not be raised except for construction of boxes for pouring sand and concrete; no land acquisition is foreseen since these are *khas* (public) lands. The project will apply vetiver grass for protecting road slopes wherever applicable, e.g., at the beginning or ending at a higher-level road. See technical appendices in the Project Implementation Manual (PIM) for detailed design, enhanced specifications, and *Dos and Don't* of construction based on lessons from the HILIP-CALIP project.
5. This subcomponent aims to improve last-mile village road connectivity in both project Haor and High Barind Upazilas, facilitating access for men and women to markets and essential social services. Access to markets is crucial for buying inputs and selling commodities, ensuring the presence of both buyers and sellers. The roads will connect with markets at village, union, and Upazila levels, enhancing overall community access to market opportunities and vital services.
6. **Subcomponent 1.2 Village Road connectivity in Barind area**. The objective of this subcomponent is to provide improved village road connectivity, that is, last mile connectivity between remote villages either directly to markets or to higher-level roads that connect to markets, for men and women living in the High Barind Upazilas to access markets and social services. The activities will be to build a) all weather village road, b) associated CD structure (culverts, causeway etc.), and c) in some instances village access/approach walkway using Uniblock.
7. Selection of village roads and construction. The general selection criteria will be similar to Haor selection criteria described in subcomponent 1.1. The project will collect plans of other projects in the area to avoid any overlap of construction works.
8. All roads will be Bituminous Carpeting (BC) roads except for short approaches to villages or connecting the walkways where UniBlocks may be used. The PMU will conduct topographic surveys and other pre-design assessments to ensure location specific customized design of all village roads. All village roads will be built on existing government approved alignment and no land acquisition is foreseen. The project has provisions for building several Km of Union roads – this is because, in exceptional situations, a few km of Union roads may be needed to connect a village road to another higher tier of road.
9. **Subcomponent 1.3 Village Market development and rehabilitation in Haor and Barind**. The objective of this subcomponent is to develop village markets for ease of selling agricultural commodities in the locality and for normal business in the rural areas. The Mid Term Review of PROVATI3 provided evidence on the significant economic stimulus an improved market-cum-road connection gives to local communities. Markets in rural areas are not only a place of selling and buying but also center of social services and dissemination of information. Consultations during the design have showed that two Upazilas in Chapai Nawabganj district (Barind region) have demand for development of markets where *khas* land is available for construction. But in the Haor region, due to lack of land within markets, the project will support rehabilitation of key elements of old markets.
10. This subcomponent focuses on enhancing market infrastructure in the Barind areas through the establishment of physical village markets to facilitate agricultural sales and rural business activities. In Haor, the project will rehabilitate existing markets to enhance their operational effectiveness. Key project activities include strengthening market management committees to oversee market cleanliness, allocate spaces for sellers, streamline buying and selling processes, and ensure the maintenance of market infrastructure.
11. The project will only invest in 'large' rural markets in Barind (currently having 100+ permanent shops and at least 0.33 acre of open *khas* land, that is, government land, for development) as smaller rural markets do not have adequate land for development. Each such market development will include construction of multiple sheds (single storey, open ventilation), internal roads and drainage, paving of whole open space (*e. Toha bazaar*) for farmers and traders[3], development of loading-unloading area, parking facilities for both buyers and sellers, lighting fixtures, waste management system (including compost units), and a toilet block with a septic tank and water supply with an overhead tank. Only such markets with connecting roads will be included for development to create a significant impact in the area. As mentioned in Subcomponent 1.2, market connecting roads will be prioritized for development. All such markets will be developed by LCS groups (see subcomponent 3.3 for sustainable livelihoods development of LCS groups).
12. But in the Haor region, old markets will be improved by rehabilitating internal roads with RCC road having proper design that easily drains out water, and toilet blocks with septic tank and water supply with an overhead tank. These improvements will be carried out by private contractors.
13. The project will prepare a master plan for each market in consultation with market management committee (MMC), traders, shop owners, and local community. In Bangladesh, MMCs are 11-member committees headed by the Union Parishad (local

government) Chairperson as ex-officio chair and a shop owner as secretary, and have the official mandate for market management under existing government regulations. They receive 25% of lease proceeds for management and maintenance of the market. MMCs are elected for two-year terms by users of the market, including day traders; while the risk of elite capture exists, MMC strengthening will be supported to ensure adequate representation of the smaller traders and women tradersNo land acquisition is foreseen. In both regions, proper topographic survey and pre-design assessments will be conducted. The project will develop a sustainable market management and O&M system in collaboration with MMC, traders' associations, and local government. MMCs will be responsible for properly maintaining the markets after the handover from LGED.

14. **Subcomponent 1.4 Boat landing platform (Ghat) in Haor and Barind.** This subcomponent complements market development by facilitating river/canal communication for villagers as all ghats will be constructed at market sites or at points where villagers unload their commodities from boats. Ghats will be developed in both the Barind and Haor areas as per demand. This will enhance the accessibility and functionality of the markets in these regions. The structural design will be improved by adding a waiting place (seating area for elderly, persons with disability, pregnant women, children) and proper slope. The project will introduce vetiver grass for protecting slopes wherever feasible.

27. **Component 2. Village services for resilient communities in Haor region (USD 24 million)**

1. The outcome of Component 2 is 'Outcome 2: Improved village protection, living conditions, and resilience against wave action and severe weather events.' It is divided into three subcomponents: 2.1 Village internal services (walkways, safe drinking water and sanitation, common community space); 2.2 Killa for temporary storage of harvests and shelter; and 2.3 Low-cost nature-based village protection system in Shallow Haor (VPS).
2. This component is to provide internal walkways, safe water and sanitation facilities, and nature-based low-cost protection for the homesteads and livelihoods. Without these basic measures, it is likely that annual flooding and increasing frequency of flash floods will not just result in loss of homesteads and productive assets, they will also impede investment choices of households in improving productivity and resilience of agriculture and non-farm livelihoods (supported through Components 1 and 3). The project villages will be selected using pre-determined criteria, and all activities commence with a PRA – as described in Component 1.
3. This component focuses exclusively on village protection measures in Haor, where small villages are vulnerable to erosion from wave action, a situation not observed in Barind. Further activities under this component include ensuring contractors obtain soil from nearby canals under the supervision of the LGED Upazila Office, and selecting sites away from embankments to prevent erosion. Additionally, LCS members will be involved in producing and planting vetiver and constructing bamboo protections. Following these activities, LCS members will receive livelihood training aimed at sustainable income generation, which will be detailed further in Component 3.3.
4. **Subcomponent 2.1 Village internal services.** The objective of the subcomponent is to provide good internal communication (paved walkways), safe water (tube wells) and toilet blocks with septic tank for poor households in Haor village which need such civic facilities, especially during monsoon season when villages become tiny islands and communities are marooned. The project will prioritize poorer and distant villages in need of basic communication and WATSAN facilities, and spaces for community purposes.
5. The project will conduct a topographic survey and pre-design assessment of each selected village in consultation with the community to determine the route for paved walkways (RCC built 4-6 feet wide), location for installation of tubewells and toilet blocks, and a small ghat at the end of the village. The evidence from HILIP-CALIP project shows that villagers find such facilities improve quality of life and reduce incidences of diseases.
6. After completion of construction, the project will form a committee with representatives (women and men) from the village for future maintenance, especially for tubewells. Several women and men will be trained on common repair and maintenance of tubewells and will be given repair-kit. Besides, the local Union Parishads have funds for maintenance of minor village walkways, which may be accessed by the village committees in future.
7. **Subcomponent 2.2 Killa for temporary storage of harvests and shelter.** A *killa* is a raised land built with soil from canals and protected by vetiver grass for temporary storage and drying of paddy during flash floods or normal floods and for keeping cattle during floods. There has been strong evidence from HILIP-CALIP that the poor HHs use the Killas year-round for storage, drying of paddy, and keeping livestock, especially when the killas are conveniently located within or near their villages. The project will build killas on khas land from the government. The locations will be selected in consultation with the community and local government representatives, especially the Union Parishad representatives, and subject to allocation of land from the government. The killas will be bult by private contractors by digging earth from nearby canals. Additionally, the project will engage LCS members (5 for each Killa) for plantation of vetiver grass for protecting slopes from all sides (to prevent erosion during heavy rains). The grass will also be produced by the same LCS members in their village after receiving training from the project (see subcomponent 2.3 for details on production and application of vetiver in killa slopes as well as in the village protection system). The killas will be handed over to the community.
8. **Subcomponent 2.3 Low-cost nature-based village protection system in Shallow Haor (VPS)**. The project will build low-cost nature-based village protection systems using vetiver grass and treated bamboos to protect the villages from wave action in shallow Haor upazilas. About 14 Upazilas or part of them are considered shallow considering depth of water and severity of wave action. The nature-based low-cost village protection system will be built using treated, locally-available bamboos and vetiver. The subcomponent will be implemented by one or more non-government organizations (NGOs), which are actively involved in implementation development projects in the Haor regions, selected through a competitive process[4].
9. The main steps of implementation of this subcomponent are as follows: a) Training of trainers for development of skilled producers of vetiver grass and treatment of bamboos by experts on vetiver and bamboo treatment who in turn will train LCS members on vetiver production and treatment of bamboos; b) production of vetiver within the selected villages by trained persons, which will be used in killas and VPS; c) Bamboo treatment; d) Design and construction of bamboo-made walls[5] as per design supplied by the PMU; e) Maintenance and protection of vetiver and walls by LCS members; and f) Household committee for monitoring performance of the bamboo-wall after each monsoon period. See PIM for details of implementation of this subcomponent.
10. Additional activities. The project will implement additional activities such as livelihood training (horticulture, livestock and some

non-farm businesses) for LCS members, and plantation of bamboo as an income generating activity. That means the project will remain engaged in the selected villages for a considerable period. The same committee will be the first contact group for providing flash flood early warning as well (See component 4).

11. Bamboo treatment technology. The Bangladesh Forest Research Institute (BFRI) will provide bamboo treatment technology for extending the longevity of cut bamboos in outside conditions. The project will sign an agreement with BFRI to provide technical assistance and year-round monitoring support to the selected NGOs engaged for implementation. BFRI has already trained a team of PROVATI officials on bamboo treatment, which is applying for bamboo-made road protection and pilot village protection system in the PROVATI3 project area. The pilot will help gain experience of implementing VPS in rural settings involving the community and realistic cost of such system. BFRI will also provide bamboo cultivation technology using bamboo-branches.

28. **Component 3: Livelihood diversification and resilience (USD 13.8 million).**

1. The outcome of this component is 'Outcome 3: Diversified wage and self-employment opportunities for young men and women and members of the LCS.' The subcomponents are: 3.1 Vocational training for employment creation for youth; 3.2 Entrepreneurship training for youth; and 3.3 Sustainable livelihoods for LCS members. While Component 1 enhances roads and markets in Barind and Haor, Component 3 directly supports the skillsets (vocational, entrepreneurship – including agri-business) needed to take advantage of this improved connectivity to accelerate incomes and livelihood resilience.
2. This component focuses on the enhancement of technical and management skills of young men and women for wage and self-employment, primarily in non-farm sectors, which are expected to be less vulnerable to the adverse impacts of climate change. The experience of HILIP and on-going PROVATI3 project shows that young people after vocational training have been successfully engaged in various manufacturing industries, services sector businesses, construction firms and about half of them started or expanded own businesses. Three factors are key to success of vocational training; selection of right candidates who are unemployed but have strong desire to gain skills for employment; quality of training and demand of the set of skills; and strong job placement efforts by building a strong network of employers. Young trainees prefer wage- and self-employment in their respective Upazilas or at least nearby places that helps them earn and save more, at the same time take care of the families and avoid somewhat rigid working conditions at industries. The PROVATI3 project has been successful in all three areas by enlisting a Partner Organization (PO) of the Palli Karma-Sahayak Foundation (PKSF)[6], which selected trainees from villages through their microfinance branches, provided training in their own well-developed training facilities and either placed trainees in businesses as employees or helped them start businesses. To achieve target PROVATI3 has also engaged GOB training centers, private providers and non-government organizations for training.
3. The same approach will be followed in CRALEP where selected POs will be engaged for selection of trainees and job placement and conduct most training courses at the same time organize trainees for other GOB, NGO and private training providers. The POs will also provide loans to deserving trainees for launching businesses. The project will organize entrepreneurship training for a portion of vocational trainees and other young persons who want to expand their income generating activities.
4. The third aspect is to prepare LCS members from subcomponent 1.2 (market development) and subcomponent 2.2 Killa protection and 2.3 (VPS) for sustainable livelihoods by providing them with additional livelihoods trainings. These two subcomponents (3.1 and 3.2) will also be implemented by POs selected through a competitive process. See PIM for details.
5. In the non-agricultural sector, there are diverse opportunities for wage employment and self-employment aimed at young men, women, and LCS members in rural areas. Wage employment options include positions in industries like weaving, handicrafts, local businesses such as shops, and various service roles including transport services, construction, and hospitality at local guesthouses and eateries. Self-employment opportunities encompass microenterprises such as tailoring, carpentry, small-scale retail, repair shops, and catering services, offering avenues for economic engagement and sustainability beyond agricultural activities. To ensure that trainees find gainful employment, CRALEP support will focus on job placement assistance, entrepreneurial support, and opportunities for continued education and upskilling. Collaborating with local governments, NGOs, and private sector companies for job placement, along with organizing job fairs and recruitment drives, will facilitate employment opportunities. For those interested in entrepreneurship, providing seed funding through microloans (leveraging ongoing RMTP and FAST project that is in the pipeline), mentorship, and business development services will be facilitated.
6. **Subcomponent 3.1 Vocational training for employment creation for youth**. This subcomponent will train 34,000 poor young men and women[7] (age between 18 and 35) in selected Bangladesh Technical Education Board (BTEB)/National Skill Development Authority (NSDA) accredited courses (and several non-BTEB courses as well) from the project subdistricts for wage employment and self-employment. In PROVATi3, around 95% of the trainees passed the tests at first attempt and the rate increased to 97-98% by the second attempt; 70% have been successfully placed[8]. Placements or self-employment span the construction sector (forklift operators, drivers for excavators and diggers), computer operation, masonry, plumbing and electrical works, industrial sewing, mobile servicing, refrigerator and air conditioner maintenance, and tile works. The project will conduct a market assessment regarding demand for skilled workers within the country and make use of available information from secondary sources. The PROVATI project started with only 9 common courses and diversified into 21 courses including care giving on the basis of demand. The same approach will be followed in CRALEP where market demand will be the prime mover for determining the type of course to be offered. One finding from PROVATi3 is that trainees prefer working within their sub-districts because it helps them save on rent and other expenses, and so the demand assessment will increase focus on local wage and self-employment options. Based on this lesson learned, the CRALEP project will have a revised target of 60% placement for local wage employment whereas the rest 40% trainees are expected to take entrepreneurial initiatives within their localities. In terms of providers, POs of PKSF, TTCs, private sector providers, and the Construction Skill Training Center (CSTC) of LGED will be the principal candidates. All 8 districts have TTC with residential facilities for trainees. The implementing POs will have a strong placement program to place trainees in jobs. In fact, placements will be a contractual obligation for the partner NGOs/POs and final payments will be contingent on job targets being met; job fairs held by PROVATi3 will also be replicated. The trainees interested in going into business or expanding family IGAs will have access to credit and training (see below). See PIM for details of implementation.
7. **Subcomponent 3.2 Entrepreneurship training for youth**. This subcomponent will provide micro-enterprise management

training to 10,000 young persons, a part of vocational trainees and other potential microentrepreneurs from poor families from the project upazilas who are already managing IGAs. The project will carry out an annual follow up exercise to oversee how many of the trainees have successfully started their microenterprises or have expanded their existing microenterprises. Along with the entrepreneurship training, the trainees are also expected to receive access the finance and other complementary benefits provided by the IFAD financed Rural Microenterprise Transformation Project (RMTP) and the new IFAD financed Food Systems and Sustainable Transformation (FAST) project. The one-week microenterprise training will include topics such as product and marketing, production management, human resources, and financial management including business accounts keeping and profitability analysis. Special emphasis will be on improvement of product quality, applications of technology for productivity improvement, social media marketing, customer management, and other topics of local sector importance. The majority of trainees are expected to having education between grades VIII-XII. In addition to classroom training, the trainees will have an opportunity to interact will successful entrepreneurs from these areas. Similar to subcomponent 3.1 this subcomponent will be also managed by POs of PKSF which select trainees as well as train part of training and supply trainees for other NGO/GOB/private training providers. The courses will include farm and non-farm micro entrepreneurs as trainees.

8. **Subcomponent 3.3 Sustainable livelihoods for LCS members.** The project will engage poor men and women for market construction in two upazilas of Chapai Nawabganj, for production of vetiver for killa and village protection walls, and construction and maintenance of VPS. The dual objectives are to improve the local capacity, particularly of the poor and very poor communities, to prepare for climate shocks and to engage in more resilient livelihoods. For women from poor and very poor households, it plays a key role in providing a safe and secure employment opportunity locally (directly in project construction, indirectly through IGA training and support) and to strengthen food security-particularly ahead of the harvest season.
9. All LCS members trained in Income-Generating Activities (IGAs) will benefit from a streamlined version of the Gender Action Learning System (GALS). This simplified GALS approach will be integrated into the livelihoods training curricula to enable empowerment pathways while fostering behavioral changes among LCS members and their households, with a special focus on youth. Although the GALS tools will be condensed, the methodology will be enriched by incorporating nutrition and financial literacy components, providing a more comprehensive empowerment strategy. Detailed guidance for curriculum will be provided to partner NGOs (which will be assessed for prior GALS implementation experience) that will include the following tools: Vision Journey, Happily-Family Tree (also known as the Gender-Balanced Tree), and Social Empowerment Map.
10. LCS in market development, women/men involved in production and plantation of vetiver and treatment of bamboo (materials that are used for Nature-based Solution activities), and workers in VPS building and their spouses will undertake an exercise for livelihoods planning and later receive livelihood training of their choice. The training will focus on the practical aspect of specific livelihood management, and to ensure LCS members have sufficient technical understanding, a brief curriculum will be developed that covers sustainable construction practices, integrating green building materials - including, safe bamboo treatment with boric acid[9], and vetiver and bamboo nursery management as well as principles of ecosystem management and erosion control, with support from BFRI, Bangladesh Forest Department (BFD) and other technical experts as needed. This subcomponent will also be implemented by POs selected through a competitive process. The experience of the PROVATI3 project will be applied as much as practicable.

29. **Component 4. Capacity development, climate information services, and innovation (USD 1.5 million)**

1. The outcome of this component is ‘Outcome 4: Strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies.’ It is divided into four small subcomponents: 4.1 Capacity building of CReLIC; 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience; 4.3 Innovation in construction, materials, and livelihood diversification; and 4.4 Policy and dissemination.These activities both complement / underpin effective delivery of other components and enable mainstreaming of best practices and lessons within LGED to ensure the institution is well-positioned to address institutional and national goals of climate adaptation and sustainable development.
2. **Subcomponent 4.1 Capacity building of CReLIC**. The subcomponent will help develop the internal capacity of LGED through the Climate Resilient Local Infrastructure Centre (CReLIC) to train LGED officials on climate change issues and support it for screening projects from a climate change point of view, and act as a technical support unit for all departments and projects. The main activities will be a) to develop a strategic action plan to mainstream, within LGED, the various GOB policies related to climate change and act as an internal expert unit, b) to conduct climate change impact assessment of rural infrastructure and recommend changes in designs (particularly leveraging lessons learned through sub-component 4.3 and components 1 and 2) – including best practices in combining grey infrastructure with Nature-based Solutions, c) to develop climate change forecasts for all climate vulnerable regions in the country as done for the PROVATI3 project areas (leveraging lessons and experience from sub-component 4.2), and d) to conduct a series of local trainings for LGED officials on climate change related topics including online training on causes and effect of climate change and adaptive/mitigating measures, using outputs of climate change impact assessment of rural infrastructure and lessons learned through implementation of components 1 & 2 and sub-component 4.3.
3. **Subcomponent 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience**. The subcomponent 4.2 will support two activities: a) to improve the open-source model for flash flood early warning system developed for the Haor region under the predecessor HILIP-CALIP project by the Institute of Water and Flood Management (IWFM) of BUET (Bangladesh University of Engineering and Technology). The Forecast and Warning Center (FFWC) of BWDB will develop an easy-to-understand warning message and dissemination system in collaboration with the communities, NGOs, Department of Agricultural Extension (DAE), local government institutions, telecom operators and other stakeholders; and b) to improve drought forecasting system to produce drought forecast outlook for the whole country, especially for the Barind region on a weekly/monthly basis by the Bangladesh Meteorological Department (BMD). The BMD will also develop an easy-to-understand warning message and dissemination system in collaboration with the communities, NGOs, DAE, local government institutions, telecom operators and other stakeholders (e.g., through mobile phones, in partnership with community leaders, local NGOs and government agencies). In both systems, respective agencies will improve on an existing

functioning system that will ensure the success of both activities.

4. **Subcomponent 4.3 Innovation in construction, materials, and livelihood diversification**. LGED will undertake several collaborative research activities, identified in a yearly workplan informed by short surveys, evolving needs, and based on in-depth discussions with stakeholders (LGED staff, multilateral / bilateral projects at LGED and academic researchers) as follows: a) investigate the causes of erosion of submergible infrastructure such as roads, culverts/bridges over a period of time, and ensure that solutions are tested and integrated in Component 1.1/1.2; b) develop a system of maintenance for RCC-based infrastructure, currently not available in Bangladesh; c) develop portable and easy to assemble and disassemble wooden houses commonly seen in char/Haor/river-erosion-prone areas where families temporarily self-relocate to safer places during floods; and d) piloting of new type of construction materials such as combination clay and grass/recycled plastics/rubber, plastic made blocks in minor embankment, village protection, permeable walkways etc. The PMU will manage all these activities, while actual research will be carried out by external agencies such as universities (e.g., Bangladesh University of Engineering and Technology - BUET) and other research organizations. LGED identified the research issues based on their experience in Haor and other parts of the country. The outputs from these research activities will be utilized in implementing Components 1, 2, and 3. The research will provide valuable insights and data to inform the design and construction of climate-resilient infrastructure under Component 1, enhancing engineering specifications for village roads, markets, and boat landing platforms. For Component 2, research findings will guide the development of resilient village services, such as walkways, water supply, and sanitation facilities, ensuring they are designed to cope with the unique climatic challenges of the Haor region. In Component 3, the research outputs will support the development of sustainable livelihoods and vocational training programs that incorporate climate resilience principles, enhancing the capacity of local communities to adapt to and mitigate climate change impacts.
5. **Subcomponent 4.4 Policy and dissemination**. The project will produce policy documents, technical notes, discussion papers on issues encountered during the implementation that need changes in institutional policies and practices, and even national policies. Policy issues will be identified during project implementation, with priority to those elements integrated into CRALEP (e.g., development of alternative building materials, integrating nature-based solutions into climate-resilient infrastructure, best practices for sustainability of vocational training initiatives). All project funds will be managed by LGED, the sole implementing agency of the project.
6. The combined benefits from the RMTP/FAST[10] and CRALEP projects, where there is geographic overlap, are significant. RMTP will provide credit through PKSF POs, a feature also included in FAST, targeting farming activities for debt financing and technical advisory services. CRALEP will complement this by developing infrastructure such as roads and markets, providing vocational training (including agribusiness enterprises), and offering early warning and weather services to facilitate agricultural productivity and adaptation. This dual-benefit approach will encourage beneficiaries to increase production, supported by the availability of capital through debt financing.

30. **Table 3: Main Project Target and Beneficiaries**

Sub-comp.	Subcomponent Title	Main activities	Target	Direct beneficiaries (Persons)	Beneficiary HHs (#)	Population
1.1	Village Road connectivity in Haor areas	Village road construction (km)	141		16,920	72,756
1.2	Village Road connectivity in Barind area	Village and union road construction (km)	193		23,160	99,588
1.3	Village Market development and rehabilitation	Market development in Barind (#)	10		20,200	86,860
		Market rehabilitation in Haor (#)	48		96,960	416,928
1.4	Boat landing platform (Ghat)	Ghat construction (Haor and Barind)	34		Included in market	--
2.1	Village internal services in Haor (internal walkways, toilet blocks, tubewells)	Number of villages (#)	240		48,000	206,400

2.2	Killa for temporary storage of harvests and shelter in Haor	Number of killas (#)	72		3,600	15,480
2.3	Low-cost nature-based village protection system in Shallow Haor (VPS)	Number of villages	280		56,000	240,800
3.1	Vocational training for employment creation for youth (Haor and Barind)	Number of trainees (#)	34,000	34,000	34,000	146,200
3.2	Entrepreneurship training for youth	Number of trainees (#)	10,000	10,000	10,000	43,000
3.3	Sustainable livelihoods for LCS members	Number of LCS members (#)	2,980	2,980	2,980	12,814
	Total: Comp 1 to 3			**46,980**	**311,820**	**1,340,826**

31. **7. Coordination by PMU**. For the sake of simplicity of the project management and DPP approval, PMU/LGED will manage all funds for this component, sign MOUs with IWFM/BWDB, BMD, CReLIC and other institutions, and develop full scope of works (TORs) and detailed costs. The on-going PROVATI3 project has adopted a similar approach to implement activities by the project partners.

32. [1] Uniblock, with sundried blocks made of sand, crushed stone and cement, is considered by LGED to be more environment friendly compared to concrete (and bricks). Uniblock roads are less expensive to maintenance, and more resilient to wear and tear from rains and waterlogging.

33. [2] Submergible roads allow free-flowing water to continue running over the surface during the rainy season; this also ensures that seasonal wetlands are not artificially bifurcated. Due to the low height of these roads, the adverse effects of wave action and flash floods is reduced – it is this feature of design that is “climate proof”.

34. [3] No open space will be raised more than 6 inches, which is needed for natural drainage of water and separating market spaces for internal roads.

35. [4] Several prominent partner organizations (POs) of PKSF, which is another prominent implementing agency (IA) of many IFAD-funded projects in the country, which are actively engaged in the Haor region have expressed interest in these activities during consultation with the mission.

36. [5] Applications of bamboos is widespread in the country in construction industry, rural housing, various household use, and furniture industry. Skilled people are available in the countryside.

37. [6] PKSF is a strong partner of IFAD in Bangladesh since 2003, which implemented five projects funded by IFAD. The FAST project currently under design will also be implemented by PKSF. It has more than 200 NGO-MFIs as partner organizations (POs).

38. [7] Out of 34,000 individuals, 24,000 will be young men and 10,000 will be young women. While the target for women (30%) may appear low owing to higher unemployment rates for women, this is considered ambitious in the project context since the baseline for vocational placement is low. More aggressive targets can be proposed at mid-term depending on progress.

39. [8] PROVATi3 Supervision Report, Sep-Oct 2023. https://www.ifad.org/documents/38711624/40089498/Bangladesh+2000001465+PROVATI+Supervision+Report+November+2023.pdf/2e8adb96-6258-1e37-f16f-8d5c5cafc90b?t=1701088301835

40. [9] Refer UN Climate Technology Center and Network publication on bamboo preservation methods.

41. [10] FAST project is currently at design phase.

2.5 Sustainability, Scaling Up and Exit Strategy

1. Vision of Sustainability. CRALEP envisions a future where the Haor and High Barind regions exhibit enhanced climate resilience, reduced poverty, and diversified livelihoods. Sustainable outcomes include improved connectivity, resilient village infrastructure, and diversified income sources.
2. Socio-Economic Sustainability. CRALEP aims to create lasting socio-economic benefits by improving connectivity, market access and enhancing livelihoods. By providing vocational and entrepreneurship training, the project fosters self-sustaining economic activities, which are expected to continue generating income and employment opportunities long after the project concludes.
3. Institutional Sustainability. Institutional sustainability will be achieved by building the capacity of local institutions such as the Climate Resilient Local Infrastructure Centre (CReLIC) of LGED. Training LGED officials on climate change issues and integrating climate-resilient practices into their operations will ensure that project benefits are institutionalized. Additionally, partnerships with the Bangladesh Water Development Board (BWDB) and the Bangladesh Meteorological Department (BMD) will ensure continuity of early warning systems and climate forecasting capabilities.
4. Technical Sustainability. The enhanced engineering designs of roads and nature-based VPS will continue much beyond the project period. The project plans for numerous trainings on vetiver production and bamboo treatment for local communities which is expected to enhance local skills. LGED engineers will be able to observe the benefits of integrating nature-based solutions with grey infrastructure, firsthand. This learning-by-doing approach is important since, during design consultations, it was evident that not all LGED engineers at the sub-national level consider integration of NbS with traditional infrastructure as feasible; CRELiC will then support the mainstreaming of NbS in LGED training and operations.
5. Environmental and Climate Change Sustainability. CRALEP addresses environmental and climate change sustainability by promoting nature-based solutions and resilient infrastructure. Activities such as building low-cost village protection systems, improving water and sanitation facilities, and enhancing drought forecasting are designed to mitigate environmental impacts and adapt to climate change. Embedding these practices into local development plans ensures their continuation and scaling up.
6. Financial Sustainability. Financial sustainability is ensured through the integration of project activities into existing funding mechanisms. Maintenance of rural roads, for example, is mandated to the LGED and funded through the regular budget.
7. Scaling-Up Strategy. The vision for scaling up CRALEP's successful outcomes includes embedding project practices into LGED's overall programs. Key aspects of the scaling-up strategy involve identifying successful interventions, documenting best practices, and advocating for their inclusion in national policies and programs. This approach ensures that the benefits of CRALEP can be replicated and expanded across other regions facing similar challenges.
8. Innovation. CRALEP integrates several innovative practices with potential for scaling up. These include advanced early warning systems for floods and droughts, and nature-based solutions for village protection. Component 4 budget has also been allocated to pilot and innovate on more sustainable solutions to infrastructure design, construction and maintenance. By mainstreaming these innovations, the project adds value and delivers sustainable solutions to rural development challenges.
9. Exit Strategy. This includes ensuring that local communities and committees are organized and trained to maintain infrastructure, such as through the leasing of boat landing stations and markets, community maintenance of tube-wells and VPS.
10. Roles and responsibilities will be clearly defined to ensure a smooth transition. For example, GED will continue to manage and fund rural road maintenance, while partnerships with BWDB and BMD will ensure the sustainability of early warning systems. The project will also ensure that vocational training and livelihood activities result in self-sustaining employment opportunities for trainees.

2.6 Project financing

1. **Project cost:** The total project cost inclusive of taxes and duties, and contingencies amounts to USD 103 million over a six-year implementation period with US$ 5.3 million contingencies. All costs are estimated based on currently (May 2024) prevailing prices in Bangladesh. Project costs by component are presented in Table 3. Project financing including 4 percent price contingency and one percent physical contingency respectively by components are: US$ 61 million for Component 1, (59 percent of project costs), US$ 24 million for Component 2 (23 percent of project costs), US$ 13.8 million for Component 3 (13 percent), and US$ 4 million for capacity development and project management (4 percent of project costs).
2. **Project financing**: The IFAD loan will finance US$ 70 million of the total project cost (68%); Government will provide US$ 31.7 million (30.7%); and Gate Foundation, US$ 1.5 million (1.5%). More details can be found in the project's COSTAB in Annex 3. Tables 3, 4, and 5 summaries the Project cost by components and financiers; expenditure categories and financiers; and Project cost by year respectively.

42. Table 4: CRALEP Cost by Components and Sub-Components and by Financiers (US $ 1000)

	The Government		Gates Foundation		IFAD		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Climate proofed village road connectivity and market improvement											
Village road connectivity in Haor Region	7,698	30.0	-	-	17,962	70.0	25,660	24.9	-	24,129	1,531
Village road connectivity in High Barind Region	9,330	30.0	-	-	21,771	70.0	31,102	30.1	-	29,231	1,870
Rural market improvement in High Barind Region and Haor Region	900	30.0	-	-	2,099	70.0	2,999	2.9	-	2,814	185
Boat landing ghat (Haor and High Barind)	387	30.0	-	-	902	70.0	1,288	1.2	-	1,211	77
Subtotal	18,315	30.0	-	-	42,734	70.0	61,049	59.1	-	57,385	3,663
B. Village services for resilient community in Haor Region											
Village internal services (walk ways, water and sanitation, other infrastructure)	3,559	30.0	-	-	8,305	70.0	11,864	11.5	-	11,153	712
Kila for temporary storage of harvests and shelter	390	30.0	-	-	910	70.0	1,300	1.3	-	1,222	78
Low-cost nature-based village protection system in Shallow Haor (VPS)	1,674	30.0	-	-	3,906	70.0	5,580	5.4	-	5,221	359
Technical assistance to the Project	1,618	30.0	-	-	3,775	70.0	5,393	5.2	-	4,854	539
Subtotal	7,241	30.0	-	-	16,897	70.0	24,138	23.4	-	22,450	1,688
C. Livelihoods Diversification and Resilience											
Vocational training for employment creation for youth	3,639	30.0	-	-	8,491	70.0	12,130	11.7	-	10,917	1,213
Entrepreneurship training for youth	393	30.0	-	-	917	70.0	1,310	1.3	-	1,179	131
Sustainable Livelihoods for LCS members	118	30.0	-	-	276	70.0	394	0.4	-	355	39
Subtotal	4,150	30.0	-	-	9,684	70.0	13,834	13.4	-	12,451	1,383
D. Capacity development, climate information services, and innovation	-	-	1,500	100.0	-	-	1,500	1.5	-	1,500	-
E. Project Management	2,044	74.9	-	-	685	25.1	2,729	2.6	-	2,631	98
Total PROJECT COSTS	31,750	30.8	1,500	1.5	70,000	67.8	103,250	100.0	-	96,417	6,833

43. Table 5: CRALEP Cost by Expenditure Categories and by Financiers (US $ 1000)

	The Government		Gates Foundation		IFAD		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs											
A. Equipment & Materials	232	30.0	-	-	542	70.0	774	0.7	-	696	77
B. Works	23,435	30.0	-	-	54,682	70.0	78,117	75.7	-	73,430	4,687
C. Training and Workshop	4,419	28.7	652	4.2	10,310	67.0	15,381	14.9	-	13,908	1,473
D. Consultancy	1,787	26.3	848	12.5	4,170	61.3	6,805	6.6	-	6,210	596
Total Investment Costs	29,873	29.6	1,500	1.5	69,704	69.0	101,077	97.9	-	94,244	6,833
II. Recurrent Costs											
A. Operation & Maintenance	1,877	86.4	-	-	296	13.6	2,173	2.1	-	2,173	-
Total Recurrent Costs	1,877	86.4	-	-	296	13.6	2,173	2.1	-	2,173	-
Total PROJECT COSTS	31,750	30.8	1,500	1.5	70,000	67.8	103,250	100.0	-	96,417	6,833

44. Table 6: CRALEP Cost by Components and by Year -- Totals Including Contingencies (US$ 1000)

	2025		2026		2027		2028		2029		2030		Total
A. Climate proofed village road connectivity and market improvement													
Village road connectivity in Haor Region	1,468	5.7%	3,679	14.3%	4,992	19.5%	7,559	29.5%	5,232	20.4%	2,730	10.6%	25,660
Village road connectivity in High Barind Region	1,677	5.4%	4,220	13.6%	6,531	21.0%	9,411	30.3%	6,079	19.5%	3,184	10.2%	31,102
Rural market improvement in High Barind Region and Haor Region	-		908	30.3%	1,120	37.3%	481	16.0%	490	16.3%	-		2,999
Boat landing ghat (Haor and High Barind)	-		304	23.6%	340	26.4%	375	29.1%	270	20.9%	-		1,288
Subtotal	3,145	5.2%	9,112	14.9%	12,982	21.3%	17,826	29.2%	12,070	19.8%	5,914	9.7%	61,049
B. Village services for resilient community in Haor Region													
Village internal services (walk ways, water and sanitation, other infrastructure)	46	0.4%	1,148	9.7%	2,292	19.3%	3,583	30.2%	3,495	29.5%	1,300	11.0%	11,864
Kila for temporary storage of harvests and shelter	-		-		397	30.5%	397	30.5%	507	39.0%	-		1,300
Low-cost nature-based village protection system in Shallow Haor (VPS)	14	0.2%	575	10.3%	1,112	19.9%	1,667	29.9%	1,659	29.7%	555	9.9%	5,580
Technical assistance to the Project	-		1,087	20.1%	1,087	20.1%	1,087	20.1%	1,067	19.8%	1,067	19.8%	5,393
Subtotal	60	0.2%	2,809	11.6%	4,886	20.2%	6,734	27.9%	6,728	27.9%	2,921	12.1%	24,138
C. Livelihoods Diversification and Resilience													
Vocational training for employment creation for youth	604	5.0%	1,835	15.1%	2,432	20.1%	3,025	24.9%	3,023	24.9%	1,210	10.0%	12,130
Entrepreneurship training for youth	65	5.0%	196	14.9%	263	20.1%	326	24.9%	328	25.0%	132	10.1%	1,310
Sustainable Livelihoods for LCS members	-		86	21.9%	62	15.8%	61	15.4%	93	23.5%	93	23.5%	394
Subtotal	670	4.8%	2,117	15.3%	2,757	19.9%	3,412	24.7%	3,444	24.9%	1,435	10.4%	13,834
D. Capacity development, climate information services, and innovation	-		75	5.0%	225	15.0%	450	30.0%	450	30.0%	300	20.0%	1,500
E. Project Management	464	17.0%	295	10.8%	595	21.8%	641	23.5%	329	12.0%	406	14.9%	2,729
Total PROJECT COSTS	4,338	4.2%	14,407	14.0%	21,445	20.8%	29,062	28.1%	23,021	22.3%	10,976	10.6%	103,250

45. **Disbursement**

1. IFAD will provide USD 70 million as loan and GOB will provide USD 30 million as counterpart funds for the project. The proposed four components will have the following notional allocations: Component 1 (50%); Component 2 (22%); Component 3 (15%); and Component 4 (4%). Estimated project management cost is 9%. The project will explore possibility of adding resources from other sources during the implementation phase. The project is estimated to be implemented over six years.
2. IFAD funds would be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank. To this end, project may consider Janata Bank currently in use by PROVATi. Choice of bank must be approved by LGED Management, ERD and sent to IFAD for registration in the system. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.
3. The government's share in financing comprises cash-based counterpart funding for payment of applicable taxes and other project management costs. PMU shall open a separate Assignment Account to receive and use government counterpart funds (cash) for taxes and project management. The annual requirement of counterpart funds shall be reflected in the project's AWPB and GoB budget. The accounting system shall record government financing separately.
4. The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal

applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM, during the implementation period. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast.

5. Each quarter the PMU should submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.

2.7 Economic and Financial Analysis

1. The CRALEP project will have several benefits to the project target group and the Bangladesh economy. The financial benefits to the targeted beneficiaries will accrue from (i) several types of infrastructure, including roads, village protection systems, etc.which will improve the physical environment for crop production and livestock rearing; (ii) facilitate farm inputs and output mobility through connecting roads that will be rehabilitated and newly built; (iii) capacity building and entrepreneurship training provided to the beneficiaries; (iv) enhanced marketability of agricultural input and outputs owing to the improved and new markets; (v) new and rehabilitated Ghats which will provide facilities for fishing and domestic purposes; and (vi) enhanced capital savings for LCS members that will be provided through labour contract work for market development and construction. In addition, union and village roads, drainage structures and village protection structures provided many economic benefits. The total number of beneficiaries targeted is 311,820 households (1.34 million people). The targeted households were allocated into different categories of cultivating crops, livestock, enterprises etc using assumptions which are described in PDR Annex 7.
2. The economic and financial analysis (EFA) formulated several gross margin models that estimated the benefits of the project. The models include (i) two models to estimate economic benefits of union and village roads; (ii) two models to capture market development financial benefits in Haor and Barind regions; (iii) handloom production model to derive benefits for LCS members; (iv) handicraft model for cottage enterprises; (v) ecotourism model particularly for Barind region for LCS members; (vi) dairy cow model for LCS women; (vii) poultry model for youth of LCS; (viii) banana to represent crop diversification encouraged by village protection work; (ix) fish model to represent benefits of Ghats; (x) differentiated paddy crop models to represent varied climatic conditions and flooding – boro local varieties in Haor and Barind, boro high yielding varieties (HYV) in Haor and Barind, aman local varieties in Haor and Barind, and aman HYV; (xi) tomato and okra to represent commercial and less-commercial vegetables; and (xii) felon to represent legumes. For all the models, with-project and without-project scenarios were derived. The without-project scenario predicted a gradual decline of the productivity of all the crops due to unprotected flood and other adverse environmental conditions. The with-project scenario assumed that the project interventions will mitigate most of the adverse conditions and as such the productivity of all crops and livestock will improve.
3. Several sources of information were used to derive the models. The staff of the PROVATi[3] project provided information on crop and livestock production trends, productivity, average land extents, cropping pattern etc; mid-term review reports of the PROVATi[3] project were used to obtain data; market prices of agriculture inputs and outputs were obtained from the EFA of the recently (May 2024) concluded Project Completion Review of Char Development and Settlement Project; and case studies of PROVATi[3] project also provided data on agricultural practices in the project area. In addition, the following literature was also used: Partha Sarathi Banerjee and Sanjiv De Silva, (2022), Pro-Poor Groundwater Development - The Case of the Barind Experiment in Bangladesh, World Bank Group; Bangladesh Bureau of Statistics, Population & Housing Census 2022; M Yusuf Ali, Chris Johansen and A M Musa (2018), Evolution of Agriculture in the High Barind Tract of Bangladesh (a published Book); and Md. Kamruzzaman and Md. Taj Uddin (2020), Economic Viability of *Boro* Rice Production in *Haor* Ecosystem of Kishoreganj District, *The Bangladesh Journal of Agricultural Economics, 41(2): 45-62, 2020.*
4. The EFA was based on 2024 prices. All gross margin models for the with-project scenario were financially viable. Except some models, many others for the without-project scenario indicated financial profitability but at lower level in comparison to the with-project scenario. PDR Annex 7 provides details, while Table 7 and 8 summarizes the short-term (annual at full development) and long-term (for 20 years with 12% financial discount rate) financial profitability parameters of all the models.

46. **Table 7: Financial profitability indicators of enterprise models**

Enterprise Models	WoP/WP	Nb HHs	Cost at Full Deve. (Tk/Yr)	Net Benefit at FD (Tk/Yr)	NPV (12% DR, 20 Yrs, Tk 1000)	B/C Ratio	IRR
IGA - Sewing Machine with LCS Profit (New)	WP	1740	39,163	77,498	353	2.69	
Basket Weaving: Representing Non-farm Micro Enterprises	WP	1392	322,597	31,164	93	1.04	27%
	WOP		154	185	31	1.20	
Home Stay service at Eco-tourism sub-project: Haor Area (New)	WP	348	241,873	263,281	1,255	1.70	51%
Road Models		Nb HH using	Per Km	Tk 1000/Yr/km	Per km	**B/C Ratio**	**IRR**
Union Road Benefits: VMC Saving & transport cost savings	WP - Increment		3,131	4,306	18,165	1.09	14%
Village Road Benefits: VMC Saving & transport cost savings	WP - Increment		800	20	2,311	1.18	16%

47. **Table 8: Financial profitability indicators of crops and livestock models**

Crops and Livestock Models	WoP/WP	Nb HHs	Cost at FD (Tk/Yr)	Net Benefit at FD (Tk/Yr)	NPV (12% DR, 20 Yrs, Tk)	B/C Ratio	IRR	Return to Labour (Tk/md)
2-Cow Dairy Model - Most demanded IGA of LCS Women (new)	WP	27,664	97,330	53,045	130,441	1.20	42%	2,652
Livestock Production: Back-yard Poultry & Duck	WP	19,364	395,693	538,406	61,376	1.36	>50%	924
	WOP		9,962	10,742	7,664	1.08	>50%	701
Banana: Representing horticultural crops (1 ha)	WP	6,017	329,986	66,014	472,400	1.20	>50%	2,891
	WOP		297,687	-13,271		0.96	>50%	1,190
Fish production (Pond)	WP		55,841	4359	32,559	1.08	>50%	737
	WOP	58,094	10,275	905	6,760	1.09	>50%	710
Boro local Crop - Haor Region (ha)	WP		67,085	45,461	278,716	1.58	>50%	1,785
	WOP	48,414	50,059	18,305	101,110	1.27	-6%	1,192
Boro local Crop - Barind Region (ha)	WP		65,318	33,116	139,262	1.29	58%	1,718
	WOP	4,668	45,992	-4,971	-84,480	0.75	Negative	184
Boro HYV Crop - Haor Region (ha)	WP		82,859	64,427	379,232	1.62	>50%	2,261
	WOP	19,366	76,128	12,313	46,652	1.08	6%	918
Boro HYV Crop - Barind (ha)	WP		89,359	57,927	353,145	1.53	>50%	2,098
	WOP	6,224	82,628	-148	-90,491	0.85	28%	277
Aman Local Crop - Haor (ha)	WP		27,631	827	3,933	1.02	94%	688
	WOP	9,683	26,525	509	3,805	1.02	1	674
Aman Local Crop - Barind (ha)	WP		26,331	2,127	10,806	1.06	370%	756
	WOP	1,556	25,633	-22	-162	1.00	Negative	649
Aman HYV Crop - Haor (ha)	WP		44,186	12,729	72,491	1.21	>50%	1,061
	WOP	19,366	43,927	7,296	44,861	1.13	>50%	885
Tomato - representing commercial vegetable (ha)	WP		69,148	218,630	1,871,277	4.64	>50%	9,235
	WOP	18,050	67,198	266,140	1,647,611	4.28	>50%	7,765
Felon (Cowpea) - Legume (ha)	WP		63,360	80,870	559,118	2.22	>50%	3,259
	WOP	24,067	56,326	63,674	492,780	2.22	>50%	2,704
Okra representing subsistence vegetable (ha)	WP		49,901	144,964	1,027,173	3.74	>50%	5,326
	WOP	12,034	48,432	125,179	940,783	3.64	>50%	5,121

5. The economic analysis was based on the following key assumptions: (i) 9% economic discount rate which is the weighted average fixed deposit rate; (ii) standard conversion factor (SCF) of 0.923 (EFA excel sheet has details of deriving the rate); (iii) economic prices of paddy and fertilizers based on FOB and CIF prices; and (iv) economic prices of all other commodities removing taxes and subsidies and applying SCF. Possible drops in the vehicle maintenance and operation cost, and the cost savings of passengers accrued to road development were estimated and used in the economic analysis. PDR Annex 7 provides details of all other assumptions and estimation processes.

48. 6. Table 7 presents the results of the economic analysis together with the sensitivity analyses. The risk and assumptions tested through the sensitivity are (i) the base case assumes project funds will be disbursed as planned in the project budget; (ii) the project interventions, mainly infrastructure will bring about mitigatory effects to adverse climatic conditions; (iii) cost increase analysis represent the changes in the fund flows and price escalations in the economy; (iv) benefits decrease by 10% represents the risk of vulnerable environment and damages to road and market structures; (v) benefit decrease by 20% represent the risk of vulnerability of target populations and ecosystems to climate variability, floods and other environmental hazards; (vi) cost increase by 10% and benefit drop by 10% represent above risk factors taking place simultaneously; and (vii) 1-year delay in getting benefits represent risk of delayed disbursement of project funds.

49. 7.The results in Table 9 indicated that the project is economically viable with 34% economic internal rate of return (EIRR) with 1.8 benefit-cost (B/C) ratio. The sensitivity analyses show that the project will be viable to face many foreseeable risk factors with adequate economic viabilities. The economic viabilities were re-estimated using 12% discount rate to reflect possible increase in the opportunity cost of capital and the results shows the project is still viable.

50. **Table 9: Economic viability indicators of the project and results of sensitivity analyses**

Sensitivity Analyses	EIRR	B/C Ratio	NPV (BTk mn): 9% EDR, 20-years	NPV (USD mn)	Risk Factor
Base Case	34%	1.80	32,101	292	
All cost increase by 10%	29%	1.64	28,086	255	Project Funds Flow and Disbursement Arrangements
All cost increase by 20%	25%	1.50	24,071	219	
All benefits decrease by 10%	29%	1.62	24,876	226	Vulnerability to environmental conditions and damages to roads

All benefits decrease by 20%	24%	1.44	17,651	160	Vulnerability of target populations and ecosystems to climate variability, floods and other hazards
Cost increase by 10% and benefits decrease by 10%	25%	1.47	20,861	190	Resource Efficiency and flooding etc
1 year delay in getting benefits	24%	1.73	23,700	215	Project Budgeting
Economic DR at 12%	34%	1.66	21,193	193	Taking the FDR as EDR

51. 8. The possible unquantifiable benefits include (i) social benefits such as better-quality drinking water with village protections; (ii) higher school attendance with improve roads; (iii) improved health benefits with quicker access to hospitals, reduced morbidity (diarrheal diseases, reproductive health, etc.), and reduced stunting (owing to improved food security from reduced loss of crops or crop harvests, improved market access); (iv) increased job opportunities; (v) climate benefits through soil management, village protection, and other conservation activities; and (vi) increased tax income to the government and better capacities of the government staff.

Chapter 3: Organisation and Management

3.1 Organisational set-up and Governance

52. **Organizational structure of the project**

1. Borrower, EA and IA. The Government of Bangladesh, represented by the Economic Relations Division (ERD) of the Ministry of Finance, is the Borrower of the loan. The Local Government Division (LGD) and the Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development, and Cooperative is the Executing Agency (EA) and Implementing Agency (IA) respectively. A Project Steering Committee (PSC) (i.e. implementation and steering Committee -IMSC), headed by Secretary, Local Govt. Division (LGD) will be established, which will provide overall strategic guidance, monitor overall implementation progress, facilitate interagency coordination required for smooth project implementation, and resolve any outstanding issues requiring high-level decisions. The committee will meet at least once a year or whenever necessary to review the progress of project implementation.
2. Project Implementation Committee. In addition to PSC, a project implementation committee (PIC), headed by Chief Engineer, LGED, will be established to provide necessary assistance or suggestions for implementing project activities, and resolve problems arising during implementation, and will meet at least once in year or whenever necessary. The committees will have the similar composition as in PROVATI3[1]. Figure 1 presents overall organizational structure of the project.
3. Preparation of DPP. LGED will be responsible for preparing the Development Project Proforma (DPP) as per the rules and regulations of the government. It will take all necessary approvals from within the LGED and LGD, and follow-up with the Planning Commission for final approval in the ECNEC. It will be a single DPP that reflects the annual plan for project activities and costs as provided in COSTAB considering that several activities in Component 4 will be implemented by project partners such as IWFM/BUET, BWDB and BMD. The DPP will elaborate how LGED will implement various components.

53. **Project Management**

1. Project Management Unit. The LGED will establish a Project Management Unit (PMU) headed by a senior engineer as the Project Director. Several LGED officials will be deputed to the project. The project will hire the necessary contractual officials as stipulated in PDR. The PMU will have four tiers: PMU/Dhaka at LGED Head Quarters, three Regional Offices in Chapai Nawabganj, Kishoreganj and Sunamganj, eight District Offices (Haor Region: Netrakona, Kishoreganj, Sunamganj, Habiganj, and Brahmanbaria; High Barind Region: Rajshahi, Naogaon, and Chapai Nawabganj), and 33 Upazila LGED offices. All these PMU offices and respective project officials will be housed in LGED respective District Offices and Upazila Offices. See Table 10 for human resources at all levels of PMU.

54.

55. *Financial Management*

1. PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. Finance Manager will be assisted in his functions by an Accounts Officer, and two Accounts Assistants. Project will have largely centralized FM arrangements managed at PMU level.
2. All project activities will be guided by Annual Workplans and Budgets, based on PDR and Financing Agreement and duly approved by LGED Management and subject to IFAD No Objection. The cost tables, DPP and PIM will have sufficient details

on key activities to be implemented and sources of finances for these costs.

3. IFAD funds would be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.
4. The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate financial documents; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project. There will be two Internal Audit Consultants specifically for the IFAD funded projects.
5. Project accounting will be managed in accordance with IPSAS Cash basis of financial reporting. PMU, at the very start of the project, shall procure an appropriate accounting software to manage its accounts. For reference, IFAD funded projects in the LGED portfolio use TOMPRO.
6. The Foreign Aided Projects Audit Directorate (FAPAD) of OCAG will audit CRALEP as it has done for HILIP CALIP and PROVATI. FAPAD is a specialized arm of the Office of the Comptroller & Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh and entrusted to auditing the activities of all Development and Technical Assistance Projects and programs in the public sector funded by foreign aid.
7. Regional Offices. Three Regional Offices headed by a Regional Engineer for each region will be established by considering the number of Upazilas in each region, distances from districts, road connectivity etc. The Chapai Nawabganj Regional Office will supervise activities of 9 (nine) Barind Upazilas (Tanore, Godagari, Patnitala, Shapahar, Porsha, Dhamurhat, Niamatpur, Nachole and Gomastapur) of three districts (Rajshahi, Naogaon and Chapai Nawabganj). Similarly, Kishoreganj Regional Office will supervise activities of 8 (eight) Upazilas (Austagram, Itna, Mithamoin, Nikli, Khaliajhuri, Kamlakanda, Madan, and Mahanganj) of Kishoreganj and Netrakona districts. The Regional Office of Sunamganj will supervise activities of sixteen (16) Upazilas (Bishwambarpur, Derai, Dharmapasha, Dowarabazar, Jagannathpur, Jamalganj, Sulla, Sunamganj sadar, Dakshin Sunamganj (Shantiganj), Tahirpur, Ajmiriganj, Baniachong, Lakhai, Nabinagar, Nasirnagar, and Sarail) of Sunamganj, Habiganj and Brahmanbaria.

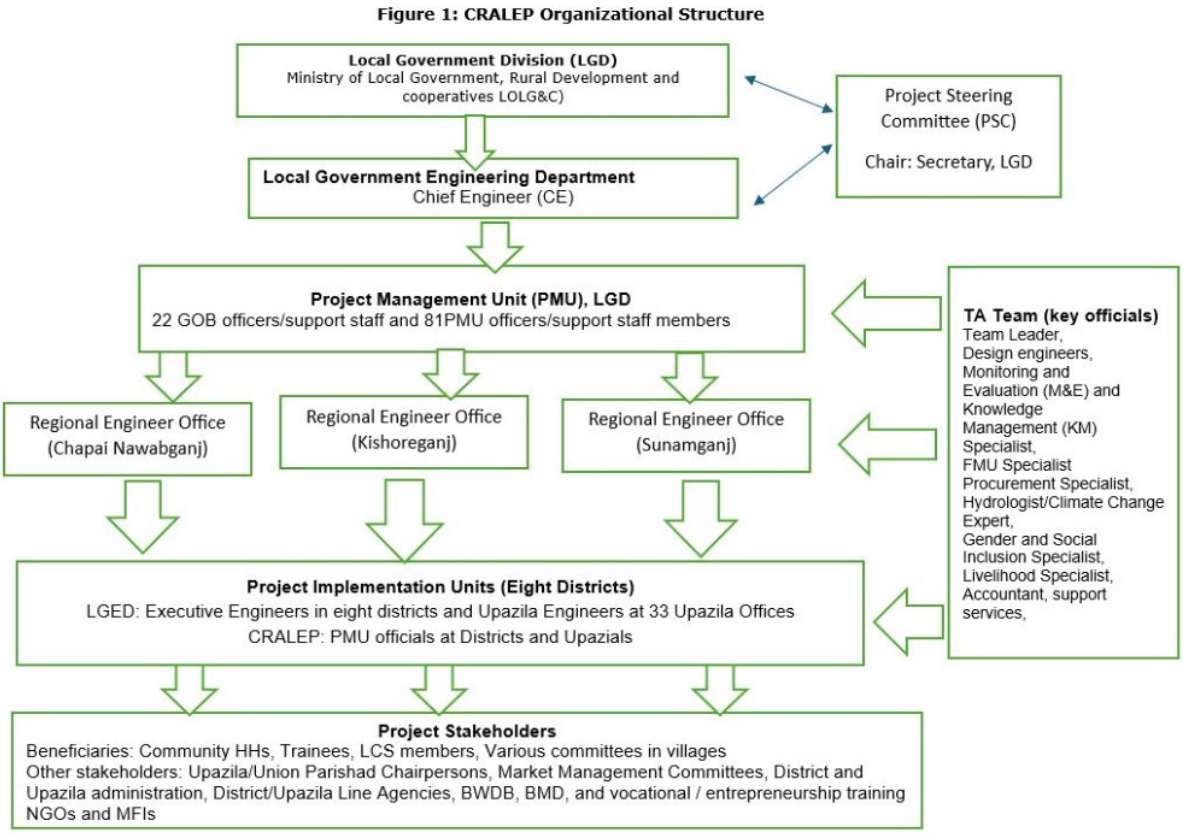
56. **Table 10 Composition of PMU and distribution at 4-tiers**

Level/Tier of Project Management	**Project TA Team (Hired by the project)**	**GOB deputed Civil Servants)**
PMU (Dhaka based)	1. Team Leader, Rural Dev Specialist	Project Director (1)
	2. Design engineer (civil works)/DTL	Deputy Project Director (1)
	3. Asst Design engineer (2)	Senior Asst Engineer (1)
	4. AutoCAD operator (2)	Asst Engineers (1)
	5. Estimator (2)	Sub-asst Engineer (2)
	6. Market design & planner	Accountant
	7. Livelihood specialist	Computer operator
	8. Climate change expert and Hydrologist	Accounts Assistants
	9. Financial specialist	Driver (3)
	10. Financial System Specialist (Financial mgt, Audit, system development, training)	MLSS (Outsourced) (2)
	11. One Accounts Officer	
	12. Junior finance officer	

	13. Junior software expert (TOMPRO) (2)	
	14. Internal Audit Consultants	
	15. Procurement specialist	
	16. M&E, KM specialists	
	17. Gender and social inclusion specialist	
	18. MIS Officer	
	19. M&E KM Officer	
	20. Training & logistic support Officer	
	21. Office assistant/Typist (Outsourced)	
	22. Office manager (Outsourced)	
	23. MLSS (2)	
Subtotal – Dhaka	**28**	**14**
Regional Offices (3)	1. Quality Control Engineers (1+2=3) (regional engineer)	--
	2. Laboratory Technician (3)	--
	3. Laboratory assistant/Helper (3) (Outsourced)	--
	4. Drivers (3) [Three new recruits]	--
Subtotal – Regions	**12**	None
District Offices (8)	1. Livelihoods officers (8)	Sub-assistant engineers: Outsourced (8)
Upazila Offices (33)	1. Assistant Field Engineer (33)	--
TOTAL	**81**	**22**

57. [1]**Composition of PROVATI3 PSC**: Secretary of the Local Government Division (Chair), three representatives from the Local Government Division (LGD); representatives from Finance Division and Economic Relations Division (ERD) of the Ministry of Finance (MOF), representatives from NEC-ECNEC, IMED and Planning Division of the Ministry of Planning; representative from the Ministry of Land, PD-PROVATI3, and representative from the Planning Unit of LGED, and representative from Ministry of Disaster Management. **Composition of PIC**: Chief Engineer, LGED, and representatives from the Local Government Division (LGD); representatives from Finance Division of MOF, representatives from NEC-ECNEC, IMED and Planning Division of the Ministry of Planning; PD-PROVATI3 (as Member-Secretary), and representative from Ministry of Disaster Management (MDM).

58. **Figure 1: CRALEP Organizational Structure**



8. Human resources: As indicated in Table 10, the project will hire 81 staff members (professionals and support staff) and LGED will deputize 22 professionals and support staff for overall management of the project. In addition, LGED's District and Upazila offices will have government designated professional and support staff members. The TOR, skills needed and responsibilities for the PMU's TA personnel are included in the PIM.

59. 9. Responsibilities of PMU/Dhaka Office.The Project Director will have the overall responsibility and authority to implement the activities of the project. S/he will be assisted by a Deputy Project Director (DPD), and a set of professional staff members. All key senior officials will be based in Dhaka with line responsibility for respective subcomponents. The PMU will plan, execute, monitor, evaluate and report the progress to the LGED management, LGD and to IFAD. The PMU in LGED will have fund management and progress reporting responsibilities. The PMU will have expertise in engineering design, market design, financial management, skill and livelihood development, gender and inclusion, M&E, training and climate change and hydrology and can bring temporary skill, if necessary.

60. 10. Regional Office (CRALEP). Each regional office headed by Regional Engineer will have the responsibility of quality assurance in all construction works. S/he will be assisted by lab technician for testing of materials in LGED laboratory. With the assistance of Asst Field Engineers at the Upazila level the Regional Engineer will monitor quality of construction and monitor progress. The Regional Office staff members will report to the PD/DPD. The Regional offices will have the responsibilities of i) monitoring and supervision of works (progress and quality), ii) approving payments to contractors/LCS and iii) overall management of the project, including tracking of project outputs and outcomes in line with the project log-frame. Since the Regional Offices will be in three District Headquarters (Chapai Nawabganj, Kishoreganj, and Sunamganj), the respective Executive Engineers of the District will be supervising and guiding the activities carried out by the Regional Officers.

61. 11. District Offices. The Executive Engineer's Office at each District is key executive office of LGED, which manages all construction works from tendering to monitoring to payments. It tenders out all construction, as per engineering design from the PMU, by following established GOB procurement procedures. In each district office, the project will deploy one Livelihoods Officer to supervise and monitor progress of Component 3 (vocational training, entrepreneurship training, sustainable livelihoods for LCS), and jointly with Upazila Engineer monitor the progress of subcomponent 2.3.

62. 12. Upazila Offices. As per LGED structure, all field-level project activities (construction of roads, markets, ghats, killa and village internal services) will be managed at the Upazila level by LGED Upazila Engineer and his/her staff, and Assistant Field Engineer (CRALEP). The Upazila Office and asst Field Engineer (CRALEP) will also monitor quality of work and progress of activities under subcomponent 2.3 to be implemented by selected non-government organizations (NGOs).

63. **Management of Project Component**

1. Table 11 presents the summary of implementation arrangement for all project activities by subcomponent

Sub-comp.	Title	Supervision and monitoring	Contractors
1.1	Village Road connectivity in Haor areas	Engineering Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer	Private construction contractor
1.2	Village Road connectivity in Barind area	Engineering Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer	Private construction contractor
1.3	Village Market development and rehabilitation	Engineering Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer	Markets in Chapai: LCS groups Markets in Haor: Private construction contractor
1.4	Boat landing platform (Ghat)	Engineering Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer Engineer	Private construction contractor
2.1	Village internal services	Engineering Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer	Private construction contractor
2.2	Killa for temporary storage of harvests and shelter	Design by PMU (Dhaka) Contract management by LGED XEN office Quality assurance by Regional Engineer Implementation monitoring by Upazila Engineer	Private construction contractor. Vetiver grass plantation by LCS
2.3	Low-cost nature-based village protection system in Shallow Haor (VPS)	Design by PMU (Dhaka) Contract management by PMU (Dhaka) Supervision: Regional Engineer, XEN, and Livelihood Officer Implementation monitoring by Upazila Engineer	NGOs with experience in implementation of development projects in the Haor region

3.1	Vocational training for employment creation for youth	Contract management by PMU (Dhaka) Supervision: PMU, Regional Engineer, XEN, Gender and Social Inclusion Specialist, and Livelihood Officers Trainee selection recommendation and implementation monitoring by Upazila Engineer	Partner organization of PKSF selected by competitive procurement process along with TTCs, other NGOs, private training providers, and LGED training center,
3.2	Entrepreneurship training for youth	Contract management by PMU (Dhaka) Supervision: PMU, Regional Engineer, XEN, Gender and Social Inclusion Specialist, and Livelihood Officers Trainee selection recommendation and implementation monitoring by Upazila Engineer	Partner organization of PKSF selected by competitive procurement process along with other training providers
3.3	Sustainable livelihoods for LCS members	Contract management by PMU (Dhaka) Supervision: Livelihoods Specialist (PMU), Regional Engineer, XEN, Gender and Social Inclusion Specialist, and Livelihood Officer Trainee selection recommendation and implementation monitoring by Upazila Engineer	Partner organization of PKSF selected by competitive procurement process
4.1	Capacity building of CReLIC	PMU: Prepare scope of work as per PDR, and monitor progress	CReLIC as per MOU with PMU
4.2	FFEWS in Haor and drought forecasting in Barind for community resilience.	PMU: Prepare scope of work as per PDR, and monitor progress	1. Forecast model for FFEWS for Haor by IWFM 2. Dissemination system for FFEWS by BWDB 3. Drought early warning system by BMD
4.3	Innovation in construction, materials, and livelihood diversification	PMU: Identify research activities as PDR and prepare scope of work; Monitor progress	PMU manages the activities in collaboration with research institutions, experts etc.
4.4	Policy and dissemination	PMU: Identify policy issues and prepare policy documents	PMU
n.b. Across all activities, the Gender and Social Inclusion Specialist and Climate Change Specialist / Hydrologist will also support the implementation of SECAP-associated mitigation actions, including site-specific ESCMP.			

64. **Implementation of Project Activities**

1. The implementation of the project activities under Components 1 and 2 will be mainly managed by LGED organizational units: the PMU, and District and Upazila-based LGED offices. LGED, through the PMU and District/Upazila based offices, will employ and supervise professional contractors, LCS groups, partner organizations of PKSF, NGOs, Govt. and private training providers, and ensure quality outputs and receipt of time-bound reports. All construction activities will be implemented by the respective District Executive Engineer's office and Upazila Engineer's office as per the established rules and practices of LGED.

2. **Management of Component 1: Climate proofed village road connectivity and market improvement.** All construction activities of Component 1 will have similar management system and activities as follows:

- The PU in Dhaka will conduct topographic and soil testing (for roads and ghats) and pre-design assessments for roads, markets and ghats to ensure site specific designs and climate proofed designs.

- The Design Team in PMU/Dhaka will prepare all site-specific designs and estimates based on the above step and send to District XEN Office for tendering out for engaging contractors for roads, ghats, market rehabilitation in Haor and LCS groups for market development in Chapai Nawabganj.
- Upazila Engineer's office monitor the quality and progress of all activities with the help of Ass Field Engineer (CRALEP) posted at the Upazila.
- LCS groups will receive 3-day construction, group management and record-keeping training before awarding contracts for market development.
- Regional Engineer–Quality Assurance (RE-QA) (CRALEP) will be the key person on behalf of the Project Director to ensure quality and timeliness of construction. RE (QA) will be provided with two people (testing technician and lab helper) in each Region for testing quality of materials used by contractors and so forth. The RE (QA) will also be present and visiting key construction sites as per construction plan.

3. Management of Component 2: **Village services for resilient communities in Haor region.** The subcomponent 2.1 Village internal services and 2.2 Killa development will have the same approach and process as mentioned for Component 1 except there will be no need for soil testing for village internal services and killa development. However, several detail pre-design sessions with each village community must be held to determine the route of walkways, locations of toilet blocks, tubewells and stairs at the edge of the village and to handover the structures with maintenance responsibilities. All designs will be completed at PMU/Dhaka and construction will be contracted out by the District XEN offices. Similarly, Upazila Engineer, Asst Field Engineer (CRALEP) and RE (QA) (CRALEP) will have quality assurance and monitoring responsibilities.

4. The subcomponent 2.3 will have different management system as it will be contracted out to one or more NGOs, through a competitive process, with long experience of implementing development projects in the Haor region. The selected NGO(s) will implement activities including training on production of vetiver, bamboo treatment, cultivation of bamboo as an IGA, cultivation of vetiver, construction of village protection system, development of community organizations[1] for maintenance of *killas* and VPS. The Livelihoods Officer will be monitoring the organizing and training activities and RE (QA) and Upazila Engineer will be responsible for supervision of VPS. The TOR for NGOs for subcomponent 2.3 will be presented in the PIM.

5. Management of Component 3: Livelihoods Diversification and Resilience. The subcomponent 3.1 vocational training will be implemented by selected Partner Organizations of PKSF, selected through a competitive process. The importance of this approach is that POs have strong presence in the rural areas that allow them to select trainees from poor families, have significant capacities for vocational training and physical facilities, and strong network of employers. They can provide microcredit when trainees need that to start own businesses. This approach has been successfully implemented in PROVATI where one PO has already completed training for 12,000 trainees and has contract for another 8,000. In CRALEP, the selected POs will select all 34,000 trainees from the project upazilas as per TOR and train 27,000 trainees in their own facilities and supply the remaining 7,000 for other training providers. This approach will ensure the right selection of trainees from the villages as other training providers neither have any link in the villages nor with employers and can only provide training.

65. **Table 12 Training providers and targets in component 3**

Components	Contract for selection of trainees and placement and part training	Total Target	Training by POs	TTCs	Others (private firms and NGOs)	LGED
3.1	POs of PKSF	34,000	27,000	4,000	2,000	1,000
3.2	POs of PKSF	10,000	8,000	-	2,000	-
3.3	POs of PKSF	2,980	2,980	-	-	-
TOTAL		**46,980**	**37,900**	**4,000**	**4,000**	**1,000**

66. 6. The same approach will be followed for the Subcomponent 2.2 Entrepreneurship training where POs will be selected through a competitive procurement process to select trainees, provide loans from own funds (no cost to the project) and conduct part of the training (see Table 12) and supply trainees for other selected GOB and NGO training providers.

67. 7. The Subcomponent 3.3 Sustainable livelihoods for LCS groups will be implemented by selected POs. The POs are uniquely positioned for this subcomponent as the organizers of poor women/men, training providers and suppliers of microfinance. The PROCATI3 project has been successfully implementing livelihoods component by a PO of PKSF.

68. **8. Management of Component 4: Capacity development, climate information services, and innovation.** The PMU will sign Memorandum of Understanding (MOUs) with CReLIC, IWFM, BWDB, and BMD for implementing respective subcomponents as has been done in PROVATI3 and HILIP-CALIP project. The TOR for respective partner will be presented in PIM.

69. **Collaboration with other projects**

1. The project will coordinate with the HFLIM2 project, financed by JICA, which is to be also implemented by LGED in the Haor region to avoid any overlap of project activities. Besides, the IFAD cofinanced irrigation project CDRSSWRMP will implement irrigation subprojects in all CRALEP project Upazilas. In addition, the proposed IFAD-funded FAST project will also implement value chain development subprojects in Haor and Barind targeting the poor, and marginal and small farmers, and other producers to create employment opportunities. Beneficiaries of both projects will benefit from infrastructure developed under CRALEP.

70. [1] These village groups will receive FFEW messages from BWDB under Component 4. Also, village groups/volunteers formed under Component 2.1 and LCS members in these village will receive FFEW messages.

3.2 IFAD Supervision

1. Annual Work Plan and Budget (AWPB). IFAD, in collaboration with the Project Steering Committee (PSC), reviews and approves the AWPB. The AWPB includes detailed plans for project activities, budget allocations, and expected outputs for the upcoming year. IFAD's review ensures that the project remains on track to achieve its goals and that resources are allocated efficiently.
2. Project Steering Committee (PSC). The PSC, chaired by the Secretary of the Local Government Division (LGD), provides strategic guidance and oversight for CRALEP. The PSC reviews and endorses the AWPB, monitors project progress, and ensures alignment with national policies and strategies.
3. Supervision and Implementation Support Missions. IFAD will undertake twice-yearly supervision and implementation support missions to:

- Verify that the procurement and contracting procedures and processes followed for the projects are in accordance with the Financing Agreement and the Procurement Arrangements Letter.
- Verify technical compliance, physical completion, and price competitiveness of each contract in the selected representative sample.
- Review and comment on contract administration and management issues as dealt with by the Project Management Unit (PMU).
- Review the capacity of the PMU in handling procurement.
- Identify improvements in the procurement process considering any identified deficiencies.

71. 4. Supervision missions include detailed field assessments, stakeholder consultations, and reviews of project documentation. The mission team typically includes IFAD staff and technical experts. The findings and recommendations from these missions are documented in supervision reports.

72. 5. In addition, IFAD may conduct Implementation Support Missions (ISM) to address specific technical or operational challenges, offer capacity-building support, and ensure that the project is on track to meet its objectives.

73. 6. Mid-term Review. A Mid-term Review (MTR) will be conducted midway through the project lifecycle to assess overall progress, identify challenges, and recommend adjustments. The MTR provides an opportunity to make necessary course corrections to ensure the project remains on track to achieve its objectives. The MTR involves a comprehensive evaluation of project activities, financial management, and impact on target beneficiaries.

74. 7. Completion Mission. At the end of the project, a Completion Mission will be conducted to evaluate the overall success and sustainability of the project. This mission will assess the achievement of project goals, the effectiveness of implementation strategies, and the long-term impact on the target communities. The Completion Mission also identifies lessons learned and best practices for future projects.

3.3 Planning, Monitoring and Evaluation

1. *Planning***.** The planning cycle begins with the development of the Annual Work Plan and Budget (AWPB), linking the budget, activity implementation, and operations monitoring to achieve the objectives. The PMU will follow a participatory approach for preparing AWPB, which will serve as an M&E instrument, harmonized with product-level indicators, and will be used to control and monitor the achievement of objectives.
2. *Monitoring & Evaluation (M&E)***.** The Monitoring and Evaluation Plan is the fundamental tool that will guide activities and become the first deliverable from the M&E area. The project will leverage the developments from PROVATI to enrich the M&E plan and identify the best practices. The M&E plan will define the responsibilities of each member of the implementation team, identifying the activities necessary to fulfill the monitoring and evaluation processes under the final supervision and responsibility of the M&E officer.
3. *Monitoring & Evaluation System (MES).*The MES will be developed by the Project Management Unit (PMU) to reflect the CRALEP indicators. This system will be developed according to the approved M&E plan and will focus on monitoring the indicators in the logical framework and the information needs for evaluation exercises. The MES will generate a unique code for each direct program beneficiary, preventing any duplication in calculating outreach. The system will also consider other involved stakeholders to ensure consistency with secondary information sources and the IFAD Operational Results Management System (ORMS). The system should include an interactive dashboard for easy access by all stakeholders. The system will adopt geospatial and remote sensing technology for locating beneficiaries and the projects carried out in the targeted areas. The MES will be developed based on existing data management systems used for previous projects.
4. *Management Information System (MIS).*The MIS will be part of the MES as a unit, with primarily focus on project implementation processes, maintaining a direct relationship with financial information. This system will report on the physical and financial progress in relation to the Annual Work Plan and Budget (AWPB). The M&E responsible will generate periodic reports to provide feedback to the project team on the progress made.
5. *Progress Reports.* These reports must identify the main lessons learned from management and provide accurate reports for team feedback. The reports will be shared with IFAD to feed into the COSOP information system, generating country-level evidence and sharing best practices that can be replicated by other projects.
6. *Baseline Survey.*In parallel with the development of the MES, data collection for defining the project's baseline situation will be planned and conducted during the first year of implementation. The baseline will follow the IFAD guidelines for the measurement of Core Indicators at Outcome level. It will consider a representative sample design of potential project beneficiaries in the selected implementation areas. This tool must distinguish between potential direct and indirect beneficiaries, especially for the infrastructure activities to be developed in the project. The baseline will use georeferenced information for locating the households interviewed.
7. *Midterm Review (MTR).*The MTR will have both summative and formative approaches to analyze the project's progress in achieving results. The main objective of this tool is to provide feedback to the team on the strengths and weaknesses of the implementation process, as well as the results achieved. A mid-line survey for COI indicators will be conducted before the MTR and the design must be consistent with the baseline to maintain comparability of the information collected. The mid-line survey will feed the MTR report and it will follow IFAD's methodological guidelines for indicator construction.
8. *End-line survey.*The end-line survey of the project must focus on outcome and impact indicators and should include a comparison group. The results will be compared to the baseline and mid-line survey to monitor the evolution of indicators. This end-line survey should be coordinated with IFAD for the preparation of the Project Completion Report (PCR), serving as a fundamental input for its development. The final end-line survey must include an estimation of the project's attributable impact, which must follow the M&E plan and be coordinated with the IFAD office.
9. *Annual Outcome Survey (AOS).* After midterm, the AOS, an IFAD monitoring tool, will be conducted yearly following the defined methodological guidelines. This study will focus on the evolution of results at the outcome level, maintaining a consistent methodological design throughout the implementation period. The report will be shared with relevant stakeholders for feedback and will serve as a fundamental input for the preparation of the project's progress reports.
10. *Data Collection Processes.*All data collection processes, whether internal or conducted by external firms, must follow the Computer-Assisted Personal Interviewing (CAPI) methodology to ensure data quality and improve time and resource efficiency. The M&E area will oversee all data collection processes and the methodological design of each, ensuring consistency with the entire M&E plan. Collected data must be updated in the project's MES and MIS systems, maintaining continuous information updates. The CAPI methodology aligns with IFAD's Information and Communication Technology for Development (ICT4D) strategy. Additionally, all data collection processes should consider geospatial information for locating interviewed households and creating graphical monitoring tools, such as spatial implementation maps.

3.4 Knowledge Management and Country Level Policy Engagement (CLPE)

1. *Knowledge Management and Communication Plan (KMC).* The KM, learning, and communication activities will be detailed in the Knowledge Management and Communication (KMC) Plan, developed in parallel with the Monitoring and Evaluation (M&E) Plan. This tool will serve as a guide for organizing evidence generation activities that will provide feedback to all relevant stakeholders and will be a crucial input for scaling and sustainability activities.
2. *Learning and KM.* KM activities for CRALEP will incorporate an ongoing process of learning and evidence generation based on the quantitative and qualitative data collected. The KM tools developed will synthesize best practices and lessons learned to provide feedback to the team and relevant project stakeholders. The project will leverage information produced within the fourth component, identifying innovative products developed and training processes conducted.
3. The learning process also considers experiences generated in previous IFAD projects implemented by LGED, identifying those best practices that will be adopted in all project planning and implementation processes. Additionally, the KM process will follow a participatory approach, involving the implementing team and relevant stakeholders, disseminating information continuously and collecting feedback from these actors to strengthen CRALEP's programmatic strategy. To achieve the objectives previously described in this section, the KMC tools identified will be used continuously but not exclusively, as other tools may be identified and developed by the project.
4. *Case Studies.* Case studies are supplementary reports to those developed by the M&E area, focusing on best practices, lessons learned, scalability, and sustainability of the results. These studies should be identified by the PMU based on information needs observed during implementation.
5. *Country Level Policy Engagement (CLPE).* At the country level, policy dialogues will be maintained using the learning and M&E tools generated by the project. Based on the experience of IFAD projects conducted in the country, the following knowledge gaps have been identified: (1) the impact of infrastructure projects at the local level, (2) the costs and benefits of nature-based solutions when incorporated with grey infrastructure in terms of reducing long-term maintenance costs and enhancing robustness of structures, (3) the benefits generated for young entrepreneurs, and (4) the innovation developed in climate services tools from design (e.g., data analysis, content of advisories, customizing to local ecological / agroecological contexts) to dissemination (e.g., channels, frequency).
6. Information generated by the project will be disseminated through policy dialogues, socialization workshops, and study presentations. Additionally, the capacity-building processes in the fourth component will establish communication channels with policy actors, sharing evidence for informed decision-making.

3.5 Target group engagement

1. Target Group Engagement. LGED during the PCN and design missions consulted with potential target groups and the consolidated experience of HILIP-CALIP and PROVATI3. The findings have been incorporated in the PDR.

2. During implementation, the PMU will further consult with direct and indirect beneficiaries as follows:
   - Road construction in Haor: The villagers will participate in the consolation meeting during topographic and pre-design assessments where local knowledge about inundation, potential damage to roads, past situations and future benefits of the roads will be discussed. This will be the basis for site specific design along with engineering data such as road alignment and soil test reports. More interactions will be organized during and after construction, and at the time of various studies.
   - Road construction in Barind. Similar consultations will be organized for Barind as described for Haor.
   - Market development in Barind. The project will hold a series of consultation meetings with MMCs, shop owners, temporary sellers, and buyers regarding setting up of market periphery, needs for various elements of infrastructure for development, market management, repair and maintenance and finally handing over to MMC. The participation of these target beneficiaries will also be ensured during impact studies.
   - Market rehabilitation in Haor. MMCs, shop owners, traders, and buyers will be consulted during topographic and pre-design assessment. In addition to discussion about market management, the beneficiaries will jointly determine the locations of water-logging within the market, drainage problems, sanitation and water supply.
   - Village internal services. The engagement will be at two stages: Selection of villages during DPP preparation and during implementation. At the time of DPP preparation, LGED will consult local government institutions (Upazila and Union Parishad) and communities to identify villages with high incidence of poverty, with poor state of water and sanitation services, at remote locations (from towns), and with inadequate internal infrastructure to select them as project villages for construction of internal services. During implementation, the PMU will conduct topographic and pre-design assessment in collaboration with the community who will help identify route for walkways, and locations for tubewells, toilet blocks and village stair etc. At the time of construction, some villagers are expected to work as labor and masons of the contractor. At the completion of the works, a committee will be formed for routine maintenance tubewells, and upkeep of walkways and toilets.
   - Village protection system. This is an important activity with community will be engaged for identifying location and length of the protection wall, production of vetiver, treatment of bamboo, construction of the walls and finally maintenance of the walls. Although an NGO will be engaged to supervise the work during the implementation, a committee will be formed to take care of any minor damage and a group of volunteers will be trained on bamboo treatment and repair and maintenance.
   - Vocational and micro entrepreneurship training. The POs selected for this component will be publicizing these two activities in the villages through their microcredit groups, other MFIs working in the area, local government institutions etc. Interested individuals and their families will be explained about the prospects of vocational training, training facilities, support for employment etc. before enrollment. The same will continue during training. The project will be in touch with trainees even after their employment.
   - LCS sustainable livelihoods development. The Project will form LCS groups for market development as per LGED's established procedures. LCED has a LCS Management Manual that provides details on this subject. Similar process will be followed for selection of poor women and men for component 2.3 to be managed by a PO/PKSF.
   - Component 4. Both BWDB and BMD will be developing respective FFEWS and DEWS in consultation with the communities in the Haor and Barind regions respectively.
3. To ensure effective engagement and feedback processes, the project will invest in capacity building for relevant stakeholders including project target groups, community-based institutions, project management units, local government institutions, and service providers. The staff of LGED will receive training on the implementation of IFAD safeguards, including the CLPI, the Program's Environmental, Social, and Climate Management Plan (ESCMP matrix), Stakeholder Engagement, Grievance Redress Mechanism, and Ethnic Minority Plan. They will also be trained on the application of the participatory approach in monitoring and evaluation, identifying lessons learned and good practices for participation, accountability, among other aspects, taking into account IFAD's experience with other programs in the country.

4. **Grievance Redress Mechanism.** CRALEP will provide an open and accessible grievance redress mechanism in line with IFAD's social and environmental policies. This mechanism will be available to the target population, and vulnerable groups who believe they have been adversely affected by the implementation of project activities. The project will ensure that information about the existence and functioning of this mechanism is readily available to project-affected populations.
5. The project Grievance Redress Mechanism (GRM) will be multi-tiered, with the use of Grievance Redress Committees at Upazila, District and National levels. The GRM will be open to anyone affected by the project and be accessible in various forms, including via a hotline and website, but also via local offices. The secretaries of the committees will categorize any incoming issue, which may include issues of non-compliance with project guidelines, fraud and corruption or other issues. It may also include cases related to sexual harassment, sexual exploitation and abuse. Among the various forms of registering an issue through the GRM, will be ways to do so confidentially. There will also be reference made to the IFAD GRM, in parallel to the project GRM. The existence of these GRMs, and the practical ways of registering a complaint or issue, will be communicated to project affected people in the promotional material, clearly indicated on the project website and mentioned in project-organized meetings.

3.6 Strategic partnerships

1. The project will have close communication and coordination with the following on-going and under-design projects. CRALEP activities, particularly flood forecasting and early warning system and drought forecasting, will be leveraged by other IFAD projects. Where geographies overlap (RMTP, FAST), there will be indirect benefits (spillover effects) from connectivity and market development:

- CDRSSWRMP: This is a nationally implemented IFAD-cofinanced project implemented by LGED that implements irrigations subprojects throughout the country, especially in the Barind region. The beneficiaries of CRALEP will specifically benefit from irrigation subprojects – CDRSSWRMP investments are complementary to CRALEP investments to promote agri-business entrepreneurship, improve market access (roads, market structures), and introduce drought early warning.
- HFMLIP-2 (JICA): The Haor Flood Management and Livelihood Improvement Project – Phase 2 (HFMLIP-2) implemented by LGED will make significant investments in communication infrastructure in the Haor districts, especially in Sunamganj. CRALEP and HFLIMP-2 will work closely regarding selection of road infrastructure to avoid overlap.
- RMTP and FAST. This on-going IFAD-funded, nationally implemented (by PKSF) project is already targeting CRALEP areas. Beneficiaries of RMTP and CRALEP will benefit from the activities of both projects. The new FAST project, currently being designed, will focus on climate vulnerable regions and will offer financial services and value chain development to landless, small and marginal farmers in Barind; PKSF's Partner Organizations in FAST will be encouraged to support the implementation of Component 3 activities in Barind (through competitive selection), and extend loans to micro-entrepreneurs where feasible.
- Training providers, Haor NGOs, IWFM, BWDB and BMD. Vocational training providers, NGOs with long experience in Haor, IWFM, BWDB and BMD will be important implementation partners of the project.

3.7 Financial Management

75. **Financial management organization and staffing**

1. PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. FM staff from the recently concluded IFAD funded and LGED implemented HILIP CALIP project should be invited to participate in the recruitment process. Finance Manager will be assisted in his functions by a competitively recruited Accounts Officer, and two Accounts Assistants. Project will have largely centralized FM arrangements managed at PMU level. Each District Office will have one Accountant that would be supported by an Accounts Assistant.
2. Key to ensure appropriate designation is used for FM staff and that qualification and experience and proposed pay are commensurate with job role and competitive. Finance Manager should have the necessary delegation of authority to submit interim and annual financial reports, WAs and other required documentation to IFAD. All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer.
3. Detailed job description and terms of reference as well as organigram for FM Section staff are provided in PIM.

76. **Budgeting**

1. All project activities will be guided by Annual Workplans and Budgets, based on PDR and Financing Agreement and duly approved by LGED Management and subject to IFAD No Objection. The cost tables, DPP and PIM will have sufficient details on key activities to be implemented and sources of finances for these costs. Subsequently, the AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in booking of the expenditure. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of GoB and submitted to IFAD NO later than by 2 months before the commencement of the fiscal year.
2. Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process.
3. For ease of planning and monitoring, AWPB for each component will be further elaborated in quarterly physical and financial targets which shall become the basis for monthly and quarterly planning and progress reviews. LGED Management will conduct a mid-year review to assess progress against annual plan and approve any required adjustments, revisions, and remedial measures. It is expected that the accounting software is sufficiently customized to enable budget encumbrance, monitoring and controls.

77. **Disbursement Arrangements and Flow of Funds.**

1. IFAD funds would be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank. To this end, project may consider Janata Bank currently in use by PROVATi. Choice of bank must be approved by LGED Management, ERD and sent to IFAD for registration in the system. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.
2. The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM during the implementation period. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures

forecast. Each quarter the PMU shall submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.

3. Project will have two sources of funds- IFAD and Government of Bangladesh. PMU will maintain separate accounts for each of the financiers. The government's share in financing comprises cash counterpart funding for payment of applicable taxes and project management costs. The annual requirement of counterpart funds shall be reflected in the project's AWPB and provincial budget. The accounting system shall record government financing separately. Apart from meeting PMU and DMUs own operational expenses, most of the investment funds will be expended through the labour contracting society (LCS) in the community, implementing partners and vendors/contractors. All LCS and implementing partners will maintain dedicated project accounts to facilitate tracking of funds disbursed and utilized. Modalities for the procurement and payments of vendors and contractors will be specified in the PIM. Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process. The AWPB counterpart fund requirements shall be reflected in the Annual Development Programme and budget.
4. The flow of funds to implementing partners will be further elaborated in PIM and will be reflected in their contracts. Flow of funds will be based on the activities and expenses agreed in the MOUs & contracts signed between PMU and IPs. Based on MOUs and AWPB targets and phasing, PMU may provide initial one quarter advance to IPs. Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.
5. IPs will render quarterly financial statements of expenses and cash balance, to the District Offices and PMU. PMU Finance Manager will cause inspection of implementing partner accounts at least once every six months. Detailed financial management framework for PMU and IPs is provided in PIM.

78. **Internal Controls and Internal audit arrangements.**

1. The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project.
2. The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.
3. IFAD has zero tolerance towards fraudulent, corrupt, collusive, or coercive actions in projects financed through its loans and grants and LGED is bound to take steps to prevent, mitigate, and combat such action during project implementation. In addition to promoting general awareness of IFAD's Anti-Corruption Policy among all parties that are involved in project implementation, PMU shall ensure that all contracts for procurement of goods, works, and services include a provision requiring suppliers, contractors and consultants to (i) ensure compliance with IFAD's anticorruption policy and (ii) allow IFAD to inspect their accounts, records and other documents relating to the bid submission and contract performance, and to have them audited, if deemed necessary. Lastly, the project will promote good governance through the involvement of communities and beneficiaries in (i) the preparation of the annual work plans and budgets; (ii) the procurement process (at community level); and (iii) the monitoring and evaluation of project activities. PMU may encourage confidential reporting of improprieties to the PD or senior management in LGED under the existing policies and regulation.
4. There will be two Internal Audit Consultants specifically for the IFAD funded projects. The terms of reference should be submitted to IFAD for NO. This should include requirements to:

-
    - tailor the already developed internal audit charter and manual to LGED/project requirements,
    - develop the annual audit workplan,
    - conduct of internal audit activities and
    - include the reporting and monitoring mechanisms.
    - Collaborate with FAPAD and follow up on recommended actions of internal/external audit and missions.

1. Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.

79. **Accounting Systems and Financial Reporting mechanisms.**

1. Project accounting will be managed in accordance with IPSAS Cash basis of financial reporting. PMU, at the very start of the project, shall procure an appropriate accounting software to manage its accounts. For reference, IFAD funded projects in the LGED portfolio use TOMPRO. The accounting system will manage and track funds in accordance with source of funds, component allocations, spending entities and disbursement categories. Financial reports should be auto generated from the procured accounting software. There should be adequate integration of the districts, implementing partners, service providers, expenditures in the PMU accounting software. Relevant procedures to be identified in the PIM.
2. PMU will maintain a full set of supportive records including fixed Assets Register, an invoice register, a cash book, and a Contracts register. Necessary safeguards will be established and regularly reviewed to mitigate risks of fraud and to ensure faithful implementation of IFAD's anti-corruption policy.
3. PMU will be required to submit three types of financial reports to IFAD. Interim quarterly financial reports within 30 days of close of each quarter, indicating progress under each component and expenditure category, duly reconciled with the bank, and signed by Finance Manager and PD. Detailed unaudited financial reports for each financial year within four months of the close of the financial year. And finally, the audited Financial Statements within 6 months of the close of the financial year (end of December each year). Reports shall be compliant with IPSAS cash standards. Electronic filing and archiving will be required and documented in the PIM. The manual filing and archiving system will also be defined.

80. **External Audit**

1. The Foreign Aided Projects Audit Directorate (FAPAD) of OCAG will audit CRALEP as it has done for HILIP CALIP and PROVATI. FAPAD is a specialized arm of the Office of the Comptroller & Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh and entrusted to auditing the activities of all Development and Technical Assistance Projects and programs in the public sector funded by foreign aid. As a result of its only one of kind task of development project auditing, FAPAD provides independent assurance and report on the proper accounting of project resources to the National Parliament of Bangladesh as well as to the Development Partners also. The OCAG has adopted the Government's Auditing Standards of Bangladesh, which are based on the International Standards of Supreme Audit Institutions (ISSAIs). OCAG is a member of INTOSAI.
2. PMU will be guided by IFAD to: Engage with FAPAD for timely completion of audit.
    - Send scanned copies of the final audit report as soon the report is ready to ensure on-time submission to IFAD and to avoid delays resulting from mail services. Then the hard copy can follow to IFAD ICO in Dhaka.
    - Settle Audit observations within four (4) months after the Audit Report has been shared with project executing agency to ensure early resolution.
    - Ensure follow up meetings with the Auditors to settle any unsettled audit findings from previous years.
    - Ensure that NGOs and private organizations engage reputable and acceptable Chartered Accountant Firms

3.8 Procurement

1. The procurement procedures will adhere to consistently with the Bangladesh Public Procurement Rules (PPR, 2008) and relevant IFAD Procurement Guidelines and IFAD Procurement Handbook. Goods and works procurement will be conducted through the e-GP portal, which incorporates standard tender documents and procedures to mitigate procurement risks significantly. As the e-GP portal does not currently accommodate the procurement of consultancy services, the procurement of service contracts will be conducted manually in accordance with the PPR rules. IFAD will incorporate relevant thresholds in the Procurement Arrangement Letters (PAL) to necessitate provisions for Post or Prior review Contracts. Contracts subject to IFAD's prior review modality will seek IFAD's approval through an OPEN system, thereby mitigating the risks associated with prior review procurements to an acceptable level.
2. Negotiations shall not be held for Goods and Works Negotiations will exclusively occur for consulting services in compliance with national and IFAD procurement regulations.
3. SECAP requirements will be incorporated into the Bid Documents. Adherence is necessary to IFAD's Grievance Procedure and Project will incorporate any future developments pertaining to Procurement Management as they arise.
4. Regular updates on contract statuses will be conducted through the IFAD Client Portal (ICP). The Procurement Plan (PP) will serve as a monitoring and review tool. The project will be encouraged to consistently update and enhance the Procurement Plans (PP) within IFAD's OPEN System. Procurement activities will be methodically organized based on procurement categories (goods/works/services).
5. Comprehensive records of procurement processes for works and goods will be accessible through the e-GP Portal and supplemented by hard copies in relevant procurement files.
6. A Procurement Specialist will serve as the focal point, overseeing updates to the Procurement Plan in OPEN, managing contract status in the ICP, maintaining procurement file records, and facilitating coordination with field Executive Engineers and project management personnel.

3.9 Risks and Risk Management

1. **Country Fiduciary Risk:** The country's inherent fiduciary risk rating is "high". According to the 2023 CPI, Bangladesh scored of 24/100 and is ranked 149th out of 180 countries in terms of relative degree of corruption. Bangladesh declined from a score of 28 in 2017 to 26 in 2018 and maintained this score for four years until another decline by one point to 25 in 2022. 2021 PEFA assessment reveals some strengths of the PFM system around budgetary and planning processes, establishment of e-procurement systems and complaints management system. Key weakness in the PFM systems around include lack of credibility, transparency in budget preparation, shortcomings in the monitoring of budget execution and in external control, non-financial assets are not fully tracked, and the disposal of assets is reported for only for a few assets. There were also some weaknesses around internal and external audit and financial reporting.
2. Overall, FM inherent risk at design is high on the back of country, entity, and project specific risks. Mitigating measures would be enshrined in the loan covenants and in project financial management arrangements but are not adequate to reduce the residual risk at this time. We expect that the residual risks would become lower as soon as we assess the impact of the mitigating actions from the first supervision mission.
3. Actions introduced to mitigate risks and from lessons learnt from previous projects in the country include (1) start-up funds for prompt operationalization of the PMU and to ensure adequate & timely recruitment of staff; (2) complete AWPB and PIM, before disbursement, ensure PIM includes clear guidelines that adapt with the project design and activities; (3) procure an accounting software that meets the project needs at start-up phase; (4) implement internal audit function by supporting already established internal audit organ within LGED; (5) early coordination with FAPAD for timely delivery of the audit reports and timely settlement of audit findings. These actions will be included in the loan covenants and are described in more details in section B of this annex.

81. **Environment and Social category**

1. The Environmental and Social Risks is assessed "Moderate". The primary risk from infrastructure upgrades is degradation of wetland habitats and ecosystem services, which may affect local fish breeding grounds and shelters (habitats) and influence the availability of water and nutrients (ecosystem services). However, through the use of Exclusion Criteria, careful selection of project sites, and other measures these risks can be mitigated; temporary impacts during the construction phase (from soil disturbance, dust and noise) may occur and mitigation measures are proposed in the ESCMP.
2. Given the presence of Ethnic Minorities in project districts, an Ethnic Minority Implementation Framework has been prepared and the Ethnic Minority Plan will be developed and implemented at project start. The project will ensure equitable benefits across communities. Given the nature of the project activities, there is generally a low risk of negative impacts on access to resources by Ethnic Minorities or adverse effects on land ownership, particularly as the project does not involve any land acquisition.
3. The project's physical interventions may be located close to sites of cultural, traditional or religious value, for example graveyards. However, since sites are selected together with communities vis-à-vis Participatory Rural Appraisal (PRA) processes, risks to tangible cultural heritage will be avoided. The project may involve intangible cultural heritage through vocational training and livelihood interventions related to handicrafts (for e.g., crafts produced from vetiver grass). However, there is a low risk of exploitation, and the project will work only with partners that have previous experience in carrying out activities in similar settings. A Chance Finds Procedure has been included to deal with any unexpected findings.
4. Risks related to labour, working conditions, and community health and safety are also assessed as Moderate. The influx of workers is expected to be limited (small in number, temporary and short-term) since the project also aims to create local employment through Labour Contracting Societies (LCS). Occupational Health and Safety (OHS) risks for workers and for local people may arise during infrastructure development, relating to the use of machinery and the execution of groundworks, exposure to high or extreme temperatures. There is a longstanding history in Bangladesh in the use of LCS, including best practices and lessons learned, to ensure appropriate labour and working conditions for LCS members, including the mandatory use of safety gear and accident / life insurance.

82. **Climate Risk classification**

1. The climate risk is assessed as Substantial; as a result, a Targeted Adaptation Assessment has been prepared. Haor and High Barind regions are both two of the six climate hotspots of Bangladesh, as identified under the analysis performed for the Bangladesh Delta Plan 2100.
2. The project areas are at the risk of similar climate impacts: changes in the intensity or frequency of precipitation resulting in extreme rainfall, droughts, and delayed onset or withdrawal of monsoons; cyclones, with higher intensity of rainfall and gusts; increased number of storms and lighting strikes; increased maximum / minimum temperatures in the summer, and heatwaves; winter cold spells; and increased frequency and intensity of river floods and flash floods. However, the main climate risk in Haor is identified as flash floods / floods, which is associated with higher peak river discharge, wave action and strong water currents; drought is the main climate risk for High Barind, which is exacerbated by falling groundwater levels.
3. There is significant exposure of livelihoods and household assets to climate change. In Haor, where villages are built on elevated land, wave action and erosion owing to flooding damages homes and agricultural land (standing crops, harvested grains). In both areas, rice is the main agricultural crop and it is highly vulnerable to droughts and floods. Vulnerability of populations in the target region are linked to high levels of poverty, and seasonal food insecurity; as a result, stunting levels remain high in Haor. While populations have engaged in autonomous and/or government-supported (with donor investments) adaptation actions, these are far from adequate given climate finance needs. In such a context, improved access to markets, diversification of livelihoods, climate-proofing of infrastructure and livelihood assets, time and relevant early warning and climate information services are all important adaptation actions.
4. The project is not assessed as contributing significantly to GHG emissions, and no EX-ACT (Ex-Ante Carbon balance tool) calculations were performed. That is, while the project uses materials such as cement that have embedded GHG emissions, this is not significant in nature; Nature-based Solutions in Haor (new bamboo and vetiver nurseries) could plausibly have carbon sequestration co-benefits.

3.10 Implementation Readiness

1. Activities between design and approval of DPP. LGED will prepare the Development Project Pro-forma (DPP), the government project document, as per the PDR for approval in the Executive Committee of the National Economic Council (ECNEC). One important activity is to identify all markets and roads for development to include in the DPP. The villages for internal services and village protection will also be preliminarily identified but not included in the DPP. The DPP approval takes several months as it goes through review in LGED, the Planning Commission and finally presented in the ECNEC.
2. Prior to project start-up. Several critical steps are important before the project can be launched: 1) appointment of the Project Director by the Ministry of Local Government and Cooperatives (MoLG&C). 2) opening bank accounts for fund transfer (only the PD can do this); 3) deputization of key LGED officials to the project include accounts officer; and 4) allocation of office spaces within LGED HQ.
3. Project Start-up activities. The key activities of the initial months are: a) recruitment of key officials as stipulated in the PDR and field staff members; b) setting up of accounting and financial management system; c) procurement and implementation of initial activities as in the AWPB and procurement plan; d) start-up workshop involving LGED's District and Upazila Engineers and project field staff members and all partners; e) Orientation training of all PMU staff members on project implementation activities, including SECAP; and f) Setting up of MIS and M&E system and carrying out the baseline survey.
4. Initial activities. As per plan, start implementing activities planned for the first year of the project.

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 1: Key Files

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Annex 1: Key Files

Table 1: Priority area and actions needed

Priority Area	Affected groups	Major issues	Actions needed
Rural poverty and food insecurity	• Rural poor • Agricultural and non-agricultural labourers • Artisans • Marginal and smallholder farmers • Microentrepreneurs • Fishing communities • Agricultural producers • Non-agricultural producers • Traders • Poor young men and women	• At the national level poverty and extreme poverty head count rates (HCR) is 5.6% and 18.7% respectively (HIES 2022). • The economy and food security is still dependent of agriculture: about 40% of total employment is in agriculture. • Limited climate resilient infrastructure in climate change vulnerable areas, access to affordable extension and business services and access to market and market information, and drought and excessive rains plays important roles during agricultural production[1] • In the rural areas of Bangladesh 53.06% households were kacha, followed by the semi-pacca (31.95%). • 97.43% of rural households use tubewell (deep/shallow/submergible) water. • Farm and off-farm wage laborers face limited earning opportunities, with women particularly vulnerable due to restricted mobility and socio-cultural barriers. • The COVID-19 pandemic deteriorated the poverty situation, especially in the haor wetlands, the coastal deltas, riverine flood plains and the accretive landforms known as chars, where millions of poor families live. • Poor road communication limits access to basic services and wage-earning opportunities for the poor. • Limited off-farm earning opportunities for the poor.	• Improvement of communication network such as village roads including submersible roads and boat landing ghats for access to markets, social services and outside employment opportunities. • Construction of walkways, and establishment of sanitation and safe water services in Haor. • *Killas* for storage and shelter. • Development of low-cost village protection in shallow Haor to protect the villages threatened by wave action and river erosion. • Poor men and women to be employed as LCS members during construction of the infrastructures. • Vocational training for poor young men and women Micro-entrepreneurship training for women and poor. • Sustainable LCS development through family-based income generating program (GALS) for LCS members.

[1] People's Republic of Bangladesh Country strategic opportunities programme, IFAD, 2022

Priority Area	Affected groups	Major issues	Actions needed
Climate vulnerability	• All people are affected by the heat and rising temperature / high humidity. • People reside in disaster-prone areas affected by floods, cyclones, and other natural calamities. • HHs in Haor region is specifically vulnerable from floods, flash floods, wave action. • Poor HHs in Barind region is affected by heat wave, drought and fall of water level. • Women, children, persons with disability, and marginalized people are more vulnerable due to their poor housing structure, limited access to resources and information.	• Annual floods erode village in Haor. • May and June 2022, two consecutive waves of flood in haor region of north-eastern Bangladesh directly and indirectly affected 7.2 million people. 3.6 million of them were women and girls.[2] • Increasing frequency and intensity of droughts and floods contributes to high vulnerability of livelihoods. • Climate change poses real threat to the poor households as it increases the risk of early floods and increase in rainfall. • Inadequate shelter for humans and livestock during disasters. • Marginal and small farmers reliant on seasonal paddy cultivation suffer losses from early flash floods and encounter transportation difficulties due to inadequate communication infrastructure. • In the haor areas pre-monsoon floods affect the harvesting and storing boro rice, causing loss of food, income and employment and resulting in increased poverty, food insecurity, malnutrition and outmigration. • Droughts have severe and far-reaching effects on water resources, agriculture, ecology, and population health. • Groundwater depletion and recurring droughts significantly impact the agro-based economy and livelihoods annually, leading to poverty and food insecurity. • Drought leads landowners to switch to mechanized fruit cultivation, leading to job loss for poor agricultural laborers. • Poor WASH facilities that affect the women and girls' health, hygiene practices.	• Improvement of communication network such as village roads including submersible roads and boat landing ghats for access to markets, social services and outside employment opportunities. • Development of low-cost village protection in SHALLOW Haor to protect the villages threatened by wave action and river erosion. • Early warning system for early monsoon flash floods and droughts. • Diversification of livelihoods, especially in non-farm sectors. • Collaboration with other projects such as CDRSWRMP, RMTP and FAST (proposed).
Youth employment	• Young men and women • Households with young men and women	• Approximately 41% of youth in Bangladesh are inactive[3] (e.g not engaged in education, employment, or training). The rate has resulted of underemployment is significantly higher among girls (61.71%) compared to boys (18.59%).The early marriage of girls, lack of necessary job skills, inadequate education, insufficient employment opportunities, and poor social conditions are the causes of these. • Youth are underrepresented in the decision-making process. Only 0.29% of the current parliamentary representation is below 30 years of age and 5.71% is below 40 years of age[4].	• Vocational training for poor young men and women. • Micro-entrepreneurship training for women and poor. • Development of sustainable income generating activities for LCS members. • Number of job/business opportunity created for young men and women. • Financial literacy and access to financial market.

[2] UN Women, Rapid Gender Analysis of Flood Situation in North and North-Eastern Bangladesh, June 2022

[3] Bangladesh Bureau of Statistics, Bangladesh Sample Vital Statistics Report of 2022. Please note that while Bangladesh's National Youth Policy 2017 defines youth as aged between 18-35 years of age, BBS uses the age range of 15-24 years to determine the rate of inactive youth.

[4] Inter-Parliamentary Union (IPU) https://www.ipu.org/impact/youth-participation

Priority Area	Affected groups	Major issues	Actions needed
Riverbank erosion and environmental degradation	• Marginal and smallholder farmers • Microentrepreneurs • Fishing communities • Agricultural and non-agricultural producers, • Traders	• Riverbank erosion along the main rivers destroys land, assets and infrastructure, and as a consequence poses a threat to people's lives, assets and livelihoods. Uncertainty in the face of frequent floods and riverbank erosion prevents investment in infrastructure, higher value agriculture and small business. As such, poverty is higher in riverine districts. • Riverbank erosion worsening adverse effects of flash floods, the riverbank erosion itself is caused by the braided character of the rivers, which is exacerbated by excessive rainfall, particularly upstream, and increased water flow. • Only 21% water demand is met by surface water and only 15% of the total surface water is available in Bangladesh in the dry season.[5] • Groundwater abstraction is at constraint due to salinity intrusion and arsenic contamination. • Water tables fall during dry season, because extensive water withdrawals and discharge to the rivers deplete the aquifers. Pre-monsoon periods (April to May) have the deepest groundwater tables and post monsoon periods (November) have the shallowest water tables.	- Low cost village protection for HHs in Haor area. - No direct activity is proposed for river bank erosion as it is beyond the mandate of LGED. It is the mandate of BWDB. - No direct activity is proposed to reduce fall in water table in Barind area. Another GOB project is targeting this issue.
Early warning and climate information	• Farmers • Microentrepreneurs • Fishing communities • Agricultural and non-agricultural producers • Traders • Population in general	• The Flash Flood Early Warning System (FFEWS) was improved under the HILIP-CALIP. • The pre-monsoon flash flood forecasting models provided a 10 day 'no-flash flood' forecast that was also useful for farmers as they need not hurry about harvest and mobilizing labor. It has been noted that flood warnings complement other project interventions such as road networks and *killa* construction to reduce risks and save farmers' harvest. Lead time for forecasts can be improved. • Drought forecasting and dissemination systems in Barind need to be improved.	• Improve early warning system for pre-monsoon flash floods. IFAD funded HILIP-CALIP developed early flood warning system for Haor which will be further improved under CRALEP. • Agrometeorological forecast of Bangladesh Met Department will be customized for drought and heat wave early warning. • Dissemination of both warning will be improved.

[5] Bangladesh National Conservation Strategy

Priority Area	Affected groups	Major issues	Actions needed
Water and sanitation	• Women, girls • Children	• Scarcity of safe drinking water and water for domestic use due to reduced ground water level and contaminated water because of floods and rainfall. • Negative impacts on human health and increased work burden of women's and girls to collect water from distant places. • Poor sanitation associated with poor hygiene behaviours, which are usually exacerbated during the period of seasonal flooding and result in the notably high incidence of water-borne diseases in the Haor region, especially among poor households. • Poor WATSAN access is associated with poor nutrition and health outcomes for mothers and children under five years of age.	• Install tube wells and construct toilet blocks in Haor villages. • Install tube-wells in Barind villages, where needed. • A comprehensive awareness program targeting hygiene, sanitation, climate-resilient practices, and menstrual hygiene eliminate unsanitary defecation practices of rural communities through LCS groups.

Priority Area	Affected groups	Major issues	Actions needed
Gender equality	• Women and men producers • Youth in production • Youth in off farm jobs • PWDs • FHHs • Women and men casual workers in agricultural and non-agricultural sectors	• Although progress has been made on gender equality, much remains to be done to improve women's economic capabilities and opportunities. Women constitute about 49 per cent of the most disadvantaged and vulnerable population segment. • Around 60 per cent of the employed women were engaged in agriculture[6]. Employment opportunities for women are extremely limited: rural female labour force participation rate is 38.6 per cent compared to 80.3 per cent for men[7]. • Lack of gender disaggregated data. • Few women and youth in dairy production. • Often women underrepresented in decision-making process at HH and community level. Women may also have poorer access to climate information; early warning is likely to be more accessible when warnings are through public information systems (announcement through mosques, radios, etc.). • Heavy workload for women at HH levels, they are mostly employed in informal sectors. • Limited access to water (domain of women) and places additional burdens on women's time use / increases physical exertion in times of water scarcity or poor water quality. • Lack of gender and PWD responsive infrastructure.	• Employment creation for the poor and young women and men in the agricultural and non-agricultural sectors • Vocational training for young men and women; micro entrepreneurship development • Organize poor women and men into labor contracting societies (LCS), who receive training on construction management • Diversified wage and self-employment opportunities for young men and women and members of the LCS • Provide technical and entrepreneurship training for poor young men and women (age between 18 and 35) for wage employment as well as starting their own businesses. • Women representation at the rural organization like market management committee. • Ensuring equitable workloads at household level. • Enabling environment for women and girl to raise their voice at community development like selection of infrastructural development process. • Financial services through IFAD-supported Partner Organizations (POs).

[6] 8th Five Year Plan July 2020-June 2025, General Economic Division, Bangladesh Planning Commission, December 2020.
[7] Gender based employment and wage, 2021, Bangladesh Bureau of Statistics.

Priority Area	Affected groups	Major issues	Actions needed
Ethnic Minorities	The Santal, Orao, Munda, Mahali, Murari, and Pahan populations	• Predominantly comprised of landless people who rely on agricultural day labour works. • Facing increasing hardships due to the mechanization of agricultural work and the ethnic minorities are reluctant to engage with it due to the associated health risks. • Rely on ponds and other surface water sources for domestic water, including drinking, cooking, dishwashing, bathing, cleaning, and managing livestock. • No alternative livelihoods. • Although ethnic minorities are used to drawing on traditional environmental knowledge to understand and manage weather events, the rapid pace of climate change limits the relevance and applicability of past observations.	• Free, Prior, and Informed Consent (FPIC) should be obtained and consultations should underpin all the project's actions, ensuring that the specificities of the different peoples and ethnic groups to be served are considered. • Employment creation for the poor and young ethnic women and men in the agricultural and non-agricultural sectors. • Vocational training for young men and women; micro entrepreneurship development. • Organize poor women and men into labor contracting societies (LCS), who receive training on construction management. • Diversified wage and self-employment opportunities for young ethnic men and women and members of the LCS. • Holding meetings and exchanges between ethnic minorities and other traditional communities on topics of common interest, with a focus on valuing the unique cultural identities of these communities. • Creating awareness on government safety net program. • Early warning and climate information services should, by design, be participatory and consider how traditional knowledge can complement and strengthen advisories.

Key File Table 2: Organisation Capabilities Matrix

Organisation	Strengths	Weaknesses	Opportunities	Threats
Local Government Engineering Department (LGED)	• LGED has its own staff technical and managerial in the district and Upazila (Sub-district) to deal with the multiple projects. • Capable of implementing micro to mega rural infrastructure. • Long experience of working collaboratively with the local government bodies. • Flexible approach and pioneer to use of LCS in different activities. • Proven efficient management to implement the rural infrastructure.	• Centralized management by head office in Dhaka, decentralized management is underway by phasing. • Deals with a large number of projects which stretches management, resources and quality control.	• To utilize its capacity for developing remote and backward areas like Haor & Barendra region.	• Timely completion. • Ensure quality to the desired level. • Overlapping with other projects.
Ministry of Land (MoL)	• There is a clear policy of allowing other institutions to use its land for development purposes	• Even after agreement with MoL, gaining actual possession may take some time to evacuate unauthorised occupation and may require legal action.	• MoL is represented at the local level by the district and upazila administration which provides easy access for decision making. • Local administration is involved with the Market Management Committee and leasing process, It helps to accelerate development.	• Resistance by the elite unauthorised occupants.
Local government (Upazila and Union Parishad)	• Local representatives of UZ and UP are available instantly who are responsible for delivering several government services. • Regulatory, justice and disaster management functions. • Their capacity has been strengthened by different programs in assistance with the World Bank LGSP and the SDC Sharik.	• Limited financial resources. • Elections are often on political grounds relocating the activities. • Are not pro-poor oriented. • UP standing committees are mostly inactive. • Occasional conflict between public representatives and administration sometimes hamper work spirit.	• Partnership with UPs provides legitimacy for Project livelihood and natural resource activities. • Involvement of local organizations helps to enlist local support for the project. • Growing UP resources' supplements project expenditure • New law requiring ward level planning meetings will help build genuine local participation. • Opportunity to outsource some of the social mobility and infrastructure maintenance.	• Political involvement beyond the law. • Conflict with the political opposition and its consequent interference

Key File Table 3: Complementary Donor Initiative/Partnership Potential in the proposed area				
Donor/Agency	**Nature of Project/Programme**	**Project/Programme Coverage**	**Status**	**Complementarity/Synergy Potential**
		Haor Region		
ADB, IFAD Loan and Grants from Government of Netherlands/ LGED	Adapting climate change and disaster; Cooperative based Surface water promotion for <1000 hectors for integrated crops and fisheries productions. Thus, generating rural employment, reduce rural poverty and reduce malnutrition of rural people.	Climate vulnerable 42 districts selected from four hotspots of delta plan-2100.	Project started. Duration August /2023 to June/2029.	Develop 150 no's registered farmers institutions named "Water Management Cooperative Association" (WMCA) (2) Strengthen institutional capacity of 231 no existing WMCA.
IFAD/ LGED(HILIP)	Haor Infrastructure and Livelihood Improvement Project (HILIP) including Climate Adaptation and Livelihood Protection (CALIP)- Communication and community infrastructures, livelihood protection, capacity enhancement and knowledge sharing.	28 Upazilas in five districts: Sunamganj, Habiganj, Netrokona, Brahmanbaria, and Kishoreganj	Completed (December-2023)	1. Women Empowerment 2. Skilled Manpower by LCS 3. Improvement of potable drinking water facilities and and sanitation facilities improve living standards and reduce vulnerability of the poor
JICA/ LGED(HFMLIP)	Haor Flood Management and Livelihood Improvement Project (HFMLIP)- Rural Infrastructure Development and Fishery Promotion	Five districts mainly in haor districts: Sunamganj, Habiganj, Netrokona, Brahmanbaria, and Kishoreganj	Completed (June-2024)	reduce the crop damages from flood, improve access to basic infrastructure and increase fishery productivity by: Rehabilitating and constructing the rural infrastructures, Fishery promotion activities in the haor areas, Improvement of living standard and activation of economic activities in the Haor area.
JICA (HFMLIP) Phase - 2	Haor Flood Management and Livelihood Improvement Project (HFMLIP)- Rural Infrastructure Development and Fishery Promotion	Twenty-six Upazila in six districts mainly in haor districts: Sunamganj, Habiganj, Sylhet, Netrokona, Moulovi Bazar and Kishoreganj	In the stage of project preparation (Proposed to JICA for financing. JICA provided consent for funding. Initial discussion going on.)	To reduce the crop damages from flood, improve access to basic infrastructure and increase fishery productivity by: Rehabilitating and constructing the rural infrastructures, Fishery promotion activities in the haor areas, Improvement of living standard and activation of economic activities in the Haor area.
IsDB/LGED	Rural Access Road Improvement Project in Sylhet Division (RARIP) Contribute to the Government's efforts in reducing poverty by improving rural accessibility as well as strengthening rural market management infrastructure in Sylhet Division	Sylhet, Sunamganj, Habiganj, Moulvibazar	Ongoing (to be completed by June 2024)	PDPP for the follow up phase of the project is being prepared. The follow up project will complement the initial project.

IDA, World Bank (RTIP-II AF)	The Second Rural Transport Improvement Project (RTIP-II)-Additional Financing-rural infrastructure including roads and markets.	implemented in 18 districts of Bangladesh	Completed (December-2022)	improving rural accessibility for creating conducive environment for economic growth and poverty alleviation and strengthening institutional capacity of LGED
IDA, World Bank (SupRB)	replacement, capacity expansion, rehabilitation and maintenance of existing rural bridges on Upazila Roads (UZR) and Union Roads (UNR)	in 63 districts (except 3 hilly districts)	Ongoing	preserve rural bridges to support connectivity and climate resiliency
JICA/ LGED(SSWRDP-2)	Water and agricultural sectors- to increase crop production and accelerating agricultural growth by constructing submergible dam, sluice gate, rubber dam, and further expansion of irrigation	in 29 districts of 4 divisions (Dhaka, Sylhet, Mymensingh and Rangpur)	Ongoing	Creation of employment opportunities by increased and intensive agricultural activities through rural roads that allow farmers and their products to market
JICA (NOBIDEP)	rural and urban infrastructures and services, and improvement of urban governance in Pourashava	14 Districts of northern region of Bangladesh	Completed (June-2021)	improving rural accessibility for creating conducive environment for economic growth and poverty alleviation
Barind Region				
IDA, World Bank (SupRB)	Replacement, capacity expansion, rehabilitation and maintenance of existing rural bridges on Upazila Roads (UZR) and Union Roads (UNR)	in 63 districts (except 3 hilly districts)	Ongoing	preserve rural bridges to support connectivity and climate resiliency
World Bank / LGD (with Danida, UNDP, UNCDF, EU)	Local Governance Support Programme (LGSP) – support UP local government via block grants and capacity building	National – now reaching all 4,498 UPs	On going and New phase being planned	Almost all Unions in Baraendra are, or will, be covered by LGSP. Baraendra will benefit from the UP-management systems established by LGSP.
ADP / GOB	Rural Connectivity Improvement Projects (RCIP). Block grant to UPs for road maintenance works plus other capacity building.	34 districts in Bangladesh	Current phase ends in June 2025 Additional Finance phase being Ongoing	Improving rural connectivity (Upazila to Union Parishad) for creating conducive environment for economic growth and poverty alleviation and strengthening institutional capacity of LGED
JICA (SSWRDP-2)	Water and agricultural sectors- to increase crop production and accelerating agricultural growth by constructing submergible dam, sluice gate, rubber dam, and further expansion of irrigation	Climate vulnerable 42 districts selected from four hotspots of delta plan-2100.	Project started. Duration August /2023 to June/2029.	Develop 150 no's registered farmers institutions named "Water Management Cooperative Association" (WMCA) (2) Strengthen institutional capacity of 231 no existing WMCA.
JICA/ LGED(SSWRDP-2)	Water and agricultural sectors- to increase crop production and accelerating agricultural growth by constructing submergible dam, sluice gate, rubber dam, and further expansion of irrigation	in 29 districts of 4 divisions (Dhaka, Sylhet, Mymensingh and **Rangpur**)	Ongoing	Creation of employment opportunities by increased and intensive agricultural activities through rural roads that allow farmers and their products to market

Key File Table 1: Target group typology, priority needs and potential response

Typology	Poverty level and causes	Coping strategies	Priority needs	Support from other programs	Potential response
• Poor farm and off-farm wage labourers	• Chronic (year-round) food shortage. Only 1 or 2 meals per day • Mostly below poverty line • Rely on casual labour for main income – seasonal shortage of work • Many hhs are female headed • Men and women from Ethnic Minory groups • Little or no access to NGO credit • No cultivable land at all, and many do not own a homestead – so lack space for IGAs • Minimal assets such as livestock – some have some poultry • Chronic debt • Poor quality housing and water & sanitation	• Search for temporary employment and accommodation • Seasonally migrate to other districts to find menial work • Daily wage labour • Domestic service for women – minimal pay • Poorest scavenge food, fuel and fish • Sell possessions at time of hardship • Some access GoB safety nets • Some share-rear cattle • Some fish – but lack access to fishing grounds • Advance sale of labour and crops	• Need external assistance to overcome any crisis. • Employment in construction and maintenance works. • Limited self-employment. • Food assistance. • Resilient homestead - limited scope for training if temporary residence. • Health, nutrition support. • Access to land and water resources. • Access to WASH facilities. • Family-based income generating program (GALS).	• Support by IFAD and other donor funded projects for access to micro enterprise and livelihoods training. • Government social safety net program.	• Employment opportunities for women in LCS followed by support for IGAs. • Improved infrastructure will increase local employment and income-generating opportunities. • Improved targeting of government's safety net programmes.
• Small and marginal farmers	• Own up to 2.5 acres of agricultural land • Loss of yield due to early flash flood. Falling groundwater levels and droughts result in crop loss • Hard for them to bring the products from field due to absence of within village roads • Limited access to agricultural inputs due to poor communication	• Work as sharecropper • Migrate seasonally • Take loan from microfinance NGOs	• Need external assistance to overcome any crisis. • Employment. • Access to land and water resources. • Access to MFIs. • Health, nutrition support. • Access to WASH facilities.	• Support by other government and other donor funded projects.	• Improved infrastructure will increase local employment and income-generating opportunities.

Typology	Poverty level and causes	Coping strategies	Priority needs	Support from other programs	Potential response
• Fishermen	• Chronic (year-round) food shortage. Only 1 or 2 meals per day • Rely on fishing in the leased water bodies as wage labor. Seasonal shortage of work in Haor areas. Fishermen in Barind areas catch fish in pond and some surface water • Livelihood is extremely vulnerable as lack of fish in the water bodies comparing past time due to siltation and other environmental and manmade reasons	• Some fish – own boats and nets • Migrate seasonally • Take loan from money lenders • Limited access to micro credit	• Need external assistance to overcome any crisis. • Access to water resources. • Alternative livelihoods support. • Access to MFIs. • Health, nutrition support. • Access to WASH facilities.	• Support by other NGOs for livelihood diversification.	• Improved infrastructure will increase local employment opportunities.
• Small producers, traders and microentrepreneurs	• Some male and female groups produce handicrafts with bamboo, cane, murta but receive lower prices due to the poor infrastructure and high transport cost • No shed for women and men to sit with their products in local markets • Input suppliers, vegetable/fish sellers, vendors and the shopkeepers face difficulties to run their business due to poor communication system, no or lack of market to sit with the products	• Take loan form MFIs • Use own network to sell the products	• Need external assistance to overcome any crisis. • Improved infrastructure and road communication. • Access to basic services and agricultural extension services. • Access to micro credit.	• Government and donor funded programs and projetcs to promote their business and access to MFIs.	• Improved infrastructure will increase local employment and income-generating opportunities.
• Young men and women	• Poor young men and women have limited access to employment at local level • Food insecurity year round, recurring Monga (hungry) season • Low level of education • Poor WASH facilities and poor hygiene practice	• Informal wage labour works • Some receive vocational and other IGA training from NGOs and work at local level • Some migrate to work in garments and other sectors	• Vocational training based on market demand at local, national and international level. • IGA training. • Awareness on WASH and hygiene. • Family-based income generating program (GALS).	• Support by donor and government funded projects on vocational training and other IGA.	• Improved infrastructure will increase local employment and income-generating opportunities.

Typology	Poverty level and causes	Coping strategies	Priority needs	Support from other programs	Potential response
• Ethnic minorities	• Men and women from Ethnic Minory groups • Mostly below poverty line • Rely on casual labour for main income – seasonal shortage of work • Minimal assets such as livestock – some have some poultry • Little or no access to credit • Food insecurity year round, recurring Monga (hungry) season • Low level of education • Poor WASH facilities and poor hygiene practice • Limited resource right, and less access to health facilities.	• Daily wage labour • Seasonla migration and temporary employment. • Domestic service for women. • Microfinance from service providers or NGOs. • Handcrafts and small enterprise.	• Education, Health, nutrition support. • Access to land and water resources. • Access to WASH facilities. • Family-based income generating program (GALS). • Vocational training and job placement. • IGA training. • Access to financial services.	• Support by IFAD and other donor funded projects for access to local markets, communication, vocational trainings, and micro enterprise. • Support by other NGOs for livelihood diversification. • Government social safety net program.	• Improved infrastructure will increase local employment and income-generating opportunities. • Improved targeting of government's safety net programmes.

Table 2: Project actors and roles (key file table 5)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
Component 1: Climate proofed village road connectivity and market improvement	Construction of village roads (submergible and all weather roads); construction of rural markets; construction of boat landing platform (ghat)	LGED and its District and Upazila offices.	Roads and ghats will be constructed by private contractors as per GOB procedures. Markets will be constructed by LCS groups formed by the project.	
Component 2: Village services for resilient community in Haor area	Village internal services (walk ways, water and sanitation,)	LGED and its District and Upazila offices.	Roads and ghats will be constructed by private contractors as per GOB procedures.	
	Killa for temporary storage of harvests and shelter	LGED and its District and Upazila offices.	Roads and ghats will be constructed by private contractors as per GOB procedures.	

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
	Low-cost nature-based village protection system in **Shallow Haor** (VPS)	LGED and its District and Upazila offices.	Roads and ghats will be constructed by private contractors as per GOB procedures. Vetiver grass will be produced by poor women within villages; Bamboo will be grown by poor families. VPS construction will also include poor men and women.	Bangladesh Forest Research Institute (BFRI) will be technical partner of the project to train project staff, LCS members, contractors, and private businesses on simple bamboo treatment for low-cost VPS building. Besides, BFRI will also provide bamboo production techniques using bamboo branches.
Component 3: Livelihoods diversification and resilience	Vocational training for employment creation for youth	LGED and its District and Upazila offices.	Training will be provided by NGOs, GOB training centres, and private training providers.	
	Entrepreneurship training for youth	LGED and its District and Upazila offices.	Training will be provided by NGOs, GOB training centres.	
	Sustainable Livelihoods for LCS members	LGED and its District and Upazila offices.	Training will be provided by NGOs.	
Component 4: Capacity development, climate information services, and innovation	Capacity building of CReLIC	LGED and CReLIC		
	FFEWS in Haor for community resilience	LGED	Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and technology (BUET)	Bangladesh Water Development Board
	Drought forecasting in Barind	LGED	Bangladesh Meteorological Department (BMD)	-
	Innovation in construction and livelihoods diversification	LGED	Bangladesh University of Engineering and Technology (BUET)	-
	Policy and dissemination	LGED	-	-

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 2: Logframe

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Climate Resilience and Livelihood Enhancement Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach Project outreach in terms of beneficiaries receiving project services and corresponding households and HHs members	1 Persons receiving services promoted or supported by the project				MIS/MES	semester/annual	LGED	4.3 members in average per household. National average distribution for female and young people.
	Males (number)	0	201124	670413				
	Females (number)	0	201124	670413				
	Young (number)	0	281573	938578				
	Not Young (number)							
	Non-Indigenous people (number)							
	Total number of persons receiving services (number)	0	402248	1340826				
	1.a Corresponding number of households reached				MIS/MES	semester/annual	LGED	
	Women-headed households (number)	0	14032	46773				
	Non-women-headed households (number)	0	79514	265047				
	Households (number)	0	93546	311820				
	1.b Estimated corresponding total number of households members				MIS/MES	semester/Annual	LGED	
	Household members (number)	0	402248	1340826				
Project Goal To significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought-prone High Barind regions.	HHs reporting increase in income				COI HH survey	BL, MT, End	LGED	
	Percentage of households (%)	0	5	15				
	HHs reporting improvement in household assets				HH survey - FAO FIES methodology (to be added to COI	BL, MTR/PCR	LGED	
	Households (%)	0	5	15				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective To strengthen community resilience and well-being of particularly youth population with climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services.	2.2.1 Persons with new jobs/employment opportunities				COI HH survey	BL, MT, PCR	LGED	
	Males (number)	0	5760	14400				
	Females (number)	0	2400	6000				
	Young (number)	0	8160	20400				
	Total number of persons with new jobs/employment opportunities (number)	0	8160	20400				
	SF.2.1 Households satisfied with project-supported services							
	Household members (number)		321798	1072661				
	Households (%)		24	80				
	Households (number)		74837	249456				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers							
	Household members (number)		60604	202014				
	Women-headed households (number)		1409	4698				
	Households (%)		5	15				
	Households (number)		14094	46980				
	% of Households increase the Ability to Recover from Shocks (ATR) - Resilience Capacity				COI HH survey	BL, MT, End	LGED	
	Increase ATR (%) (%)		40	80				
Outcome Outcome 1: Increased market accessibility, improved livelihood options, and expanded access to social services for community members.	2.2.6 Households reporting improved physical access to markets, processing and storage facilities							4.3 members in average per household. National average distribution for female and young people.
	Households reporting improved physical access to markets (%)		11	35				
	Size of households (number)		141565	471882				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households reporting improved physical access to markets (number)		32922	109740				
	Total households reporting improved physical access (number)		32922	109740				
Output Output 1: Climate resilient village road connectivity and market improvement	2.1.5 Roads constructed, rehabilitated or upgraded				MIS/MES	semester/annual	LGED	
	Length of roads (km)	0	100	334				
	2.1.6 Market, processing or storage facilities constructed or rehabilitated							
	Total number of facilities (number)		34	58				
	Number of boat landing ghats constructed				MES/MIS	semester/annual	LGED	
	Number (number)	0	17	34				
Outcome Outcome 2: Improved village connectivity, living conditions, and resilience against wave action and severe weather events.	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI Outcome survey	BL, MTR, PCR	LGED	
	Total number of household members (number)		77400	258000				
	Households (%)		6	19				
	Households (number)	0	18000	60000				
	1.2.3 Households reporting reduced water shortage vis-à-vis production needs							
	Households (%)		6	19				
	Households (number)		18000	60000				
	Total number of household members (number)		77400	258000				
Output Output 2:Village services for resilient community in Haor area	Villages supported with walkways constructed, sanitation and safe water projects implemented				MES	semester/annual	LGED	
	Number of villages (number)	0	72	240				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Number of tube wells installed (number)	0	216	720				
	Number of toilet block built (number)	0	144	480				
	Paved walkways constructed (km) (number)	0	22	72				
	Storage and shelter facilities constructed (Killas)				MES	semester/annual	LGED	
	Number of Killas constructed (number)	0	22	72				
	VPS implemented in shallow Haor							
	Number of VPS implemented (number)	0	84	280				
Outcome Outcome 3: Diversified wage and self-employment opportunities for young men and women and members of the LCS	Households reporting improved diversification in their income				COI HH survey	BL, MT, End	LGED	
	Households reporting improved income diversification (%) (%)	0	5	15				
	Household members reporting improved income diversification (number)	0	60604	202014				
	Total no. of households reporting improved income diversification (number)	0	14094	46980				
Output Output 3: Diversification of livelihoods	Young people received vocational training for employment creation				MES	semester/annual	LGED	
	Young men trained (number)		7200	24000				
	Young women trained (number)		3000	10000				
	Total young people trained (number)		10200	34000				
	Young people trained in entrepreneurship				MES	semester/annual	LGED	

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Young men trained in entrepreneurship (number)		2100	7000				
	Young women trained in entrepreneurship (number)		900	3000				
	Total young people trained in entrepreneurship (number)		3000	10000				
	LCS members trained on family-based income generating program				MES	semester/annual	LGED	
	Men (number)		179	596				
	Women (number)		715	2384				
	Total LCS members trained on IGAs (number)		894	2980				
Outcome Outcome 4: Strengthened capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies	Number of innovative technologies disseminated							Persons provided with climate information: One person per household. 85% female head household and 40% young people.
	Number of innovative technologies disseminated (number)	0	1	5				
Output Output 4: Capacity building, weather services and innovation	Number of LGED staffs trained on Climate Change, Climate resilient infrastructure, project evaluation etc.				MES			
	Men (number)	0	42	140				
	Women (number)	0	18	60				
	Total person trained (#) (number)	0	60	200				
	3.1.2 Persons provided with climate information services							
	Males (number)	0	80922	265047				
	Females (number)	0	14280	46773				
	Young (number)		38081	124728				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Persons provided with climate information services (number)	0	95202	311820				
	Flesh Flood Early Warning System (FFEWS) and drought system developed							
	Number (number)	0	1	1				
	Drought warning and dissemination system developed							
	Number (number)	0	1	1				
	Number of innovative technologies tested/piloted							
	Number (number)	0	2	5				
	Policy 1 Policy-relevant knowledge products completed							
	Number (number)		1	5				

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 3: Project Cost and Financing

Mission Dates:	19 to 30 May 2024
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Asia and the Pacific Division
Programme Management Department

Annex 3: Project Cost and Financing

1. This annex presents the project cost tables developed using the COSTAB programme. All the unit costs are based on 2024 prices. The other assumptions used are listed in Table 1.

Table 1: Assumptions used to design the project budget

	Inflation and Exchange Rates							
	Up to Negotiation	Up to Project Start	2025	2026	2027	2028	2029	2030
Inflation (in %'s) /a								
Zero								
Annual rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compounded rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rate								
Annual rates								
Local	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compounded rates								
Local	2.0	2.0	3.0	5.1	7.2	9.3	11.5	13.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exchange rates (Local/Foreign) /b								
Zero								
Rates actually used	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
Constant purchasing parity rates	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rate								
Rates actually used	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
Constant purchasing parity rates	115.0	117.3	120.8	123.3	125.7	128.2	130.8	133.4
% deviation	0.0	-2.0	-4.8	-6.7	-8.5	-10.3	-12.1	-13.8

\a Yearly values are within Each Project Year
\b Yearly values are at Project Year Midpoints

2. **Project cost:** The total project cost inclusive of taxes and duties, and contingencies amounts to USD 103 million over a six-year implementation period with US$ 5.3 million contingencies. All costs are estimated based on currently (May 2024) prevailing prices in Bangladesh. Project costs by component are presented in Table 1. Project financing including 4 percent price contingency and one percent physical contingency respectively by components are: US$ 61 million for Component 1, (59 percent of project costs), US$ 24 million for Component 2 (23 percent of project costs), US$ 13.8 million for Component 3 (13 percent), and US$ 4 million for capacity development and project management (4 percent of project costs).

3. **Project financing**: The IFAD loan will finance US$ 70 million of the total project cost (68%); Government will provide US$ 31.7 million (30.7%); and Gate Foundation, US$ 1.5 million (1.5%). Tables 2, 3, and 4 summaries the Project cost by components and financiers; expenditure categories and financiers; and Project cost by year respectively. The detailed cost tables are presented thereafter.

Table 2: CRALEP Cost by Components and Sub-Components and by Financiers (US $ 1000)

	The Government		Gates Foundation		IFAD		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Climate proofed village road connectivity and market improvement											
Village road connectivity in Haor Region	7,698	30.0	-	-	17,962	70.0	25,660	24.9	-	24,129	1,531
Village road connectivity in High Barind Region	9,330	30.0	-	-	21,771	70.0	31,102	30.1	-	29,231	1,870
Rural market improvement in High Barind Region and Haor Region	900	30.0	-	-	2,099	70.0	2,999	2.9	-	2,814	185
Boat landing ghat (Haor and High Barind)	387	30.0	-	-	902	70.0	1,288	1.2	-	1,211	77
Subtotal	18,315	30.0	-	-	42,734	70.0	61,049	59.1	-	57,385	3,663
B. Village services for resilient community in Haor Region											
Village internal services (walk ways, water and sanitation, other infrastructure)	3,559	30.0	-	-	8,305	70.0	11,864	11.5	-	11,153	712
Kila for temporary storage of harvests and shelter	390	30.0	-	-	910	70.0	1,300	1.3	-	1,222	78
Low-cost nature-based village protection system in Shallow Haor (VPS)	1,674	30.0	-	-	3,906	70.0	5,580	5.4	-	5,221	359
Technical assistance to the Project	1,618	30.0	-	-	3,775	70.0	5,393	5.2	-	4,854	539
Subtotal	7,241	30.0	-	-	16,897	70.0	24,138	23.4	-	22,450	1,688
C. Livelihoods Diversification and Resilience											
Vocational training for employment creation for youth	3,639	30.0	-	-	8,491	70.0	12,130	11.7	-	10,917	1,213
Entrepreneurship training for youth	393	30.0	-	-	917	70.0	1,310	1.3	-	1,179	131
Sustainable Livelihoods for LCS members	118	30.0	-	-	276	70.0	394	0.4	-	355	39
Subtotal	4,150	30.0	-	-	9,684	70.0	13,834	13.4	-	12,451	1,383
D. Capacity development, climate information services, and innovation	-	-	1,500	100.0	-	-	1,500	1.5	-	1,500	-
E. Project Management	2,044	74.9	-	-	685	25.1	2,729	2.6	-	2,631	98
Total PROJECT COSTS	31,750	30.8	1,500	1.5	70,000	67.8	103,250	100.0	-	96,417	6,833

Table 3: CRALEP Cost by Expenditure Categories and by Financiers (US $ 1000)

	The Government		Gates Foundation		IFAD		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs											
A. Equipment & Materials	232	30.0	-	-	542	70.0	774	0.7	-	696	77
B. Works	23,435	30.0	-	-	54,682	70.0	78,117	75.7	-	73,430	4,687
C. Training and Workshop	4,419	28.7	652	4.2	10,310	67.0	15,381	14.9	-	13,908	1,473
D. Consultancy	1,787	26.3	848	12.5	4,170	61.3	6,805	6.6	-	6,210	596
Total Investment Costs	29,873	29.6	1,500	1.5	69,704	69.0	101,077	97.9	-	94,244	6,833
II. Recurrent Costs											
A. Operation & Maintenance	1,877	86.4	-	-	296	13.6	2,173	2.1	-	2,173	-
Total Recurrent Costs	1,877	86.4	-	-	296	13.6	2,173	2.1	-	2,173	-
Total PROJECT COSTS	31,750	30.8	1,500	1.5	70,000	67.8	103,250	100.0	-	96,417	6,833

Table 4: CRALEP Cost by Components and by Year -- Totals Including Contingencies (US$ 1000)

	2025		2026		2027		2028		2029		2030		Total
A. Climate proofed village road connectivity and market improvement													
Village road connectivity in Haor Region	1,468	5.7%	3,679	14.3%	4,992	19.5%	7,559	29.5%	5,232	20.4%	2,730	10.6%	25,660
Village road connectivity in High Barind Region	1,677	5.4%	4,220	13.6%	6,531	21.0%	9,411	30.3%	6,079	19.5%	3,184	10.2%	31,102
Rural market improvement in High Barind Region and Haor Region	-		908	30.3%	1,120	37.3%	481	16.0%	490	16.3%	-		2,999
Boat landing ghat (Haor and High Barind)	-		304	23.6%	340	26.4%	375	29.1%	270	20.9%	-		1,288
Subtotal	3,145	5.2%	9,112	14.9%	12,982	21.3%	17,826	29.2%	12,070	19.8%	5,914	9.7%	61,049
B. Village services for resilient community in Haor Region													
Village internal services (walk ways, water and sanitation, other infrastructure)	46	0.4%	1,148	9.7%	2,292	19.3%	3,583	30.2%	3,495	29.5%	1,300	11.0%	11,864
Kila for temporary storage of harvests and shelter	-		-		397	30.5%	397	30.5%	507	39.0%	-		1,300
Low-cost nature-based village protection system in Shallow Haor (VPS)	14	0.2%	575	10.3%	1,112	19.9%	1,667	29.9%	1,659	29.7%	555	9.9%	5,580
Technical assistance to the Project	-		1,087	20.1%	1,087	20.1%	1,087	20.1%	1,067	19.8%	1,067	19.8%	5,393
Subtotal	60	0.2%	2,809	11.6%	4,886	20.2%	6,734	27.9%	6,728	27.9%	2,921	12.1%	24,138
C. Livelihoods Diversification and Resilience													
Vocational training for employment creation for youth	604	5.0%	1,835	15.1%	2,432	20.1%	3,025	24.9%	3,023	24.9%	1,210	10.0%	12,130
Entrepreneurship training for youth	65	5.0%	196	14.9%	263	20.1%	326	24.9%	328	25.0%	132	10.1%	1,310
Sustainable Livelihoods for LCS members	-		86	21.9%	62	15.8%	61	15.4%	93	23.5%	93	23.5%	394
Subtotal	670	4.8%	2,117	15.3%	2,757	19.9%	3,412	24.7%	3,444	24.9%	1,435	10.4%	13,834
D. Capacity development, climate information services, and innovation	-		75	5.0%	225	15.0%	450	30.0%	450	30.0%	300	20.0%	1,500
E. Project Management	464	17.0%	295	10.8%	595	21.8%	641	23.5%	329	12.0%	406	14.9%	2,729
Total PROJECT COSTS	4,338	4.2%	14,407	14.0%	21,445	20.8%	29,062	28.1%	23,021	22.3%	10,976	10.6%	103,250

Detailed Cost Tables

Table 1.1. Climate proofed village road connectivity and market improvement

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Village road connectivity in Haor region																						
1. Submergible village road - Vehicles and machineries																						
4WDs pickup (@1 per Region - Sunamganj and Kishoreganj)	Number	2	-	-	-	-	-	2	8,000,000	69,565	16,000	-	-	-	-	-	16,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Motorbikes (@ 1 per Upazila)	Number	24	-	-	-	-	-	24	200,000	1,739	4,800	-	-	-	-	-	4,800	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											20,800	-	-	-	-	-	20,800					
2. Submergible village road - Machinery and equipment																						
CBR Testing Machine (Kishorgonj & Sunamgonj)	Number	2	-	-	-	-	-	2	1,800,000	15,652	3,600	-	-	-	-	-	3,600	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
VICAT Apparitors (Kishorgonj)	Number	1	-	-	-	-	-	1	150,000	1,304	150	-	-	-	-	-	150	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
OVEN (Kishorgonj & Sunamgonj)	Number	2	-	-	-	-	-	2	350,000	3,043	700	-	-	-	-	-	700	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Odometer (Distance measuring wheel) (@1 per upazila)	Number	24	-	-	-	-	-	24	30,000	261	720	-	-	-	-	-	720	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											5,170	-	-	-	-	-	5,170					
3. Submergible village and Union road construction																						
Topographic survey, subsoil investigation and pre-design consultation with stakeholders /a	km	28	42	71	-	-	-	141	50,000	435	1,400	2,100	3,550	-	-	-	7,050	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /b	Batch	1	4	6	8	8	-	27	30,000	261	30	120	180	240	240	-	810	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Construction of Submergible village RCC road /c	km	7	21	28	42	28	14	140	16,000,000	139,130	112,000	336,000	448,000	672,000	448,000	224,000	2,240,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of Submergible Union RCC road /d	km	-	-	-	-	-	-	-			-	-	-	-	-	-	-	1.0	0.0	0.0	WORKS_DA	IFAD (70%)
Construction of UniBlock road as village all weather walkways /e	km	-	-	-	-	0.5	0.5	1	15,000,000	130,435	-	-	-	-	7,500	7,500	15,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Subtotal											113,430	338,220	451,730	672,240	455,740	231,500	2,262,860					
4. Construction of cross-drainage structures																						
Construction of Submergible Drainage structures /f	Meters	21	63	84	126	84	42	420	750,000	6,522	15,750	47,250	63,000	94,500	63,000	31,500	315,000	1.0	0.0	6.0	EQUIP_MATERIALS_DA	IFAD (70%)
Total Investment Costs											155,150	385,470	514,730	766,740	518,740	263,000	2,603,830					
II. Recurrent Costs																						
A. Operations and maintenance of 4WD pickups /g																						
1. Operations and maintenance of 4WD pickups /h	Per month	24	24	24	24	24	24	144	60,000	522	1,440	1,440	1,440	1,440	1,440	1,440	8,640	0.0	0.0	0.0	OPERATION_MAIN_DA	IFAD (70%)
2. Operations and maintenance of motorbikes /i	Per month	288	288	288	288	288	288	1,728	15,000	130	4,320	4,320	4,320	4,320	4,320	4,320	25,920	0.0	0.0	0.0	OPERATION_MAIN_DA	IFAD (70%)
Total Recurrent Costs											5,760	5,760	5,760	5,760	5,760	5,760	34,560					
Total											160,910	391,230	520,490	772,500	524,500	268,760	2,638,390					

\a Topographic survey, subsoil investigation and pre-design consultation with stakeholders (villagers, local govt reps of selected road - One contract per Upazila
\b Orientation training of contractors and construction workers on good construction practices and workmanship (@1 contract average 5 km road)
\c Construction of Submergible village RCC road (see break up by district/subdistrict)
\d Construction of Submergible Union RCC road for completing full point to point connectivity, if needed
\e Construction of UniBlock road as village all weather walkways (Access to village only for pedestrian use)
\f Construction of Submergible Drainage structures (@3 m per km of submergible road)
\g Operations and maintenance of 4WD pickups (@12 month per vehicle for 6 years)
\h Operations and maintenance of 4WD pickups (@12 month per vehicle for 6 years)
\i Operations and maintenance of motorbikes (@12 month per bike for 6 years)

Table 1.2. Climate proofed village road connectivity and market improvement

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Village road connectivity in High Barind region																						
1. Vehicles and machineries																						
4WDs pickup (one per Region office - Chapai Nawabganj)	Number	1	-	-	-	-	-	1	8,000,000	69,565	8,000	-	-	-	-	-	8,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Motorbikes (@1 per Upazila)	Number	9	-	-	-	-	-	9	200,000	1,739	1,800	-	-	-	-	-	1,800	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											9,800	-	-	-	-	-	9,800					
2. Machinery and equipment																						
CBR Machine (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	1,800,000	15,652	1,800	-	-	-	-	-	1,800	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
CTM (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	1,750,000	15,217	1,750	-	-	-	-	-	1,750	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Bitumin Softening Point (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	250,000	2,174	250	-	-	-	-	-	250	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Bitumin Extractor Machine (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	750,000	6,522	750	-	-	-	-	-	750	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
VICAT Apparitors (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	150,000	1,304	150	-	-	-	-	-	150	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
OVEN (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	350,000	3,043	350	-	-	-	-	-	350	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
DCP Apparatus (Chapai Nawabganj)	Number	1	-	-	-	-	-	1	25,000	217	25	-	-	-	-	-	25	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Odometer (Distance measuring wheel) (@1 per upazila)	Number	9	-	-	-	-	-	9	30,000	261	270	-	-	-	-	-	270	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Road Roller (8-10 Ton)	Number	1	-	-	-	-	-	1	15,000,000	130,435	15,000	-	-	-	-	-	15,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											20,345	-	-	-	-	-	20,345					
3. Village and Union Road construction in High Barind Region																						
Topographic survey, subsoil investigation and pre-design consultation /a	Km	38	57	95	-	-	-	190	50,000	435	1,900	2,850	4,750	-	-	-	9,500	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of BC village roads /b	Km	9	27	36	54	36	18	180	12,500,000	108,696	112,500	337,500	450,000	675,000	450,000	225,000	2,250,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of Union BC road for completing full point to point connectivity,	Km	-	-	6	5.34	-	-	11.34	15,000,000	130,435	-	-	90,000	80,100	-	-	170,100	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of UniBlock road as village all weather walkways /c	Km	-	-	-	-	1	1	2	15,000,000	130,435	-	-	-	-	15,000	15,000	30,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /d	Batch	2	6	8	11	11	-	38	50,000	435	100	300	400	550	550	-	1,900	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											114,500	340,650	545,150	755,650	465,550	240,000	2,461,500					
4. Construction of cross-drainage structures																						
Drainage structures in High Barind Upazilas (@5 meter per km of road)	Meters	47	141	188	282	188	94	940	750,000	6,522	35,250	105,750	141,000	211,500	141,000	70,500	705,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Total Investment Costs											179,895	446,400	686,150	967,150	606,550	310,500	3,196,645					
II. Recurrent Costs																						
A. Vehicle maintenance																						
Operations and maintenance of 4WD pickups /e	Per month	12	12	12	12	12	12	72	60,000	522	720	720	720	720	720	720	4,320	0.0	0.0	0.0	OPERATION_MAIN_DA	IFAD (70%)
Operations and maintenance of motorbikes /f	Per month	108	108	108	108	108	108	648	15,000	130	1,620	1,620	1,620	1,620	1,620	1,620	9,720	0.0	0.0	0.0	OPERATION_MAIN_DA	IFAD (70%)
Total Recurrent Costs											2,340	2,340	2,340	2,340	2,340	2,340	14,040					
Total											182,235	448,740	688,490	969,490	608,890	312,840	3,210,685					

\a Topographic survey, subsoil investigation and pre-design consultation with stakeholders of selected road
\b Construction of BC village roads (paving earthen road - Type A and B) (@ 20 km per Upazila)
\c Construction of UniBlock road as village all weather walkways (Access to village, pedestrian only)
\d Orientation training of contractors and construction workers on good construction practices and workmanship (@5 contracts per Upazila)
\e Operations and maintenance of 4WD pickups (@12 month per vehicle for 6 years)
\f Operations and maintenance of motorbikes (@12 month per bike for 6 years)

Table 1.3. Rural market improvement in High Barind region and Haor region

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Market development - Barind Region																						
1. Topographic Survey/periphery determination (@ 1 per market)	Number	-	10	-	-	-	-	10	200,000	1,739	-	2,000	-	-	-	-	2,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
2. Large village market built on open khas land /a	Number	-	4	6	-	-	-	10	10,000,000	86,957	-	40,000	60,000	-	-	-	100,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Subtotal											-	42,000	60,000	-	-	-	102,000					
B. Capacity Building of LCS - Barind region																						
1. Training LCS Barind region																						
Training of LCS members /b	Batch	-	12	18	-	-	-	30	120,000	1,043	-	1,440	2,160	-	-	-	3,600	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Uniform & safety gears, tools, trolly - Barind	Per person	-	240	360	-	-	-	600	15,000	130	-	3,600	5,400	-	-	-	9,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											-	5,040	7,560	-	-	-	12,600					
2. 4Workshop, training of MMC, WMS, traders' association etc. - Barind																						
Upazila MMC workshops /c	Per workshop	-	3	-	-	-	-	3	100,000	870	-	300	-	-	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Market users/stakeholders workshops (@1 per market)	Per workshop	-	4	6	-	-	-	10	30,000	261	-	120	180	-	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
MMC & trader associations workshop (@ 1 per market)	Per workshop	-	4	6	-	-	-	10	30,000	261	-	120	180	-	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Market periphery and demarcation workshop (@ 1 per market)	Per workshop	-	4	6	-	-	-	10	30,000	261	-	120	180	-	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Market handover & market maintenance (@work per market)	Per workshop	-	4	6	-	-	-	10	30,000	261	-	120	180	-	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											-	780	720	-	-	-	1,500					
Subtotal											-	5,820	8,280	-	-	-	14,100					
C. Market rehabilitation in Haor region																						
1. Topographic Survey and pre-design consultation for identifying internal market road rehabilitation and other infrastructure /d	Per contract	-	6	6	6	6	-	24	200,000	1,739	-	1,200	1,200	1,200	1,200	-	4,800	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
2. Large village market rehabilitation /e	Number	-	12	12	12	12	-	48	4,000,000	34,783	-	48,000	48,000	48,000	48,000	-	192,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Total											-	97,020	117,480	49,200	49,200	-	312,900					

\a Large village market built on open khas land - Barind (@ 5 per Upazila) - in two Upazilas of Chapai
\b Training of LCS members (market construction, construction magt, procurement, record keeping, wage and profit calculation etc.) [@20 person per batch; 3 LCS group per market]; (3 day training)
\c Upazila MMC workshops (30 persons/batch) (@ 1per Upazila)
\d Topographic Survey and pre-design consultation for identifying internal market road rehabilitation and other infrastructure (@one contract per Upazila; that is, for2 markets per Upazila)
\e Large village market rehabilitation (@300 m internal RCC road, sanitary toilet with tube well) (@2 markets per upazila). To be constructed by contractor

Table 1.4. Climate proofed village road connectivity and market improvement

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Summary Divisions Component	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																							
A. Boat landing ghat (Haor and High Barind)																							
1. Investment costs																							
Soil Investigation	Per contract	-	11	11	11	11	-	44	100,000	870	-	1,100	1,100	1,100	1,100	-	4,400	1.0	0.0	6.0	SUB_COMPONENT_1.4	WORKS_DA	IFAD (70%)
Topographic Survey and pre-design consultation /a	Per contract	-	5	5	5	5	-	20	300,000	2,609	-	1,500	1,500	1,500	1,500	-	6,000	1.0	0.0	6.0	SUB_COMPONENT_1.4	WORKS_DA	IFAD (70%)
Ghat construction in Haor region /b	Ghat	-	6	6	6	6	-	24	4,000,000	34,783	-	24,000	24,000	24,000	24,000	-	96,000	1.0	0.0	6.0	SUB_COMPONENT_1.4	WORKS_DA	IFAD (70%)
Ghat construction in Barind region /c	Ghat	-	2	3	4	1	-	10	4,000,000	34,783	-	8,000	12,000	16,000	4,000	-	40,000	1.0	0.0	6.0	SUB_COMPONENT_1.4	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /d	Meetings	-	1	3	3	3	-	10	30,000	261	-	30	90	90	90	-	300	1.0	0.0	6.0	SUB_COMPONENT_1.4	WORKS_DA	IFAD (70%)
Total											-	34,630	38,690	42,690	30,690	-	146,700						

\a Topographic Survey and pre-design consultation (@one contract per Upazila; that is, for 2 ghat per Upazila)
\b Ghat construction in Haor region (@ 1per upazila) (Design elements: Ghat, shade, toilet/water)
\c Ghat construction in Barind region (@ 2 per Upazila)(Design elements: Ghat, shade, toilet/water)
\d Orientation training of contractors and construction workers on good construction practices and workmanship

Table 2.1. Village services for resilient community in Haor region

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Village internal services (walk ways, water and sanitation, other infrastructure)																						
1. Investment costs																						
Topographic survey, village needs' assessment, determine design specification /a	Per contract	5	10	10	-	-	-	25	1,000,000	8,696	5,000	10,000	10,000	-	-	-	25,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of Villages internal services package /b	Nb of Villages	-	24	48	72	72	24	240	5,000,000	43,478	-	120,000	240,000	360,000	360,000	120,000	1,200,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Inter village connecting foot bridge	Foot bridges	-	-	-	2	1	-	3	10,000,000	86,957	-	-	-	20,000	10,000	-	30,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Village extension with earth-filling for community purpose /c	Nb of Villages	-	-	5	14	14	14	47	2,000,000	17,391	-	-	10,000	28,000	28,000	28,000	94,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Total											5,000	130,000	260,000	408,000	398,000	148,000	1,349,000					

\a Topographic survey, village needs' assessment, determine design specification, locations of toilet block and tube wells etc. (one contract per Upazila)

\b Construction of Villages internal services package (Typical package: RCC paved walkways, 2 toilet blocks with access paved road, and 3 tube wells with paved base and drainage, and staircase for boat landing) (@ ---- village per Upazila)

\c Village extension with earth-filling for community purpose (grazing land, playground, other community infrastructure, etc. with vetiver grass/bamboo protection) (@2 per upazila)

Table 2.2. Kila for temporary storage of harvests and shelter

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Kila for temporary storage of harvests and shelter																						
1. Kila development																						
Pre-design assessment visit, site selection, land estimates, earth estimation etc.																						
(@one per Upazila)	Per contract	-	-	7	7	10	-	24	150,000	1,304	-	-	1,050	1,050	1,500	-	3,600	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Kila building on khas land /a	Nb of Killa	-	-	22	22	28	-	72	2,000,000	17,391	-	-	44,000	44,000	56,000	-	144,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Total											-	-	45,050	45,050	57,500	-	147,600					

\a Kila building on khas land with soil from nearby canals (@ 3 per upazila)

Table 2.3. Low-cost nature-based village protection system in Shallow Haor (VPS)

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Low-cost nature-based village protection system in Shallow Haor (VPS)																						
1. Construction of VPS																						
Pre-design assessment visit, village selection ect /a	Upazila	7	7	-	-	-	-	14	200,000	1,739	1,400	1,400	-	-	-	-	2,800	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Construction of low-cost nature based VPS in Shallow Haor /b	Number	-	28	56	84	84	28	280	2,000,000	17,391	-	56,000	112,000	168,000	168,000	56,000	560,000	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Subtotal											1,400	57,400	112,000	168,000	168,000	56,000	562,800					
2. Vetiver grass production, plantation, maintenance, and capacity building of LCS for killa for slope protection																						
Training on vetiver grass production in nurseries by poor women /c	Nb of Batch	1	2	4	4	3	-	14	30,000	261	30	60	120	120	90	-	420	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Vetiver grass production in village nurseries for Killa slopes protection /d	Nb of Persons	18	54	108	108	72	-	360	2,000	17	36	108	216	216	144	-	720	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Vetiver grass plantation in killa slopes and maintenance for 2 years /e	Nb of Killa	-	11	18	22	18	4	73	50,000	435	-	550	900	1,100	900	200	3,650	1.0	0.0	6.0	WORKS_DA	IFAD (70%)
Community meeting on killa handover (@ one meeting per killa)	Meetings	-	11	18	22	18	4	73	10,000	87	-	110	180	220	180	40	730	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											66	828	1,416	1,656	1,314	240	5,520					
3. Capacity building of LCS, CRALEP, DAE, NGO staff members /f																						
TOT on bamboo treatment for NGO staff members and CRALEP field officials /g	Batch	-	2	1	-	-	-	3	60,000	522	-	120	60	-	-	-	180	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on bamboo treatment for outdoor application by NGO expert to LCS members and other master trainers /h	Batch	-	6	11	17	16	6	56	30,000	261	-	180	330	510	480	180	1,680	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Technical assistance by BFRI to villagers and NGOs for bamboo treatment /i	Lum sump	-	0.1	0.2	0.3	0.3	0.1	1	1,500,000	13,043	-	150	300	450	450	150	1,500	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
TOT on vetiver production by vetiver expert /j	Batch	-	2	2	1	-	-	5	60,000	522	-	120	120	60	-	-	300	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on vetiver grass production in nurseries for VPS by LCS HHs /k	Batch	-	6	11	17	16	6	56	30,000	261	-	180	330	510	480	180	1,680	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Vetiver grass production in village nurseries /l	Persons	-	140	280	420	420	140	1,400	2,000	17	-	280	560	840	840	280	2,800	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
VPS maintenance by LCS (2 persons for two years) /m	Villages	-	28	56	84	84	28	280	12,000	104	-	336	672	1,008	1,008	336	3,360	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											-	1,366	2,372	3,378	3,258	1,126	11,500					
4. Capacity building bamboo treatment of NGOs and Private sector																						
Training of private sector microentrepreneurs on bamboo treatment /n	Batch	-	2	-	7	7	2	18	60,000	522	-	120	-	420	420	120	1,080	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on bamboo plantation from branches by BFRI/Forest Dept /o	Batch	-	24	48	72	72	24	240	30,000	261	-	720	1,440	2,160	2,160	720	7,200	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Assembling of machine for bamboo processing /p	Number	-	1	3	4	4	2	14	100,000	870	-	100	300	400	400	200	1,400	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
National Technical Advisor for vetiver protection, nursery development, and application in Kila and VPS	Months	-	1	1	2	1	1	6	500,000	4,348	-	500	500	1,000	500	500	3,000	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Field visit expenses for national technical advisor /q	Number	-	7	14	22	22	7	72	25,000	217	-	175	350	550	550	175	1,800	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											-	1,615	2,590	4,530	4,030	1,715	14,480					
5. Management cost of NGOs for Subcomponent 2.3																						
7% of total component 2.3 cost as management cost for Haor-based NGOs /r	Lum sump										102	4,269	8,286	12,410	12,383	4,112	41,563	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Total											1,568	65,478	126,664	189,974	188,985	63,193	635,863					

\a Pre-design assessment visit, village selection, length of VPS, complete design estimation etc. in SHALLOW Haor
\b Construction of low-cost nature based VPS in Shallow Haor (vetiver grass, treated-bamboo sides and treated bamboo poles- see technical design) (@20 per upazila)
\c Training on vetiver grass production in nurseries by poor women from nearby village HHs (@ 5 person per Killa) (one day training) (hands on training by NGO staff members @25 person per batch expert)
\d Vetiver grass production in village nurseries for Killa slopes protection by village LCS (representative from poor HHs) HHs (@5 person per Killa)
\e Vetiver grass plantation in killa slopes and maintenance for 2 years by village LCS HHs (Items: cost of grass, transportation, labour cost for 5 poor men and women (LCS)
\f Capacity building of LCS (poor men/women), CRALEP, DAE, NGO staff members bamboo treatment and Vetiver, TA by BFRI, VPS maintenance
\g TOT on bamboo treatment for NGO staff members and CRALEP field officials (@25 persons per batch)
\h Training on bamboo treatment for outdoor application by NGO expert to LCS members and other master trainers) (@5 persons per village; 25 person per batch) (items: trainee travel expenses, lunch, bamboo samples, trainers honorarium including travel and DSA,
\i Technical assistance by BFRI to villagers and NGOs for bamboo treatment (bamboo treatment under direct supervision of BFRI or BFRI-trained person)
\j TOT on vetiver production by vetiver expert (one day training, 25 participants etc) for NGO staff members and CRALEP officials, Upazilas DAE officials (at the same rate of bamboo treatment training)
\k Training on vetiver grass production in nurseries for VPS by LCS HHs (by NGO trainer) (@5 persons per village; 20 per batch)
\l Vetiver grass production in village nurseries for VPS by village LCS HHs (@5 persons per village)
\m VPS maintenance by LCS (2 persons for two years) (1. prune grass 6 times per year; replace grass if needed; guarding of bamboo fencing etc.)- @ 2 LCSper village
\n Training of private sector microentrepreneurs on bamboo treatment for other application by BFRI (@1 batch per upazila) (@25 person per batch)
\o Training on bamboo plantation from branches by BFRI/Forest Dept at District Forest nursery (as an IGA by HHs) (@10 batch per Upazila)
\p Assembling of machine for bamboo processing (design available from BFRI) - SHALLOW HAOR
\q Field visit expenses for national technical advisor (@ 3 visit per Upazila for supervision)
\r 7% of total component 2.3 cost as management cost for Haor-based NGOs (Outsourced) for implementing subcomponent 2.3 (In case multiple NGOs are selected cost can be proportional to number of villages

Table 2.4. Village services for resilient community in Haor region

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. TA (PMU, Dhaka)																						
1. Team Leader, Rural Dev Specialist	Months	-	12	12	12	12	12	60	300,000	2,609	-	3,600	3,600	3,600	3,600	3,600	18,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
2. Design engineer (civil works)/DTL	Months	-	12	12	12	12	12	60	250,000	2,174	-	3,000	3,000	3,000	3,000	3,000	15,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
3. Asst Design engineer (2)	Months	-	24	24	24	24	24	120	180,000	1,565	-	4,320	4,320	4,320	4,320	4,320	21,600	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
4. AutoCAD operator (2)	Months	-	24	24	24	24	24	120	100,000	870	-	2,400	2,400	2,400	2,400	2,400	12,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
5. Estimator (2)	Months	-	24	24	24	24	24	120	100,000	870	-	2,400	2,400	2,400	2,400	2,400	12,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
6. Market design & planner	Months	-	12	12	12	-	-	36	180,000	1,565	-	2,160	2,160	2,160	-	-	6,480	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
7. Livelihood specialist	Months	-	12	12	12	12	12	60	180,000	1,565	-	2,160	2,160	2,160	2,160	2,160	10,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
8. Climate change expert and Hydrologist	Months	-	12	12	12	12	12	60	250,000	2,174	-	3,000	3,000	3,000	3,000	3,000	15,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
9. Financial specialist	Months	-	12	12	12	12	12	60	180,000	1,565	-	2,160	2,160	2,160	2,160	2,160	10,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
10. Financial System Specialist (Financial mgt, Audit, system development, training)	Months	-	3	3	3	3	3	15	150,000	1,304	-	450	450	450	450	450	2,250	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
11. One Accounts Officer	Months	-	12	12	12	12	12	60	150,000	1,304	-	1,800	1,800	1,800	1,800	1,800	9,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
12. Junior finance officer	Months	-	24	24	24	24	24	120	100,000	870	-	2,400	2,400	2,400	2,400	2,400	12,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
13. Junior software expert (TOMPRO) (2)	Months	-	24	24	24	24	24	120	100,000	870	-	2,400	2,400	2,400	2,400	2,400	12,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
14. Internal Audit Consultants	Months	-	24	24	24	24	24	120	150,000	1,304	-	3,600	3,600	3,600	3,600	3,600	18,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
15. Procurement specialist	Months	-	12	12	12	12	12	60	180,000	1,565	-	2,160	2,160	2,160	2,160	2,160	10,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
16. M&E, KM specialists	Months	-	12	12	12	12	12	60	180,000	1,565	-	2,160	2,160	2,160	2,160	2,160	10,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
17. Gender and social inclusion specialist	Months	-	24	24	24	24	24	120	180,000	1,565	-	4,320	4,320	4,320	4,320	4,320	21,600	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
18. MIS Officer	Months	-	12	12	12	12	12	60	150,000	1,304	-	1,800	1,800	1,800	1,800	1,800	9,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
19. M&E KM Officer	Months	-	12	12	12	12	12	60	150,000	1,304	-	1,800	1,800	1,800	1,800	1,800	9,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
20. Training & logistic support Officer	Months	-	12	12	12	12	12	60	150,000	1,304	-	1,800	1,800	1,800	1,800	1,800	9,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
21. Office assistant/Typist (Outsourced)	Months	-	12	12	12	12	12	60	60,000	522	-	720	720	720	720	720	3,600	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
22. Office manager (Outsourced)	Months	-	12	12	12	12	12	60	80,000	696	-	960	960	960	960	960	4,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
23. MLSS (2)	Months	-	24	24	24	24	24	120	40,000	348	-	960	960	960	960	960	4,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
24. Direct cost TA Team & Others	Lum sump	-	0.2	0.2	0.2	0.2	0.2	1	50,000,000	434,783	-	10,000	10,000	10,000	10,000	10,000	50,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Subtotal											-	62,530	62,530	62,530	60,370	60,370	308,330					
B. TA to Regional Offices																						
1. Quality Control Engineers (1+2=3) (regional engineer)	Months	-	36	36	36	36	36	180	180,000	1,565	-	6,480	6,480	6,480	6,480	6,480	32,400	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
2. Laboratory Technician (3)	Months	-	36	36	36	36	36	180	100,000	870	-	3,600	3,600	3,600	3,600	3,600	18,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
3. Laboratory assistant/Helper (3) (Outsourced)	Months	-	36	36	36	36	36	180	40,000	348	-	1,440	1,440	1,440	1,440	1,440	7,200	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
4. Drivers (3) [Three new recruits]	Months	-	36	36	36	36	36	180	50,000	435	-	1,800	1,800	1,800	1,800	1,800	9,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Subtotal											-	13,320	13,320	13,320	13,320	13,320	66,600					
C. TA to Districts																						
1. Livelihoods officers (8) /a	Months	-	96	96	96	96	96	480	150,000	1,304	-	14,400	14,400	14,400	14,400	14,400	72,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
D. TA to Upazilas																						
1. Assistant Field Engineer (33) /b	Months	-	396	396	396	396	396	1,980	60,000	522	-	23,760	23,760	23,760	23,760	23,760	118,800	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
E. TA Team: annual increment and Operation cost																						
1. TA Team annual increment due to inflation (5% of Total)	Lum sump										-	5,944	5,944	5,944	5,836	5,836	29,504	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
2. Car rentals for TA team & Support Staff	Lum sump	-	0.2	0.2	0.2	0.2	0.2	1	25,000,000	217,391	-	5,000	5,000	5,000	5,000	5,000	25,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Total											-	124,954	124,954	124,954	122,686	122,686	620,234					

\a Livelihoods officers (8) (@60 months per person)
\b Assistant Field Engineer (33) (@60 months per person)

Table 3. Livelihoods diversification and resilience

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.
I. Investment Costs																					
A. Vocational training for employment creation for youth																					
1. Vocational training and job market assessment	Lum sump	-	1	1	-	-	-	2	1,500,000	13,043	-	1,500	1,500	-	-	-	3,000	0.0	0.0	10.0	CONSULTANCY_DA
2. Vocational training by Partner Organization(POs) of PKSF and others /a	Persons	1,650	4,950	6,600	8,250	8,250	3,300	33,000	40,000	348	66,000	198,000	264,000	330,000	330,000	132,000	1,320,000	0.0	0.0	10.0	TRAINING_DA
3. Training courses not available in NSDA and BTEB courses lists:																					
Training module development - Outsourced	Number	-	5	-	-	-	-	5	200,000	1,739	-	1,000	-	-	-	-	1,000	0.0	0.0	10.0	TRAINING_DA
Vocational Training (Non-NSDA/BTEB courses) by providers- outsourced	Number	25	75	100	125	125	50	500	40,000	348	1,000	3,000	4,000	5,000	5,000	2,000	20,000	0.0	0.0	10.0	TRAINING_DA
Subtotal											1,000	4,000	4,000	5,000	5,000	2,000	21,000				
4. Advance training (see list) for semi-skilled persons - outsourced	Number	25	75	100	125	125	50	500	100,000	870	2,500	7,500	10,000	12,500	12,500	5,000	50,000	0.0	0.0	10.0	TRAINING_DA
5. Documentation, publication and seminars	Number	-	-	1	2	1	1	5	200,000	1,739	-	-	200	400	200	200	1,000	0.0	0.0	10.0	TRAINING_DA
Subtotal											69,500	211,000	279,700	347,900	347,700	139,200	1,395,000				
B. Entrepreneurship training for youth																					
1. Entrepreneurship training by PO of PKSF and other providers (see potential list of training) /b	Number	500	1,500	2,000	2,500	2,500	1,000	10,000	15,000	130	7,500	22,500	30,000	37,500	37,500	15,000	150,000	0.0	0.0	10.0	TRAINING_DA
2. Documentation, publication and seminars	Number	-	-	1	-	1	1	3	200,000	1,739	-	-	200	-	200	200	600	0.0	0.0	10.0	TRAINING_DA
Subtotal											7,500	22,500	30,200	37,500	37,700	15,200	150,600				
C. Sustainable Livelihoods for LCS members																					
1. Sustainable livelihoods development for LCS members (market Plus Haor village) /c	Number	-	660	464	464	696	696	2,980	15,000	130	-	9,900	6,960	6,960	10,440	10,440	44,700	0.0	0.0	10.0	TRAINING_DA
2. Documentation, publication and seminars	Number	-	-	1	-	1	1	3	200,000	1,739	-	-	200	-	200	200	600	0.0	0.0	10.0	TRAINING_DA
Subtotal											-	9,900	7,160	6,960	10,640	10,640	45,300				
Total											77,000	243,400	317,060	392,360	396,040	165,040	1,590,900				

\a Vocational training (see potential list of training and level as per NSDA/BTEB) by Partner Organization(POs) of PKSF and others (Selection of of trainees and Job placement by POs and training by POs and other training centers - see PDR/PIM): -See PIM
\b Entrepreneurship training by (see potential list of training): (one week training + 2 weeks internship). Selection of trainees by selected POs of PKSF and training by POs and other training providers _ see PIM
\c Sustainable livelihoods development _(outsourced to selected POs of PKSF) see PDR/PIM

Table 4. Capacity development, climate information services, and innovation

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Capacity building of CReLIC	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	40,000,000	347,826	-	2,000	6,000	12,000	12,000	8,000	40,000	0.0	0.0	0.0	TRAINING_DA	GATES_FOUNDATION (100%)
B. FFEWS in Haor and drought early warning in Barind for community resilience																						
1. Improvement in FFEWS model by IWFM, Training and installation /a	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	40,000,000	347,826	-	2,000	6,000	12,000	12,000	8,000	40,000	0.0	0.0	0.0	CONSULTANCY_DA	GATES_FOUNDATION (100%)
2. Development of dissemination system of FFEWS by BWDB /b	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	35,000,000	304,348	-	1,750	5,250	10,500	10,500	7,000	35,000	0.0	0.0	0.0	TRAINING_DA	GATES_FOUNDATION (100%)
3. Development of accurate drought EWS and dissemination system for the Barind region by BMD /c	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	20,000,000	173,913	-	1,000	3,000	6,000	6,000	4,000	20,000	0.0	0.0	0.0	CONSULTANCY_DA	GATES_FOUNDATION (100%)
Subtotal											-	4,750	14,250	28,500	28,500	19,000	95,000					
C. Research and Innovation in infrastructure, climate change and environmental issues /d	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	30,000,000	260,870	-	1,500	4,500	9,000	9,000	6,000	30,000	0.0	0.0	0.0	CONSULTANCY_DA	GATES_FOUNDATION (100%)
D. Policy and dissemination	Lum sump	-	0.05	0.15	0.3	0.3	0.2	1	7,500,000	65,217	-	375	1,125	2,250	2,250	1,500	7,500	0.0	0.0	0.0	CONSULTANCY_DA	GATES_FOUNDATION (100%)
Total											-	8,625	25,875	51,750	51,750	34,500	172,500					

\a Improvement in FFEWS model by IWFM, Training and installation (see note 2 below and technical proposal)
\b Development of dissemination system of FFEWS by BWDB (in collaboration with LGED, IWFM, Other GOB agencies) (see technical note)
\c Development of accurate drought EWS and dissemination system for the Barind region by BMD (in collaboration with LGED, DAE, and other GOB agencies) (see technical note)
\d Research and Innovation in infrastructure, climate change and environmental issues (to managed by PMU) - see PDR and PIM

Table 5. Project Management

Detailed Costs	Unit	Quantities 2025	2026	2027	2028	2029	2030	Total	Unit Cost (BTK)	Unit Cost (US$)	Base Cost (BTK '000) 2025	2026	2027	2028	2029	2030	Total	Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Disb. Acct.	Other Accounts Fin. Rule
I. Investment Costs																						
A. Vehicles and office equipment																						
1. Office equipment																						
Computer with printers	Number	60	-	-	-	-	-	60	120,000	1,043	7,200	-	-	-	-	-	7,200	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Air-conditioner	Number	5	-	-	-	-	-	5	200,000	1,739	1,000	-	-	-	-	-	1,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Photo-copier	Number	2	-	-	-	-	-	2	300,000	2,609	600	-	-	-	-	-	600	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Laptop computer	Number	10	-	-	-	-	-	10	200,000	1,739	2,000	-	-	-	-	-	2,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Scanner	Number	5	-	-	-	-	-	5	30,000	261	150	-	-	-	-	-	150	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Projector	Number	2	-	-	-	-	-	2	100,000	870	200	-	-	-	-	-	200	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Internet Router (Installation with WIFI)	Number	5	-	-	-	-	-	5	5,000	43	25	-	-	-	-	-	25	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Telephone arrangement	Number	8	-	-	-	-	-	8	5,000	43	40	-	-	-	-	-	40	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Digital camera	Number	1	-	-	-	-	-	1	100,000	870	100	-	-	-	-	-	100	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Officer Arrangement/Equipment	Lum sump	1	-	-	-	-	-	1	3,000,000	26,087	3,000	-	-	-	-	-	3,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Furniture	Number	1	-	-	-	-	-	1	4,000,000	34,783	4,000	-	-	-	-	-	4,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
TOMPRO, other software, apps & website purchase and	Lum sump	1	-	-	-	-	-	1	3,000,000	26,087	3,000	-	-	-	-	-	3,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
License upgrading	Lum sump	1	-	-	-	-	-	1	1,000,000	8,696	1,000	-	-	-	-	-	1,000	0.0	0.0	10.0	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal											22,315	-	-	-	-	-	22,315					
2. Training, capacity building, studies																						
Tompro and others software training	Batch	1	-	-	-	-	-	1	50,000	435	50	-	-	-	-	-	50	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
LCS management training	Batch	1	1	1	2	-	-	5	20,000	174	20	20	20	40	-	-	100	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Monthly review meetings	Batch	27	27	27	27	27	27	162	20,000	174	540	540	540	540	540	540	3,240	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Workshop expenses	Batch	2	2	2	2	2	2	12	50,000	435	100	100	100	100	100	100	600	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Exposer visit on climate change related project /a	Batch	-	-	1	1	-	-	2	30,000,000	260,870	-	-	30,000	30,000	-	-	60,000	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on M&E	Persons	-	2	4	4	-	-	10	25,000	217	-	50	100	100	-	-	250	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on MIS	Persons	-	2	4	4	-	-	10	25,000	217	-	50	100	100	-	-	250	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Yearly review meeting on AWPB	Meetings	-	1	1	1	1	1	5	50,000	435	-	50	50	50	50	50	250	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Documentation and Publication	Number	-	5	20	20	20	35	100	25,000	217	-	125	500	500	500	875	2,500	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Training on Internal performance audit & Grievances response	Batch	-	1	1	-	-	-	2	50,000	435	-	50	50	-	-	-	100	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Workshop with FAPAD & IFAD on external audit.	Batch	-	1	1	-	-	-	2	50,000	435	-	50	50	-	-	-	100	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Startup Workshop	Event	1	-	-	-	-	-	1	500,000	4,348	500	-	-	-	-	-	500	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Workshop on project impact	Event	-	-	1	1	-	-	2	200,000	1,739	-	-	200	200	-	-	400	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
ToT on Livelihood activities/nutrition	Batch	-	1	1	-	-	-	2	50,000	435	-	50	50	-	-	-	100	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											1,210	1,085	31,760	31,630	1,190	1,565	68,440					
Subtotal											23,525	1,085	31,760	31,630	1,190	1,565	90,755					
B. Studies and Surveys																						
Baseline survey	Lum sump	1	-	-	-	-	-	1	5,000,000	43,478	5,000	-	-	-	-	-	5,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Mid-Term survey	Lum sump	-	-	-	1	-	-	1	5,000,000	43,478	-	-	-	5,000	-	-	5,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Edline survey	Lum sump	-	-	-	-	-	1	1	5,000,000	43,478	-	-	-	-	-	5,000	5,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Annual Outcome surveys	Lum sump	-	1	1	1	1	1	5	100,000	870	-	100	100	100	100	100	500	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Case studies on sub-components	Number	-	5	5	5	5	5	25	25,000	217	-	125	125	125	125	125	625	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Knowledge management products, website design & hosting, Facebook etc.	Lum sump	1	-	-	-	-	-	1	200,000	1,739	200	-	-	-	-	-	200	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Project completion activities	Lum sump	-	-	-	-	-	6	6	500,000	4,348	-	-	-	-	-	3,000	3,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
Project success dissemination national seminar	Lum sump	-	-	-	1	-	1	2	500,000	4,348	-	-	-	500	-	500	1,000	0.0	0.0	10.0	CONSULTANCY_DA	IFAD (70%)
IMED, ERD, LGD field visit & monitoring	Lum sump	-	1	1	1	1	1	5	300,000	2,609	-	300	300	300	300	300	1,500	0.0	0.0	10.0	TRAINING_DA	IFAD (70%)
Subtotal											5,200	525	525	6,025	525	9,025	21,825					
Total Investment Costs											28,725	1,610	32,285	37,655	1,715	10,590	112,580					
II. Recurrent Costs																						
A. Salary & office operating costs																						
1. Staff salary PMU																						
Project Director	Months	12	12	12	12	12	12	72	150,000	1,304	1,800	1,800	1,800	1,800	1,800	1,800	10,800	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Deputy Project Director	Months	12	12	12	12	12	12	72	150,000	1,304	1,800	1,800	1,800	1,800	1,800	1,800	10,800	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Senior Asst Engineer	Months	12	12	12	12	12	12	72	110,000	957	1,320	1,320	1,320	1,320	1,320	1,320	7,920	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Asst Engineers	Months	12	12	12	12	12	12	72	80,000	696	960	960	960	960	960	960	5,760	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Sub-asst Engineer (2)	Months	24	24	24	24	24	24	144	60,000	522	1,440	1,440	1,440	1,440	1,440	1,440	8,640	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Accountant	Months	12	12	12	12	12	12	72	60,000	522	720	720	720	720	720	720	4,320	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Computer operator	Months	12	12	12	12	12	12	72	40,000	348	480	480	480	480	480	480	2,880	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Accounts Assistants	Months	12	12	12	12	12	12	72	40,000	348	480	480	480	480	480	480	2,880	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Driver (3)	Months	36	36	36	36	36	36	216	35,000	304	1,260	1,260	1,260	1,260	1,260	1,260	7,560	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
MLSS (Outsourced) (2)	Months	24	24	24	24	24	24	144	30,000	261	720	720	720	720	720	720	4,320	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Subtotal											10,980	10,980	10,980	10,980	10,980	10,980	65,880					
2. Staff salary: Districts																						
Sub-assistant engineers: Outsourced (8)	Months	96	96	96	96	96	96	576	60,000	522	5,760	5,760	5,760	5,760	5,760	5,760	34,560	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
3. Office operating costs																						
Travel Expenses & overtime	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	20,000,000	173,913	1,000	3,000	4,000	4,000	4,000	4,000	20,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Telephone, postage, fax, electricity	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	5,000,000	43,478	250	750	1,000	1,000	1,000	1,000	5,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Printing & stationery	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	20,000,000	173,913	1,000	3,000	4,000	4,000	4,000	4,000	20,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Advertising	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	10,000,000	86,957	500	1,500	2,000	2,000	2,000	2,000	10,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Security, casual staff etc	Months	160	160	160	160	160	160	960	25,000	217	4,000	4,000	4,000	4,000	4,000	4,000	24,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Computer consumables	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	5,000,000	43,478	250	750	1,000	1,000	1,000	1,000	5,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Fuel, Gas & lubricant	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	10,000,000	86,957	500	1,500	2,000	2,000	2,000	2,000	10,000	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Remuneration, Fee & honorarium-TEC, PEC, QEC	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	2,500,000	21,739	125	375	500	500	500	500	2,500	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Mid-term evaluation by Planning commission,	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	1,500,000	13,043	75	225	300	300	300	300	1,500	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Meeting cost	Meetings	25	25	25	25	25	25	150	2,000	17	50	50	50	50	50	50	300	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Other expenses	Lum sump	0.05	0.15	0.2	0.2	0.2	0.2	1	2,500,000	21,739	125	375	500	500	500	500	2,500	0.0	0.0	0.0	OPERATION_MAIN_DA	GOVT
Subtotal											7,875	15,525	19,350	19,350	19,350	19,350	100,800					
Total Recurrent Costs											24,615	32,265	36,090	36,090	36,090	36,090	201,240					
Total											53,340	33,875	68,375	73,745	37,805	46,680	313,820					

\a Exposer visit on climate change related project (10 participant per batch 8-10 days)

IFAD
Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Annex 4: Economic and Financial Analysis

Climate Resilience and Livelihoods Enhancement Project (CRALEP)

Summary results, Introduction, and methodology

1. **Summary results**: The economic analysis carried out for the CRALEP at the design yielded the following results. The economic analysis yields an Economic Internal Rate of Return with 34% with 1.8 benefit-cost (B/C) ratio and US$ 292 million NPV for a period of 20 years under a discount rate of 9%. All economic viability indicators of the project are positive indicating that the project is economically viable.

2. This annex presents the methodology, assumptions and the results of the Economic and Financial Analysis (EFA) that was conducted at the design of the project. The main purpose of the EFA is to assess whether the project as a whole is financially viable and also economically sound to receive investments of public funds. The analysis also examines the financial viability of enterprises that the project beneficiaries will undertake and viability of other development activities such as roads and markets.

3. **Methodology**: The design EFA is based on the cost-benefit analysis methodology. The EFA of the design was carried out on the basis of the design project costs and the benefits estimated accruing to the project interventions. The CRALEP project will have several benefits to the project targeted beneficiaries and the Bangladesh economy. The financial benefits to the targeted beneficiaries will accrue from (i) several types of infrastructure, including roads, village protection systems, flood control systems, salinity control etc which will improve the physical environment for crop production and livestock rearing; (ii) facilitate farm inputs and output mobility through connecting roads that will be rehabilitated and newly built; (iii) capacity building and entrepreneurship training provided to the beneficiaries; (iv) enhanced marketability of agricultural input and outputs owing to the improved and new markets; (v) new and rehabilitated Ghats which will provide facilities for fishing and domestic purposes; and (vi) enhanced capital savings for LCS members that will be provided through labour contract work for market development and construction. In addition, union and village roads, drainage structures and village protection structures provided many economic benefits. The total number of beneficiaries targeted is 317,000 households (1.34 million people).

4. The EFA formulated several gross margin models that estimated the benefits of the project. The models include (i) two models to estimate economic benefits of union and village roads; (ii) two models to capture market development financial benefits in Haor and Barind regions; (iii) handloom production model to derive benefits for LCS members; (iv) handy craft model for cottage enterprises; (v) ecotourism model particularly for Barind region for LCS members; (vi) dairy cow model for LCS women; (vii) poultry model for youth of LCS; (viii) banana to represent crop diversification encouraged by village protection work; (ix) fish model to represent benefits of Ghats; (x) differentiated paddy crop models to represent varied climatic conditions and flooding – boro local varieties in Haor and Barind, boro high yielding varieties (HYV) in Haor and Barind, aman local varieties in Haor and Barind, and aman HYV; (xi) tomato and okra to represent commercial and less-commercial vegetables; and (xii) felon to represent legumes. For all the models, with-project and without-project scenarios were derived. The without-project scenario predicted a gradual decline of the productivity of all the crops due to unprotected flood and other adverse environmental conditions. The with-project scenario assumed that the project interventions will mitigate most of the adverse conditions and as such the productivity of all crops and livestock will improve.

5. **Data**: Several sources of information were used to derive the models listed above. The staff of the PROVATi[3] project provided information on crop and livestock production trends, productivity,

average land extents, cropping pattern etc; mid-term review reports of the PROVATi[3] project were used to obtain data; market prices of agriculture inputs and outputs were obtained from the EFA of the recently (May 2024) concluded Project Completion Review of Char Development and Settlement Project; and case studies of PROVATi[3] project also provided data on agricultural practices in the project area. In addition, the following literature was also used: Partha Sarathi Banerjee and Sanjiv De Silva, (2022), Pro-Poor Groundwater Development - The Case of the Barind Experiment in Bangladesh, World Bank Group; Bangladesh Bureau of Statistics, Population & Housing Census 2022; M Yusuf Ali, Chris Johansen and A M Musa (2018), Evolution of Agriculture in the High Barind Tract of Bangladesh (a published Book); and Md. Kamruzzaman and Md. Taj Uddin (2020), Economic Viability of *Boro* Rice Production in *Haor* Ecosystem of Kishoreganj District, *The Bangladesh Journal of Agricultural Economics, 41(2): 45-62, 2020.*

6. **Target Group**. The target people will be, in particular, rural poor, smallholder and marginal farmers, fishers, small traders and microentrepreneurs, rural agricultural and non-agricultural producers, landless people and poor women, all road users along both sides of roads, shop owners, traders, villagers of market command areas, poor young men and women. CRALEP targeted a total of 317,00 households will be direct beneficiaries (1.36 million people). Out of total targeted beneficiaries, 40% will be women and 40% will be youth. The project has applied three targeting strategies: a) geographical targeting: focusing on climate vulnerability, high incidence of poverty, and infrastructure poor regions; b) poverty targeting: the majority of the population is poor, and a significant percentage of them is ultra-poor; and c) beneficiary targeting: groups that will benefit most are agricultural laborers, artisans, marginal and small farmers, fishing communities, other small producers, non-agricultural producers, and poor young men and women. The EFA models have been developed for this type of beneficiaries.

7. **Approach**. The project will target Haor and Brind regions as the project area. The topography, climatic conditions and socio-economic environment of the two regions will influence the viability of crops and livestock production. Model development therefore has taken such issues into consideration.

8. **Haor** is a term which refers to flood prone land and other low-lying areas that remain inundated with water for several months each year. The Haor basin comprised of large areas of seven districts, namely Sylhet, Sunamganj, Habiganj, Moulvibazar, Kishoreganj, Brahmanbaria and Netrokona which are targeted by CRALEP. Md. Kamruzzaman and Md. Taj Uddin (2020) stated about the agroeconomic performance of Boro rice cultivation at farmer's level of haor area and found that productivity of Boro rice was low due to imbalance use of fertilizers, recurrence floods etc. The study named above also reported that that Boro-fallow-fallow was the dominant cropping pattern and flash flood severely destroy standing Boro rice just before harvesting almost every year. These were taken into consideration in developing the without project (WOP) models for rice. According to the staff of the PROVATi3 project, paddy is the primary crop cultivated in the Haor region. Due to seasonal flooding, farmers typically grow Boro rice, a type of rice that is planted in the dry season and harvested before the monsoon rains/April. The unique hydrological conditions necessitate specific agricultural practices, including the use of raised seedbeds and irrigation management to cope with waterlogged conditions. The main paddy varieties include Boro Season: BRRI Dhan-28, BRRI Dhan-29, BRRI Dhan-58, BRRI Dhan-63, Aman Season: BRRI Dhan-32, BRRI Dhan-34, BRRI Dhan-52, Swarna (BR11), Hybrid Varieties: Hira-2, SL-8H. On average, smallholder or poor families in the Haor region, the target group of CRALEP, typically cultivate relatively small parcels of land due to the fragmented nature of land ownership and the economic constraints they face. Estimates suggest that the average size of paddy fields for a poor family in this region can range from 0.2 to 1 hectare (0.5 to 2.5 acres). The average productivity of Boro Paddy: 4.0 to 5.0 tons per hectare and Aman Paddy: 1.0 to 2.0 tons per hectare (op cit 2020 and PROVATi3 project information). The main type of fertilise used include Nitrogen: Urea, Ammonium Sulfate; Phosphorus: Diammonium Phosphate (DAP), Triple Superphosphate (TSP); Potassium: Muriate of Potash (MOP); Micronutrients: Zinc Sulfate, Boron. A

decrease in paddy cultivation can be expected without the project interventions at a rate of approximately 5-10% which was observed over the last 10 years due to flooding, inadequate water management, soil fertility decline, land use changes, and farmer migration (PROVATi3 project information). Non-paddy crops grown in the area include Gourds, okra, spinach. Fish Farming with Carp, tilapia, catfish is common (0.1 to 1-hectare pond size) and duck farming integrated with paddy fields is often practiced. PROVATi3 project information also reported that poultry farming can be a viable alternative livelihood in the Haor area due to its relatively low investment requirements and high market demand for poultry products. Local farmers can rear chickens for meat and eggs, utilizing household or community-owned land for small-scale poultry units. Further, handicrafts and cottage industries such as bamboo craft and handloom weaving can be considered as income generating activities (IGA) for labour contracting society (LCS) members, mostly women. In addition, ecotourism ventures capitalizing on the scenic beauty and biodiversity for community-based ecotourism activities could be promoted. Non-agricultural models were developed to capture these activites.

9. **High Barind Tract.** As M Yusuf Ali, Chris Johansen and A M Musa (2018) mentioned that the human population of the High Barind Tract (HBT) relies predominantly on agriculture, mainly on the rainy season (monsoon) transplanted aman (t. aman) rice crop. The HBT can presently be divided into two parts, the major area of mainly northern HBT remains rainfed and covers about 55% and the other 45% of mainly southern HBT has irrigation facilities, mostly from deep tube wells, used predominantly for dry season (boro) rice cultivation. The northern parts have less ground water potential and there is little chance for them to come under irrigation in the future. The predominant cropping pattern of the rainfed area is a single crop of t. aman rice or t. aman followed by post-rainy season (rabi) crops such as chickpea, barley and linseed. These rabi crops are grown as mixtures or sole crops reliant on residual soil moisture and any winter rainfall. The irrigated area is dominated by a boro rice-t. aman rice cropping pattern. These factors were considered in developing the WOP models of the EFA.

10. People are increasingly converting more rice land area to fruit gardens, mainly growing mango, banana etc as, once established, those gardens better ensure higher and more reliable economic benefit (op. cit, 2018). Rearing of livestock like cattle, buffalo, goats, sheep and poultry remain integral parts of the farming systems of HBT farmers. The farm model development has been influenced by these findings.

11. The seed bed area, for Boro rice production, is levelled by laddering (drawing a wooden bar across the surface) with a film of standing water left on the surface. The prior germinated seeds are then hand broadcasted on the prepared seed bed at the rate of 80-100 gm seed per m2 bed. About 26-30 kg seed is required for transplanting in 1 ha land. The water level of the seed bed is maintained at 1-5 cm, by adding water if rainfall is insufficient and by drainage if rainfall is in excess, which is labour intensive. Before the last ploughing different fertilizers are applied at various rates depending on soil fertility and rice cultivar. The predominant cultivars, according to the staff of the PROVATi3 project, include Boro Season: BRRI Dhan-28, BRRI Dhan-29, BRRI Dhan-58, BRRI Dhan-63, Aman Season: BRRI Dhan-51, BRRI Dhan-52, BRRI Dhan-71, BRRI Dhan-75, Aus Season: BRRI Dhan-48, BRRI Dhan-55, and Hybrid Varieties: Tia, ACI-1. Poor families in the Barind area, the project target group, typically have small landholdings due to economic constraints and the fragmented nature of land ownership. The average size of paddy fields cultivated by a poor family in the Barind region is often ranging from 0.1 to 0.5 hectares (0.25 to 1.25 acres). As per the above reference and PROVATi3 project information, productivity of Boro Paddy: 3.5 to 5.0 tons per hectare, and Aman Paddy: 1.0 to 2.0 tons per hectare. Paddy cultivation uses nitrogen fertiliser such as Urea, Ammonium Sulphate, and Phosphorus fertiliser such as Diammonium Phosphate (DAP), Triple Superphosphate (TSP), and Potassium is obtained from Muriate of Potash (MOP). And micronutrients are also applied through Zinc Sulfate, and Boron. As PROVATi3 project information stated, there was a decrease in paddy

cultivation at a rate of approximately 10-15% over the last 10 years due to factors such as water scarcity, soil degradation, economic factors, and crop diversification.

12. Non-paddy crops in HBT include wheat which is drought-tolerant staple crop, pulses such as cowpea, mung beans, chickpeas etc providing protein and improving soil fertility, vegetables of various types providing nutritional and economic benefits; and fruits such as banana, mango, and guava etc. In the Barind region, where groundwater irrigation supports agriculture, dairy farming can thrive alongside crop cultivation. Farmers can establish dairy farms with improved breeds of cattle, focusing on milk production. Additionally, dairy farming can contribute to soil fertility through the utilization of cow dung as organic fertilizer. Similar to the Haor region, poultry farming can serve as a profitable alternative livelihood in the Barind area. With suitable climatic conditions and availability of feed resources, poultry farming can thrive. Farmers can rear broiler chickens for meat production or layers for egg production, contributing to income generation and food security.

13. In both areas (Haor and HBT), paddy productivity is highly dependent on local environmental conditions, the choice of rice varieties, and agricultural practices. To enhance paddy productivity, continuous efforts are needed in several key areas. Improving water management is crucial to ensure adequate irrigation and drainage, particularly in regions prone to flooding or drought. Introducing resilient rice varieties that can withstand adverse conditions such as pests, diseases, and climate variability is also essential. Additionally, providing farmers with adequate resources and training in improved agricultural techniques can significantly boost productivity which was considered as with-project situation. These measures combined can help achieve sustainable paddy production and improve the livelihoods of farmers in these areas. The labour use for rice production was determined on the basis of these considerations.

Financial Analysis

Main Assumptions

14. The main assumptions used for the design EFA are highlighted in this section.

(a) Paddy and non-paddy crops and livestock models were developed to represent Haor and Brind areas with their specific climatic conditions.

(b) Paddy is a traditional crop in the project area. Common cropping patterns include: fallow-Kharif, Aman-Rabi crops or fallow. Okra, and tomato that were commonly observed among other crops were used in the EFA. For paddy, Boro-local variety, Boro-high yielding variety (HYV), Aman-local variety, and Aman-high yielding variety (HYV) were used. Two sets of models were developed to represent Haor and Brind areas as described above.

(c) Average size of paddy was assumed at 0.6 ha and 0.3 ha for Haor and Brind regions respectively for the design EFA and also it is assumed that there will not be an increase in the size of paddy land due road and market improvements under the project situation because of the limited availability of suitable land. For estimation of cost and benefit cash flows, 1 ha of model size has been assumed. Household consumption of paddy was fully included in the benefit flow. Same approach was used for other crops and livestock.

(d) Average cropping intensity is 200% but damages due to floods are frequent[1] and this could be as high as 40% of seasonal cropped area. For the purposes of analysis an annual damage of 20% area has been assumed at the design for the WOP scenario.

(e) For estimating the market benefits, the EFA assumed that the average annual lease of a large market is Tk 75,000 and that of a small market is Tk 25,000. It is assumed that there will be 100 traders per market in Haor region and 50 in Barid region. The averages of the

[1] Source: Agriculture Yearbook 2015, BBS, MoP, Dhaka

lease values of all the traders of one market were Tk 1.9 million for hat-days and Tk 0.88 million for non-Hat days for WOP scenario and the values will increase to Tk 3.6 million to Tk 1.6 respectively under WP scenario. These values were used to estimate the current benefit. For the Haor region the assumptions were Tk 1.5 million and Tk 1 million for WOP which increase to Tk 3.1 million and Tk 2.5 million for WP scenarios.

Average distance of transport was assumed at 8 km per day in the union-roads and 9 km per day both ways in village roads. The type of vehicles using both type of roads is listed in

(f) Table 5.

(g) The EFA assumption was that there are 500 households (HHs) per km of village road and 595 HH for a union road and of them 60% are farm households. Average size of a household ranges between 4 and 5 and on average 2 per HH will travel for about 200 days per year.

(h) The EFA assumed about the skill development training was instrumental in getting jobs with salaries that are higher than the wage labour rates of Tk 650 per day. The details are listed below.

(i) The EFA assumed many women were involved in income generating activities using the savings from market construction activities. The women members of the LCS are benefited by the project, and as such the typical income generating activities were included into the EFA. As per the case studies of the LCS members, dairy and sewing of garments were common and thus used for the EFA.

(j) All benefits in the EFA were estimated using 2024 prices and the cost of the project budget was also based on 2024 prices.

(k) For all activities which used labour, a financial rural daily wage rate of Tk 650 per person-day was assumed. It was assumed that there is no difference in the wager for men and women. The same wage rate was used to value household family labour too because of the availability of increasing wage labour opportunities in the project areas due to infrastructure development. In the transformation process of financial value to economic value, the opportunity cost of labour is computed using the conversion ratio of 93% taking into account the non-tradable nature of labour and imperfections in the rural labour market.

(l) With increased input deliveries using improved roads in the production areas and market linkages through improved markets, the agricultural crops producers were capable of achieving a higher production levels in comparison to their counterparts who are away from the roads and markets. The PROVATi team provuded current levels of production, input use and technologies that are adopted in the project area. These were used for the EFA.

(m) Conservative rates were assumed for the growth of business in the markets and benefits from roads which are spelled out under specific assumptions in the individual models.

(n) Financial discount rate was assumed at 12% which is the Bangladesh Bank Lending Rate in January 2024 (Source: https://www. bb.org.bd / fnansys/ interestlending).

Estimation of Target distribution

15. The total project out reach will be 317,000 households. Using various assumptions that are listed below, these HHs were allocated into different activities. Depending on the number of Upazilas (24 in Haor and 9 in Barind) it was assumed that Haor and Barind regions will have 73% and 27% of the total HHs to be benefited by the project. Accordingly, there will be 230,545 and 86,455 HHs in the two regions respectively. On the basis of the description of the regions' agriculture landscape, it was assumed that 70% and 60% of the HHs in Haor and Brind respectively grow paddy, and as such there will be 161,380 HHs growing paddy in Haor (73% of 317,000 = 230,546 and 70% of that is ~161,380). These two rates, 70% and 60% were considered as the adoption rates for the project. With the assumption that the average size of paddy land per HHs is 0.6 ha in Haor, the EFA assumed that 96,828 ha of paddy in Haor region that will be benefited by the project. The distribution of the households who would be able to improve paddy cultivation was assumed to be in line with the distribution of road development targets and village protection targets (see Table 1). This distribution is presented in Table 1. The distribution of paddy according to different varieties was assumed on the basis of the references listed above (mainly Md. Kamruzzaman and Md. Taj Uddin, 2020). Table 1

resent this distribution. It is assumed that about 50% of paddy lands will be used for other crops which are listed in the table below and their distribution using the same approach. It was also assumed that about 50% of those who do not cultivate paddy will raise livestock. The distribution of livestock HHs is also presented in Table 1. These targets are used for the EFA.

Table 1: Distribution of households, cultivated lands and livestock raising households – Haor Region

Project activity / GM Model	Units	2025	2026	2027	2028	2029	2030	Total
Road improvement	km							
Haor Region	km	7	21	28	42	28	14	140
Barind Region	km	9	27	42	59	36	18	191
Low-cost nature-based village protection system in Shallow Haor	Villages	-	28	56	84	84	28	280
	Village distribution	0%	10%	20%	30%	30%	10%	100%
Haor Region	Road deve. Distribution	5%	15%	20%	30%	20%	10%	100%
Barind Region	Road deve. Distribution	5%	14%	22%	31%	19%	9%	100%
Out reach (basis is both road + village)								
Haor Region								
Paddy	HH	8,069	24,207	32,276	48,414	32,276	16,138	161,380
Other crops	HH	4,841	14,524	19,366	29,049	19,366	9,683	96,829
Livestock	HH	2,766	8,299	11,066	16,599	11,066	5,533	55,329
Avg Paddy (ha)	0.6							
Paddy	ha	4,841	14,524	19,366	29,048	19,366	9,683	96,828
Boro Local	50%	2,421	7,262	9,683	14,524	9,683	4,841	48,414
Boro HYV	20%	968	2,905	3,873	5,810	3,873	1,937	19,366
Aman Local	10%	484	1,452	1,937	2,905	1,937	968	9,683
Aman HYV	20%	968	2,905	3,873	5,810	3,873	1,937	19,366
	100%							
Other crops (50% paddy land)	ha	1,452	4,357	5,810	8,715	5,810	2,905	29,049
Tomato	30%	436	1,307	1,743	2,614	1,743	871	8,715
Felon	40%	581	1,743	2,324	3,486	2,324	1,162	11,619
Okra	20%	290	871	1,162	1,743	1,162	581	5,810
Banana (Fruit: diversification)	10%	145	436	581	871	581	290	2,905
	100%							
Livestock	HHs							
Dairy	40%	1,106	3,320	4,426	6,640	4,426	2,213	22,132
Poultry	20%	553	1,660	2,213	3,320	2,213	1,107	11,066
Fish	70%	1,936	5,809	7,746	11,619	7,746	3,873	38,730

The same approach was used to estimate the total beneficiary HHs in Barind region and also the distribution of the HHs over the project period. According to the assumptions mentioned above, there will be 86,455 HHs in the Brind regions. On the basis of the description of the regions' agriculture landscape, it was assumed that 60% of the HHs in Brind grow paddy, and as such there will be 51,869 HHs growing paddy in Brind. With the assumption that the average size of paddy land per HHs is 0.3 ha in Brind region, the EFA assumed that 15,561 ha of paddy in Haor region that will be benefited by the project. The same approach was used to make the assumptions of the distribution of the HHs and the cultivated land extents and livestock raising.

16. Table 2 summarises the targets and the EFA excel sheets provide details.

Table 2: Distribution of households, cultivated lands and livestock raising households – Barind Region

Project activity / GM Model	Units		2025	2026	2027	2028	2029	2030	Total
Barind Region									
Paddy	HH		2,439	7,319	11,386	16,087	9,759	4,879	51,869
Other crops	HH		1,463	4,391	6,831	9,652	5,855	2,927	31,119
Livestock	HH		1,301	3,903	6,072	8,579	5,205	2,602	27,662
Avg Paddy (ha)		0.3							0
Paddy	ha		732	2,196	3,416	4,826	2,928	1,464	15,561
Boro Local		30%	220	659	1,025	1,448	878	439	4,668
Boro HYV		40%	293	878	1,366	1,930	1,171	585	6,224
Aman Local		10%	73	220	342	483	293	146	1,556
Aman HYV		20%	146	439	683	965	586	293	3,112
		100%							
Other crops (50% paddy land)	ha								
Tomato		30%	439	1,317	2,049	2,896	1,757	878	9,336
Felon		40%	585	1,756	2,732	3,861	2,342	1,171	12,448
Okra		20%	293	878	1,366	1,930	1,171	585	6,224
Banana (Fruit: diversification)		10%	146	439	683	965	586	293	3,112
		100%							
Livestock	HHs								
Dairy		20%	260	781	1,214	1,716	1,041	520	5,532
Poultry		30%	390	1,171	1,822	2,574	1,562	781	8,299
Fish		70%	911	2,732	4,250	6,005	3,644	1,821	19,363

17. The project targets estimated as presented above were used to conduct the aggregated project level economic analysis. The model results were populated with total respective targets with the target distribution presented above.

18. The basis for the target distribution of households was the distribution of targets of roads and markets in different regions as presented in Table 3. The project budget is the basis for this presentation.

Table 3: Construction of roads and markets over the project period

Type of Market	Unit	Implementation Targets FY 2026-30						Total
		2025	2026	2027	2028	2029	2030	
Barind region: Large village market built on open khas land	No		4	6	0			10
Large village market rehabilitation: Haor Region	No		12	12	12	12		48
Construction of Submergible village RCC road - Haor Region	Km	7	21	28	42	28	14	140
Construction of BC village roads: Barind region	Km	9	27	36	54	36	18	180
Total Village Roads	**Km**	**16**	**48**	**64**	**96**	**64**	**32**	320
Construction of Union BC road: Barind	Km	-	-	6	5			11
All Roads	Km	16	48	70	101	64	32	

19. The EFA estimated that 3,480 LCS members would be employed for market construction. This is based on the assumption that one market will have 3 LC societies with 20 members.

Table 4: Distribution of LCS members, mainly women as per market construction

		2025	2026	2027	2028	2029	2030	Total
Number of LCS Members	3480							
Distribution		0	960	1080	720	720	0	3,480
Handicraft	40%	0	384	432	288	288	0	1,392
Women IGA	50%	0	480	540	360	360	0	1,740
Home Stay service at Eco-tourism sub-project: Haor Area	10%	0	96	108	72	72	0	348

20. These LCS members will have savings and also training to undertake IGAs such as handicraft, garment stitching and managing eco-tourism. The number of members presented in Table 4 was used as the target for benefit estimation of the EFA.

Financial Models and Results

21. The overall financial analysis of the project was based on the following financial models: (i) union road model taking saving of vehicle maintenance cost (VMC): VMC was estimated for Car/jeep/Taxi/CNG; Motor cycles; Power tillers; Easy bike; Pick-ups; Auto-rickshaw; Tractor; Ambulance; Truck; Nosimon/ bodvody; Rickshaw; Bicycle; Bullock/Buffalo Cart; Push cart and vans. The EFA excel sheets provide details of the estimation. (ii) village road model taking VMC: (iii) market models based on 2 rural markets representing a small and a large market; (vi) dairy cow model as LCS women IGA; (v) garments as women IGA using forced savings; (vi) several paddy and non-paddy crop models; and (vii) poultry and fish models. The excel sheets provide all the details of these models and the financial viability of each model. The following sections summarise the specific assumptions and the results of each of the model.

Union Road model

The main economic benefits of roads are the saving of vehicle maintenance cost for the vehicle operators and the reduction in cost of transport for the passengers. These two benefits were estimated using the information provided by the staff of the PROVATi project and EFA of the MTR of the same project.

Table 5 summarises the estimation of the VMC for typical vehicles using the union roads, and the transport cost saving for the passengers. The 1st part of the table shows the VMC for each type of vehicle. The number of vehicles in operation in hat-days and non-hat-days before and after road improvement, and the VMC for the two scenarios. The sheet named “Union_Road_Spec” in the EFA excel file shows the details of the number of vehicles and the VMC for each while

22. Table 5 summarises the variables.

23. Second part of

24. Table 5 shows the transport cost saving which is Tk 2 per km. The number of km travelled by a person and average number of persons traveled per HH were assumed on the basis of PROVATi MTR reports. It is assumed that the HH members would travel 200 days per year. Both types of benefits were estimated for one kilometre. For project level estimation, these benefits were populated for the total length of the Union roads and average distance travelled. The cost of road construction is based on the cost presented in the cost tables of CRALEP. The EFA excel sheets provide the construction cost for each union road that was used in the EFA. In addition to the construction cost, an annual maintenance cost, which is 5% of the construction cost, and a cost for major repairers in every 5 years, which is 30% of the construction cost, were included in the cost flow. The EFA excel sheets presents the details. Using these parameters, the financial viability of all the union roads was estimated for a 20-year period with 12% financial discount rate and presented in

25. Table 5.

Village Road Model

The same methodology was used to estimate the VMC and transport cost saving benefits of the village roads. The EFA excel sheets presents the details.

26. Table 6 summarises the results. Using these parameters, the financial viability of all the village roads was estimated for a 20-year period with 10% financial discount rate and presented in **Error! Reference source not found.**. The financial viability analysis indicates that the village roads will have 13% FIRR and 1.09 benefit-cost ratio for a 20-year period.

27. The financial analysis of the two types of roads indicates that the union roads generate a higher profitability in comparison to village roads. This main reason is the numbers vehicles that are operated in the union roads are notably higher which generates higher VMC savings.

Table 5: Estimating Union Road benefits

Type of Vehicle	Nb of vehicles - Hatt Days-Full day: WOP (nb/km)	Nb of vehicles - Hatt Days-Full day: WP (nb/km)	Nb of vehicles - Non-Hatt Days-Full day: WOP (nb/km)	Nb of vehicles - Non-Hatt Days-Full day: WP (nb/km)	VMC (Tk/Yr): Before improvement (WOP)	VMC (Tk/Yr)	Total Annual VMC Savings - WP (Tk/Yr)
Vehicle maintenance cost (VMC) saving for vehicle owners							
Micro-bus	2	10	0	0	12,000	8,000	45,714
Car/jeep/Taxi/CNG	6	20	4	14	10,000	8,000	125,714
Motor cycle	154	240	112	176	8,000	6,000	1,554,286
Power tiller	34	56	22	38	12,000	8,000	690,286
Easy bike	52	200	16	62	9,000	7,000	811,429
Pick-up	14	30	4	10	12,000	8,000	251,429
Auto-rickshaw	32	50	6	10	6,000	5,000	85,714
Tractor	18	28	4	8	12,000	8,000	219,429
Ambulance	4	10	2	6	10,000	8,000	57,143
Truck	10	20	4	8	15,000	12,000	137,143
Nosimon/ bodvody	38	48	24	32	4,000	3,000	146,286
No-Motorized							
Pedestrian	90	50	38	22	0	0	0
Rickshaw	56	60	22	24	6,000	4,500	205,714
Bicycle	218	400	136	250	4,000	3,000	1,171,429
Bullock/Buffalo Cart	14	4	4	2	0	0	0
Push cart	14	0	4	0	0	0	0
Van	104	40	36	14	6,500	4,500	171,429
Total Benefits							5,673,143
Total Benefits/km							500,277
Transport Cost Saving for Travellers							
Avg Cost of transport per KM (avg for all types): WOP	Tk/km						20
Avg Cost of transport per KM (avg for all types)	Tk/km						18
Avg HHs per km of Road	HH/km						595
Avg number of people who travel (assume 2 per HH; 200 days travel /Yr)	People						1,189
Total Km travel in all types of vehicles providing transport	km/day						8
Cost saving (Total)	Tk 1000/Yr						43,159
Financial viability of union roads for 20 Years							
IRR							14%
NPV - Cost	Tk 1000						188,534
NPV - Benefits	Tk 1000						205,986
NPV	Tk 1000						17,452
BC Ratio							1.09

Table 6: Estimating Village Road benefits

Type of Vehicle	Nb of vehicles - Hatt Days-Full day: WOP (nb/km)	Nb of vehicles - Hatt Days-Full day: WP (nb/km)	Nb of vehicles - Non-Hatt Days-Full day: WOP (nb/km)	Nb of vehicles - Non-Hatt Days-Full day: WP (nb/km)	VMC (Tk/Yr): Before improvement (WOP)	VMC (Tk/Yr)	Total Annual VMC Savings - WP (Tk/Yr)
Vehicle maintenance cost (VMC) saving for vehicle owners							
Micro-bus	8	10	2	6	12,000	8,000	228,571
Car/jeep/Taxi/CNG	16	20	8	15	10,000	8,000	262,857
Motor cycle	50	60	20	45	8,000	6,000	788,571
Power tiller	17	20	7	15	12,000	8,000	525,714
Easy bike	16	24	6	15	9,000	7,000	281,143
Pick-up	12	18	5	8	12,000	8,000	347,429
Auto-rickshaw	16	24	10	15	6,000	5,000	140,571
Tractor	8	12	5	7	12,000	8,000	269,714
Ambulance	5	8	3	5	10,000	8,000	91,429
Truck	6	8	2	6	15,000	12,000	157,714
Nosimon/ bodvody	4	6	2	5	4,000	3,000	42,286
No-Motorized	0	0	0	0	0	0	0
Pedestrian	50	70	45	90	0	0	0
Rickshaw	40	60	30	35	6,000	4,500	505,714
Bicycle	75	100	60	68	4,000	3,000	617,143
Bullock/Buffalo Cart	0	0	0	0	0	0	0
Push cart	0	0	0	0	0	0	0
Van	70	80	50	60	6,500	4,500	1,051,429
Total benefits							5,310,286
Total benefits / km							663,786
Transport Cost Saving for Travellers							
Avg Cost of transport per KM (avg for all types): WOP	Tk/km						20
Avg Cost of transport per KM (avg for all types): AT MTR	Tk/km						17
Avg HHs per km of Road	HH/km						500
Avg number of people who travel (assume 1 per HH; 200 days travel /Yr)	People						500
Total Km travel in all types of vehicles providing transport (25% of Union Roads)	km/day						9
Cost saving (Total)	Tk 1000/Yr						1,083,953
Financial viability of union roads for 20 Years							
IRR							16%
NPV - Cost	Tk 1000						4,223,148
NPV - Benefits	Tk 1000						4,962,610
NPV	Tk 1000						739,462
BC Ratio							1.18

Market model

28. The design mission visited a few markets and provided data to estimates the financial viability of markets. The EFA excel sheets provide the details that were used for the EFA. The road construction targets with the distribution are presented in Table 3.

29. The cost of the market model consists of (i) actual construction cost of each market obtained from project budget (Cost Tables); (ii) 5% of the construction cost to be invested for annual maintenance; (iii) lease tall paid by the traders to the lessor per day, out of which about 25% is used for regular maintenance of the market; (v) cost of electricity; and (vi) cost of garbage management and cleaning.

30. The benefit estimation of the markets was based on (i) market transactions on a non-hatt day and a hatt day; (ii) the average value of lease toll; and (iii) sale volume during the lean and peak seasons. The values for these parameters vary with the market, the EFA excel sheets present the values for typical market in Haor and Barind regions. All prices are based on 2024 price level. The financial internal rate of return (IRR) for a period of 20 years and the net present value (NPV) with a 12% discount rate (DR) for 20 years period indicated the financial viability of the markets. Table 7 presents the parameters used for the benefit estimation and the financial viability indicators.

Table 7: Indicators used to assess the Financial viability of the Markets – Haor Region

OPERATION SPECIFICATION		WOP	WP
Transaction value: Hat days (Based standard)		100%	100%
Transaction value: Non Hat days		20%	20%
Nb of market days of the market: Hat days	days/week	2	2
Nb of market days of the market: Non Hat days	days/week	5	5
Nb of market days of the market: Hat days	days/Yr	104	104
Nb of market days of the market: Non Hat days	days/Yr	260	260
Lease Toll paid by the traders: Hat Days	Tk/Trader/Yr	1650	5500
Lease Toll paid by the traders: Non-Hat Days	Tk/Trader/Yr	1000	3200
Nb Traders: Hat-Day	Nb.	150	250
Nb Traders: Non-Hat-Day	Nb.	100	190
Market turnover: Hat-Day	Tk/day	1,500,000	3,100,000
Market turnover: Non-Hat-Day	Tk/day	1,000,000	2,500,000
Market growth	%		2%
COSTS			
Construction cost	Tk 1000		4,000
Major repairs: every 5 yrs, % of construction cost =	Tk 1000	5%	5%
Incremental Cost of Electricity [average monly cost = Tk 12000/month]	Tk 1000/Yr		144
Cost of cleaning and waste management [average per market = Tk 2400/day (4 men)	Tk 1000/Yr		876
Total cost	Tk 1000		
BENEFITS			
[All benefits are based on the PROVATi MTR data]			
Gross Revenues			
Market turnover: Hat day	Tk/day	1,500,000	3,100,000
Market turnover: Non-Hat day	Tk/day	1,000,000	2,500,000
Lease Toll paid by the traders: Hat Days	Tk/Yr	247,500	1,375,000
Lease Toll paid by the traders: Non-Hat Days	Tk/Yr	100,000	608,000
Incremental Gross Revenues per year:			
% of days the market is in operation in a year	Days/Yr	70%	80%
Annual Market turnover (Total: Hat day+Non-Hat Day)	Tk /Yr	291,200,000	777,920,000
Incremental Market turnover (Total: Hat day+Non-Hat Day)	Tk 1000 /Yr		486,720
Annual Lease Toll paid by the traders: (Total: Hat Days + Non-Hat days)	Tk /Yr	347,500	1,983,000
Incremental Annual Lease Toll paid by the traders:	Tk 1000 /Yr		1,636
Total Incremental Gross Revenue	Tk 1000 /Yr		1,636
Total Incremental Gross Revenue with market growth	Tk 1000		
Seasonality implications:			
Peak season - Nb of market operation months	Months	6	6
Lean season - Nb of market operation months	Months	4	4

31. The average benefit flow of these markets was used to estimate the project level benefits. The average value was populated by the number of markets budgeted for the project. The typical market in the Haor region generated positive financial viability results: 14% financial IRR; 1.5 benefit-cost ratio and Tk 13 million NPV for 20-year period at 12% DR. For the Brind region, a typical market generated 14% IRR; 1.3 B/C ration and Tk 17 million NPV for 20 years.

Agricultural Models

32. As mentioned above the project design assumed that the agricultural productivity will increase thanks to the improved roads, better market functioning, reduced impact of flood incidents, village protection structures, salinity control and improved agricultural practices. Using the information gathered through the reference sources listed above, a number of crop models were derived using 2024 prices for inputs and outputs. Two sets of crop models for each type of paddy were developed to represent the environment diversity of Haor and Brind regions. A decline in the productivity of paddy was assumed for the WOP scenario as highlighted above in both Haor and Brind regions. For the WP models, it was assumed that the decline will be halted due to the improvement of the physical conditions of the project areas. Details of the models are presented in the EFA excel sheet. Table 8 presents the productivity levels of all crops for the WOP and WP scenarios, and the profitability parameters. The results indicate that the WP models have improved financial profitability for all the models.

Table 8: Productivity levels, costs, gross return and profitability indicators of crops and livestock production

Crops and Livestock Models	WoP/WP	Nb HHs	Productivity (kg/ha) - WP at Full Development	Cost at FD (Tk/Yr)	Net Benefit at FD (Tk/Yr)	NPV (12% DR, 20 Yrs, Tk)	B/C Ratio	IRR	Return to Labour (Tk/md)
2-Cow Dairy Model - Most demanded IGA of LCS Women (new) (lt/day)	WP	27,664	3.8	97,330	53,045	130,441	1.20	42%	2,652
Livestock Production: Back-yard Poultry & Duck (eggs/Yr)	WP	19,364	490	395,693	538,406	61,376	1.36	>50%	924
	WOP		76	9,962	10,742	7,664	1.08	>50%	701
Banana: Representing horticultural crops (1 ha)	WP	6,017	22,500	329,986	66,014	472,400	1.20	>50%	2,891
	WOP		16,160	297,687	-13,271		0.96	>50%	1,190
Fish production (Pond)	WP		350	55,841	4359	32,559	1.08	>50%	737
	WOP	58,094	65	10,275	905	6,760	1.09	>50%	710
Boro local Crop - Haor Region (ha)	WP		4,000	67,085	45,461	278,716	1.58	>50%	1,785
	WOP	48,414	2,800	50,059	18,305	101,110	1.27	-6%	1,192
Boro local Crop - Barind Region (ha)	WP		3,500	65,318	33,116	139,262	1.29	58%	1,718
	WOP	4,668	1,700	45,992	-4,971	-84,480	0.75	Negative	184
Boro HYV Crop - Haor Region (ha)	WP		5,000	82,859	64,427	379,232	1.62	>50%	2,261
	WOP	19,366	3,800	76,128	12,313	46,652	1.08	6%	918
Boro HYV Crop - Barind (ha)	WP		5,000	89,359	57,927	353,145	1.53	>50%	2,098
	WOP	6,224	3,800	82,628	-148	-90,491	0.85	28%	277
Aman Local Crop - Haor (ha)	WP		1,000	27,631	827	3,933	1.02	94%	688
	WOP	9,683	950	26,525	509	3,805	1.02	50%	674
Aman Local Crop - Barind (ha)	WP		1,000	26,331	2,127	10,806	1.06	370%	756
	WOP	1,556	900	25,633	-22	-162	1.00	Negative	649
Aman HYV Crop - Haor (ha)	WP		2,000	44,186	12,729	72,491	1.21	>50%	1,061
	WOP	19,366	1,800	43,927	7,296	44,861	1.13	>50%	885
Tomato - representing commercial vegetable (ha)	WP		7,167	69,148	218,630	1,871,277	4.64	>50%	9,235
	WOP	18,050	6,167	67,198	266,140	1,647,611	4.28	>50%	7,765
Felon (Cowpea) - Legume (ha)	WP		1,200	63,360	80,870	559,118	2.22	>50%	3,259
	WOP	24,067	1,000	56,326	63,674	492,780	2.22	>50%	2,704
Okra representing subsistence vegetable (ha)	WP		4,667	49,901	144,964	1,027,173	3.74	>50%	5,326
	WOP	12,034	4,167	48,432	125,179	940,783	3.64	>50%	5,121

The results presented in Table 8 refer to the land extent of 1 hectare. The average size of paddy cultivations and that of others crops is mostly less than 1 ha. The actual production and income that a farmer can get will therefore be less than what is presented in Table 8. The potential productivity, cost and the net income of an average farmer are presented

33. Table 9. The net benefits of many of the crops indicates a notable level of better income. Moreover, an average farmer will have more than one crops with an average of 200% cropping intensity. In such cases, the total farm income will be an aggregation of more than one crop and the total will be determined by the type of farming systems in the two regions.

34. Almost all the farm activities in both Haor and Brind regions are carried out by family labour. Thus, the return to labour analysis is a useful indicator to assess the project contribution to the household economy. Return to labour analyses, presented in Table 8 and Table 9 indicate that the household can get higher returns to their labour with increased farm productivity and with reduced environmental adverse effects.

Table 9: Average farm size, production levels, costs, gross return and profitability indicators of crops and livestock production of an average farmer

Crops and Livestock Avg Farm Models	WoP/WP	Avg Farm Size (ha)	Cost at FD (Tk/Yr)	Net Benefit at FD (Tk/Yr)	Return to Labour (Tk/md)
2-Cow Dairy Model - Most demanded IGA of LCS Women (new)	WP	1	97,330	53,045	2,652
Livestock Production: Back-yard Poultry & Duck	WP	1	395,693	538,406	924
	WOP	1	9,962	10,742	701
Banana: Representing horticultural crops	WP	0.27	89,096	17,824	780
	WOP		0	0	0
Fish production (Pond)	WP	1	55,841	4,359	737
	WOP	1	10,275	905	710
Boro local Crop - Haor Region	WP	0.60	40,251	27,276	1,071
	WOP	0.54	27,032	9,885	644
Boro local Crop - Barind Region	WP	0.30	19,595	9,935	515
	WOP	0.30	13,798	-1,491	55
Boro HYV Crop - Haor Region	WP	0.66	54,687	42,522	1,492
	WOP	0.60	45,677	7,388	551
Boro HYV Crop - Barind	WP	0.30	26,808	17,378	629
	WOP	0.30	24,789	-44	83
Aman Local Crop - Haor	WP	0.48	13,263	397	330
	WOP	0.48	12,732	245	324
Aman Local Crop - Barind (ha)	WP	0.30	7,899	638	227
	WOP	0.30	7,690	-7	195
Aman HYV Crop - Haor (ha)	WP	0.66	29,163	8,401	700
	WOP	0.60	26,356	4,378	531
Tomato - representing vegetable	WP	0.3	20,744	65,589	2,771
	WOP	0.27	18,143	71,858	2,097
Felon (Cowpea) - Legume (ha)	WP	0.3	19,008	24,261	978
	WOP	0.27	15,208	17,192	730
Okra representing vegetable (ha)	WP	0.3	14,970	43,489	1,598
	WOP	0.27	13,077	33,798	1,383

Enterprise models

35. As mentioned above, many LCS members, mainly women, use their savings and invest in non-farm enterprises. The representative enterprises are listed Table 10 with the financial profitability indicators. The EFA excel sheets provide the details. The B/C ratio and the IRR indicate the long-term financial viability of these enterprises.

Table 10: Number of HHs involved in non-farm enterprises and their profitability

Enterprise Models	**WoP/WP**	**Nb HHs**	**Cost at Full Deve. (Tk/Yr)**	**Net Benefit at FD (Tk/Yr)**	**NPV (12% DR, 20 Yrs, Tk 1000)**	**B/C Ratio**	**IRR**
IGA - Sewing Machine with LCS Profit (New)	WP	1740	39,163	77,498	353	2.69	
Basket Weaving: Representing Non-farm Micro Enterprises	WP	1392	322,597	31,164	93	1.04	27%
	WOP		154	185	31	1.20	
Home Stay service at Eco-tourism sub-project: Haor Area (New)	WP	348	241,873	263,281	1,255	1.70	51%

Employment benefit model

36. The project provides vocational training to youth in various trade areas as listed in Table 11. These vocations have been selected on the basis of opportunities that exist in finding employment.

Table 11 shows the number trained and out of the trainees who got employment and the salary levels. With the assumption, which was verified by the PROVATi project staff on the basis of their experience, that the trainees would continue to be employed, their annual salaries, which is a return for providing a service, were used as the benefit to the project. Training cost is included as a project cost item. The total salaries earned is used as the project level benefit of vocational training intervention of the project.

Table 11: Number of beneficiaries trained and employed with salary levels

	% by Trade	Units	Rate	Yr 2025	Yr 2026	Yr 2027	Yr 2028	Yr 2029	Yr 2030
Number of youth trained									
Vocational training by Partner Organization(POs) of PKSF and others		Nb	33,000	1,650	4,950	6,600	8,250	8,250	3,300
Advance training (see list) for semi-skilled persons		Nb	500	25	75	100	125	125	50
Vocational Training (Non-NSDA/BTEB courses) by providers		Nb	500	25	75	100	125	125	50
Entrepreneurship training by PO of PKSF and other providers		Nb	10,000	500	1,500	2,000	2,500	2,500	1,000
Total Persons		Nb	44,000	2,200	6,600	8,800	11,000	11,000	4,400
Training classification									
Electrical Installation & Maintenance (EIM)	34%	Nb	15,036	752	2,256	3,008	3,759	3,759	1,504
Tiles & Marble Fittings (TMF)	9%		3,745	188	562	749	937	937	375
Sewing Machine Operation (SMO)	29%		12,710	636	1,907	2,542	3,178	3,178	1,271
Plumbing	9%		3,802	191	571	761	951	951	381
Rod Bindings	4%		1,632	82	245	327	408	408	164
Computer operation	6%		2,610	131	392	522	653	653	261
Mobile servicing	2%		979	49	147	196	245	245	98
RAC	5%		2,185	110	328	437	547	547	219
Masonry	3%		1,305	66	196	261	327	327	131
Total			44,004	2,205	6,604	8,803	11,005	11,005	4,404
No of Trainee potentiall employed aftet training									
Electrical Installation & Maintenance (EIM)	63%	Nb	9,476	474	1,422	1,896	2,369	2,369	948
Tiles & Marble Fittings (TMF)	46%		1,716	86	258	343	429	429	172
Sewing Machine Operation (SMO)	75%		9,504	476	1,426	1,901	2,376	2,376	950
Plumbing	61%		2,327	117	349	466	582	582	233
Rod Bindings	57%		922	46	138	185	231	231	93
Computer operation	44%		1,149	58	173	230	287	287	115
Mobile servicing	55%		539	27	81	108	135	135	54
RAC	30%		653	33	98	131	163	163	65
Masonry	76%		993	50	149	199	249	249	100
Total			27,279	1,367	4,094	5,457	6,822	6,822	2,730
Benefit Estimtion - assume: work as wage labour (days/month)	15	Days/month	16						
Wage rate		BTK/day	650						
Incremental Income from Salary (net of wage labour)									
Electrical Installation & Maintenance (EIM)		BTK/month	1,600	758,243	2,274,729	3,032,972	3,790,207	3,790,207	1,516,486
Tiles & Marble Fittings (TMF)		BTK/month	1,600	137,867	412,133	549,267	687,133	687,133	275,000
Sewing Machine Operation (SMO)		BTK/month	-400	-190,232	-570,397	-760,330	-950,563	-950,563	-380,165
Plumbing		BTK/month	2,600	303,890	908,487	1,210,785	1,513,084	1,513,084	606,188
Rod Bindings		BTK/month	4,600	213,200	637,000	850,200	1,060,800	1,060,800	426,400
Computer operation		BTK/month	-400	-23,067	-69,026	-91,917	-114,985	-114,985	-45,959
Mobile servicing		BTK/month	-1,400	-37,780	-113,339	-151,119	-188,899	-188,899	-75,559
RAC		BTK/month	4,600	151,143	450,681	600,449	751,592	751,592	300,912
Masonry		BTK/month	1,600	80,348	238,609	317,739	398,087	398,087	159,478
Total - Annual		BTK/Yr		16,723,328	50,026,508	66,696,549	83,357,484	83,357,484	33,393,369

37. The benefit estimation was based on the following assumptions: (i) the beneficiaries were mostly engaged in wage labour work before getting the training and therefore the opportunity cost of the employees engagement with jobs was the rural wage rate of Tk 650 per day and on average 15 days work per month; (ii) not all the trainees get employed after the training and the historical trend shows the percentage of trainees getting jobs as presented in Table 11 (number of trainees potentially employed after training); and (iii) the salary levels that is expected for each job as listed in the same table. Using these assumptions, the incremental income that one employee will be getting was estimated as the benefit of the model. The cost of the training that the project would be financing was assumed as the cost of the model. The model generated 47% IRR with 2.58 benefit-cost ratio.

Project Level Economic Analysis

38. The purpose of the economic analysis is to assess whether the project investments with IFAD and government financing are economically viable in terms of generating benefits to Bangladesh economy. The economic analysis is carried out after making appropriate adjustments to the financial cash flows of benefits and costs. The adjustments include:

I. All financial prices were transformed to economic prices through three steps: (i) all prices have Value Added Tax (VAT) included which was fixed at 15% (National Board of Revenue, Bangladesh) for all sales and the final consumer pays the 5% of VAT ([https:// reg follower. com/ bangladesh-national-budget-for-fy-2021-22/]). Using this rate prices were transformed to net of VAT (no subsidies applied for the commodities used in this EFA); (ii) adjustment for custom duties for imports (import tariffs) and export subsidies for exportable items have been included. The relevant import tariff is for the goods that are in the EFA is 13.9% as the Bangladesh customs (Source: https:// www.export.gov/ article?id=Bangladesh-Import-Tariffs); and (iii) finally the relevant conversion factors (CF) for tradable (1.08), and non-tradable (0.923) commodities have been applied. The shadow exchange rate (SER) was estimated using the average export and import values and import tariff and export subsidies. The application of all formulas for price conversions is presented in the EFA excel sheet.

II. Shadow wage rate factor is assumed at 0.923, which is the SCF, to account some out-migration, seasonal labour shortages, and semi-urban labour demand. Labour is idle during some periods of the year indicating full employment point has not been reached. The SCF was computed taking the ratio between Official Exchange Rate (OER)[2] and Estimated Shadow Exchange Rate (SER)[3] [SCF=ER/SER]; EFA excel sheets presents details

III. The analysis used the economic project investment costs, which were generated by the design COSTAB. These are net of duties, taxes and price contingencies, but inclusive of physical contingencies.

IV. The economic discount rate of 9%, which is Scheduled Banks Weighted Average Interest Rate (Central Bank of Bangladesh, Jan 2024), was used to represent the Opportunity Cost of Capital.

V. The analysis includes only direct and attributable benefits contributed by the roads and markets, and agriculture, IGA and employment.

Benefit aggregation and distribution. The economic analysis uses the aggregated cost and benefit flows of all models and the project cost. The following approach was used for aggregation. The benefit aggregation for all crops was carried out using the cost and benefits of models estimated on the basis of the average land size. Table 1 and

[2] Official Exchange Rate (ER) June 2022 [Bangladesh Bank, https://www.bangladeshbank.org.bd/econdata/exchangerate.php]

3 Computed: SER = [[b+(b*c)] + [a-(a*d)]/ [b+a]]*e: a = average export value; b = average import values; c = Import Tariff (the average Most Favored Nation tariff rate: MFN is the relevant rate); d = Export duties (export of all business items); and e = Official (or market) Exchange Rate.

39. Table 2 presented the distribution the extent of the paddy cultivation over the project period in Haor and Brind regions respectively. In the livestock models and non-farm enterprises, number of households involved in undertaking such models were used to aggregate the benefits. The distribution of the HHs is presented in the same two tables. The benefits of the markets, roads, vocational training benefits were aggregated using the total project target and the target distribution over the project period. Table 3 and Table 11 present the targets and their distribution.

40. **Avoiding double counting of project cost**. The project investment on several activities was used as a part of the cost of some gross margin models. These include road constriction and market rehabilitation and construction. The capital cost of these activities was included in the project cost tables as well as the respective gross margin models. The such costs were removed from the project cost in the economic analysis (see EFA excel sheet for details).

41. **Results:** The details of the analysis are presented in EFA excel sheets and Table 12**Error! Reference source not found.** summarises the results together with the sensitivity analyses. The risk and assumptions tested through the sensitivity are (i) the base case assumes project funds will be disbursed as planned in the project budget; (ii) the project interventions, mainly infrastructure will bring about mitigatory effects to adverse climatic conditions; (iii) cost increase analysis represent the changes in the fund flows and price escalations in the economy; (iv) benefits decrease by 10% represents the risk of vulnerable environment and damages to road and market structures; (v) benefit decrease by 20% represent the risk of vulnerability of target populations and ecosystems to climate variability, floods and other environmental hazards; (vi) cost increase by 10% and benefit drop by 10% represent above risk factors taking place simultaneously; and (vii) 1-year delay in getting benefits represent risk of delayed disbursement of project funds.

42. The results in Table 12 indicates that the project is economically viable with 34% economic internal rate of return (EIRR) with 1.8 benefit-cost (B/C) ratio and US$ 292 million NPV. The sensitivity analyses show that the project will be viable to face many foreseeable risk factors with adequate economic viabilities. The economic viabilities were re-estimated using 12% discount rate to reflect possible increase in the opportunity cost of capital and the results shows the project is still viable.

Table 12: Economic viability indicators of the project and results of sensitivity analyses

Sensitivity Analyses	EIRR	B/C Ratio	NPV (BTk mn): 9% EDR, 20-years	NPV (USD mn)	Risk Factor
Base Case	34%	1.80	32,101	292	
All cost increase by 10%	29%	1.64	28,086	255	Project Funds Flow and Disbursement Arrangements
All cost increase by 20%	25%	1.50	24,071	219	
All benefits decrease by 10%	29%	1.62	24,876	226	Vulnerability to environmental conditions and damages to roads
All benefits decrease by 20%	24%	1.44	17,651	160	Vulnerability of target populations and ecosystems to climate variability, floods and other hazards
Cost increase by 10% and benefits decrease by 10%	25%	1.47	20,861	190	Resource Efficiency and flooding etc
1 year delay in getting benefits	24%	1.73	23,700	215	Project Budgeting
Economic DR at 12%	34%	1.66	21,193	193	Taking the FDR as EDR

Switching value analysis	US $ mn
NPV Total Cost Flow (9% EDR for 20-year period)	40,147,443
NPV Total Benefit Flow (9% EDR for 20-year period)	72,248,361
Switching value of benefits	-44%

Switching value of cost	80%

43. The switching value analysis also verified the economic viability of the project. As presented in the text table, the analysis indicates that the economic viability of the project (i.e. EIRR and B/C ration) will remain at a level higher than the opportunity cost of capital until project aggregated benefits drops below 44% and project aggregated cost increase above 80%. This is a substantially wide range indicating that the project is robust in economic terms.

44. The possible unquantifiable benefits of the project include (i) social benefits such as better-quality drinking water with village protections; (ii) high school attendance with improve roads; (iii) improved health benefits with quicker access to hospitals; (iv) increase job opportunities etc; (v) climate benefits through soil management, village protection, and other conservation activities; and (vi) increased tax income to the government and better capacities of the government staff.

45. **Conclusion**. The results of the financial analyses and the economic analysis together with the sensitivity analyses confirms that the CRALEP is financially and economically viable to received public funds that is envisaged under the project budget.

46. The EFA was based on the following detailed tables which are presented in the EFA excel file.

List of tables	Description
PriceConversion!A1	Estimating the economic DR
Tradable!A1	Analysis of parity prices
Prices!A1	Prices of all inputs and outputs
Fin+EcoAnalysis'!A1	EFA analysis
Model-Summary'!A1	Summary of all models
Specification!A1	Specifications used to derive gross margin models
Vocational!A1	Financial benefits of vocational training
UnionRoadBen!A1	Benefits estimation of union roads
VillageRoadBen!A1	Benefits estimation of village roads
MarketBenefits!A1	Benefits estimation of markets
WomenIGA!A1	Benefits estimation of women IGA
Handy_Craft!A1	Benefits estimation of women IGA - handicraft
Ecotourism_HomeStay!A1	Benefits estimation of women IGA - Eco Tourist
AgricBenefits!A1	Benefits estimation of Agriculture models
DairyCow!A1	Benefits estimation of dairy model
Poultry!A1	Benefits estimation of poultry model
Banana!A1	Benefits estimation of banana model
Fish!A1	Benefits estimation of fish model
Haor_Region!A1	Benefits estimation of named market
boro_LOCAL_Haro!A1	Benefits estimation of named crop
boro_LOCAL_Barin!A1	Benefits estimation of named crop
boro_HYV_Haro!A1	Benefits estimation of named crop
boro_HYV_Barin!A1	Benefits estimation of named crop
Aman_Local_Haro!A1	Benefits estimation of named crop
Aman_Local_Barin!A1	Benefits estimation of named crop
Aman_HYV_Haro!A1	Benefits estimation of named crop
Tomato!A1	Benefits estimation of named crop
Felon!A1	Benefits estimation of named crop
Okra!A1	Benefits estimation of named crop
Village_Road_Spec!A1	Specifications used to derive village roads benefits
Union_Road_Spec!A1	Specifications used to derive union roads benefits
RoadProgress!A1	Road construction progress
COMYRT!A1	Project Cost - Financial
COMYRT_Eco!A1	Project Cost - Economic

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 5: SECAP Review Note

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

The SECAP Review note should build on the preliminary note mentioned above, draw on the results of the screening exercise and be informed by the issues raised during the design mission, the stakeholders interviews, publicly available tools and dataset, and environmental, social or climate-related studies that inform on the characteristics of the project location. The SECAP review note includes the revised ESMP and should be attached to the Project Design Report, integrated in Draft Project Implementation Manual (PIM) and COSTAB and shall be submitted to Design Review Meeting (DRM) or IRC (for NSOs).

1. Introduction

1. The proposed Climate Resilience and Livelihoods Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots[1] in Bangladesh, the Haor and the High Barind region.

2. The Haor regions are low-lying areas situated between the natural levees of rivers or highlands, submerged under water for up to six months each year.They constitute some of the poorest regions in Bangladesh. Infrastructural development is critical to protect communities and homesteads against flooding and erosion, and to ensure the connectivity during the flooding season to enable economic development.

3. The *High BarindTract* is an uplifted area in northwestern Bangladesh that is prone to drought, erratic rainfall and poor soils; it also has a lower average annual rainfall than the rest of Bangladesh. As a result, there is low agricultural productivity during one or two agricultural seasons.

4. CRALEP follows earlier IFAD-supported investment in the Haor areas, through the Haor Infrastructure and Livelihood Improvement Project – Climate Adaptation and Livelihood Protection Project (HILIP-CALIP) project, which had a strong climate resilience focus. The main successful project activities of HILIP-CALIP are to be scaled up through CRALEP, and new interventions (primarily Nature-based Solutions, “NbS”) will be rolled-out.

5. Main **project activities** for CRALEP include:

   - Construction and rehabilitation of climate-proofed village roads (460 km) and local markets (27), including boat landing platforms;
   - Construction of low-cost village protection systems, including internal walkways and NbS (bamboo around homesteads, vetiver grasses);
   - Investments in safe water and sanitation;
   - Vocational and entrepreneurship training to help create opportunities for employment;
   - Promotion of income-generating activities to members of LCS;
   - Improvement of flash flood early warning system (FFEWS), drought forecast services and innovation in construction technologies and practices.

6. The purpose of the SECAP (Social, Environmental and Climate Assessment Procedures) Review Note is to: 1) identify the social, environmental and climate risks inherent related CRALEP and; 2) recommend measures to avoid, minimize, mitigate, and compensate for any residual impacts in accordance with IFAD's mitigation hierarchy. It is prepared as part of the Concept Note development in March and April 2024, through a hybrid mission. Mission-members on site held in-person discussions with a broad range of stakeholders including those residing in the proposed project areas, and additional virtual meetings with held with international development partners. This SECAP Review Note is based on the information available at concept note stage and will be updated once more detailed and definitive information is available on the project scope and activities during the design phase.

7. [1] As identified in the Bangladesh Delta Plan 2100

2. Potential Social, Environmental and Climate risks and impacts of the project

8. Potential social, environmental and climate risks and impacts of the project are provided below.

2.1 Biodiversity conservation

9. The overall risk rating for the project is **Moderate**. The project is planned to be carried out in districts and upazilas (unions), which encompass wetland areas of significant biodiversity value. These wetlands host a variety of freshwater biodiversity, including fish, aquatic invertebrates, aquatic plants, and water birds, as well as birdlife, such as migratory birds, and some terrestrial fauna. The project focus is on areas that are seasonally inundated rather than permanently wet, although beels (ponds or lakes in the floodplain with static water) may remain inundated throughout the year.

10. Haor is also a critical ecosystem for fish production, ecologically and commercially, and about 154 native fish species inhabit lower Hoar wetlands[1]. The key threats to fish production, according to the Department of Forests, is overexploitation, habitat fragmentation, siltation of freshwater bodies, and environmental pollution from industries and agriculture chemicals; fishing is regulated through auctioning permits for selected areas.

11. By carefully selecting the exact project sites, the probability of negative impacts is significantly reduced, with the likelihood classified as "possible." Furthermore, the implementation of design guidelines and NbS is expected to ensure that any consequences of the interventions remain moderate or minor.

12. The project will not engage in or near national protected areas. There is one National Park (and Ramsar site), Tanguar Haor, in Sunamganj district, but this is at a fair distance and upstream from the selected project upazilas in that same district of Hoar area. Similarly, the Ramsagar National Park in Dinajpur is at a fair distance and upstream of the selected project upazilas in the High Barind Tract.

13. Haor areas are important for migratory birds, but the selected areas are not the key areas for migratory species[2]. Improved accessibility of and productivity in Haor areas may in fact be beneficial and reduce pressure on protected areas such as Tanguar Haor. Fishing in Haor wetlands is regulated through auctioning permits for selected areas. Therefore, while the project will support market access (including for fishery outputs), it is not expected to intensify impacts on aquatic biodiversity.

14. The primary risk related to degradation of habitat and reduction of ecosystem services is linked to infrastructure, which may affect local fish breeding grounds and shelters (habitats) and influence the availability of water and nutrients (ecosystem services). This may result in temporary impacts during the construction phase (soil disturbance, dust and noise disturbance). Structural changes in the local ecosystem such as changes in waterflow, introduction of new (semi-)stagnant water bodies are unlikely to be caused by the project, due to selection criteria and design guidelines.

15. Impact on local waterways is relatively limited as the project is promoting submergible roads (not all-weather roads), the design of which will avoid bifurcation of seasonal wetlands. The activity will not involve new road construction that necessitates raising road height or excavation and laying of new pathways. Instead, the project will select pathways / earthen roads already in use between villages and upazila for upgrade using roller-compacted concrete (RCC), and this information is verified during LGED's participatory process in each community during the implementation phase. Additionally, CRALEP's capacity development activities will research and pilot new materials and design, such as those that embody circular economy approach, use permeable materials (allow water to seep through and reduce runoff before they enter the waterway), and incorporate NbS (vetiver grass vegetation).

16. Like roads, all other types of infrastructure activities will only occur on land that's already in use (e.g., market, boat landing station) or selected community land within the village, for development (e.g., killa, toilet, tubewell and handpump). That is, none of these are expected to impinge on protected or critical habitats. Indirect effects include an increase in economic activity in the primary sector, including agriculture and fisheries, and an increase in footfalls (boats and light vehicular traffic, foot traffic) adding to the cumulative pressure on habitats.

17. The project will also directly support some income-generating activities, although the impact of these activities is anticipated to be limited and localized. In fact, the income-generating activities supported by the project will include training that enhances awareness of environmental and biodiversity protection.

18. Given that the project is not engaging in agricultural production, there is no risk of introduction of invasive species or handling of genetically modified organism (GMO[3]).. There will be some procurement of building materials, including sand, gravel, bamboo and vetiver bamboo and vetiver are both native to Bangladesh (vetiver is locally known as *khas-khas* or *khus*[4]). The project will adopt sustainable sourcing practices and adhere to environmental guidelines.

19. [1] Hasan, J., Akter Lima, R., and Saha, D.C. (2021). Fisheries resources of Bangladesh: A review. *Int J Fish Aquat Stud*. 9(4):131-138. https://doi.org/10.22271/fish.2021.v9.i4b.2532

20. [2] See https://www.cms.int/sites/default/files/document/2019_CMS_National_Report_Bangladesh.pdf

21. [3] While Bangladesh allows cultivation of GMOs, specifically cotton and brinjal, project does not directly support agricultural production.

22. [4] The species found in Bangladesh is Vetiveria zizanioides (L.) Nash.

2.2 Resource efficiency and pollution prevention

23. The risk rating is **Moderate**. The project will invest in small-scale infrastructure and will not directly support expansion or intensification of agricultural activities, apart from minor plantation interventions (within village nurseries) i.e., of bamboo and vetiver grass grown in support of NbS with income-generating co-benefits. The use of agro chemicals is limited to boric acid with support from the Bangladesh Forest Research Institute (BFRI) (also see section 2.6); since submerged bamboo rots easily, treatment with boric acid extends its life and avoids the need to harvest and replace bamboo after each flooding season in Haor.

24. For this risk category, the main source of risk emanates from the construction phase of infrastructure, but it also includes subsequent long-term impacts. The construction phase will involve some use of machinery (primarily, small concrete mixers) and movement of natural materials. There will be erosion and pollution risks related to the earthworks, temporary drainage and burrow pits – e.g. increase turbidity in the water. These will be mitigated through well-known measures, such as planning the activities in the correct season, designing temporary drainage diversions properly, rehabilitating burrow pits after use, spraying water to reduce dust hazard and limiting operating hours of equipment to reduce noise pollution. By regulation, all activities that need sand or soil for construction (roads, killa) will need to seek permission for material extraction from the local administration that assesses changes or disruption to river flow and riverbanks.

25. If designed and implemented correctly, the project activities should contribute to a long-term reduction in pollution and improvement in resource efficiency. Bamboo and vetiver grass will help to prevent soil erosion from the embankments; dust pollution will be reduced and water quality improved due to improved roads.

26. The other type of infrastructure that will be strengthened or introduced in Haor is water and sanitation to reduce risks to health in the flooded period (typically 4-8 months each year). Securing wells for drinking water is challenging in Hoar, not least because of flooding, land scarcity and standing water bodies. Similarly, traditional pit latrines are reported to collapse when there is flooding, high water table, excessive rainfall or loose soil formation[1]. The project will select and promote sanitation facilities that are appropriate to Haor – to avoid risks of contamination of drinking water or freshwater (and take other aspects into account such as foul odour or insect breeding, and access to piped water).

27. At the same time, there may be some indirect negative effects through the improved accessibility of the project areas, which can lead to higher traffic volumes (including in some areas potentially tourists) resulting in pollution. Stakeholder consultations confirm that solid waste management, partially driven by tourism, is a challenge. Similarly, there is an indirect project effect on natural resource use and potential pollution through the enabling of agricultural activities. This equally extends into the use of agrochemicals. The project will not directly support the purchasing of such inputs, but improved market access may indirectly stimulate the development of more input-intensive agriculture.

28. In the High Barind areas, consultations with local stakeholders have pointed to declining water tables, exacerbated by agricultural water withdrawals and droughts. The project will only involve limited water abstraction, for domestic use, sanitation and hygiene purposes in villages and markets. Such investments will be designed bearing in mind the efficient use of water and the long-term availability of groundwater, and could for instance include rainwater harvesting and community education on sustainable water use.

29. [1] See Master Plan for Haor, 2012. https://dbhwd.portal.gov.bd/sites/default/files/files/dbhwd.portal.gov.bd/publications/baf5341d_f248_4e19_8e6d_e7ab44f7ab65/Haor%20Master%20Plan%20Volume%201.pdf

2.3 Cultural heritage

30. The risk rating is **Low**. The Haor areas at large can be considered sites of cultural value (e.g., aesthetic, recreational), however, the project will not significantly impact on the overall cultural value of the area. In contrast, the proposed interventions will increase accessibility to the area and the cultural value it contains.

31. The project's physical interventions may be located close to sites of cultural, traditional or religious value, for example graveyards. Through the locally-led planning of these subprojects and the environmental and social screening to be carried out, such sites will be identified and appropriate measures will be undertaken. There is no expectation of archaeological features, nor of the commercial exploitation of tangible cultural heritage. Nevertheless, a Chance Finds Procedure has been developed to deal with any unexpected findings in an appropriate manner.

32. The project may involve intangible cultural heritage through vocational training and livelihood interventions related to handicrafts (for e.g., crafts produced from vetiver grass). However, there is a low risk of exploitation, and the project will work only with partners that have previous experience in carrying out activities in similar settings.

2.4 Indigenous peoples

33. The risk rating for Indigenous Peoples and ethnic minorities is **Low.** The Bangladesh constitution recognizes “tribes, minor races, sects and ethnic communities”, and obliges the State to protect and develop their unique local culture and traditions. Bangladesh has around 30 small ethnic minorities. Of these groups, the Santal, Oraon, Hajong, and Koch peoples live in project districts.

34. Given the nature of the project activities, there is generally a low risk of negative impacts on access to resources or adverse effects on land ownership, as the project does not involve any land acquisition. The project aims to distribute benefits fairly by promoting health and sanitation facilities, as well as offering capacity building and training. It will use targeted measures to ensure these benefits reach marginalized groups, including ethnic minorities. An Ethnic Minority Implementation Framework has been prepared to ensure informed consultation and participation, and an Ethnic Minority Plan will be prepared by the PMU during implementation.

2.5 Labour and working conditions

35. The risk rating is **Moderate**. The project’s exposure to risks in labour and working conditions is related to temporary small/scale construction activities, where there are no reports of discriminatory practices (as opposed to some value chains such as the garment industry[1], or larger-scale construction where labour risks have been identified in Bangladesh). In addition, there is a long-term experience in promoting inclusive labour force in the construction of small-scale infrastructure through Labour Contracting Societies (LCS). LCS is a modality widely used in Bangladesh for infrastructure construction and maintenance of roads, where a group of adults are brought together locally to carry out part of the physical work. They are trained and supervised by technical staff to ensure the quality of structures, and contractually involved through a GoB legal mandate.

36. During the construction phase, there will be some Occupational Health and Safety (OHS) risks for workers and for local people. These risks include personal injuries related to the use of machinery and the execution of groundworks, exposure to high or extreme temperatures. There is a longstanding history in Bangladesh in the use of LCS, including best practices and lessons learned, to ensure appropriate labour and working conditions for LCS members, including the mandatory use of safety gear and accident / life insurance. Evaluations have shown[2] the importance of ensuring that LCS members are supported to find more structural employment following their LCS work. Such an approach is included in the planned project, through the family-based income generating program based on Gender Action Learning System (GALS) methodology. In cases where construction activities are carried out through contractors (non-LCS), clear stipulations on labour and working conditions (code of conduct) will be integrated into the contracts and monitored.

37. The project is likely to involve youth aged 18-35, through the vocational training and entrepreneurship training. Vocational training involves 45-day residential stay in government-affiliated training institutes, but entrepreneurship training will not involve residential stay and will be led by local NGOs (selected through competitive processes). Training institutions and internship providers will be required to ensure safe conditions for students, including OHS provisions, gender sensitivity training and prevention of sexual violence, exploitation and harassment, through bidder qualifications, and conditions in MOUs and LOAs. The selection process of trainees will start with community level awareness, screening and counselling. Family members are also invited to assess the safety of facilities, if they desire. As a part of its objective to increase gender equality in vocational training, and encourage women to consider non-traditional sectors, CRALEP will also incorporate lessons learnt from PROVATi[3], which has developed solid experience in implementing similar activities.

38. An indirect risk associated with vocational training and entrepreneurship outcomes is that the entities that trainees are placed in may not follow IFAD or GOB regulations related to labour, OHS, and gender norms. While CRALEP will not engage in placement activities and may only offer tertiary support through job fairs, the project will explore options to introduce training curriculum that can awareness of labour, OHS and gender related rights and regulations pertaining to the sectors they are trained in, and will also conduct a study of past trainees to identify problem areas as a part of its objective to better understand post-training outcomes and drop-out rates.

39. [1]https://www.ilo.org/dhaka/Areasofwork/working-conditions/lang--en/index.htm

40. [2] See IFAD Impact Assessment on CCRIP, https://www.ifad.org/documents/38714170/41115388/BD_CCRIP_IA+report.pdf/863f487a-105a-f286-2f2d-2b9a8860cc3b

2.6 Community health and safety

41. The risk rating is **Moderate**. The most important risks relate to potential increase in vector- or water-borne diseases through the creation of temporary breeding habitats and influx of project workers. At the same time, the project includes several activities that directly aim to positively impact community health and safety, including the construction of village protection walls, internal walkways, and water and sanitation facilities (within villages, in boat landing stations, within markets). Increasing the resilience of homes and lands is an important outcome considering the inherent health impacts of Haor flash floods in and of itself is wide-ranging, as documented in a 2022 survey[1]: waterborne diseases, scarcity of drinking and bath water, mental health impacts, and other related morbidity / mortality (drowning, injury, lightning deaths, snake bites).

42. Physical works (primarily on roads) and the associated earthworks carry the risk of creating temporary breeding habitats. If works are carried out in the dry season and designed appropriately, such cases should be avoidable.

43. There is a risk that poor design or maintenance of water and sanitation facilities could raise disease risks by mixing wastewater with freshwater; this will be avoided by designing facilities in line with best practices and strengthening the capacity of communities to maintain these structures. While there is inherent risk of arsenic in groundwater, the health risks are mitigated by sinking deeper tubewells (up to 500 meter).

44. There are also risks associated with waste streams (organic, inorganic) of the upgraded market facilities. The project will take a proactive approach to waste management: (a) introducing compositing facilities[2] for organic waste (crops, animal products), (b) constructing internal pathways and drains, including for rainwater flow, and (c) septic tanks for toilet blocks; these designs will be in line with best practices. In Haor, where markets are well developed, the project will in fact contribute to reduced pollution and community health risks through construction of drainage facilities that are lacking.

45. The project civil works will involve the transport, storage, and use of fuel to operate small machinery, and will implement strict safety protocols and environmental controls to manage these activities safely and responsibly. Standard Operating Procedures (SOPs) for Occupational Health and Safety, as available within the LGED, will shared with contractors and monitored by the Project Engineers.

46. There may be temporary influx of project-related labour, with the associated risks of gender-based violence, exploitation and abuse. Numbers of workers are expected to be limited and short-term since the project also aims to create local employment (i.e., prioritize workers from within the community through LCS). The Code of Conduct for contractors will specify the requirements on these companies and their workers to minimize the risks associated with any temporary influx of workers.

47. The improved rural connectivity is likely to increase traffic in the project area, however this will remain relatively limited and low-speed traffic (information on average annual traffic can be found in ESCMP exclusion criteria).

48. There could be indirect risks associated with using boric acid to treat bamboo (to extend its lifespan when submerged, from only one or two years to 10-12 years). Boric acid, when in contact with skin, can cause various health issues in people including abdominal pains. However, it is commonly used in households for pest control and in agriculture to treat boron deficiencies in plants and it has been scientifically proven that it can be safely managed with appropriate safety protocols and awareness-raising measures in place. This includes addressing the topic during training and the preparation of visual guidelines (posters / flyers) to be handed out to people handling such inputs.

49. [1] Chakraborty, D., Mondal, K.P., Al Jubaer, Islam, S.T., and Talukder, B. (2022). Health impacts of rapid-onset event: 2022 flash flood in Bangladesh. Editor(s): Trevor M. Letcher, Living with Climate Change, Elsevier, 2024, Pages 199-212, ISBN 9780443185151, https://doi.org/10.1016/B978-0-443-18515-1.00004-6

50. [2] One of IFAD's partners in Bangladesh, Palli Karma Sahayak Foundation (PKSF), has gained substantive experience and CRALEP will draw lessons / best practices from PKSF.

2.7 Physical and economic resettlement

51. The risk rating is **Low**. The project will not result in physical displacement, it will not involve the acquisition of land or resettlement, and risks associated with land tenure are low. The risk of economic displacement is low and consequence is minor. The selection and design criteria for infrastructure (roads, markets, killas, toilets, tubewells and handpumps, boat landing stations) is such that rehabilitation and upgrade will only occur on public (*khas* land) and land that is already in use for the same purpose (see ESCMP exclusion criteria).

52. In the case of markets, for instance, CRALEP will either improve existing markets (in Haor) by introducing drainage and composting facilities or upgrade existing markets (in Barind) by constructing single storey sheds, water and washroom facilities with septic tank, slaughter sheds, truck stands, drains and compost facility, and internal pathways. Since the market sites are in use, if there is temporary livelihood loss, compensation mechanisms will be triggered under Government of Bangladesh and IFAD regulations including SECAP; the upgraded structure will accommodate all existing shops and people whose livelihoods depend on these markets. The project will work with the Market Management Committees (elected for two-year terms by sellers), where these exist, to obtain consent and agree on activities; where these do not exist, alternate mechanisms to inform and obtain consent will be adopted.

53. The community will jointly determine public sites for killas, toilet blocks, and tubewells with handpumps. Village roads will not involve widening (or lengthening) in a manner that displaces houses or agricultural land. Village protection walls in Haor are structures that strengthen the slope and embankments around the village from wave and flood action and reduce erosion; this will not involve physical or economic displacement and resettlement.

54. Economic displacement should therefore be mostly avoidable through participatory processes. It should be noted that the project is actually likely to have a positive impact in reducing the pre-existing risk of physical and economic resettlement due to droughts and floods, as fewer people will be forced to leave their homes, temporarily or permanently. Additionally, CRALEP will invest in the design of sustainable and flash flood / flood-resistant housing structures suitable to local context and rural poor.

2.8 Financial intermediaries and direct investments

55. The project will not work through financial intermediaries nor directly invest in private sector partners. This risk category is therefore **N/A** (not applicable).

2.9 Climate change

56. The climate risk rating is **Substantial** and a Targeted Adaptation Assessment has been prepared. The project specifically targets areas in Bangladesh that are at higher risk from climate change. Hazards identified include river flooding, water scarcity, cyclone and extreme heat.

57. In the project areas, temperatures are expected to increase by about 1.5°C in the SSP5-8.5 scenario by 2040-2059[1]. Mean annual rainfall is expected to rise by 109-124 mm between 2040 and 2059. The timing and intensity has been already observed to change. For example, the first peak of rainfall now occurs much earlier than expected, shifting from mid-July to early June. Additionally, there are more instances of extreme rainfall during the monsoon, interspersed with prolonged dry spells, while the late-October rains (Kaitani) have almost vanished. Specific climate change impacts in the Haor area include an expected increase in peak discharge in the major rivers[2], further increasing the severity of flooding events. Secondary effects of such flooding events include the decomposition of immature rice plants, reduction of oxygen levels in water, and subsequent death of fish[3]. Early pre-monsoon flash floods in 2017 damaged 90% of crops and fish production in Sunamganj. While farmers report being able to cope with regular seasonal flooding that contributes to wetland ecosystem maintenance, because the return period for flash floods is about 3-4 years and is of higher magnitude, farmers cannot recoup or offset losses from the last disaster[4].

58. While the Bangladesh Meteorological Department (BMD) shares fortnightly forecasts of weather and rain with the Ministry of Agriculture, it is reported that it can take up to 15 days for DAE field level officers to receive the forecast[5]; this results in extension and advisory system focusing on technical aspects of rice and crop cultivation but not flash flood information. Higher temperatures and inadequate rainfall also negatively affect breeding success and survival rates of fish.

59. Specific climate change impacts in the Barind Tract relate to the rapidly declining groundwater level, due to lower rainfall and insufficient recharge, though studies also point to a potential positive impact if the projected increase in rainfall in the area going forward, can be used to recharge the groundwater. Timing of the rains, drought periods and floods are however also important in terms of rice cultivation, both in terms of the timely planting as well as the yields.

60. Noting the high exposure and sensitivity of the project areas, it should be noted that there is significant adaptive capacity, both through autonomous adaptation (of local farmers themselves) and planned adaptation (for instance through early warning systems and climate resilient infrastructure development).

61. The project is not expected to significantly contribute to increased greenhouse gas emissions, and the mitigation potential of the project is considered to be very limited.

62. [1] See Bangladesh - Mean Projections Expert | Climate Change Knowledge Portal (worldbank.org)

63. [2] See https://www.semanticscholar.org/paper/Climate-Change-Impact-on-Haor-flooding-in-using-Suman-Akther/84931fbcd09a39e9e720955799a00d729e0669c4

64. [3] See https://www.sciencedirect.com/science/article/pii/S240584402203239X

65. [4] Chakraborty, D., Mondal, K.P., Islam, S.T., Roy, J. (2021). Chapter 26 - 2017 flash flood in Bangladesh: Lessons learnt, https://doi.org/10.1016/B978-0-323-85195-4.00007-X

66. [5] Kamruzzaman, Md., and Chowdhury, A. (2023). Flash flooding considerations aside: Knowledge brokering by the extension and advisory services to adapt a farming system to flash flooding. *Heliyon*. 9(9): e19662. https://doi.org/10.1016/j.heliyon.2023.e19662

3. Regulatory framework and institutional capacities

67. Regulatory framework and institutional capacities on environment, water, climate change, youth, decent work, child labour and gender are provided below.

3.1 National policies and regulatory framework relevant to SECAP

68. **Environment.** The National Environmental Policy (1992) identifies and regulates activities that may degrade the environment and ensures the sustainable and environmentally sound use of natural resources. The National Environmental Management Plan (1995) is a broad set of programs aimed to implement this policy. The Environmental Conservation Act (1995) and Rules (1997) set the standards and procedures to prevent pollution of the environment. They guide the execution of project screening, assessment and monitoring.

69. **Water.** The National Water Policy (1999) focuses on protection, restoration and enhancement of water resources; protection of water quality; provision of sanitation and potable water; and the participation of local communities in water development projects. The Bangladesh Delta Plan 2100 (2018) defines the strategy to ensure long term water and food security, economic growth and environmental sustainability while reducing vulnerability to natural disasters and building resilience to climate change. For the Haor areas, the main strategy is to protect agriculture and vulnerable communities from floods, integrated water/land resource management and management of sustainable ecosystem and biodiversity. For the Barind areas, the main strategy is to balance supply and demand for sustainable and inclusive growth, minimizing losses due to floods and drainage congestion and ensuring water supply and sanitation.

70. **Climate change.** The Mujib Climate Prosperity Plan (2022-2041) is focused on climate resilience building, analyzing the economic considerations and identifying the appropriate financing instruments. The plan prominently identifies locally-led Nature-based Solutions for disaster risk reduction as a solution to improve resilience, and to protect ecosystems and biodiversity. The National Adaptation Plan (2023-2050) identifies six goals including Goal 1 (ensure protection against climate variability and induced natural disasters) and Goal 4 (promote NbS for conservation of forestry, biodiversity, and well-being of communities). NAP 2023-2050 also captures adaptation preferences of stakeholders including ecosystem-based adaptation, construction of Mujib killa, strengthening early warning systems, and protection against wave action and land degradation in Haor, Bangladesh's latest NDC (2021) proposes a 5% unconditional reduction in GHG emissions from the Business As Usual scenario by 2030, with an additional 10% reduction conditional on international support.

71. **Disaster risk management.** The National Plan for Disaster Risk Management (2021-2025)[1] outlines key actions to save lives and reduce economic losses from disasters, including Disaster Risk Reduction, Humanitarian Response and Emergency Recovery Management. It builds on the Sendai Framework for Disaster Risk Reduction and the Disaster Management Policy (2015). Some of the main hazards identified in the plan correspond to those addressed in CRALEP – notably floods and riverbank erosion. One key action in the Plan that CRALEP will contribute to, apart from the physical investments that reduce risk from flooding, is the forecasting and early warning system. Another key action is forecast-based financing and action, which is identified as a key DM institution in the plan[2] and is also the focus of projects implemented by GoB with ICRC and other UN entities[3].

72. **Youth.** The National Policy for Youth (2017) aims to ensure special support is provided to rural youth with opportunities to boost the rural economy (including with lease of government owned Khaas farmland, ponds and 'Jolmohal).

73. **Decent work and harmful child labour.** The Decent Work Country Program 2022- 2026 is a collaboration between government and industries to improve the rights of workers. The Ministry of Labour and Employment is responsible this program, and is also spearheading the National Child Labour Welfare Council, which prepared the National Plan to Eliminate Child Labour (2020-2025). The Bangladesh Labour Law (2006) has separate sections on restrictions related to child labour, contract requirements related to young people and pregnant women, and to ensure the decent working environment in the working place.

74. **Displacement.** The Acquisition and Requisition of Immovable Property Act (ARIPA, 2017) is the principal legislation governing land acquisition and requisition in Bangladesh. The law states that in cases of land acquisition, compensation is to be paid, to be determined by the Deputy Commissioner.

75. **Gender.** The Constitution of Bangladesh lays down the general principles regarding the protection of women from all forms of discrimination and the promotion of their equal participation. Bangladesh ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1984. The GoB adopted a National Women Development Policy in 2011 with an accompanying Action Plan to guide implementation thereof.The Local Government Engineering Department (LGED) formulated an updated Gender Strategy and Action Plan (2022-2030) improving upon its previous strategy and consistent with the National Women's Development Policy.

76. [1] See https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/page/a7c2b9e1_6c9d_4ecf_bb53_ec74653e6d05/NPDM2021-25%20DraftVer5_23032020.pdf

77. [2] Under the purview of Additional Secretary in the Ministry of Disaster Management and Response (MoDMR).

78. [3]https://www.anticipation-hub.org/Documents/Reports/Forecast_based_financing_in_Bangladesh_-_scoping_and_challenges.pdf

3.2 National capacities, challenges and lessons with respect to SECAP implementation and compliance

79. There is significant experience of IFAD-funded projects in Bangladesh implementing SECAP-related requirements, including within the lead agency of the proposed project, the Local Government Engineering Department (LGED). Project-level SECAP requirements are usually integrated into the Government's procedures for Environmental and Social Impact Assessment, including through the screening of sub-projects and the preparation of Environmental and Social Management Plans (ESMPs). In previous and current IFAD-funded projects, LGED staff and district / Upazila staff have shown the ability to implement, monitor and supervise the ESMPs.

80. The LGED furthermore has an extensive experience in working with a broad range of development partners, including the Green Climate Fund (GCF), EU, GIZ, USAID and World Bank. Through these projects, the LGED has been able to build capacity on SECAP-related topics. For example, LGED has established a Climate Resilient Local Infrastructure Center (CReLIC) through the Climate Resilient Infrastructure Mainstreaming Project, supported by GCF, KfW and the Government of Bangladesh.

81. IFAD-funded project designs in Bangladesh have generally seen strong integration of SECAP requirements. Implementation of such projects has been in line with designs and therefore project scores on climate resilience are generally good. Nevertheless, weaknesses have been identified in past projects related to the capacity to monitor the appropriate indicators for reporting.

4. Environmental and social category

82. The overall environmental and social risk category is **Moderate**. The identified environmental risks relate to the local impact of civil works, in terms of biodiversity (aquatic, avian) and pollution risk. These risks can be remediated using good planning, use of adequate technology implementation of NbS, and monitoring. The identified social risks relate primarily to community health and safety in relation to construction activities and potential longer-term impacts of infrastructure. The ESCMP matrix summarizes key impacts and mitigation measures. An Ethnic Minorities Planning Framework, including FPIC Plan, and a Grievance Redress Mechanism have been developed as part of the project design.

5. Climate risk category

83. The climate risk category is **Substantial**. As indicated above, the project areas have a relatively high exposure and sensitivity to climate change. At the same time, there is already substantial adaptive capacity in place (owing to a focus on locally-led adaptation and past experience with disaster risk reduction[1]) and the project will contribute to improving adaptive capacity further.

84. [1] See, for example, https://doi.org/10.1007/978-3-030-42462-6_106.

6. Recommendations for project design and implementation

85. The following topics are recommended to monitored during project implementation:

    1. Review the experience of HILIP-CALIP in terms of biodiversity monitoring (with BFRI – a CRALEP partner as well as WorldFish and IUCN) to assess feasibility of implementing such measures in the new project, as well as to create an evidence base for biodiversity-enhancement through nature-based solutions.
    2. Advanced analysis of project results using geospatial analysis. By logging the exact coordinates of project activities and combining this with data from the early warning system and project M&E system on impact, more advanced analyses could be made on project relevance and impact.
    3. Interaction with other government agencies under the Plan for Disaster Risk Management, particularly regarding the development, implementation and effectiveness of early warning systems, but also regarding the contribution of climate-resilient infrastructure and nature-based solutions towards disaster risk reduction.

7. Further studies needed

86. In line with the identified risks, the project will follow the existing guidelines for environmental impact assessment and management as used within LGED, within Bangladesh more generally, and by IFAD. This includes screening, assessing and reporting on the impact of individual subprojects, and updating / implementing the Stakeholder Engagement Plan, FPIC, Chance Finds Procedures, and ESCMP (including exclusion criteria). Additionally,

- The Ethnic Minority Plan will need to be prepared based on the Ethnic Minority Planning Framework (the template is included as an appendix to the Ethnic Minority Planning Framework).
- On the basis of the ESCMP matrix, site-specific ESCMPs will need to be prepared during early implementation, as soon as project sites and activities become known.

87. As part of the project design, a Targeted Adaptation Assessment has been carried out. This document may be updated and enhanced during project implementation, based on evolving data availability and lessons learned.

8. Monitoring and evaluation

88. Monitoring and evaluation of SECAP-related aspects has been identified as an area of improvement, in previous IFAD-funded projects in Bangladesh. Emphasis should be placed on specific indicators, data collection practices, and data analysis and reporting to inform project strategy. Additionally, hiring staff or consultants with SECAP-relevant expertise and training PMU staff to better understand SECAP aspects in implementation will enhance project execution.

89. SECAP-related indicators should be integrated into the project's overall M&E system, to ensure efficient and timely collection of data, analysis, and integrated reporting. The reporting out of the project's grievance redress mechanism should equally be integrated into the project's M&E function, while retaining the confidentiality and non-retribution characteristics.

9. References

90. **Government plans, policies and regulations**

- The National Environmental Policy (1992)
- National Environmental Management Plan (1995)
- Environmental Conservation Act (1995) and Rules (1997)
- National Water Policy (1999)
- Bangladesh Delta Plan 2100 (2018)
- Mujib Climate Prosperity Plan (2023-2041)
- National Policy for Youth (2017)
- Decent Work Country Program (2022- 2026)
- National Plan to Eliminate Child Labour (2020-2025).
- National Plan for Disaster Risk Management (2021-2025)
- Gender Equality Strategy & Action Plan 2022-2030; Local Government Engineering Department (LGED) (2022).
- Bangladesh Labor Law (2002)
- Acquisition and Requisition of Immovable Property Act (2017)

91. **Scientific and grey literature**

- Global Resilience Partnership (2018). Road Development to Support Water Management and Flood Resilience. https://roadsforwater.org/wp-content/uploads/2019/01/Recommended-Good-Practices-Document-final-Nov-2018.pdf
- GoB (2016) Environmental Impact Assessment of the Haor Flood Management and Livelihood Improvement Project (financed by GoB and JICA).

10. SECAP Matrix

92. *The ESCMP details the: (i) measures to be taken during project implementation to eliminate or offset adverse environmental, social and climate impacts, or reduce them to an acceptable level; (ii) measures to enhance environmental and social outcomes; and (iii) necessary actions (e.g. monitoring, supervision, reporting), implementation arrangements, institutional responsibilities, time schedule and costs of implementing the measures. The ESCMP is required for all High Risk and Substantial Risk projects. It is typically presented as a section of the ESIA or ESCMF, but for Substantial Risk projects, it is included in the SECAP review note in the form of a matrix*

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate

Environmental						
Destruction of physical interventions by floods	Following climate-resilient design guidelines	Participatory design to understand frequency and severity of flooding Village authorities	LGED	Design review Midline and endline reports	Once or twice a year through Supervision Mission Mid-term progress report (MTR) and Project Completion Report (PCR)	Included in general project cost
Encroachment on natural habitat	Exclusion criteria; design guidelines	Participatory design to validate location of sites Village authorities	LGED	Regular supervision Midline and endline reports	MTR and PCR	Included in general project cost
Spillage of building materials	Standard operating procedures for contractors, supervision by engineer		LGED	Regular supervision	Once or twice a year through Supervision Mission	Included in general project cost
Pollution of waterways	Standard operating procedures for contractors, supervision by engineer		LGED	Regular supervision	Once or twice a year through Supervision Mission	Included in general project cost
Disturbance of local biodiversity through construction activities	Proper assessment of building sites	Participatory design to identify biodiversity hotspots	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Procurement of natural **resources through** **primary suppliers, and** resource extraction	Collaborate only with suppliers meeting appropriate environmental standards		LGED	Regular supervision	Once or twice a year through Supervision Mission	Included in general project cost
Use of land for planting of bio-based building materials (bamboo)	Carefully selection of locations Avoid large-scale plantations		LGED	Regular supervision	Once or twice a year through Supervision Mission	Included in general project cost
Soil erosion, e.g. of road embankments	Planting of vegetation immediately after clearing of land or reconstruction	Village authorities	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost

Landslide due to improper design of infrastructure	Climate resilient design guidelines Supervision by engineer		LGED	Design review Midline and endline reports	MTR and PCR	Included in general project cost
Over abstraction of water from deep wells	Appropriate design, education of users	Village authorities, local communities	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Increased consumption of energy (fuel, electricity) leading to increased GHG emissions	Optimize use of machinery through proper planning Use fuel-efficient machinery Avoid idling of machines		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Creation of breeding grounds for vector-borne diseases due to still standing water	Appropriate design, supervision by engineer		LGED	Design review Midline and endline reports	MTR and PCR	Included in general project cost
Social						
Disturbance of sites of cultural value,	Appropriate design, supervision by engineer	Participatory design to validate location of sites Village authorities	LGED	Regular supervision Midline and endline reports	MTR and PCR	Included in general project cost
Exclusion of, or negative impact on, ethnic minorities from project activities	Appropriate targeting, stakeholder engagement, FPIC and monitoring, as detailed in Ethnic Minorities Planning Framework	Detailed in Ethnic Minorities Planning Framework	LGED	Regular supervision Midline and endline reports	MTR and PCR	Included in general project cost
Occupational Health and Safety (OHS) risks associated with construction of physical infrastructure	OHS requirements in contracts, awareness raising, supervision by engineer		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Harmful employment of youth	Age requirements in contracts, awareness raising, supervision by engineer		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Harmful interactions between project workers and local communities, including gender-based violence and sexual harassment	Code of conduct, awareness raising – including to GRM processes and procedures, supervision by engineer		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost

Conflicting priorities & approaches to spatial planning, resource utilization, investment & management among and between local, national government agencies, and communities	Ensure appropriate participatory processes and stakeholder engagement to build consensus		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost
Elite capture on planning of, and benefits of, project activities (infrastructure and training opportunities)	Ensure effective targeting and participatory design methods, and implement the Stakeholder Engagement Plan and Grievance Redress Mechanism		LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Included in general project cost

Environmental and Social Safeguards Classification: Moderate

Environmental and Social Safeguards				
Biodiversity conservation	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
1.1 Could the project involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Possible	Moderate Project will significantly affect modified habitat , but will not impinge on natural habitat or critical natural habitat.	Moderate
1.2 Could the project involve or lead to activities negatively impacting habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA), etc.)?	No			Low
1.3 Could the project involve or lead to an increase in the chance of human-wildlife encounters/conflict?	Yes	Possible	Minor Humans and wildlife co-exist in the project area, but chance of human-wildlife conflict is minor.	Low
1.4 Could the project involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	Yes	Possible	Moderate Net loss in biodiversity with a status of Near Threatened or Vulnerable, or status change to Near Threatened due to project impacts.	Moderate
1.5 Could the project involve or lead to negative impacts/risks to migratory wildlife?	Yes	Possible	Moderate Project or associated facilities may be close to sites or routes of importance to migratory wildlife. No direct negative impact, but possible indirect impact.	Moderate
1.6 Could the project involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No			Low
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?	Yes		Moderate Project will require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated.	Moderate
Resource Efficiency and Pollution Prevention	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**

Environmental and Social Safeguards				
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Possible	Moderate Pollutants may be released, either routinely or by accident, but treatment systems are proven, verified and affordable. Receiving environment is highly sensitive.	Moderate
2.2 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	Yes	Possible	Moderate The project may be located in an area of previous pollution, but only partial decontamination has been undertaken. Impacts from previous pollution can be managed with existing affordable technology.	Moderate
2.3 Will the project involve or lead to significant consumption of raw materials and energy?	No			Low
2.4 Will the project develop or rehabilitate irrigation schemes and/or involve or lead to significant extraction, diversion or containment of surface or ground water? (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)	No			Low
2.5 Will the project involve the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts?	Yes		Minor The project will only require minimal amounts of fertilizer and/or pesticides.	Low
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?	Yes		Minor Project will only be partly dependent on production of living natural resources, it does not require serious environmental or social controls.	Low
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	Yes		Minor Only a small component of the project will be focused on forestry, and this aspect is well regulated and/or proposed project activities do not have negative impacts.	Low
2.8 Will the project involve livestock and production of animal products (dairy, skins, meat, etc.)?	No			Low

Environmental and Social Safeguards				
2.9 Will the project involve marine or freshwater fisheries, at industrial or artisanal scale?	No			Low
2.10 Will the project involve inland or marine aquaculture?	No			Low
Cultural Heritage	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	Yes	Unlikely	Minor The project could be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	Low
3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture (e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)	Yes	Unlikely	Minor The project will involve minor movements of earth. No damage to/or loss of archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or features is expected.	Low
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	Yes	Possible	Minor The project causes short-term and spatially limited alterations to landscapes. Rehabilitation is straightforward.	Low

Environmental and Social Safeguards				
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Yes	Possible	Minor The project could be located in an area that is considered to be of cultural heritage value, but the project does not use tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial purpose.	Low
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Indigenous peoples	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
4.1. Is the project sited in areas where indigenous Peoples are present? (Indigenous peoples' traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources).	Yes			Low
4.2 Could the project adversely affect indigenous people's rights to traditionally owned or otherwise occupied and used lands, territories, waters, coastal seas and other resources and/or livelihood systems?	Yes	Possible	Minor Minor adverse impact to indigenous peoples' rights to land, assets, territories and resources is expected.	Low
4.3 Could the project result in the utilization and/or commercial development of natural resources on lands and territories inhabited by indigenous peoples?	Yes	Unlikely	Minor The project will be located in an area where natural resources are of value to indigenous peoples, but the project does not include utilization and/or commercial development of natural resources.	Low
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Labour and Working Conditions	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?	No			Low

Environmental and Social Safeguards				
5.2 Could the project operate in a value chain where there have been reports of forced labour? Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain.	No			Low
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	No			Low
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: "OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.")	Yes	Possible	Moderate The project will operate in a sector, area, or value chain where workers are occasionally exposed to OSH risks, and where regulation is known to be weak or non-existent. However, there is no evidence of illness or death.	Moderate
Community Health, Safety and Security	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
6.1 Could the project lead to and or be at risk from water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Yes	Possible	Moderate The project will be situated in an area where there is past evidence of negative impacts from water-borne, zoonotic or vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective. Project activities could lead to moderate risks of water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases.	Moderate
6.2 Could the project have unintended negative impacts on nutrition?	No			Low
6.3 Will the project involve the construction or rehabilitation of dams?	No			Low

Environmental and Social Safeguards				
6.4 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes	Possible	Minor The project will have only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Low
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Possible	Moderate The project may lead to moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence protocols in place.	Moderate
6.6 Will the project construct, rehabilitate or upgrade rural roads and/or lead to increases in traffic or alteration in traffic flow?	Yes		Minor The project will result in minor increases to traffic volume. Only minor increase in risk of injury or death.	Low
6.7 Could the project lead to an influx of project workers?	Yes	Possible	Minor The project will require the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	Low
6.8 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
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Physical and economic resettlement	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
7.1 Will the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low

Environmental and Social Safeguards				
7.2 Will the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes		Minor Minor possible negative impact on either community assets or individual farmer assets.	Low
7.3 Could the project increase the risk of forced evictions? (The project cannot proceed unless forced evictions are avoided)	No			Low
7.4 Could the project result in adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No			Low
Financial intermediaries and direct investments	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
8.1 Could the investment be granted to an institution that does not have an environmental and social policy and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No			Low
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No			Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Could the institution not be providing a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.6 Could the institution not be providing auxiliary or capacity building support services?	No			Low
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Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	**No, Yes, TBD**
1.1 River flood	Yes
1.2 Costal Flood	No
1.3 Urban Flood	No
1.4 Landslide	No
1.5 Cyclone	Yes
1.6 Water Scarcity (agricultural droughts and/or dry spells)	Yes
1.7 Extreme Heat	Yes
1.8 Wildfires	No
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	**No, Yes, TBD**
1.9 Change in temperature (increase or decrease)	Yes
1.10 Change in rainfall (increase or decrease)	Yes
1.11 Climate variability	Yes
1.12 Intensity and frequency of extreme events	Yes
Is the project expected to have an impact on climate change (i.e. contribute to greenhouse gas emissions)?	**No, Yes, TBD**
1.13 Is the project expected to be a significant emitter of greenhouse gas emissions?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	**No, Yes, TBD**
2.1 Low-lying areas (valleys, coastal zones, and small islands)	Yes
2.2 Very warm areas (subtropical)	Yes
2.3 Tropical areas (rainforests)	No
2.4 Arid and semi-arid areas (deserts)	Yes
2.5 Mountains zones and permafrost areas (tundra)	No
2.6 River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	**No, Yes, TBD**
2.7 Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
2.8 Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	Yes
2.9 Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	Yes
2.10 Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	Yes
2.11 Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
2.12 Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
2.13 Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	**No, Yes, TBD**
3.1 Is conflict exacerbating the population´s sensitivity to weather related hazards?	No

3.2 Is population displacement being exacerbated by climate change impacts?	Yes
3.3 Are diseases (e.g. COVID-19, malaria, cholera) increasing the population´s vulnerability and affecting their capacity to address potential weather-related hazards?	Yes
3.4 Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
3.5 Human Development Index (HDI)	No
3.6 Multidimensional Poverty Index (MPI)	Yes
3.7 Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	
Step 4: Adaptive capacity	
What are key adaptive capacities in the areas of project intervention?	**No, Yes, TBD**
4.1 Is the country well ranked in the Disaster risk reduction progress score?	Yes
4.2 Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	No
4.3 Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	Yes
4.4 Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	Yes
4.5 Is the target community carrying out (using their own means) agricultural adaptation?	Yes
4.6 Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
4.7 Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	Yes
4.8 Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Environmental, Social and Climate Management Plan (ESCMP)

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Climate Resilience and Livelihoods Enhancement Project (CRALEP)

Environment, Social and Climate Management Plan (ESCMP)

Version	Date	Notes
1.0	22 August 2024	Version drafted during Project Design

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1. Project description

1.1 Introduction, project target area and area of influence

1. The Climate Resilience and Livelihoods Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots1 in Bangladesh, the Haor (northwest of Dhaka) and the High Barind (northeast of Dhaka) region.

2. CRALEP follows earlier IFAD-supported investment in the Haor areas, through the Haor Infrastructure and Livelihood Improvement Project – Climate Adaptation and Livelihood Protection Project (HILIP-CALIP) and PROVATI3 (Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information), both of which had a strong climate resilience focus and invested in roads, markets, early warning for floods, village protection, vocational training, and labour contracting societies. The main successful project activities of HILIP-CALIP and PROVATI3 are to be scaled up through CRALEP, and new interventions (primarily Nature-based Solutions, "NbS"), drought warning, and entrepreneurship training will be rolled-out.

3. The Haor regions are low-lying areas situated between the natural levees of rivers or highlands, submerged under water for up to six months each year. They constitute some of the poorest regions in Bangladesh. In the flooding season, the areas are prone to strong water currents and wave action during monsoon, which negatively affects economic activities and erodes land (homesteads and cropland), but also threatens basic facilities such as drinking water and sanitation. Infrastructural development is critical to protect communities and homesteads against flooding and erosion, and to ensure the connectivity during the flooding season to enable economic development.

4. The High Barind Tract is an uplifted area in northwestern Bangladesh that is prone to drought, erratic rainfall and poor soils; it also has a lower average annual rainfall than the rest of Bangladesh and falling groundwater tables. As a result, there is low agricultural productivity during one or two agricultural seasons. Access to markets and non-farm livelihoods is critical to diversify income sources and reduce distress migration, particularly when crops fail.

5. CRALEP will target a total of 317,000 households through a layered targeting approach, focusing on 33 upazilas across eight districts, with 24 upazilas in the Haor region and nine in the High Barind region.

6. Based on the inability to confirm specific sub-projects prior to project approval, the project has prepared this Environmental, Social and Climate Management Plan (ESCMP) under a framework approach. The purpose of the ESCMP is to ensure that the project has concrete plans and processes in place to avoid,

[1] As identified in the Bangladesh Delta Plan 2100

minimize, and/or mitigate the risks and potentially adverse project-related environmental and social (E&S) impacts, including climate risks, once the CRALEP activities and/or subprojects are identified, planned, and implemented. The definition of sub-project is included in the section on "Procedure for ESC Screening and Management for sub-projects" for PMU reference.This living document: (i) assesses and summarizes project-related risks and impacts; and (ii) sets out the principles, rules, guidelines, and procedures to assess any potential risks and impacts of future subproject and activities identified at a later time. It provides measures to reduce, mitigate, and/or offset those adverse risks and impacts from the project.

7. Specific objectives of this ESCMP are to:

- Assess the potential environmental, social, and climate-related risks and impacts of the project, both positive and negative, and propose mitigation measures which will effectively address these risks and impacts;
- Establish clear procedures for the E&S planning, review, approval, and implementation of subprojects and other activities to be financed under the project;
- Specify appropriate roles and responsibilities and outline the necessary reporting procedures for managing and monitoring E&S issues/concerns related to subprojects and activities;
- Determine the training, capacity building, and technical assistance needed to successfully implement the provisions of this ESCMP;
- Outline and address mechanisms for public consultation and disclosure of project documents, as well as redress of possible grievances; and
- Establish the budget requirements for implementation of this ESCMP.

8. This ESCMP provides information on (i) criteria to identify ineligible activities for Project funding; (ii) how to conduct the E&S screening; (iii) risks and impacts classifications; (iv) identification of various E&S documents to be prepared and the process to be followed for their preparation (including the clearance process); (v) implementation arrangements; (vi) training and capacity building; (v) grievance redress mechanism; (vi) estimated costs and budget requirements; and (vii) guidelines and specific forms for preparation of the identified E&S documents required. This ESCMP will be applied to all subprojects and activities to be financed by CRALEP.

9. In connection to the ESCMP, the following documents are also included:

- Procedure for Free Prior Inform Consent (FPIC)
- Ethnic Minority Planning Framework (to be used in the development of an Ethnic Minority Plan at implementation stage)
- Stakeholder Engagement Plan (SEP)
- Project-level Grievance Redress Mechanism (GRM)
- Targeted Adaptation Assessment

1.2 Project components

10. The project activities has 4 components as below.

11. **Component 1 Climate proofed village road connectivity and market improvement.** The outcome of Component 1 is "Increased market accessibility, improved livelihood options, and expanded access to social services for community members." This component focuses on connecting villagers with markets, institutions, and services, encouraging village investments. All infrastructure will have enhanced specifications to withstand climate change effects, and roads in Haor are designed to be submergible to both adapt to flooding season (5-7 months of the year) and to avoid bifurcating the wetlands. This includes subcomponents:
    - 1.1 Village Road connectivity in Haor;
    - 1.2 Village Road connectivity in Barind;
    - 1.3 Rural market improvement in Barind and Haor;
    - 1.4 Boat landing platform (ghat).

12. **Component 2 Village services for resilient communities in Haor region.** The outcome of Component 2 is "Improved village protection, living conditions, and resilience against wave action and severe weather events." This component focuses on village protection measures and services in Haor, where vvillages are marooned during the rainy season and vulnerable to erosion, a situation not seen in Barind. The project villages will be selected using predetermined criteria to prioritize poorer, climate vulnerable, and remote villages with poor connectivity and/or non-existent internal services. The village communities will be organized and trained to maintain these minor infrastructure. This includes three subcomponents:
    - 2.1 Village internal services (walkways, safe drinking water, sanitation, community space);
    - 2.2 Killa (elevated space) for temporary storage and shelter;
    - 2.3 Low-cost nature-based village protection system in Shallow Haor.

13. **Component 3 Livelihood diversification and resilience**. The outcome of this component is "Diversified wage and self-employment opportunities for young men and women and members of the LCS." This component enhances technical and management skills of young men and women for wage and self-employment, mainly in non-farm sectors less vulnerable to climate change. The unique feature of this component will be three interrelated elements: selection of young women and men (between 18-35 years) from poor families, demand-driven vocational training and placement for wage-employment through a network of employers or assistance for self-employment, including access to credit. Access to credit will be enabled through inter-linkages with other on-going or planned IFAD projects (e.g., Rural Microenterprise Transformation Project-RMTP, Food Systems and Sustainable Transformation – FAST) by PKSF and its Partner Organizations (POs); CRALEP does not allocate IFAD or co-financing resources to financial access. LCS members (see below on the scope of

activity) will be provided training on livelihoods to place them on an empowerment pathway to eradicate poverty. It includes three subcomponents:

- 3.1 Vocational training for employment creation for youth;
- 3.2 Entrepreneurship training for youth;
- 3.3 Sustainable livelihoods for LCS members.

14. **Labour Contracting Society (LCS):** LCS mechanism in Bangladesh is a community-based approach to labor contracting that aims to empower local communities, particularly women from poor and marginalized groups, by involving them directly in infrastructure and development projects. Under the LCS mechanism, poor and marginalized women community members form societies or groups that are contracted to carry out specific tasks such as construction, maintenance, and other project-related activities. This approach not only provides employment opportunities and income to the local population but also fosters a sense of ownership and accountability towards the projects. LCS ensures that the benefits of development projects are more equitably distributed, and that the community has a direct stake in the success and sustainability of the initiatives. By utilizing local labor and resources, the LCS mechanism also promotes capacity building and skills development within the community, contributing to long-term socio-economic development.

15. LGED has an elaborate manual for LCS management, from HILIP-CALIP and PROVATI3, that will be adopted and improved by the project. Under CRALEP, all LCS members (women) and their spouses (men) will benefit from streamlined version of GALS (Gender Action Learning System), which will also include modules on financial literacy and nutrition.

16. Under CRALEP, LCS members will be engaged to

a) **develop and maintain bamboo and vetiver grass nurseries** in Haor under sub-component 2.3 (this also includes bamboo treatment with boric acid to extent its life);
b) **plant and maintain vetiver on slopes** of roads, killas and villages in Haor under sub-component 1.1, 2.1, 2.2, and 2.3;
c) **civil works associated with market upgrades and improvements** in Barind region under sub-component 1.2. In Haor, this is expected to be largely done by contractors. The maintenance of markets will be the responsibility of Trader Associations or Market Management Committees;
d) **civil works and maintenance associated with village internal services, killas, and low-cost nature-based village protection systems** in Haor under sub-component 2.1,2.2 and 2.3; and,
e) **civil works and maintenance associated with Rural Concrete Block roads in Barind and Haor regions** under sub-component 1.1 and 1.2.

17. **Component 4 Capacity development, climate information services, and innovation.** The outcome of this component is "Strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather

warning systems, and promoting nature-based solutions and other technologies". This component complements other components by providing early flash flood and drought warning, developing LGED's internal capacity through climate mainstreaming, and piloting relevant innovations (alternative and nature-based construction materials, designs). It has four subcomponents:

- 4.1 Capacity building of CReLIC;
- 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience;
- 4.3 Innovation in construction, materials, and livelihood diversification;
- 4.4 Policy and dissemination.

18. The project's area of influence may extend beyond the directly targeted project areas, in the directly adjacent areas. Some of the environmental risks listed in this document extend beyond the direct area of construction, for example the temporary changes in water flows during construction. The remainder of this document takes into account such impacts in the area of influence.

19. The selection criteria for these areas include high climate vulnerability, high poverty incidence2, and poor communication infrastructure. Also, the targeted upazilas were carefully selected taking into account the scope and activities of other ongoing projects in the same regions, namely the Japan International Cooperation Agency (JICA) financed Haor Flood Management and Livelihood Improvement Project (HFM&LIP) and IFAD and Asian Development Bank (ADB) financed Climate and Disaster Resilient Small Scale Water Resources Management Project (CDRSSWRMP). The Haor region is particularly characterized by deep inundation and high wave action, affecting 17 of its upazilas either fully or partially.

Table 1: Project Upazilas

Haor Districts	Climate vulnerability index (LGED)[3]	District poverty rate (HIES 2016)[4]	Upazilas	Haor classification	Total project Upazilas (#)
Kishoreganj	0.49	53.5%	Austagram, Itna, Mithamoin, Nikli	Deep haor: Austagram, Itna, Mithamoin, Nikli (part)	4

[2] Source: WFP and BBS. Poverty Maps of Bangladesh 2016, Key Findings.
[3] The climate vulnerability index was based on available secondary data for 1991-2020 from various sources (Survey of Bangladesh, Bangladesh Bureau of Statistics, Center for Environmental GIS, LGED) and geospatial analysis. CVI is a function of exposure, sensitivity and adaptive capacity, and based on numbers CVI score is classified as very low (≤0.44), low (0.44-0.47), moderate (0.47-0.50), high (0.50-0.53) and very high (≥0.53). About 28% of 64 Bangladesh districts fall in the moderate category, 31% in the high category, and 3% in the very high category.
[4] The two districts with lower poverty rates in Haor were selected on the basis of climate vulnerability and poor rural infrastructure, as these Haors are classified as "Deep Haors" that are subject to heavy flooding and wave action. We also note that four upazilas selected within these two districts also have poverty rates higher than district average i.e., four upazila poverty ranges between 17.1%-21.3%. Habiganj district:13.4%. Selected upazilas: Ajmiriganj: 21.3%, Baniachong; 17.1%, Lakhai: 18.3%. (Source: BBS 2016) Brahmanbaria district: 10.3%. Selected upazilas: Nabinagar 5.4%, Nasirnagar 18%, and Sarail 9.8%. (Source: BBS 2016).

Netrakona	0.52	34%	Khaliajhuri, Kamlakanda, Madan, Mahanganj	Deep haor: Khaliajhuri, Kamlakanda, Madan (part), Mahanganj (part)	4
Sunamganj	0.51	26%	Bishwambarpur, Derai, Dharmapasha, Dowarabazar, Jagannathpur, Jamalganj, Sulla, Sunamganj sadar, Dakshin Sunamganj (Shantiganj) and Tahirpur	Deep Haor: Bishwambarpur, Dharmapasha, Jamalganj, Sulla, and Tahirpur (part)	10
Habiganj	0.47	13.4%	Ajmiriganj, Baniachong, and Lakhai	Deep Haor: Ajmiriganj, Baniachong, and Lakhai.	3
Brahmanbaria	0.43	10.3%	Nabinagar, Nasirnagar, and Sarail	Deep Haor: Nasirnagar	3
SUB-TOTAL					**24**
High Barind Districts			**Upazilas**	**Drought classification**	
Rajshahi	0.47	20.1%	Tanore and Godagari	Very high Kharif & Pre-Kharif drought risk. Moderate to very low water-holding capacity.	2
Naogaon	0.50	32.2%	Patnitala, Shapahar, Porsha, Dhamurhat, and Niamatpur		5
Chapai Nawabganj	0.48	39.6%	Nachole and Gomastapur		2
Sub-TOTAL					**9**
TOTAL					**33**

1.3 Target groups

20. CRALEP employs a comprehensive targeting strategy to ensure that the most vulnerable and disadvantaged populations in the Haor and High Barind regions benefit from its interventions. This strategy is based on three primary targeting approaches: geographical targeting, poverty targeting, and beneficiary targeting.

21. From the geographical targeting (see Table 1), it follows that most of the population in the target areas is poor, with a significant percentage being extremely poor. The main professions of the population in the project upazilas

are agricultural labor, artisans, farming by marginal and small farmers, open water fishing, small non-agricultural producers, and poor young men and women.

22. Beneficiary targeting: Young men and women from poor families will be specifically targeted for vocational and entrepreneurship training and sustainable livelihood development. CRALEP aims to directly benefit 311,820 households, translating to approximately 1.34 million individuals (see Table 1).

Table 2: Project Activities and Total Beneficiaries

Sub-comp.	Subcomponent Title	Main activities	Target	Direct beneficiaries (Persons)	Beneficiary HHs (#)	Population
1.1	Village Road connectivity in Haor areas	Village road construction (km)	141		16,920	72,756
1.2	Village Road connectivity in Barind area	Village and union road construction (km)	193		23,160	99,588
1.3	Village Market development and rehabilitation	Market development in Barind (#)	10		20,200	86,860
		Market rehabilitation in Haor (#)	48		96,960	416,928
1.4	Boat landing platform (Ghat)	Ghat construction (Haor and Barind)	34		Included in market	--
2.1	Village internal services in Haor (internal walkways, toilet blocks, tubewells)	Number of villages (#)	240		48,000	206,400
2.2	Killa for temporary storage of harvests and shelter in Haor	Number of killas (#)	72		3,600	15,480
2.3	Low-cost nature-based village protection system in Shallow Haor (VPS)	Number of villages	280		56,000	240,800
3.1	Vocational training for employment creation for youth (Haor and Barind)	Number of trainees (#)	34,000	34,000	34,000	146,200
3.2	Entrepreneurship training for youth	Number of trainees (#)	10,000	10,000	10,000	43,000
3.3	Sustainable livelihoods for LCS members	Number of LCS members (#)	2,980	2,980	2,980	12,814
	Total: Comp 1 to 3			**46,980**	**311,820**	**1,340,826**

1.4 Project implementation arrangements

23. The Local Government Division (LGD) and the Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development, and Cooperative are the Executing Agency (EA) and Implementing Agency (IA) respectively of CRALEP.

24. The LGED will establish a Project Management Unit (PMU) headed by a senior engineer as the Project Director. Several LGED officials will be deputed to the project. The PMU will have four tiers:

- PMU/Dhaka at LGED Head Quarters,
- 3 Regional Offices in Chapai Nawabganj, Kishoreganj and Sunamganj,
- 8 District Offices (Haor Region: Netrakona, Kishoreganj, Sunamganj, Habiganj, and Brahmanbaria; High Barind Region: Rajshahi, Naogaon, and Chapai Nawabganj), and
- 33 Upazila LGED offices.

25. The PMU will engage private construction contractors, NGOs (Partner Organizations of PKSF) in training, and private and government training providers as appropriate for implementation of the project activities. It will sign partnership agreements with several national institutions such as the Bangladesh Forest Research Institute (BFRI), the Institute of Water and Flood Management (IWFM), the Bangladesh Water Development Board BWDB), and the Bangladesh Meteorological Department (BMD), for implementation of Component 4.

26. A Project Steering Committee (PSC) (i.e. implementation and steering Committee -IMSC), headed by Secretary, LGD will be established, which will provide overall strategic guidance, monitor overall implementation progress, facilitate interagency coordination required for smooth project implementation, and resolve any outstanding issues requiring high-level decisions. The committee will meet at least once a year or whenever necessary to review the progress of project implementation.

27. SECAP related functions will be covered by staff in the 4 levels:

a) **At the PMU (Dhaka),** the Climate Change and Hydrology and GESI Specialist hired for 60 months (full-time, throughout implementation) will share responsibility for SECAP functions. It isanticipated that that the GESI Specialist will be lead on SECAP related responsibilities. The GESI Specialist will primarily focus on Component 3, and support stakeholder engagement / GRM / FPIC / implementation of Ethnic Minority Plan / targeting strategy under Component 1 and 2. T he Climate Change and Hydrology Specialist will cover a wider range of activities under Component 1, 2 and 4 (i.e., intensity of work is anticipated to be higher). Final determination of the lead role will be done during implementation based on work experience and qualifications of the Climate Change and Hydrology & the GESI Specialists.

b) **At the district level,** the eight Livelihood Officers will support SECAP functions in coordination with the PMU's Climate Change and Hydrology

Specialist & GESI Specialist, including validation of sub-project screening, conduct monitoring activities and stakeholder engagement and grievance redress related functions.

c) **At the activity level,** NGOs and contractor teams implementing specific activities will be required to include SECAP relevant experts / specialists based on preliminary risk assessment at design. For example, NGOs implementing training for LCS members should include individuals trained in or with prior experience of GALS. Contractors for topographic surveys and subsoil investigations for infrastructure activities (roads, markets, boat landing platforms) will include an Environment/Biodiversity Specialist.

28. All PMU-level TORs for design engineers, assistant design engineer, market design and planner, livelihood specialist, and M&E and KM specialists / officer all define the role they will play in SECAP relevant actions – by liaising with PMU's Climate Change and Hydrology Specialist & GESI Specialist.

29. All project personnel at four levels (PMU, regional, district, upazila) will need to be introduced (trained) to IFAD's SECAP 2021 during early months of implementation, and be familiarized with mitigation measures proposed in the project and site-specific ESCMPs.

1.5 Capacity building needs

30. There is significant experience of IFAD-funded projects in Bangladesh implementing SECAP-related requirements, including within the lead agency of the proposed project, the Local Government Engineering Department (LGED).

31. Project-level SECAP requirements are usually integrated into the Government's procedures for Environmental and Social Impact Assessment, including through the screening of sub-projects and the preparation of Environmental, Climate and Social Management Plans (ESCMPs). In previous and current IFAD-funded projects, LGED staff and district / Upazila staff have shown the ability to implement, monitor and supervise the ESCMPs.

32. The LGED furthermore has an extensive experience in working with a broad range of development partners, including the Green Climate Fund (GCF), EU, GIZ, USAID and World Bank. Through these projects, the LGED has been able to build capacity on SECAP-related topics. For example, LGED has established a Climate Resilient Local Infrastructure Center (CReLIC) through the Climate Resilient Infrastructure Mainstreaming Project, supported by GCF, KfW and the Government of Bangladesh.

33. IFAD-funded project designs in Bangladesh have generally seen strong integration of SECAP requirements. Implementation of such projects has been in line with designs and therefore project scores on climate resilience are generally good. Nevertheless, further capacity building is envisaged along the following lines:

- Support for PMU on the relevant requirements identified under the applicable policy frameworks, and implications in terms of roles and responsibilities, budgetary and implementation arrangements at sub-national level. This support is provided by IFAD during start up workshop.
- In-depth support is conducted for SECAP roles in the PMU (in this case, the Climate Change Expert and Hydrologist and the GESI expert) to further understand and implement their functions in relation to SECAP.
- The PMU GESI expert will be responsible for assessing and building the capacity of village-level stakeholders, contractors, NGOs (including PKSF POs) and other implementation partners on the Social Inclusion aspects of SECAP, including targeting, stakeholder engagement, Ethnic Minority plan, labour standards and community health and safety, and grievance redress mechanism.

The PMU Climate Change expert will be responsible for assessing and building the capacity of PMU and project staff on the environment, biodiversity and climate change measures contained within the SECAP documents, including the Targeted Adaptation Assessment.

1.6 Further SECAP studies and SECAP recommendations for implementation

34. In line with the identified risks, the project will follow the existing guidelines for environmental impact assessment and management as used within LGED, within Bangladesh more generally, and by IFAD. This includes screening, assessing and reporting on the impact of individual subprojects, and updating / implementing the Stakeholder Engagement Plan, FPIC, Chance Finds Procedures, and ESCMP (including exclusion criteria). Additionally,

- The Ethnic Minority Plan will need to be prepared based on the Ethnic Minority Planning Framework (the template is included as an appendix to the Ethnic Minority Planning Framework).
- On the basis of the ESCMP matrix, site-specific ESCMPs will need to be prepared during early implementation, as soon as project sites and activities become known.
- As part of the project design, a Targeted Adaptation Assessment has been carried out. This document may be updated and enhanced during project implementation, based on evolving data availability and lessons learned.

35. The following topics are recommended to monitored during project implementation:

- Review the experience of HILIP-CALIP in terms of biodiversity monitoring (with BFRI – a CRALEP partner as well as WorldFish and IUCN) to assess feasibility of implementing such measures in the new project, as well as to create an evidence base for biodiversity-enhancement through nature-based solutions.
- Advanced analysis of project results using geospatial analysis. By logging the exact coordinates of project activities and combining this with data from the early warning system and project M&E system on impact, more advanced analyses could be made on project relevance and impact.
- Interaction with other government agencies under the Plan for Disaster Risk Management, particularly regarding the development, implementation and

effectiveness of early warning systems, but also regarding the contribution of climate-resilient infrastructure and nature-based solutions towards disaster risk reduction.

- Support the Climate Resilient Local Infrastructure Center (CRELiC) of the LGED to research immediately applicable infrastructure design and material solutions to avoid biodiversity conservation and resource efficiency issues, aiming to test and employ these during the program.

  While the impact on local waterways is relatively limited as the project promotes submergible roads (not allweather roads), CRELiC could be supported to investigate new, less impactful, and more resilient materials.

2. Relevant institutional context

2.1 Regulatory frameworks and permitting requirements

1. CRALEP supports Bangladesh's short, medium, and long-term plans as outlined in the ongoing 8th Five Year Plan (2021-2025), the Perspective Plan 2021-2041, and the Delta Plan 2100. The 8th Five-Year Plan emphasizes agricultural diversification, sustainable infrastructure, employment growth, and climate adaptation. The Perspective Plan aims to eradicate poverty, while the Delta Plan envisions a climate-resilient and prosperous delta by the end of the 21st century. CRALEP's focus on climate-resilient infrastructure and sustainable livelihoods aligns well with these national strategies.

2. The programme is closely aligned with the National Adaptation Plan (NAP), the Mujib Climate Prosperity Plan, Bangladesh Climate and Development Platform (BCDP), and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP). These plans emphasize climate resilience, inclusive livelihoods, and gender and age responsive strategies, particularly in vulnerable regions like Haor and High Barind. The project also aligns with the goals of the Bangladesh Climate and Development Platform, integrating climate and green dimensions into public planning and promoting locally led climate actions.

3. The project will be required to follow the national procedures related to environmental and social impact assessment, as outlined in the Environmental Conservation Act - ECA (1995) and Rules (1997). In line with the identified risks, the project will follow the existing guidelines for environmental impact assessment and management as used within LGED, within Bangladesh more generally, and by IFAD. This includes screening, assessing and reporting on the impact of individual subprojects, and updating / implementing the Stakeholder Engagement Plan, FPIC, Chance Finds Procedures, and ESCMP (including exclusion criteria).

4. In addition, the following sectoral laws are applicable (this is not an exhaustive list) and all project activities will be implemented in line with the current requirements of the Government of Bangladesh and in line with IFAD’s SECAP 2021.

5. The main national institutions for environmental and social risk management / safeguards is the Ministry of Environment, Forest and Climate Change (MOEFCC). The Department of Environment under MOEFCC is the main enforcement agency, and under provisions of the ECA 1995 is responsible for awarding clearance to development projects, monitoring compliance, enforcing environmental standards, and preventing activities that are likely to cause environmental harm or degradation. The Bangladesh Planning Commission is the central planning organization and plays a key role in setting policies, sectoral plans, project planning and evaluation. Other relevant ministries include (but not limited to) the Ministry of Social Welfare, Ministry of Land, Ministry of Women and Children Affairs, Ministry of Water Resources, and Ministry of Labour and Employment.

6. <u>Environment</u>

- The National Environmental Policy (1992) identifies and regulates activities that may degrade the environment and ensures the sustainable and environmentally sound use of natural resources.
- The National Environmental Management Plan (1995) is a broad set of programs aimed to implement this policy.
- The Environmental Conservation Act (1995) and Rules (1997) set the standards and procedures to prevent pollution of the environment, including standards for ambient air, various types of water, emission, noise, vehicular exhaust and so on. They guide the execution of project screening, assessment and monitoring by defining requirements for and procedures to obtain environmental clearance and requirements for initial environmental examination (IEE) / environmental impact assessment (EIA) to categories of industrial and other development interventions.

7. <u>Water</u>

- The National Water Policy (1999) focuses on protection, restoration and enhancement of water resources; protection of water quality; provision of sanitation and potable water; and the participation of local communities in water development projects.
- The Bangladesh Delta Plan 2100 (2018) defines the strategy to ensure long term water and food security, economic growth and environmental sustainability while reducing vulnerability to natural disasters and building resilience to climate change. For the Haor areas, the main strategy is to protect agriculture and vulnerable communities from floods, integrated water/land resource management and management of sustainable ecosystem and biodiversity. For the Barind areas, the main strategy is to balance supply and demand for sustainable and inclusive growth, minimizing losses due to floods and drainage congestion and ensuring water supply and sanitation.
- National Fisheries Policy 1999, together with Protection and Conservation of Fish (Amendment) Ordinance 1982 and Protection and Conservation of Fish Amendment Act 1995, provide provisions for the protection and conservation of

fish breeding grounds and habitats. Since the project involves wetlands, ponds, and rivers, these policies will be taken into account to protect habitats, migration and interconnectedness between water bodies to protect and conserve fish (and other aquatic) resources in all stages of project planning and implementation.

- Groundwater Management Ordinance 1985 sets the requirements for management of groundwater resources and licensing of tubewells. CRALEP activities to provide water connection in markets and village level services (tubewells and handpumps) will be in line with this Ordinance.

8. Biodiversity and Land

- National Land Use Policy 2021 which aims to ensure that land use is in harmony with the environment, prevent gradual and consistent decrease of arable land for food production, protect natural forest areas and prevent river erosion, and prevent land pollution. CRALEP activities that require sand and gravel will take these policies into account to reduce potential negative impacts on land resources.
- Biodiversity Act 2017 has provisions to create the National Committee and the Biodiversity Management and Surveillance Committees at local levels (i.e., Districts, Upazilas, Unions). CRALEP activities in the wetlands should be in line with provisions of this Act.
- Bangladesh Wildlife (Protection and Preservation) Act of 1992 identifies species of plants, animals, amphibians, reptiles, mammals, fish, and insects under Schedule 1 and Schedule 2. CRALEP activities will consider this Act in assessing potential risks (indirect or direct) to protected species for infrastructure activities.

9. Climate change

- The Mujib Climate Prosperity Plan (2022-2041) is focused on climate resilience building, analyzing the economic considerations and identifying the appropriate financing instruments. The plan prominently identifies locally-led Nature-based Solutions for disaster risk reduction as a solution to improve resilience, and to protect ecosystems and biodiversity.
- The National Adaptation Plan (2023-2050) identifies six goals including Goal 1 (ensure protection against climate variability and induced natural disasters) and Goal 4 (promote NbS for conservation of forestry, biodiversity, and well-being of communities). NAP 2023-2050 also captures adaptation preferences of stakeholders including ecosystem-based adaptation, construction of Mujib killa, strengthening early warning systems, and protection against wave action and land degradation in Haor.
- Bangladesh's latest NDC (2021) proposes a 5% unconditional reduction in GHG emissions from the Business As Usual scenario by 2030, with an additional 10% reduction conditional on international support.

10. Disaster risk management

- The National Plan for Disaster Risk Management (2021-2025)[5] outlines key actions to save lives and reduce economic losses from disasters, including Disaster Risk Reduction, Humanitarian Response and Emergency Recovery Management. It builds on the Sendai Framework for Disaster Risk Reduction and the Disaster Management Policy (2015). Some of the main hazards identified in the plan correspond to those addressed in CRALEP – notably floods and riverbank erosion. One key action in the Plan that CRALEP will contribute to, apart from the physical investments that reduce risk from flooding, is the forecasting and early warning system. Another key action is forecast-based financing and action, which is identified as a key DM institution in the plan[6] and is also the focus of projects implemented by GoB with ICRC and other UN entities[7].

11. Youth

- The National Policy for Youth (2017) aims to ensure special support is provided to rural youth with opportunities to boost the rural economy (including with lease of government owned Khaas farmland, ponds and 'Jolmohal).

12. Decent work and harmful child labour

- The Decent Work Country Program 2022- 2026 is a collaboration between government and industries to improve the rights of workers. The Ministry of Labour and Employment is responsible this program.
- The National Plan to Eliminate Child Labour (2020-2025) was prepared by the National Child Labour Welfare Council.
- The Bangladesh LabourAct (2006) and its amendment in 2013 has separate sections on prohibitions related to child labour in any occupation or establishment, contract requirements related to young people and pregnant women, and to ensure the decent working environment in the working place. For instance, Chapter VI of this Act specifies safety precautions regarding use of lifting machinery, and Chapter VII specifies safety measures such as first aid kit, maintenance of safety record books, housing facility and children room.

13. Displacement

- The Acquisition and Requisition of Immovable Property Act (ARIPA, 2017) is the principal legislation governing land acquisition and requisition in Bangladesh. The law states that in cases of land acquisition, compensation is to be paid, to be determined by the Deputy Commissioner.

14. FPIC and GRM

- The Right to Information Act 2009 makes provisions for free flow of information. Right to Information means the right to obtain information from any authority,

[5] See https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/page/a7c2b9e1_6c9d_4ecf_bb53_ec74653e6d05/NPDM2021-25%20DraftVer5_23032020.pdf
[6] Under the purview of Additional Secretary in the Ministry of Disaster Management and Response (MoDMR).
[7] https://www.anticipation-hub.org/Documents/Reports/Forecast_based_financing_in_Bangladesh_-_scoping_and_challenges.pdf

and on demand from a citizen, the authority shall be bound to provide him/her with the information. It guarantees right to information as an inalienable part of freedom of thought, conscience and speech, including transparency and accountability of all public, autonomous and statutory organizations and of other private institutions constituted or run by the government or foreign financing. Here "information" includes any memo, book, design, map, contract, data, log book, order, notification, document, sample, letter, report, accounts, project proposal, photograph, audio, video, drawing, painting, film, any instrument done through electronic process, machine readable record, and any other documentary material regardless of its physical form or characteristics, and any copy thereof in relation to the constitution, structure and official activities of any authority.

15. Gender

- The Constitution of Bangladesh lays down the general principles regarding the protection of women from all forms of discrimination and the promotion of their equal participation.
- Bangladesh ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1984.
- The GoB adopted a National Women Development Policy in 2011 with an accompanying Action Plan to guide implementation thereof.
- The Local Government Engineering Department (LGED) formulated an updated Gender Strategy and Action Plan (2022-2030) improving upon its previous strategy and consistent with the National Women's Development Policy.

2.2 IFAD's Social, Environmental and Climate Assessment Procedures

16. IFAD's Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects. The Standards are aimed to be implemented in the context of IFAD financed projects during project design and implementation; and borrowers/ recipients/partners, which are ultimately responsible for project implementation. The requirements related to each standard will be applied in line with the unique nature of the project, its specific activities, the associated social and environmental risks and impacts as outlined in the ESCMP.

2.3 Applicable SECAP Standards for CRALEP and Scope of Application

17. Standard 1. Biodiversity Conservation. This Standard and its associated requirements apply to all IFAD-supported projects that are:

- Located in modified, natural or critical habitats;
- Located in areas providing ecosystem services upon which project stakeholders depend for survival, sustenance, livelihoods or primary income, or that are used for sustaining the project;
- Extracting renewable natural resources, i.e. projects that include the generation of living natural resources (e.g. plantation forestry, commercial harvesting, agriculture, livestock, fisheries, aquaculture); or

- Using and commercializing an indigenous knowledge system.
- This Standard also applies to situations where the livelihoods of affected communities – including those of indigenous peoples – whose access to or use of biodiversity, ecosystem services or living natural resources may be affected by project activities.

18. Standard 2: Resource efficiency and pollution prevention. This Standard applies to any IFAD-supported projects that:

- Significantly consume or cause consumption of water, energy or other resources;
- Aim to improve existing waste-management practices;
- Generate or cause generation of solid, liquid or gaseous waste or emissions; or
- Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers

19. Standard 3: Cultural Heritage. The Standard applies to projects that may create risks and/or result in adverse impacts on cultural heritage, including those that may be located in – or in the vicinity of – a cultural heritage site, or that propose to utilize tangible or intangible forms of cultural heritage for commercial or other purposes.

20. Standard 4: Indigenous Peoples. This Standard applies to all projects that may affect the human rights, lands, natural resources, territories, cultural heritage or traditional livelihoods of indigenous peoples, regardless of whether: (i) the project is located within or outside of the lands and territories inhabited by the indigenous peoples; (ii) a title to the lands and territories in question is possessed by the indigenous peoples; or (iii) the indigenous peoples are recognized as indigenous in the country.

21. Standard 5: Labour and Working Conditions. The requirements of this standard apply to all project workers directly engaged by borrowers/recipients/ partners to work on a project or perform work essential to the project, and to people employed or engaged through third parties (e.g. contractors, subcontractors, brokers, agents and intermediaries) to perform work essential to a project.61 When a project engages community workers, relevant provisions of the requirements will be applied in a proportionate manner, recognizing the potential risks and impacts. Paragraphs 23 and 24 apply to primary supplier workers. The full requirements apply to full-time, part-time, temporary, seasonal and migrant workers.

22. Standard 6: Community Health and Safety. This Standard applies to projects that may pose significant risks to and adverse impacts on human health, nutrition and safety. The applicability of this Standard will be determined during the environmental, social and climate risk screening and assessment phase, as outlined in Chapter 3. Measures to ensure occupational health and safety are covered in Standard 5: Labour and working conditions. Further requirements to

avoid or minimize impacts on human health and the environment from pollution are included in Standard 2: Resource efficiency and pollution prevention.

23. Standard 7: Physical and Economic Resettlement. This Standard applies to all IFAD-supported projects that involve any displacement or need for resettlement. The displacement may be full or partial, permanent or temporary, and could result from a variety of project activities. This Standard also applies to any physical or economic displacement caused by a borrower/recipient/partner for purposes relevant to the project before IFAD's involvement.

24. Standard 9: Climate change. The requirements of this Standard apply to all IFAD-supported projects that:

- Have development outcomes that may be threatened by climate change or related disaster risks;
- May contribute to increased exposure or vulnerability to climate change and related disaster risks; or
- May produce significant GHG emissions.

3. Project environmental, social and climate risks and mitigation measures

3.1 Biodiversity conservation

1. The project is planned to be carried out in districts and upazilas (unions), which encompass wetland areas of significant biodiversity value. These wetlands host a variety of freshwater biodiversity, including fish, aquatic invertebrates, aquatic plants, and water birds, as well as birdlife, such as migratory birds, and some terrestrial fauna. The project focus is on areas that are seasonally inundated rather than permanently wet, although beels (ponds or lakes in the floodplain with static water) may remain inundated throughout the year.

2. Haor is also a critical ecosystem for fish production, ecologically and commercially, and about 154 native fish species inhabit lower Hoar wetlands[8]. The key threats to fish production, according to the Department of Forests, is overexploitation, habitat fragmentation, siltation of freshwater bodies, and environmental pollution from industries and agriculture chemicals; fishing is regulated through auctioning permits for selected areas.

3. Specific sites of sub-projects will undergo a selection criteria considering, among other criteria, the sensitivity and risk of impacting adversely on the environment,in order to avoid or reduce the probability and significance of adverse impacts, with the likelihood classified as "possible." Furthermore, the implementation of design guidelines and NbS is expected to ensure that any potential impacts of the interventions remain moderate or minor. For instance,

[8] Hasan, J., Akter Lima, R., and Saha, D.C. (2021). Fisheries resources of Bangladesh: A review. *Int J Fish Aquat Stud*. 9(4):131-138. https://doi.org/10.22271/fish.2021.v9.i4b.2532

submergible roads in Haor ensure that seasonal wetlands are not bifurcated; roads in CRALEP will be upgraded along existing alignment (usage by community) that will be marked on a topographic map and confirmed by stakeholders; incorporating NbS has the potential to increase sustainability and longevity of infrastructure – thus reducing damage during floods and requiring frequent reconstruction activities which can cause disturbance and have indirect impacts.

4. The project will not engage in or near national protected areas. There is one National Park (and Ramsar site), Tanguar Haor, in Sunamganj district, but this is at considerable distance and upstream from the selected project upazilas in that same district of Hoar area. Similarly, the Ramsagar National Park in Dinajpur is distant and upstream of the selected project upazilas in the High Barind Tract.

5. Haor areas are important for migratory birds, but the selected areas are not the key areas for migratory species9. Improved accessibility of and productivity in Haor areas may in fact be beneficial and reduce pressure on protected areas such as Tanguar Haor. Fishing in Haor wetlands is regulated through auctioning permits for selected areas. Therefore, while the project will support market access (including for fishery outputs), it is not expected to intensify impacts on aquatic biodiversity.

6. The primary risk related to degradation of habitat and reduction of ecosystem services is linked to infrastructure, which may affect local fish breeding grounds and shelters (habitats) and influence the availability of water and nutrients (ecosystem services). This may result in temporary impacts during the construction phase (soil disturbance, dust and noise disturbance). Structural changes in the local ecosystem such as changes in waterflow, introduction of new (semi-)stagnant water bodies are unlikely to be caused by the project, due to selection criteria and design guidelines.

7. Impact on local waterways is relatively limited as the project is promoting submergible roads (not all-weather roads), the design of which will avoid bifurcation of seasonal wetlands. The activity will not involve new road construction that necessitates raising road height or excavation and laying of new pathways. Instead, the project will select pathways / earthen roads already in use between villages and upazila for upgrade, and this information is verified during LGED's participatory process in each community during the implementation phase.

8. Additionally, CRALEP's capacity development activities will use permeable materials (allow water to seep through and reduce runoff before they enter the waterway), and incorporate NbS (vetiver grass vegetation).

[9] See https://www.cms.int/sites/default/files/document/2019_CMS_National_Report_Bangladesh.pdf

9. Roads, and other types of infrastructure (e.g., market, boat landing station) will only occur on land that's already in use or selected community land within the village. That is, no site is anticipated to be located within or near protected or critical habitats. However, there could be indirect effects, such as an increase in economic activity in the primary sector, including agriculture and fisheries, and an increase in footfalls (boats and light vehicular traffic, foot traffic) adding to the cumulative pressure on habitats. These impacts are expected mostly local and of low magnitude.

10. The project will also directly support some income-generating activities, although the impact of these activities is anticipated to be limited and localized. In fact, the income-generating activities supported by the project will include training that enhances awareness of environmental and biodiversity protection.

11. Given that the project is not engaging in agricultural production, there is no risk of introduction of invasive species or handling of genetically modified organism (GMO[10]). There will be some procurement of building materials, including sand, gravel, bamboo and vetiver bamboo and vetiver are both native to Bangladesh (vetiver is locally known as khas-khas or khus11). The project will adopt sustainable sourcing practices and adhere to environmental guidelines.

3.2 Resource efficiency and pollution prevention

12. The project will invest in small-scale infrastructure and will not directly support expansion or intensification of agricultural activities, apart from minor plantation interventions (within village nurseries) i.e., of bamboo and vetiver grass grown in support of NbS with income-generating co-benefits. The use of agro chemicals is limited to the use of boric acid to reduce the risk of bamboo rotting, with support from the Bangladesh Forest Research Institute (BFRI) (also see section community health and safety); since submerged bamboo rots easily, treatment with boric acid diluted in water extends its life and avoids the need to harvest and replace bamboo after each flooding season in Haor. Boric acid is a low-toxicity mineral with insecticidal, fungicidal and herbicidal properties, highly effective alternative to treat bamboo rot; it is also documented in case studies such as that of UN Climate Technology Center and Network (https://www.ctc-n.org/sites/default/files/resources/511386fe-8564-4b0a-9c88-3df40ae4f5bb.pdf). Mitigation measures in the use of boric acid will include avoidance of frequent or prolonged contact with skin and eyes and to safely dispose of the waste material following treatment, and preventing direct runoff of diluted boric acid into streams and rivers.

13. For this risk category, the main source of risk emanates from the construction phase of infrastructure. The construction phase will involve some use of machinery (primarily, small concrete mixers) and movement of natural

[10] While Bangladesh allows cultivation of GMOs, specifically cotton and brinjal, project does not directly support agricultural production.
[11] The species found in Bangladesh is Vetiveria zizanioides (L.) Nash.

materials. There will be erosion and pollution risks related to the earthworks, temporary drainage and borrow pits – e.g. increase turbidity in the water. These will be mitigated through well-known measures, such as planning the activities in the correct season, designing temporary drainage diversions properly, rehabilitating burrow pits after use, spraying water to reduce dust hazard and limiting operating hours of equipment to reduce noise pollution. By regulation, all activities that need sand or soil for construction (roads, killa) will need to seek permission for material extraction from the local administration that assesses changes or disruption to river flow and riverbanks.

14. If designed and implemented correctly, the project activities should contribute to a long-term reduction in pollution and improvement in resource efficiency. Bamboo and vetiver grass will help to prevent soil erosion from the embankments; dust pollution will be reduced and water quality improved due to improved roads.

15. The other type of infrastructure that will be strengthened or introduced in Haor is water and sanitation to reduce risks to health in the flooded period (typically 4-8 months each year). Securing wells for drinking water is challenging in Hoar, not least because of flooding, land scarcity and standing water bodies. Similarly, traditional pit latrines are reported to collapse when there is flooding, high water table, excessive rainfall or loose soil formation[12]. The project will select and promote sanitation facilities that are appropriate to Haor – to avoid risks of contamination of drinking water or freshwater (and take other aspects into account such as foul odour or insect breeding, and access to piped water).
16. At the same time, there may be some indirect negative effects through the improved accessibility of the project areas, which can lead to higher traffic volumes (including in some areas potentially tourists) resulting in pollution. Stakeholder consultations confirm that solid waste management, partially driven by tourism, is a challenge. Similarly, there is an indirect project effect on natural resource use and potential pollution through the enabling of agricultural activities. This equally extends into the use of agrochemicals. The project will not directly support the purchasing of such inputs, but improved market access may indirectly stimulate the development of more input-intensive agriculture.

17. In the High Barind areas, consultations with local stakeholders have pointed to declining water tables, exacerbated by agricultural water withdrawals and droughts. The project will only involve limited water abstraction, for domestic use, sanitation and hygiene purposes in villages and markets. Such investments will be designed bearing in mind the efficient use of water and the long-term availability of groundwater, and could for instance include rainwater harvesting and community education on sustainable water use.

[12] See Master Plan for Haor, 2012. https://dbhwd.portal.gov.bd/sites/default/files/files/dbhwd.portal.gov.bd/publications/baf5341d_f248_4e19_8e6d_e7ab44f7ab65/Haor%20Master%20Plan%20Volume%201.pdf

3.3 Cultural heritage

18. The Haor areas at large can be considered sites of cultural value (e.g., aesthetic, recreational), however, the project will not significantly impact on the overall cultural value of the area. In contrast, the proposed interventions will increase accessibility to the area and the cultural value it contains.

19. The project's physical interventions may be located close to sites of cultural, traditional or religious value, for example graveyards. Through the locally-led planning of these subprojects and the environmental and social screening to be carried out, such sites will be identified and the site may be excluded or, as relevant appropriate mitigation measures undertaken.

20. There is no expectation of archaeological features, nor of the commercial exploitation of tangible cultural heritage. Nevertheless, a Chance Finds Procedure has been developed to deal with any unexpected findings in an appropriate manner (See Annex 3)

21. The project may involve intangible cultural heritage through vocational training and livelihood interventions related to handicrafts (for e.g., crafts produced from vetiver grass). However, there is a low risk of exploitation, and the project will work only with partners that have previous experience in carrying out activities in similar settings.

3.4 Indigenous Peoples and ethnic minorities

22. The Bangladesh constitution recognizes "tribes, minor races, sects and ethnic communities", and obliges the State to protect and develop their unique local culture and traditions. Bangladesh has around 30 small ethnic minorities. Of these groups, the Santal, Oraon, Hajong, and Koch peoples live in project districts.

23. Given the nature of the project activities, there is generally a low risk of negative impacts on access to resources or adverse effects on land ownership, as the project does not involve any land acquisition. The project aims to distribute benefits fairly by promoting health and sanitation facilities, as well as offering capacity building and training. It will use targeted measures to ensure these benefits reach marginalized groups, including ethnic minorities.

24. An Ethnic Minority Implementation Framework has been prepared to ensure informed consultation and participation, and an Ethnic Minority Plan will be prepared by the PMU during implementation, on relevant sub-projects

3.5 Labour and working conditions

25. The project's exposure to risks in labour and working conditions is related to temporary small/scale construction activities, where there are no reports of discriminatory practices (as opposed to some value chains such as the garment

industry[13], or larger-scale construction where labour risks have been identified in Bangladesh). In addition, there is a long-term experience in promoting inclusive labour force in the construction of small-scale infrastructure through Labour Contracting Societies (LCS). LCS is a modality widely used in Bangladesh for infrastructure construction and maintenance of roads, where a group of adults are brought together locally to carry out part of the physical work. They are trained and supervised by technical staff to ensure the quality of structures, and contractually involved through a GoB legal mandate.

26. During the construction phase, there will be some Occupational Health and Safety (OHS) risks for workers and for local people. These risks include personal injuries related to the use of machinery and the execution of groundworks, exposure to high or extreme temperatures. There is a longstanding history in Bangladesh in the use of LCS, including best practices and lessons learned, to ensure appropriate labour and working conditions for LCS members, including the mandatory use of safety gear and accident / life insurance. Evaluations have shown[14] the importance of ensuring that LCS members are supported to find more structural employment following their LCS work. Such an approach is included in the planned project, through the family-based income generating program based on Gender Action Learning System (GALS) methodology. In cases where construction activities are carried out through contractors (non-LCS), clear stipulations on labour and working conditions (code of conduct) will be integrated into the contracts and monitored, including through the use of spot checks.
27. The project is likely to involve youth aged 18-35, through the vocational training and entrepreneurship training. Vocational training involves 45-day residential stay in government-affiliated training institutes, but entrepreneurship training will not involve residential stay and will be led by local NGOs (selected through competitive processes). Training institutions and internship providers will be required to ensure safe conditions for students, including OHS provisions, gender sensitivity training and prevention of sexual violence, exploitation and harassment, through bidder qualifications, and conditions in MOUs and LOAs. The selection process of trainees will start with community level awareness, screening and counselling. Family members are also invited to assess the safety of facilities, if they desire. As a part of its objective to increase gender equality in vocational training, and encourage women to consider non-traditional sectors, CRALEP will also incorporate lessons learnt from PROVATi3, which has developed solid experience in implementing similar activities.

28. An indirect risk associated with vocational training and entrepreneurship outcomes is that the entities that trainees are placed in may not follow IFAD or GOB regulations related to labour, OHS, and gender norms. While CRALEP will not engage in placement activities and may only offer tertiary support through

[13] https://www.ilo.org/dhaka/Areasofwork/working-conditions/lang--en/index.htm
[14] See IFAD Impact Assessment on CCRIP, https://www.ifad.org/documents/38714170/41115388/BD_CCRIP_IA+report.pdf/863f487a-105a-f286-2f2d-2b9a8860cc3b

job fairs, the project will explore options to introduce training curriculum that can awareness of labour, OHS and gender related rights and regulations pertaining to the sectors they are trained in, and will also conduct a study of past trainees to identify problem areas as a part of its objective to better understand post-training outcomes and drop-out rates.

29. LGED has developed a detailed operational manual for LCS which defines
- The aims and objectives of LCS, and selection criteria.
- Scope of work LCS will be engaged in (for any specific project, see Component 3 description for information LCS in CRALEP).
- How LCS will be formed, including information and dissemination campaigns to inform villages about objectives and activities of CRALEP, the LCS system and criteria for selection of LCS members, and additional follow-up activities (door-to-door visits to verify members' socio-economic status).
- Types of LCS groups (typically, one for maintenance and one for construction), how contracts are awarded, and the associated financial remuneration.
- Procedures for formation of LCS, and role of LGED / PMU officials in the finalization committee as convenors, members and member secretary.
- Plans for LCS training, including safety protocols.
- The kind of records maintained by each LCS, and how disbursements will be made for each type of work.
- Norms relating to supervision by LGED, technical assistance provided, and quality control.

30. Under CRALEP, LCS operational manual will be improved by incorporating SECAP 2021 relevant requirements, particularly as regards occupational health and safety, grievance redress mechanisms specific to LCS (if any), prevention of sexual harassment in workplace, and community safety.

3.6 Community health and safety

31. The most important risks relate to potential increase in vector- or water-borne diseases through the creation of temporary breeding habitats and influx of project workers. At the same time, the project includes several activities that directly aim to positively impact community health and safety, including the construction of village protection walls, internal walkways, and water and sanitation facilities (within villages, in boat landing stations, within markets). Increasing the resilience of homes and lands is an important outcome considering the inherent health impacts of Haor flash floods in and of itself is wide-ranging, as documented in a 2022 survey15: waterborne diseases, scarcity of drinking and bath water, mental health impacts, and other related morbidity / mortality (drowning, injury, lightning deaths, snake bites).

[15] Chakraborty, D., Mondal, K.P., Al Jubaer, Islam, S.T., and Talukder, B. (2022). Health impacts of rapid-onset event: 2022 flash flood in Bangladesh. Editor(s): Trevor M. Letcher, Living with Climate Change, Elsevier, 2024, Pages 199-212, ISBN 9780443185151, https://doi.org/10.1016/B978-0-443-18515-1.00004-6

32. Physical works (primarily on roads) and the associated earthworks carry the risk of creating temporary breeding habitats. If works are carried out in the dry season and designed appropriately, such cases should be avoidable.

33. There is a risk that poor design or maintenance of water and sanitation facilities could raise disease risks by mixing wastewater with freshwater; this will be avoided by designing facilities in line with best practices and strengthening the capacity of communities to maintain these structures. While there is inherent risk of arsenic in groundwater, the health risks are mitigated by sinking deeper tubewells (up to 500 meter).

34. There are also risks associated with waste streams (organic, inorganic) of the upgraded market facilities. The project will take a proactive approach to waste management: (a) introducing compositing facilities[16] for organic waste (crops, animal products), (b) constructing internal pathways and drains, including for rainwater flow, and (c) septic tanks for toilet blocks; these designs will be in line with best practices. In Haor, where markets are well developed, the project will in fact contribute to reduced pollution and community health risks through construction of drainage facilities that are lacking.

35. The project civil works will involve the transport, storage, and use of fuel to operate small machinery, and will implement strict safety protocols and environmental controls to manage these activities safely and responsibly. Standard Operating Procedures (SOPs) for Occupational Health and Safety, as available within the LGED, will shared with contractors and monitored by the Project Engineers, including through the use of spot checks.

36. There may be temporary influx of project-related labour, with the associated risks of gender-based violence, exploitation and abuse. Numbers of workers are expected to be limited and short-term since the project also aims to create local employment (i.e., prioritize workers from within the community through LCS). The Code of Conduct for contractors will specify the requirements on these companies and their workers to minimize the risks associated with any temporary influx of workers.

37. The improved rural connectivity is likely to increase traffic in the project area, however this will remain relatively limited and low-speed traffic (information on average annual traffic can be found in ESCMP exclusion criteria).

38. There could be indirect risks associated with using boric acid to treat bamboo (to extend its lifespan when submerged, from only one or two years to 10-12 years). Boric acid, when in contact with skin, can cause various health issues in people including abdominal pains. However, it is commonly used in households for pest control and in agriculture to treat boron deficiencies in plants and it has

[16] One of IFAD's partners in Bangladesh, Palli Karma Sahayak Foundation (PKSF), has gained substantive experience and CRALEP will draw lessons / best practices from PKSF.

been scientifically proven that it can be safely managed with appropriate safety protocols and awareness-raising measures in place. This includes addressing the topic during training and the preparation of visual guidelines (posters / flyers) to be handed out to people handling such inputs. Bangladesh Forest Department and Bangladesh Forest Research Institute will be engaged to carefully train and monitor its use by LCS groups, communities and contractors, as applicable.

3.7 Physical and economic resettlement

39. The project will not result in physical displacement, it will not involve the acquisition of land or resettlement, and risks associated with land tenure are low. The risk of economic displacement is low and consequence is minor. The selection and design criteria for infrastructure (roads, markets, killas, toilets, tubewells and handpumps, boat landing stations) is such that rehabilitation and upgrade will only occur on public (khas land) and land that is already in use for the same purpose (see ESCMP exclusion criteria).

40. In the case of markets, for instance, CRALEP will either improve existing markets (in Haor) by introducing drainage and composting facilities or upgrade existing markets (in Barind) by constructing single storey sheds, water and washroom facilities with septic tank, slaughter sheds, truck stands, drains and compost facility, and internal pathways. Since the market sites are in use, this could imply temporary livelihood loss, for which compensation mechanisms will be triggered under Government of Bangladesh and consistent with IFAD's SECAP Standard 7.The upgraded structure will accommodate all existing shops and people whose livelihoods depend on these markets. The project will work with the Market Management Committees (elected for two-year terms by sellers), where these exist, to obtain consent and agree on activities; where these do not exist, alternate mechanisms to inform and obtain consent will be adopted.

41. The community will jointly determine public sites for killas, toilet blocks, and tubewells with handpumps. Village roads will not involve widening (or lengthening) in a manner that displaces houses or agricultural land. Village protection walls in Haor are structures that strengthen the slope and embankments around the village from wave and flood action and reduce erosion; this will not involve physical or economic displacement and resettlement.

42. Economic displacement should therefore be mostly avoidable through participatory processes. It should be noted that the project is actually likely to have a positive impact in reducing the pre-existing risk of physical and economic resettlement due to droughts and floods, as fewer people will be forced to leave their homes, temporarily or permanently. Additionally, CRALEP will invest in the design of sustainable and flash flood / flood-resistant housing structures suitable to local context and rural poor.

3.8 Climate change

43. The project specifically targets areas in Bangladesh that are at higher risk from climate change. Hazards identified include river flooding, water scarcity, cyclone and extreme heat.

44. In the project areas, temperatures are expected to increase by about 1.5°C in the SSP5-8.5 scenario by 2040-2059[17]. Mean annual rainfall is expected to rise by 109-124 mm between 2040 and 2059. The timing and intensity has been already observed to change. For example, the first peak of rainfall now occurs much earlier than expected, shifting from mid-July to early June. Additionally, there are more instances of extreme rainfall during the monsoon, interspersed with prolonged dry spells, while the late-October rains (Kaitani) have almost vanished. Specific climate change impacts in the Haor area include an expected increase in peak discharge in the major rivers[18], further increasing the severity of flooding events. Secondary effects of such flooding events include the decomposition of immature rice plants, reduction of oxygen levels in water, and subsequent death of fish[19]. Early pre-monsoon flash floods in 2017 damaged 90% of crops and fish production in Sunamganj. While farmers report being able to cope with regular seasonal flooding that contributes to wetland ecosystem maintenance, because the return period for flash floods is about 3-4 years and is of higher magnitude, farmers cannot recoup or offset losses from the last disaster[20].

45. While the Bangladesh Meteorological Department (BMD) shares fortnightly forecasts of weather and rain with the Ministry of Agriculture, it is reported that it can take up to 15 days for DAE field level officers to receive the forecast[21]; this results in extension and advisory system focusing on technical aspects of rice and crop cultivation but not flash flood information. Higher temperatures and inadequate rainfall also negatively affect breeding success and survival rates of fish.

46. Specific climate change impacts in the Barind Tract relate to the rapidly declining groundwater level, due to lower rainfall and insufficient recharge, though studies also point to a potential positive impact if the projected increase in rainfall in the area going forward, can be used to recharge the groundwater. Timing of the rains, drought periods and floods are however also important in terms of rice cultivation, both in terms of the timely planting as well as the yields.

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[17] See Bangladesh - Mean Projections Expert | Climate Change Knowledge Portal (worldbank.org)
[18] See https://www.semanticscholar.org/paper/Climate-Change-Impact-on-Haor-flooding-in-using-Suman-Akther/84931fbcd09a39e9e720955799a00d729e0669c4
[19] See https://www.sciencedirect.com/science/article/pii/S240584402203239X
[20] Chakraborty, D., Mondal, K.P., Islam, S.T., Roy, J. (2021). Chapter 26 - 2017 flash flood in Bangladesh: Lessons learnt, https://doi.org/10.1016/B978-0-323-85195-4.00007-X
[21] Kamruzzaman, Md., and Chowdhury, A. (2023). Flash flooding considerations aside: Knowledge brokering by the extension and advisory services to adapt a farming system to flash flooding. *Heliyon*. 9(9): e19662. https://doi.org/10.1016/j.heliyon.2023.e19662

47. Noting the high exposure and sensitivity of the project areas, it should be noted that there is significant adaptive capacity, both through autonomous adaptation (of local farmers themselves). CRALEP will support these autonomous adaptation actions by investing in climate-resilient infrastructure (climate-proofed roads and internal walkways in Haor and Barind, village protection walls with NbS in Haor, village internal services in Haor that reduce risk of seasonal water shortages or access to toilets, killas in Haor that protect harvests during floods and flash floods, boat landing stations that ease transport during monsoon/flooded season in Barind and Haor), enhancing access to markets, and supporting livelihood diversification, particularly for women and youth. Early warning systems specific to floods in Haor and droughts in Barind will allow communities to anticipate and plan for extreme weather events. Finally, the project will also support the innovation capacity and climate mainstreaming in LGED, particularly through support to CReLIC (Climate Resilient Local Infrastructure Centre). .

48. The project is not expected to significantly contribute to increased greenhouse gas emissions, and the mitigation potential of the project is considered to be very limited. That is, while the project uses materials such as cement that have embedded GHG emissions, this is not significant in nature; project will support innovations in alternate building materials (example, use of plastics); and Nature-based Solutions in Haor (new bamboo and vetiver nurseries) could plausibly have carbon sequestration co-benefits but these are assessed as limited.

4. Procedure for ESC Screening and Management for sub-projects

1. During design phase, and at the moment of preparation of this document, the team had defined the target areas of intervention. However, exact project sites will be defied during early implementation. Based on this, the team has developed the present Environmental, Social and Climate Management Plan (ESCMP) under a framework approach.

2. The sections above have described the anticipated environmental, social and climate risks anticipated for the project activities in the context of the applicable policy frameworks. This section describes the procedures to identify specific environmental and social (E&S) impacts, including climate risks, once the CRALEP activities and/or subprojects are identified and selected, and implement the relevant management and monitoring plan to implement measures that avoid, minimize, and/or mitigate the risks and potentially adverse impacts.

Step 1: Project introduction, FPIC procedure, Subprojects identification

3. This first step is for the project and the preselected villages to agree on a possible collaboration between CRALEP and the target areas. The potential agreement will result from three initial activities namely: project introduction / information dissemination, subproject pre-identification and FPIC procedures. The FPIC agreement is a prerequisite for further steps. In case an agreement

between the project and the pre-selected village is not reached, the project is to select another target village and repeat the process in step 1.

4. Subproject is defined as a set of interrelated activities that undergo steps to ensure consistent identification of risks, and implementation of SECAP related requirements and instruments developed for the project. Depending on the project, a sub-project may be based on a determined geographical area and encompass all activities or some within that area, or based on activities under a component (e.g., market and boat landing platform upgrade in case of CRALEP), or implementation arrangements in place for the project (for example, staff responsible for SECAP at District level may determine 1, 2 or several sub-projects).

5. The overall objective is to ensure that all activities implemented in the context of the project consistently assess and manage environmental and social risks and implement the steps 1-7 as described in this section.

Step 2: Sub-projects Screening for social, environmental and climate risks

6. Once collaboration between target community and the project has been agreed upon and formalised in an FPIC document (when relevant) the pre-identified subprojects are to be screened using the screening checklist (available in annex 1). This screening checklist is indicative and is to be updated to include questions that may be useful to identify additional risks or the need for additional requirements by national legislation, as relevant. PMU will have the overall responsibility of reviewing and updating the screening checklist as early as possible.

7. Screening will include screening of environmental, social, and climate risks and impacts (With a particular attention to IFAD and national thresholds as per environmental impact assessment regulation) and determining applicable standards and the appropriate types of assessment needed to address identified impacts; and, preparing action plans for avoiding, reducing, mitigating and managing adverse impacts, including development of specific management plans. Management plans should be designed so that they can adapt to changes in both project design, and environmental/social/climate variability.

8. Only eligible activities will be considered at this stage. The screening forms that will be used identify ineligible activities as described in the exclusion list (available in annex 2) and should be used in conjunction with IFAD's exclusion list (reference available in annex 2).

9. The screening process will result in identification of environmental and social risks that will require management measures to be implemented and monitored specifically at sub-project level.

10. For any sub-project including an activity present in the relevant exclusion lists described above, the approach is to reconsider the concerned activity or sub-project and seek alternative design or location. If not possible, the high-risk subprojects should be excluded and made ineligible to funding by CRALEP.

11. For eligible sub-projects, specific ESCMPs will be prepared and implemented in line with the measures described in sections above, and relevant national requirements. Specific roles and responsibilities for implementing, monitoring and reporting on progress against the ESCMP will be identified at village, District and Provincial levels.

Step 3: Subproject ESCMP Design

12. Once sub-projects are determined and confirmed, and sub-project specific screening conducted, the responsible specialist for SECAP related activities at PMU coordinates the establishment of sub-project specific ESCMP, based on the results of the screening conducted in step 2.

13. Section 6 of this document includes a ESCMP Matrix developed during design based on the project screening, which can guide in the development of sub-project ESCMPs. Once relevant measures are included, mandatory activities related to stakeholder engagement, FPIC and grievance redress mechanism are also reflected to facilitate monitoring of one instrument.

14. The sub-project specific ESCMP defines roles and responsibilities for each activity. Based on this, a rapid capacity needs assessment is conducted to identify capacity building activities to be conducted early during project implementation to ensure adequate capacity is in place.

15. The specialist also defines monitoring indicators to include in the M&E system of the project and identifies the costs involved in the implementation of the sub-project ESCMP, including capacity building needs to be integrated in the project budget.

Step 4: Consultations at local level

16. The consultations at local level involve the local authorities at village level, the community members, including women, youth, and the district line agencies. Consultations are facilitated by the Livelihood Officers at District level with regulatory, technical and capacity building assistance from the PMU and relevant specialists based on the activities.

17. If stakeholders, incl. IPs, women, youth, and vulnerable groups, broadly agree on the design and the adverse environmental and social risks anticipated, as well as the management measures proposed, the sub-project can proceed. If major design is necessary, PMU addresses relevant changes.

Step 5: Implementation and monitoring of subprojects.

18. Subprojects and mitigation measures are to be implemented and ESCMP implementation and monitoring takes place.
19. The PMU is responsible for documenting and ensuring regular reporting is compiled and documented to ensure environmental and social performance of the sub-projects against the applicable policy frameworks described in section 2 of this document.

4.1 Monitoring of project implementation and spot checks

20. Monitoring and supervision of project implementation through contractors will be critical to the proper management of both social and environmental risks, particularly in relation to gender-based violence as well as on Occupational Health and Safety.

21. While the project will need to ensure a pro-active, constructive approach to reducing these risks (including through the mandatory acceptance of a Code of Conduct and awareness raising), a strong monitoring and compliance system is equally critical. Such a system should be implemented at two levels:

- Regular monitoring and supervision by the project engineer. These will be the regular, announced interactions between project staff and contractors (including LCS). During such interactions, the project staff should note any discrepancies between the agreed actions, and the behaviour or actions observed in the field.
- Spot checks (unannounced). In addition to the regular interactions, the project will need to add unannounced spot checks on a risk basis, conducted by another project staff who is not the directly responsible project engineer. Risk factors include the size of the local project, number of contractor staff or LCS members involved, and the presence of vulnerable groups in the project area. It may also be instigated through the GRM.

22. The exact arrangements for the implementation of spot checks will need to be defined during project start-up. The target should be to conduct a spot check in at least 50% of the projects that have a higher risk category.

23. For any issue identified, the contractor should be required to respond to the issues raised in writing, and propose corrective actions. The responsible project staff should approve of the proposed corrective actions, and monitoring if they are indeed implemented. To do so, the project staff can involve specialist knowledge within the PMU or the Ministry. If a contractor fails to propose adequate corrective actions, or fails to implement them, the contractor should receive a formal warning and eventually be excluded from future contracts.

5. Costs and Budgetary Considerations

1. As indicted in the ESCMP matrix in section 6, costs of implementing mitigation measures are included in the project components.

2. The Climate and Hydrology expert responsible for implementing SECAP related activities in the PMU is budgeted full time for the duration of the 60 months. Associated costs of local teams are budgeted in staff and duly integrated in the project budget.

3. Costs of Mitigation measures are included in the subproject proposals, along with the ESCMP for each sub project.

4. During early implementation, the PMU will update costs of implementing ESCMP at sub-project level, including staff time and capacity building activities, in close collaboration with other colleagues in PMU to ensure budget provisions are included and reflected (or provided for) in the AWPB.

6. ESCMP Matrix

Overview of risks, mitigation measures and responsibilities

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
Environmental						
Destruction of physical interventions by floods	Following climate-resilient design guidelines	Participatory design to understand frequency and severity of flooding Village authorities	LGED	Design review Midline and endline reports	Once or twice a year through Supervision Mission Mid-term progress report (MTR) and Project Completion Report (PCR)	Climate-resilient design costs incorporated into physical works costs
Encroachment on natural habitat	Exclusion criteria; design guidelines	Participatory design to validate location of sites Village authorities	LGED	Regular supervision Midline and endline reports	MTR and PCR	Cost of participatory planning
Spillage of building materials	Standard operating procedures for contractors, supervision by engineer Proper handling and management of construction material and waste	LCS members, village authorities	LGED	Regular supervision	Once or twice a year through Supervision Mission	No additional cost except for supervision
Pollution of waterways	Standard operating procedures for contractors, supervision by engineer	Local authorities	LGED	Regular supervision	Once or twice a year through	No additional cost except for supervision

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
					Supervision Mission	
Disturbance of local biodiversity through construction activities	Proper assessment of building sites Proper handling and management of construction waste (soil, wastewater)	Participatory design to identify biodiversity hotspots	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	No additional cost except for supervision
Procurement of natural resources through primary suppliers, and resource extraction	Collaborate only with suppliers meeting appropriate environmental standards	Local authorities	LGED	Regular supervision	Once or twice a year through Supervision Mission	No additional cost except for supervision
Use of land for planting of bio-based building materials (bamboo)	Carefully selection of locations Avoid large-scale plantations	Local authorities, authorities of target communities (villages)	LGED	Regular supervision	Once or twice a year through Supervision Mission	Included in costs of materials
Soil erosion, e.g. of road embankments	Planting of vegetation immediately after clearing of land or reconstruction	Village authorities	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Cost of materials, cost of labour
Landslide due to improper design of infrastructure	Climate resilient design guidelines Supervision by engineer	BMD, BFD, BWDB	LGED	Design review Midline and endline reports	MTR and PCR	No additional cost except for supervision

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
Over abstraction of water from deep wells	Appropriate design, education of users	Village authorities, local communities	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	No additional cost except for supervision
Increased consumption of energy (fuel, electricity) leading to increased GHG emissions	Optimize use of machinery through proper planning Use fuel-efficient machinery Avoid idling of machines	Contractors, LCS members	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	No additional cost
Creation of breeding grounds for vector-borne diseases due to still standing water	Appropriate design, supervision by engineer	Village authorities, local communities	LGED	Design review Midline and endline reports	MTR and PCR	No additional cost except for supervision
Social						
Disturbance of sites of cultural value	Appropriate design, supervision by engineer	Participatory design to validate location of sites Village authorities	LGED	Regular supervision Midline and endline reports	MTR and PCR	Cost of participatory processes
Exclusion of or inadequate participation of women in project activities and associated decision making	Implementation of Gender Action Learning System (GALS) through LCS targeting men and women Working with local male leaders and Market Management Committee (MMC) representatives to advocate for women's	Local communities	LGED and partner NGOs	Regular supervision Midline and endline reports	MTR and PCR	Included in LCS training budget

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
	participation. This approach will help to highlight women's needs and interests, supporting gender equality and women's empowerment.					
Exclusion of, or negative impact on, ethnic minorities from project activities	Appropriate targeting, stakeholder engagement, FPIC and monitoring, as detailed in Ethnic Minorities Planning Framework PMU to develop the Ethnic Minority Implementation Plan (EMIP) during implementation	Detailed in Ethnic Minorities Planning Framework and to be further detailed in the EMIP	LGED	Regular supervision* Midline and endline reports	MTR and PCR	Cost of participatory processes
Occupational Health and Safety (OHS) risks associated with construction of physical infrastructure	OHS requirements (safety equipment, supply of services such as housing, shade, toilet facilities and drinking water - as applicable, training on prevention of gender-based violence, sexual harassment and child labour) in LCS and other contracts, awareness raising, supervision by engineer*	LCS members, NGOs, contractors	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Supervision cost

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
Health hazards created by newly constructed infrastructure, e.g. road or boat accidents	Appropriate design, including potential speedbumps and lighting	Village authorities, local communities	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Small additional costs in infrastructure and/or goods
Harmful employment of youth	Age requirements in contracts, awareness raising, supervision by engineer*	Local communities, contractors, training institutions / NGOs	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Supervision cost
Harmful interactions between project workers and local communities, including gender-based violence and sexual harassment	Code of conduct, awareness raising – including to GRM processes and procedures, supervision by engineer*	Local communities, LCS members	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Supervision cost
Unintended creation of unsafe spaces (e.g. roads)	Appropriate design, consider installing lighting systems	Consultations with local communities to identify contextual risks	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Small additional costs in infrastructure and/or goods
Conflicting priorities & approaches to spatial planning, resource utilization, investment &	Ensure appropriate participatory processes and stakeholder engagement to build consensus	All relevant stakeholders	LGED	Regular supervision* Midline and endline reports	Once or twice a year through Supervision Mission	Cost of participatory processes

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
management among and between local, national government agencies, and communities						
Elite capture on planning of, and benefits of, project activities (infrastructure and training opportunities)	Ensure effective targeting and participatory design methods, and implement the Stakeholder Engagement Plan and Grievance Redress Mechanism Introducing regular public reviews of MMC actions and decisions. These sessions will increase accountability and transparency, discouraging elite capture. Providing leadership and management training and support to women and to the most marginalized members who hold active roles within MMCs to help them build confidence an ensure they can effectively voice the needs, views,	Local communities, Traders and other market participants in MMCs	LGED	Regular supervision Midline and endline reports	Once or twice a year through Supervision Mission	Cost of participatory processes

Environmental and social impact	Recommended mitigation / enhancement measures	Public consultation activities	Responsible institution	Means of Verification	Frequency of verification	Cost estimate
	and interests of women and marginalized groups.					

** Regular supervision includes the use of both structural visits by project staff, as well as unannounced spot checks. See section 4.3 for further detail*

Annex 1: Environmental and Social Screening for sub-projects

Environmental and Social Safeguards	No, Yes, N/A	Requirements
Biodiversity		
1.1 Could the project involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?		
1.2 Could the project involve or lead to activities negatively impacting habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA), etc.)?		
1.3 Could the project involve or lead to an increase in the chance of human-wildlife encounters/conflict?		
1.4 Could the project involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?		
1.5 Could the project involve or lead to negative impacts/risks to migratory wildlife?		
1.6 Could the project involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?		
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?		
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?		
Resource Effiiciency and Pollution Prevention		
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?		
2.2 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?		
2.3 Will the project involve or lead to significant consumption of raw materials and energy?		
2.4 Will the project develop or rehabilitate irrigation schemes and/or involve or lead to significant extraction, diversion or containment of surface or ground water? (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)		
2.5 Will the project involve the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts?		
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?		
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?		
2.8 Will the project involve livestock and production of animal products (dairy, skins, meat, etc.)?		

2.9 Will the project involve marine or freshwater fisheries, at industrial or artisanal scale?		
2.10 Will the project involve inland or marine aquaculture?		
Cultural Heritage		
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)		
3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture (e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)		
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?		
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?		
Indigenous peoples		
4.1. Is the project sited in areas where indigenous Peoples are present? (Indigenous peoples' traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources).		
4.2 Could the project adversely affect indigenous people's rights to traditionally owned or otherwise occupied and used lands, territories, waters, coastal seas and other resources and/or livelihood systems?		
4.3 Could the project result in the utilization and/or commercial development of natural resources on lands and territories inhabited by indigenous peoples?		
Labour and Working Conditions		
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?		
5.2 Could the project operate in a value chain where there have been reports of forced labour? Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain		
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?		

5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)		
Community Health and Safety		
6.1 Could the project lead to and or be at risk from water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?		
6.2 Could the project have unintended negative impacts on nutrition?		
6.3 Will the project involve the construction or rehabilitation of dams?		
6.4 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?		
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?		
6.6 Will the project construct, rehabilitate or upgrade rural roads and/or lead to increases in traffic or alteration in traffic flow?		
6.7 Could the project lead to an influx of project workers?		
6.8 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?		
Physical and Economic Resettlement		
7.1 Will the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?		
7.2 Will the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?		
7.3 Could the project increase the risk of forced evictions?		
7.4 Could the project result in adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?		

Annex 2: Exclusion list

All project activities to be financed in the context of this project will be in line with IFAD's Environmental and Social Exclusion list. Please refer to Annex 5 in Volume I of SECAP 2021[22].

The following activities are ineligible under the CRALEP project (prohibited as part of the "exclusion list" and will not be approved for financing under the project) in order to avoid adverse irreversible social and environmental impacts or have been ascertained as not in line with LGED's core mandate. All project activities, including infrastructure works, must not involve or be in core and buffer zones of Critical Wildlife Habitats and Protected Areas.

Scope of works: exclusion criteria

- Construction or upgrade in natural forests and other sensitive habitats, including seasonal wetlands.
- Construction or upgrade that entails conversion and loss of physical cultural resources.
- New construction or upgrade of roads with Average Annual Daily Traffic (AADT[23]) higher than 400.
  - Note: Under CRALEP, union (upazila) roads will be upgraded or constructed (about 11 kms) only in High Barind Region. Village roads will be upgraded or constructed in both High Barind and Haor regions. PROVATI3 PMU, based on observations, estimated an Average Annual Traffic of 1,854 for union roads and 1,290 for village roads ("with-project"). This estimate included not just cars, trucks, pick-ups, ambulance, power tillers, and tractors, it also included auto rickshaws, easy bike, and motorcycle (typically excluded for AADT). This estimate also recognizes that the number of vehicles is different on Haat (market) days which are 2 days a week, and that there's a seasonality to traffic (when weather is good, when it is lean season for markets, etc.). In any case, this analysis underpins that AADT is not going to be higher than 400 in union or village roads (which is a measure in SECAP 2021 for assessing risks associated with infrastructure); in fact, AADT is highly likely to be well below 400.
- Roads that disrupt connectivity in natural forests and other sensitive habitats, including seasonal wetlands.
- No natural rivulet, creek or khal will be obstructed during construction or upgrade of roads and other infrastructure.
- Entails or involves groundwater extraction in areas already experiencing soil subsidence due to over-abstraction and/or increasing groundwater depth and/or withdrawal of groundwater close to recharge rate.
- Large-scale agro-processing facilities.

[22] https://www.ifad.org/documents/38711624/44600056/secap2021_01.pdf/31edfeff-f70c-67b0-994a-d0ec4630dd81?t=1644422496395

[23] AADT excludes motorcycles, and non-motorized traffic such as bicycles, cycle rickshaws, animal drawn carts or push carts. AADT also excludes pedestrian traffic.

- Bridges. The exception is adequate drainage infrastructure, in the form of small bridges and culverts, which will be constructed to facilitate climate- or weather-induced increase in runoffs and fish passage in floodplains.
- Dams, reservoirs and irrigation schemes.
- Significant water abstraction.
- Activities that involve aquaculture (or mariculture) greater than 25 hectares on one site.
- Any activity involving the introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.

Scope of social impacts: exclusion activities

- Activities that involve eviction or physical resettlement or relocation of any type of businesses, including those businesses that do not have legal ownership or permission.
- Activities that require relocation and/or demolition of any permanent houses or businesses.
- Land appropriation.
- Land acquisition. Therefore, width of roads or area occupied by market / boat landing stations etc. can only be expanded if public land is available along the existing road alignment, market, or boat landing station (ghat) as no provision for land acquisition is made under CRALEP.
- Activities that may physically displace any households or require permanent acquisition of the land under traditional or customary use by Ethnic Minorities.
- Use of the project as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation is not allowed.
- Use of the project as an incentive and/or a tool to displace or replace community's cultivated land (individual or communal) with plantations is not allowed.
- Activities that result in new settlements or expansion of existing settlements.
- Activities that result in conversion or cause damage or loss to tangible cultural property, including sites having archeological , paleontological, historical, religious, cultural and unique natural values. This includes places of worship (e.g., mosques, madrasas, churches, temples), as well as sites with socio-cultural value (e.g., graveyards, monuments, traditional meeting places).
- Activities that would likely create adverse impacts on Ethnic Minorities within the village and/or in neighboring villages, or activities that are unacceptable to the affected Ethnic Minorities living in a homogenous village or a village of mixed Ethnic Minorities.
- Activities that result in resources access restriction (e.g. restricted access to farming land, fishing grounds, community forests or areas conserved by local communities or ethnic groups) that could not be mitigated and will result in adverse impacts on the livelihoods of Ethnic Minorities and disadvantage peoples.
- Activities that involve production or trade in any product or activity deemed illegal under Bangladesh's laws or regulations or international conventions and agreements, or subject to international bans.

- Purchase of chemical input: exclusion criteria and restrictions
- Purchase of banned pesticides, insecticides, herbicides and other unbanned pesticides, unbanned insecticides and unbanned herbicides and dangerous chemicals is disallowed. However, if pest invasion of bamboo or vetiver occurs, the use of small amounts of eligible and registered pesticides in Bangladesh will be allowed if supplemented by additional training of households, communities or contractors to ensure pesticide safe uses in line with GOB and IFAD policies and procedures. Highly Hazardous Pesticides (HHP) will not be used by the project.

Use of chemicals: exclusion criteria

- Any sub-projects that will use or induce the use of hazardous materials (including asbestos) or any banned chemicals.

Labor & Working Condition: exclusion criteria.

- Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor[24], child labor[25] or significant occupational health and safety issue are disallowed.
- Trade in any products with businesses engaged in exploitative environmental or social behavior.

[24] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.
[25] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

Annex 3: Chance finds procedure

General information – preserving and safeguarding cultural heritage
Activities financed by CRALEP could impact sites of archaeological, socio-cultural, sacred, religious, or heritage value; for instance, during excavation, construction, or temporary storage of building materials. Standard 3, Cultural Heritage, of IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)[26] is in place to ensure that any IFAD-financed project contributes to preserving and safeguarding cultural heritage, in a manner consistent with UNESCO cultural heritage conventions and other applicable national and international legal instruments.

As a first requirement, projects are required to screen and assess projects in order to avoid or minimize negative impacts on cultural heritage, and to define mitigation measures. These "Chance Find Procedures" are part of the mitigating measures. They are to be used by the project lead agency; it must be included in all third-party contracts (e.g. Letters of Agreement) in instances where the contracted party (or project partners) is assisting with project implementation and/or construction activities.

Applicability
These procedures apply to all CRALEP project activity. They are particularly relevant for the following activities in the project:

- Preparation of construction sites, including temporary working areas
- Storage of building materials and equipment
- Excavation and other movement of earth
- Construction or upgrade of village roads, markets, and boat landing stations (ghats)
- Construction or upgrade of killas, toilet blocks, tubewells with handpump, and village protection walls

Definition and general responsibilities
Definition of cultural heritage items. Cultural heritage items include monuments, structures, works of art, or sites of significant points of view, and are defined as sites, objects, remains and structures having archaeological, historical, architectural / artistic, scientific, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

Responsibility for recognition. As the risk level of chance finds is Low for CRALEP, it will be sufficient to task regular operators with the responsibility of implementing these procedures. Technical experts, such as archaeologists, will only be required in case there is an actual chance find.

[26] See https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures

Responsibilities of contractors. These procedures must be referred to as standard provisions in construction contracts. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered.

Chance find procedures
The following procedures apply upon the discovery of a cultural heritage item:

1. **Suspension.** Stop the construction activities in the area of the chance find. This only concerns the area directly adjacent to the area where the item was found.
2. **Demarcation.** Delineate the area and limit access to it.
3. **Secure.** Secure the site to prevent any damage or loss of removable objects. For instance, if removable antiquities or sensitive remains, a night guard may need to be arranged until the responsible local or provincial authorities take over.
4. **Notification of authorities.** Notify the SECAP / Safeguards Specialist and the Supervisory Engineer or other senior person employed by the project, who in turn will notify the responsible local authorities (within 24 hours or less). The Safeguard Specialist will guide / provide oversight to the process from then on.
5. **Report on finding.** In coordination with the local authorities, prepare a report that describes the item that has been found, the exact location including GPS coordinates, time, date; and if possible weight and dimensions. Include photos where possible. Submit this report to the local authorities and PMU, who in turn inform IFAD.
6. **Action by government authority.** The relevant authority, which may be the local authority and/or relevant Ministry, will determine appropriate action to be taken. This may include removal of the item, permission for further work within a specified distance from the identified item, or other changes in layout. The authority may also choose to stop the activities for a longer period and request revision of the plans.
7. **Resume only if permitted by relevant authority, in writing.** Activities can resume only after permission is given (in writing) from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.
8. **Report on the final outcome to IFAD through regular reporting.** Ensure that the chance find, the report and the final outcome are communicated to IFAD through the regular reporting.

Annex 4: Stakeholder Engagement Plan (SEP)

The objective of this Stakeholder Engagement Plan (SEP) is to enhance the effective participation of key project stakeholders, including both men and women and those identified as disadvantaged or vulnerable stakeholders. The SEP is a live process to ensure that IFAD, the Project Lead Agency LGED, and its implementing partners provide timely, relevant, understandable and accessible information and consult with all relevant stakeholders in a culturally sensitive manner throughout the life of the project. It identifies the main stakeholder groups; evaluates topics of engagements concerning their interests, needs, priorities and ideas; and proposes appropriate engagement techniques and instances to ensure consistent implementation of the plan, monitor the effectiveness of stakeholder engagement and lays documentation and reporting requirements. Since the project's specific sites and activities are not known at the moment of approval, as project information becomes known, the information on the SEP will be systematically reviewed and updated.

This document is informed by IFAD's SECAP, and IFAD's Framework for Operational Feedback from Stakeholders[27].

Definition of stakeholders

Project stakeholders are defined as individuals, groups or other entities who are impacted or likely to be impacted directly or indirectly, positively or adversely, by the project. They include individuals or groups whose interests in the project, may affect and who have the potential to influence the project, outcomes in any way.

Cooperation and negotiation with the stakeholders throughout the project, development often also require the identification of persons within the groups who act as legitimate representatives of their respective stakeholder group, i.e. the individuals who have been entrusted by their fellow group members with advocating the groups' interests in the process of engagement with the Project.

Main project stakeholders

The main project stakeholders for CRALEP can be categorized as follows:

Stakeholder group	Includes
Direct project implementers	LGED staff at various administrative level, project contractors
Targeted project participants	Rural households, farmers, workers, students, vulnerable groups
Other project partners	Other line ministries including Ministry of Water Resources,
Non-targeted people in project areas	People living in project areas but not participating in project activities and/or not directly benefitting from project activities

[27] See https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf

The PMU, in coordination with sub-national project staff will develop and maintain a stakeholder registry to ensure consistent and updated identification of all relevant stakeholders, identifying their information needs and means and frequency of engagement.

Stakeholder Engagement Plan – project implementers and other partners

The following table outlines the engagement with main project implementers and other partners:

Stakeholder	Topic of engagement	Responsible party	Form and frequency of engagement
Local government (Upazila and Union Parishad)	General project implementation, clearances, participatory processes	PMU	Continuous
NGOs / PKSF Partner Organization	Implementation of specific project activities (vocational training)	PMU	Meetings, contract, regular M&E reports
Bangladesh Water Development Board	Implementation of specific project activities	PMU	Meetings, contract, regular M&E reports
Bangladesh Meteorological Department	Implementation of specific project activities	PMU	Meetings, contract, regular M&E reports
Market Management Committees	Planning of project interventions, implementation, monitoring	PMU	Meetings and written reports
Ministry of Land	Land planning process, clearances	PMU	Meetings and written communication linked to subprojects
Ministry of Finance	Overall project progress, disbursement rates, compliance with loan agreement	PMU	Regular basis through PSC meetings, written reports

Stakeholder Engagement Plan - Targeted project participants

The engagement of target project participants will be conducted through the established procedures for participatory design of project activities, and consistent with SECAP requirements, as well as through the measures described in the targeting strategy.

Stakeholder Engagement Plan – Other stakeholders

The engagement of other stakeholders, including the general public, will be implemented primarily through the project's overall communication function. This includes the development of a project website that, at a minimum, describes the project's objective, key activities and geographies, as well as the ways for people to engage with the project. Furthermore, the project website should make reference to the grievance mechanisms as described in SECAP

Annex 5. The project website should be kept up to date with project progress reports, and any outdated information should be updated or removed.
The project may choose other mediums to communicate to the general public, including social media, traditional tv or radio, or newspapers.

Monitoring and evaluation of stakeholder engagement activities
The PMU will maintain records to ensure relevant evidence is maintained documenting stakeholder engagements and ensure the plan is implemented consistently. Costs associated with the stakeholder engagement plan are provisioned in the budget and will be identified in more detail by the PMU during early implementation.

Adequate stakeholder engagement will be assessed through supervision by IFAD, to enable the project to take corrective measures if required.
Progress reports or standalone regular reports (quarterly or annual) should include a section on stakeholder engagement, as a basis to discuss the effectiveness and efficiency of the partnerships established under the project. Key information regarding engagements processes conducted, stakeholders feedback and how this information was integrated/considered in the project will be included in the progress reports.

Performance criteria to be used in stakeholder engagement monitoring
The following success criteria and performance indicators should be used when reviewing the effectiveness of stakeholder engagement:

Objective	Success Criteria / Performance Indicators
Provision of information in a timely, accurate and culturally appropriate manner	Use of appropriate means to inform stakeholders about the meetings Advance notice (time) given to stakeholders Advance agenda given to stakeholders Adequate number of meetings, consultations over specified period Information provided is understood by participants
Stakeholder comments, concerns and feedback are received and incorporated into project activities as appropriate	Number of grievances received over a specified period Percentage of grievances handled and closed within provided timeframe Percentage of people raising grievance who report satisfaction from resolution provided Nature of participation in stakeholder consultation meetings (gender, age, ethnic groups, other vulnerable groups) Free Prior and Informed Consents received including minutes of meetings over a specified period.
Informed participation by vulnerable groups	Proof of explicit outreach to vulnerable groups Attendance rate disaggregated by vulnerable groups Utilization of grievance redress mechanism by vulnerable groups
Stakeholder engagement is transparent,	Program information disclosed to all stakeholders as requested and according to disclosure mechanism. Representation and percent of resources and loans allocated to vulnerable groups in project activities including women and youth.

inclusive and appropriate	

Participation and provision of feedback from the target group of the project

The project's feedback mechanism from the target group will comprise a mix of informal feedback and formal feedback mechanisms. They include:

- One-to-one interaction, or feedback obtained via trusted intermediaries;
- Dedicated moments for feedback during project meetings (i.e. opening the floor at the end of a meeting and actively facilitating feedback from attendees, within a safe space);
- Surveys and anonymous feedback options,
- Interviews with the target group during project supervision missions, focus groups and community consultations;
- Feedback provided via social media;
- Topics raised via the Grievance Redress Mechanism (see SECAP Annex 5).

Annex 5: Grievance Redress Mechanism (GRM)

This section describes the Grievance Redress Mechanism (GRM) for CRALEP, based on IFAD requirements and the existing context in Bangladesh relating to grievance redress.

The main objectives of the GRM are to provide a robust system of procedures and processes, to ensure transparent and rapid resolution of concerns and complaints identified at the local level in a manner that satisfies all parties involved; and thereby to enhance the social, environmental and climate outcomes of IFAD's projects/programmes or subprojects. The GRM should be known to and accessible to all project affected people. The design of the GRM should be made such that it ensures that marginalized or vulnerable groups (Ethnic Minorities, women, youth, Persons with Disability, older persons) have access to it. The GRM should be reviewed for its effectiveness during project implementation and updated if needed.

IFAD frameworks

IFAD's requirements with regards to Grievance Redress are captured in the Framework for Operational Feedback from Stakeholders[28], the Enhanced Complaints Procedure for alleged Non-Compliance with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)[29] and the SECAP 2021 documents[30] itself.

IFAD requires all borrowers/recipients/partners/vendors/contractors to establish an easily accessible project-level grievance redress mechanism to receive and resolve concerns and complaints of people who believe they have been, or are likely to be, harmed by IFAD-financed projects/programmes. If the lead agency (LGED, in CRALEP's case) is not responsive to stakeholders' concerns, or if they fear retaliation, stakeholders may also raise their concerns directly to IFAD. IFAD also has a policy to preventing and responding to sexual harassment, sexual exploitation and abuse[31]. The policy applies to IFAD staff, and also applies to borrowers and recipients of IFAD funding, as well as third parties contracted using IFAD's funding such as consultants, contractors and vendors. To support implementing partners, the IFAD Ethics Office has publishe a Guide for Borrowers and Recipients of IFAD funding for preventing and responding to sexual harassment, sexual exploitation, and abuse[32].

IFAD's anticorruption policy establishes zero-tolerance towards prohibited practices, such as fraud and corruption, in IFAD-funded or managed operations and activities. IFAD's legal framework requires IFAD staff, consultants and project parties to promptly notify IFAD of any allegations of fraud and/or

[28] See https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf
[29] See https://webapps.ifad.org/members/eb/136/docs/EB-2022-136-R-27.pdf
[30] See https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures
[31] See https://www.ifad.org/documents/38711624/42415556/SEA_e_web.pdf
[32] See https://www.ifad.org/documents/38711624/42415576/sea_guidelines_e.pdf

corruption in relation to project activities. IFAD's Office of Audit and Oversight (AUO) is to be contacted for reporting at Tel: +39 06 54592888 or by email: anticorruption@ifad.org. These are secure and confidential channels managed by the Investigation Section of IFAD.

Establishing CRALEP'S Grievance Redress Mechanism
The following sections describe the procedures determined during design phase to initiate the establishment of a project level grievance redress mechanism. During early implementation, the PMU will review and reassess adequacy an relevance of the information presented below, and make any changes as relevant to ensure an accessible and operational GRM.

CRALEP will feature three-tier GRM based on existing LGED mechanisms at upazila, district and national level. The use of these mechanisms helps in streamlining efforts of LGED across various donor-supported projects and builds structural internal capacity for GRM. Complainants may also use IFAD's complaint procedure at https://www.ifad.org/en/accountability-and-complaints-procedures. Complaints related to sexual harassment, exploitation and abuse can be directed at the IFAD Ethics Office via https://www.ifad.org/en/ethics .

Types of grievance
The following types of grievance may be distinguished:
Type 1: Queries, comments, and suggestions – This type is non-contentious and merely requests for information/updates, seeks clarification or a response and suggestions to enhance the project design, improve operations and facilitate administrative/logistical support to the project.
Type 2: Compliance with project policies, processes and implementation – This type of grievance results from the non-observance of project policies or non-performance of obligation of any of the parties involved in project activities, processes and documents.
Type 3: Serious grievances or complaints – These may include grievances or offenses pertaining to misuse of funds, allegations of corruption, falsification of public documents, sexual harassment and sexual abuse, etc.

During early implementation, procedures for each type of grievance (Type 1, Type 2, Type 3) and associated time-limit should be developed in line with local practice. This should cover all steps from acceptance of complaint and notification to complainant to communication of resolution decision. The document can also be adapted, by project partners, vendors, contractors and other finance recipients, to their specific project activities (e.g., market upgrades, labour contracts, etc.).

Grievance redress committees and governance
A senior member of the PMU/LGED will be assigned as focal point to oversee the implementation of the GRM. This person will:

1. Ensure information about GRM is disseminated to project villages – particularly MMCs (Market Management Committees), LCSs (Labour Contracting Societies) and subproject stakeholders by Project staff (including LGED staff at district and upazila levels; PISC staff; and Project NGO staff, in particular facilitators). During the process of dissemination (about GRM), the roles and responsibilities of GRM-related project staff, steps and timeframes involved, how decision is made, who the decision makers are, mediation options, etc. should be clearly communicated
2. Collect and collate grievance records from district GRC (Grievance Redress Committee, see below) member-secretaries
3. Display grievance numbers and resolutions in the PMU office and the Project's District offices on a public notice board. Make this information available for disclosure on the LGED website
4. Create GRM summaries for inclusion in the reporting to IFAD
5. Communicate and flag Type 2 grievances, when needed, to the SECAP expert in the PMU and the Project Director for discussion and remedial action
6. Communicate and flag Type 3 grievances, when needed, to the SECAP expert in the PMU and the Project Director for communication to IFAD within agreed-to (specified) timeframes
7. Coordinating Project funding of measures, including compensation measures, devised, and implemented by GRCs
8. Assess and document periodically district GRC functioning and overall GRM effectiveness in preventing and addressing grievances.

The project will utilize the LGED grievance redress committees, which have the following composition:

Administrative level	Composition of the grievance redress committee
Upazila	Upazila engineer, Union Parishad Chairman/Representative, Water Management Cooperative Association Chair, two representatives of the affected people – at least one of whom should be a woman and/or Ethnic Minority, representative of an NGO, a representative for Labour Contracting Societies, a representative for Market Management Committees
District	Executive engineer, Union Parishad Chairman/Representative, Water Management Cooperative Association Chair, two representatives of the affected people – at least one of whom should be a woman and/or Ethnic Minority, representative of an NGO, a representative for Labour Contracting Societies, a representative for Market Management Committees

Channels for Grievance Redress and Acknowledgment

Grievances can be submitted in writing or verbally. Grievances can be submitted directly by the affected, or by a person nominated / delegated by the complainant if they are sick, the elderly, or persons with disability (including vision or hearing impairment). The following channels for submission of grievances shall be established prior to project implementation:

- ***Grievance drop box*** at LGED offices.
- ***Hotline number*** at project level.

- ***Official project grievance email*** at project level (this email address should be monitored by SECAP consultant hired by PMU and responses provided within 5 business days)**.**
- ***Official physical address for grievance with contact person***, where complainants may send complaints through letters.

Anonymous complaints are accepted. Confidentiality should be maintained for all grievances received.
All grievances must be acknowledged by the GRC member-secretary, in writing but also verbally (to ensure access for the unlettered), within 5 (five) days of complaint receipt, and initiate the complaint resolution process.

Processing of grievances
The following steps shall be implemented in handling grievances:

- **Filing and recording**. Each upazila and district GRC member-secretary will keep records (logbooks) of GRC activities and of grievances submitted to it. Each grievance record should include the complainant contact information, date of submission, nature of grievance (confidentiality should be maintained by restricting access to the logbook to those only staff or consultants involved in GRM-related processes. Particular care to maintain confidentiality must be maintained in case the complaint relates to a project staff or consultant).
- **Assessing validity.** The GRC member-secretary will analyse the grievance, rapidly gather additional facts if needed, screen for validity and forward to the GRC if found to be valid within the rules of the GRM.
- **Fact-finding.** The GRC will organize meetings and interviews with relevant parties to analyze the case. For non-controversial topics (Type 1), the case may be referred directly to concerned project personnel. For other topics, up to 21 days may be taken to organize interviews or an open hearing, and address the complaint.
- **Resolution.** The GRC will propose a resolution to the aggrieved party. If they agree, a resolution form will be signed between the GRC and the aggrieved party that details the steps to be taken.
- **Monitoring / follow-up.** The GRC member-secretary will follow up with the aggrieved party to establish whether they are satisfied with the resolution and the implementation of any steps that have been agreed upon.
- **Appeal.** Any aggrieved party may reject the resolution proposed by a GRC and appeal the case to a higher level. If LGED does not resolve a grievance in a manner that is satisfactory to the affected person, a multistakeholder committee will be established (ad-hoc) to resolve the dismissed grievance – as an alternative for affected person going to court. If the grievance could not be resolved satisfactorily by the multistakeholder committee, the affected person may resort to the Court of Law.

Any individual may submit a grievance to an upazila GRC. Records of upazila GRCs activities are kept by their respective LGED Upazila Engineer member secretaries. Records of district GRCs activities are kept by their respective LGED District Engineer member secretaries.

Timeframe. Time-limit for grievance resolution is specified for each step in the redress process.

Costs. Complainants bear no costs associated with the entire complaint resolution process. Costs incurred as a result of grievance resolution will be borne by the project. However, if the complaints bring their case to the court of law as they wish, they will bear the costs associated with their lawsuit.

Special considerations. For hearings of grievances involving ethnic minorities or vulnerable group person(s), the upazila GRC must include member-representative(s) of the concerned group(s). All complaints will be discussed and resolutions must be carried out in the specific communities where affected ethnic minorities live. The project should ensure that the rights of the ethnic minorities are protected

Monitoring and evaluation of project-level Grievance Redress echanism
The PMU will develop and maintain a grievance logbook to record grievances received, addressed and closed consistently. Costs associated with the implementation of the GRM are provisioned in the budget and will be identified in more detail by the PMU during early implementation.

The PMU will also develop grievance receipt forms to document details of grievances. A template is available at the end of this section.

Adequate implementation of an accessible and operational project-level grievance redress mechanism will be consistently assessed through supervisions by IFAD, to enable the project to take corrective measures if required. Progress reports or standalone regular reports (quarterly or annual) should include a section on grievance redress mechanism as a basis to discuss the effectiveness of an accessible GRM at project level. Confidential/sensitive information is not to be included in these reports, and will be made available by the PMU to IFAD upon request if considered necessary.

Performance criteria to assess project level grievance redress mechanism

Objective	Success Criteria / Performance Indicators
Grievances consistently identified and recorded using a form that captures essential information	Number of grievances received and addressed Percentage of grievances handled and closed within provided timeframe % of grievances lodged by each channel

Logbook

#	Reporter	Date	Reporting Description	Investigation Findings	Corrective action	Conclusion

ATTACHMENT:
Complaint Form

COMPLAINT/COMPLAINT FORM

Form A - Complaint Recording

Day/Date :
Complaint Number :
Complaint Location :
RT/RW :
Village :
Name of the Complainant :
No. Reporting Contact :
Complaint Type :
Description of the complaint :
Plan description :
follow-up
Complaint Handling Unit Complaint Recipient, Reporter,

Form C - Minutes of Complaint Resolution
Today_____date_____month____year_____, Complaint Number has been returned _____to you...
Name : Address : Work : Contact no./HP : as Complainant/Reporter That the Complainant/Reporter has submitted his complaint to the Project on …… (the complaint is recorded in Form A with Number.....) That the Project has responded to the complaint by: That the Complainant has received a resolution for the Complaint in question. Thus, Complaint No .....declared HAS BEEN COMPLETED. Reporter, GRM Officer,

Annex 6: Free, Prior and Informed Consent process (FPIC)

This section describes the application of Free, Prior and Informed Consent within the CRALEP project, against the background of IFAD SECAP requirements and the Bangladesh national context. It concerns the application of FPIC with a special focus on ethnic minorities. Further details on the dimension of ethnic minorities in CRALEP can be found in the Ethnic Minorities Planning Framework. The Free Prior Informed Consent (FPIC) plan follows the IFAD How-To-Do-Note on Seeking free, prior and informed consent in IFAD investment projects[33].

About Free, Prior and Informed Consent
FPIC is an important instrument for IFAD to ensure mutual respect and full and effective participation in decision-making on proposed investment and development programmes. FPIC is based on the following key elements (adapted from IFAD guidance):

Free implies no coercion, intimidation or manipulation.

Prior implies that consent has been sought sufficiently in advance of any decision point or commencement of activities; and respect is shown to time requirements of consultation/consensus processes with the ethnic minorities' communities.

Informed implies that information provided covers (at least) the following aspects:

- The nature, size, pace, duration, reversibility and scope of the proposed project/activity;
- The rationale or purpose of the project/activity;
- The geographical areas that will be affected;
- A preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit-sharing;
- Personnel likely to be involved in the execution of the proposed project/activity;
- Procedures that the project or activity may entail.

Consent is the expected outcome of the consultation, participation and collective decision-making process by the local communities. It is the mutual agreement reached, documented and recognized by all parties.

Consultation and **participation** are crucial components of a consent process and require time and an effective system for communicating among interest-holders. Consultation should be undertaken in good faith, and local communities must be able to participate through their own freely chosen representatives and customary or other institutions. It should be noted that consultation is the

[33] See https://www.ifad.org/documents/38714170/40197975/htdn_fpic.pdf

process that should lead to consent, but that consent does not require unanimity across a stakeholder group.

FPIC within the context of CRALEP

The borrowing government is responsible for seeking and obtaining FPIC. FPIC is solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle. The PMU will be responsible for seeking FPIC.

FPIC should be sought sufficiently in advance of commencement or authorization of activities, taking into account ethnic minorities' own decision-making processes, in phases of assessment, planning, implementation, monitoring, evaluation and closure of a project.

In the case of CRALEP, seeking FPIC will be part and parcel of the participatory design process of the to-be established infrastructure. In this process, first the presence of ethnic minorities will be established. These communities would first consent to discuss the idea of the project that will affect their land, territories and resources. They would further participate in the consultation process leading to consent by contributing to the design of the project, including its implementation and monitoring mechanisms.

Beyond ensuring inclusion in the project's participatory design process, written consent specifically from ethnic minority groups, will be required in case the project activity directly affects the access ethnic minority groups' access to natural resources or services. This may for instance include the construction of a boat landing site in area currently in use for economic activities by ethnic minorities.

In more detail, the process for seeking FPIC will be as follows:

1. Assessment of local stakeholders during participatory design.

   During the initial phase of the participatory design of a sub-project, a review will need to be made of the community stakeholders, landowners and users of the area, including ethnic minorities, who may be affected and who have the right to give or withhold consent. In discussion with the local community, this includes establishing the local customary laws, informal rules as well as claims on land ownership, occupation and use. It also includes the identification of decision-making institutions and representatives of ethnic minorities in the area.
   Should there be affected ethnic minorities in the area, the following steps will apply:

2. Consultations leading to FPIC

   Consultations will be held with the target ethnic minorities, before the planning of project activities. The project staff will reach out to the identified institutions and representatives, and inform them of the project and the intended participatory design process. In doing so, the project staff will clearly

communicate the general context of the project, including its financiers. They will share clear and transparent information on the benefits and risks of the project, as well as the results of the initial assessment on local stakeholders (step 1). They will confirm and if need be update the critical information on local stakeholders, ownership and (formal / informal) access rights, and make records of these consultations. They will also clearly communicate the project Grievance Redress Mechanism.

3. Participation in further steps of participatory design

The ethnic communities, or their chosen representative, will participate in the further participatory design of a subproject.

4. Formalizing consent agreement

Prior to the finalization of subproject design and commencement of construction activities, the consent of ethnic minorities should be formalised in written form. This document should detail the activities on which consent is provided, the expected results, participation of the ethnic minority group in monitoring progress, a reference to the GRM, and the terms for withdrawal of consent.

Appropriate benefits
Key process to ensure equitable benefit-sharing for ethnic minorities are the participatory design process for infrastructure investments, and the selection / targeting process of candidates for other project-supported activities such as vocational training, entrepreneurship training and the labour contracting societies.

The project targeting strategy combines geographical targeting with poverty targeting (poor and ultra-poor), as well as by targeting of groups including agricultural laborers, artisans and marginal and small farmers. The project design has found that at the local level, the definition of ethnic minority is not always clear. The project will therefore first validate the presence of ethnic minorities in a specific location, and ensure the project and its benefits are clearly communicated to those people. Participation of ethnic minorities in project activities will also be tracked (disaggregated in the overall M&E system for selected indicators). If participation is found to be low, corrective actions may be taken during the project lifetime to improve this.

Capacity support
As described above, the project's capacity building activities will pro-actively target ethnic minorities in a given location. In line with the overall project goal, capacity building activities of indigenous peoples will focus on the technical and economic capacities of individuals.

Monitoring, reporting and evaluation
The project will monitor the effectiveness of measures geared towards inclusion of ethnic minorities, through data collected on participatory processes,

participation in project-funded activities, and impact evaluations. The data collected will be made available in aggregated form, allowing for meaningful discussions with representatives of ethnic minorities on the topic.

Through the regular IFAD support and supervision, a periodic review and revision of this document will take place, depending on the need identified.

Institutional Arrangements
The primary responsibility for executing the measures contained in this document are with the project lead agency, the LGED. Project partners such as educational institutions will also be required to implement and monitor part of the actions, which are equally included in the project's ESCMP. Given the low-risk rating of the project and the low likelihood of negative impact, no independent audits are foreseen.

Budget and financing
The main costs associated with implementation of the actions, are included in the personnel costs relating to participatory processes and monitoring and evaluation. There may be minor costs related to preparation of materials and additional logistics costs to ensure outreach to ethnic minorities, but these are included in the project's overall budget.

Further details on cost will become available during early project implementation and will be included in this document as it gets updated into an Ethnic Minorities Plan.

Annex 7: Ethnic Minorities Planning Framework

Executive Summary

This Ethnic Minorities Planning Framework described the relevance of ethnic minorities in relation to the proposed CRALEP project. Ethnic minorities are present in the districts where the project operates, and may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, the potential negative impact on ethnic minorities in terms of access to land and resources is limited. The project is anticipated to have an overall positive impact on people from ethnic groups. They can influence the development of small-scale infrastructure and they will have the opportunity to apply for vocational and entrepreneurial training. They will also benefit from improved road access, improved access to water, and improved access to sanitation. People belonging to ethnic minorities will have opportunities to participate in project planning, implementation, monitoring and evaluation, and an integrated process for seeking Free, Prior and Informed Consent has been developed. A grievance redress mechanism will be established in line with existing structures of the lead implementing agency.

Description of the project

The Climate Resilience and Livelihoods Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots[34] in Bangladesh, the Haor and the High Barind region.

The Haor regions are low-lying areas situated between the natural levees of rivers or highlands, submerged under water for up to six months each year. They constitute some of the poorest regions in Bangladesh. In the flooding season, the areas are prone to strong water currents and wave action, which negatively affects economic activities but also threatens basic facilities such as drinking water and sanitation. Infrastructural development is critical to protect communities and homesteads against flooding and erosion, and to ensure the connectivity during the flooding season to enable economic development.

The *High Barind Tract* is an uplifted area in northwestern Bangladesh that is prone to drought, erratic rainfall and poor soils; it also has a lower average annual rainfall than the rest of Bangladesh. As a result, there is low agricultural productivity during one or two agricultural seasons.

The project will target a total of 317,000 households through a layered targeting approach. Geographical targeting has been conducted at district and upazila level, based on a WFP poverty map and infrastructural data from LGED. This geographical targeting is complemented by poverty targeting (poor and ultra-poor), as well as by targeting of groups including agricultural laboreres, artisans

[34] As identified in the Bangladesh Delta Plan 2100

and marginal and small farmers. More details can be found in the Targeting Strategy.

CRALEP follows earlier IFAD-supported investment in the Haor areas, through the Haor Infrastructure and Livelihood Improvement Project – Climate Adaptation and Livelihood Protection Project (HILIP-CALIP) project, which had a strong climate resilience focus. The main successful project activities of HILIP-CALIP are to be scaled up through CRALEP, and new interventions (primarily Nature-based Solutions, "NbS") will be rolled-out.

Main **project activities** for CRALEP include:

- Construction and rehabilitation of climate-proofed village roads and local markets, including boat landing stations;
- Construction of low-cost village protection systems, including internal walkways and NbS (bamboo, vetiver grasses) around homesteads and on embankments;
- Investments in safe water and sanitation (toilet blocks with septic tanks in markets and villages, tubewells in markets and villages, drainage facilities for markets);
- Vocational and entrepreneurship training to help create opportunities for employment;
- Promotion of income-generating activities to members of LCS;
- Improvement of flash flood early warning system (FFEWS), drought forecast services and innovation in construction technologies and practices.

During project design, the risk of negative impact on ethnic minorities was assessed to be **low**. Ethnic minorities are present in the districts where the project operates, and may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, and the fact that physical works will largely take place on land that is already destined for the same purpose (i.e. upgrading of roads) and/or newly selected through participatory design, the potential negative impact on ethnic minorities in terms of access to land and resources is limited.

Description of ethnic minorities

The 2022 Bangladesh census officially registered a total of 1,6 million people belonging to ethnic minorities, representing 1% of the total population of 165 million. As noted in Country Technical Note[35], there are various challenges when it comes to defining the number of different groups of ethnic minorities, their organizations and the total number of people belonging to ethnic minorities, which may cause under-reporting of the total number. In this section, the 2022 census data is followed, which found the largest populations of ethnic minorities in the divisions of Chattogram, Rajshahi and Sylhet.

[35] See https://www.ifad.org/en/web/knowledge/-/publication/bangladesh-country-technical-note-on-indigenous-peoples-issues

Division	Ethnic minority population	Percentage of total population
Barishal	4,181	0,05%
Chattogram	990,860	2,99%
Dhaka	82,311	0,19%
Khulna	38,992	0,22%
Mymensingh	61,559	0,50%
Rajshahi	244,592	1,20%
Rangpur	91,070	0,52%
Sylhet	136,594	1,24%
National total	*1,650,159*	1,00%

The census identifies a total of 49 different ethnic minority groups, plus a population of 68,538 people described as "other" ethnic minorities. The following table lists the largest ethnic minority groups:

Ethnic minority	Total population	Percentage of total ethnic minority population
Chakma	483,299	29,29%
Marma	224,261	13,59%
Tripura	156,578	9,49%
Saontal	129,049	7,82%
Oraon	85,846	5,20%
Others	68,538	4,15%
Mro	52,455	3,18%
Tonchonga	45,972	2,79%
Barman	44,657	2,71%

The census also lists the ethnic minorities at district level. For the selected CRALEP districts, the presence of ethnic minorities is as follows:

District (division)	Ethnic minority population	Percentage of total population
Dhaka division		
Kishoreganj	1,021	0,06%
Mymenshigh division		
Netrakona	21,604	1,31%
Sylhet division		
Sunamganj	5,285	0,32%
Habiganj	41,563	2,52%
Chattogram division		
Brahmanbaria	672	0,04%
Rajshahi division		
Rajshahi	47,832	2,90%
Naogaon	107,292	6,50%
Chapai Nawabganj	23,275	1,41%

Some of the most relevant ethnic minorities for the project areas include:

- Santal. The Santal community is a large ethnic group with population in Bangladesh, India and Nepal, with a total group size of around 7.5 million people. They are widely acknowledged as being some of the first settlers of the subcontinent. In India, an area of Jharkhand state is allocated to the Santal

group as a separate division, which many now consider to be the heartland of the group.

- Oraon, also known as Kurukh. The Oraon also form a large group of approximately 3.8 million people, with the majority located in India. Originally forest dwellers, this group is now mostly focused on agriculture and agricultural labour.
- Garo. Originally from Tibet, the Garo group now comprises in total around 1,1 million people across India and Bangladesh. They are a matrilineal society. Garo people are frequently engaged in the cultivation of rice but have now diversified economic affiliations.

The Technical Note also explains that one reason for varying numbers, is that there there are multiple names or spelling by which the same group is known by different peoples as well as the categorization of a subgroup as a separate group itself.

The term Adibashi/Adivasi was and is generally used by Bengali-speakers (the major ethnolinguistic group in Bangladesh), to refer to the ethnic minorities living in the areas outside of the Chittagong Hills Tract (CHT). That area outside of CHT is typically referred to as the "plains".

Generally across ethnic minority groups, research indicates they are hindered by inequitable access to health, education, sanitation and employment36. Ethnic minorities are reported to have lost access to land and face additional hardship as farm labourers, being seen as 'outsider in their own-nurtured land'.

The Technical Note also highlights that ethnic minorities in the plains are more dispersed than those living in the CHT, and that they have lower levels of autonomy. In the plains, the region's traditional leaders remain without state recognition and their population strength is too low to enable direct representation in the elected local government structures.

Summary of Substantive Rights and Legal Framework

The Constitution of Bangladesh guarantees equal rights and equality of its citizens. Article 27 guarantees equality of citizens before the law and Article 28 prohibits discrimination on grounds of religion, sex, caste, race, and place of birth. The same article also stipulates measures of 'affirmative actions' by the State in favour of the backward section of the citizens[4].

Besides the Constitution, there is a broad range of legal, institutional and policy documents for the safeguards of the rights of ethnic minorities in Bangladesh. Much of it is focused on the Chittagong Hill Tracts (CHT), an area in which CRALEP does not operate. There are also specific laws for the tribal peoples in the plains.

[36] See https://web.esdo.net.bd/attachments/SPED/Final%20Study%20on%20Ethnic%20Minority%20Exclusionx.pdf

The Constitution of Bangladesh identifies "tribes, minor races, ethnic sects and communities" in Article 23A, and obliges the State to protect and develop their unique local culture and traditions. The Constitution also identifies particularly disadvantaged sections of the population for special provisions, that include protection from all forms of exploitation (Article 14); outlawing of discrimination on grounds of religion, race, caste, sex or place of birth (Article 28); and equality of opportunity in public employment, while enabling the State to make special provisions to ensure adequate representation of these sections of the population (Article 29).

Several national laws relevant to ethnic minorities are explicitly geographically defined in their application. In the case of the plains, one of the most important laws is the East Bengal State Acquisition and Tenancy Act (1950), which restricts the transfer of land of "aboriginal castes and tribes" to non-aboriginals. Other relevant laws include the Vested and Non-resident Property (Administration) Act, 1974; the Forest Act of 1927; and the Social Forestry Rules of 2004.

Furthermore, the Vested Property (Return) Act (2011) enables the return of land and property seized from both the Hindu minority and tribes, minor races, ethnic sects, and communities over the last four decades.

At the international level, Bangladesh is signatory to most of the major international human rights instruments, with a notable abstention from voting on the UN Declaration on the Rights of the Indigenous Peoples (UNDRIP) in 2007. Bangladesh is signatory to the ILO Convention 107 on Tribal Populations although it is yet to ratify the other important ILO convention on tribal peoples, Convention No. 169 of 1989.

The Five-Year Plan 2021-2025 states that "The government is committed to ensuring socio-economic and political rights, fundamental human rights, and social security, while enabling ethnic people to retain their social, cultural, and traditional identities." In this plan, explicit priorities related to inclusion of ethnic minorities are mostly geared towards the CHT.

Summary of Social and Environmental Risks Related to Ethnic Minorities and Mitigation Measures

The project is anticipated to have an overall positive impact on people from ethnic groups. Through free, prior and informed consultation, people belonging to ethnic minorities will have opportunities to participate in project planning, implementation, monitoring and evaluation. They can influence the development of small-scale infrastructure and they will have the opportunity to apply for vocational and entrepreneurial training. They will also benefit from improved road access, improved access to water, and improved access to sanitation.

The overall risk rating of CRALEP, with regards to ethnic communities, is Low. Ethnic minorities are present in the districts where the project operates, and

may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, and the fact that physical works will largely take place on land that is already destined for the same purpose (i.e. upgrading of roads) and/or newly selected through participatory design, the potential negative impact on ethnic minorities in terms of access to land and resources is limited. Key instruments for the project to ensure inclusion of, and positive outcomes for, ethnic minorities, are the participatory processes and the application of Free, Prior and Informed Consent (FPIC). These processes are described in detail below.

Ethnic minorities in CRALEP regions, impacts of and response to climate change and use of natural resources

This section presents evidence on how climate change and environmental / natural resource degradation impacts Ethnic Minorities in Bangladesh, and how different Ethnic Minorities manage these effects. In the context of CRALEP's objectives, this is important because the magnitude and speed of climate change, combined with other factors (e.g., environmental degradation, loss of biodiversity), strains the extent to which various Ethnic Minorities — particularly communities that live in or depend significantly on natural resources and forested / wetland ecosystems — can rely on traditional environmental knowledge to anticipate, cope with, or adapt to climate change (Islam et al. 2017[37]; Garay-Barayazarra and Puri 2011[38]; Masinde 2015[39]). At the same time, where feasible, integrating traditional and local knowledge with early warning and climate information delivery is important for effective outreach and increased relevance; it is important to note that not all Ethnic Minorities may be fluent in Bangla, and training and early warning systems must be adapted to their dialects.

While there is rich documentation of climate vulnerability, impacts and locally led adaptation strategies in Bangladesh, there is limited literature specific to the Ethnic Minority groups (Bayes et al. 2019[40]). Considering the diversity of socio-cultural, economic, and political contexts, the review findings are organized by Ethnic Minority groups in the CRALEP regions.

[37] Islam, M.S., Nasreen, M., and Huq, H. 2016. Local knowledge and practices can help in drought prediction and extreme weather management. *Indian Journal of Traditional Knowledge*, 16 (3): 448-453. https://csd.ulab.edu.bd/sites/default/files/Islam-M.S.-2017.-Local-knowledge-and-practices-can-help-in-drought-prediction-and-extreme-weather-management.-Indian-Journal-of-Traditional-Knowledge-Vol.-16-3-July-2017-pp.-448-453..pdf

[38] Garay-Barayazarra, G. and Puri, R.K. 2011. Smelling the monsoon: senses and traditional weather forecasting knowledge among the Kenyah Badeng farmers of Sarawak, Malaysia. *Indian Journal of Traditional Knowledge,* 10: 21–30. http://nopr.niscpr.res.in/ handle/123456789/11063

[39] Masinde, M. 2015. An innovative drought early warning system for sub-Saharan Africa: integrating modern and indigenous approaches. *African Journal of Science, Technology, Innovation and Development*, 7: 8–25. https://doi.org/10.1080/20421338.2014. 971558

[40] Bayes, A., Kelman, I., Kamruzzaman, M., Mohiuddin, H., Rahman, M.M., Das, A., Fordham, M., and Shamsudduha, M. (2019). Indigenous people's responses to drought in northwest Bangladesh. *Environmental Development*, 29 (2019): 55-66. https://doi.org/10.1016/j.envdev.2018.11.004

Ethnic Minorities in Barind / Haor and use of natural resources: In general, Ethnic Minorities in Bangladesh put wild, forested, and foraged resources to a variety of uses (food, medicine, housing, crafts, etc.). However, Halim et al. (2015)[41] – writing for UNDP – reported that the customary resource rights of Ethnic Minorities / Adivasis in the plains have been restricted owing to declaration of forests as reserved forests, private forests or for social forestry; this has affected non-Adivasi populations as well in some cases.

Sarker et al. (2016)[42] documented the changes in Barind-Santal's lives and livelihoods, with a particular focus on natural capital (forests, marshlands, *beels*). In general, the Santal use common pool resources as a source of wild foods, medicinal remedies, grazing grounds, and non-timber forest produce (fungi, honey, roots, edible flowers, etc.); they are also reported to have unique skills in making mats, baskets, and musical instruments out of bamboo and other plants. However, study respondents opined that deforestation / degradation and access restrictions have gradually reduced their use of such resources. And some respondents could not find alternative options to substitute resource loss. When Toppo (2016)[43] interviewed members of various communities (Santal, Oraon, Pahan) in Barind, individuals consistently reported that that collection of wild foods (fruits, vegetables) and diversity of fishes has dropped, contributing to food insecurity since they cannot offset this loss with market purchase.

In Haor (Netrakona), while sand mining from rivers and wetlands has reportedly created some employment for Garo, Hajong, Hodi and Barman peoples, it has simultaneously disrupted their agricultural, fishing and weaving livelihoods by raising river flow velocity and regime, eventually eroding riverbanks[44].
Barkat et al. (2021)[45] found that hunting persists among the Barind's (Rajshahi) Santal and Oraon in areas adjacent to their settlements, with birds, rabbits and turtles being the most common source of animal protein, among others.
Rahmatullah et al. (2009)[46] documented the use of wild medicinal plants by the Garo in Haor (Netrakhona) and found that 32 of the 74 plants used by Garo traditional healers have validated pharmacological activities. Islam et al.

[41] Halim, S., Roy, B.D., Chakma, S., and Tanchangya, S.B. (2015). Natural resource management country studies: Bangladesh. *Regional Indigenous Peoples' Programme*. UNDP. https://www.undp.org/asia-pacific/publications/natural-resource-management-country-studies-bangladesh
[42] Sarker, M.A.R., Khan, N.A., and Musarrat, K.M. (2016). Livelihood and vulnerability of the Santals community in Bangladesh. *The Malaysian Journal of Social Administration*, 12: 38-55. http://dx.doi.org/10.22452/mjsa.vol12no1.2
[43] Toppo, Arook. (2016). Impact of Environmental Change on Natural Resource-based Food System of Tribal Communities of North-Western Region in Bangladesh. Dissertation submitted to the Institute of Environmental Science (IES), University of Rajshahi in partial fulfillment of the requirement for the Degree of Doctor of Philosophy in Environmental Science.
[44] ICCCAD (2022). https://www.dhakatribune.com/epaper/291488/the-untold-environmental-catastrophe-that-is-being
[45] Barkat, A.I., Liza, F.T., Akter, S., Shome, A.R., and Rabbe, F.R. (2021). Wildlife hunting practices of the Santal and Oraon communities in Rajshahi, Bangladesh. *Journal of Threatened Taxa*, 13 (11): 19484-19491. https://doi.org/10.11609/jott.7260.13.11.19484-19491
[46] Rahmatullah, M., Mukti, I.J., Haque, A.K.M., Mollik, M.A.H., Parvin, K., Jahan, R., Chowdhury, M.H., and Rahman, T. (2009). An Ethnobotanical Survey and Pharmacological Evaluation of Medicinal Plants used by the Garo Tribal Community living in Netrakona district, Bangladesh. *Advances in Natural and Applied Sciences*, 3(3): 402-418.

(2014)[47] also studied how the Garo, Koch and Hajong communities collect and use wild, medicinal plants (trees, shrubs, vines, climbers, grass) from Madhupur forest in Tangail Haor (the forest does not fall in the CRALEP target area) for treatment of various ailments. Respondents reported that suppliers of plants to herbal companies often collect plants without paying heed to their conservation, and while documented plants are widely available, some are rare and classified as 'vulnerable' due to deforestation and harvesting.

The Santal in Barind and climate change: Bayes et al. (2019), in their qualitative study of the Santal communities' response to droughts, documented several impacts and coping strategies. The respondents were primarily subsistence farmers and paid wage labourers, including small-scale fisheries (inland freshwater) – two-thirds of the population derived more than four-fifths of their income from agriculture. Ninety-seven percent of the Santal people in the study did not own agricultural land – even when they owned their home. Santal villages were typically surrounded by vast fields that are owned by non-Santal landlords and locally influential people from whom they leased cultivation land. Similar findings on landlessness or marginal landholding, with 57% of respondents owning no land and another 27% reporting less than 1 *bigha* (less than 1/3rd of an acre), is reported in Rahman et al. (2015)[48]. Rahman et al. (2024)[49] found that the Santals do not meet the conditions for obtaining credit from various banks, and while the reasons are not described, lack of land ownership could be an explanatory variable.

Water availability and access: Starting the 1990s, with the setting up of Barind Multipurpose Development Authority (BMDA), 6,000 deep tubewells were installed; 60,000 shallow tubewells were also established – both public and private. Santal respondents reported surface water depletion starting 1999-2000, attributing this to both changes in rainfall pattern and gradual expansion in tubewells for cultivation / drinking water supply. The immediate effect of this was on water collection – with an increase in collection time and distances (79% of the water collection is done by female members of the household). People also reduced consumption of drinking water during shortages.

Agricultural livelihoods: Tubewells improved water availability and allowed multiple cropping seasons each year, together with livestock rearing by the Santal. However, the increased irrigation water demand reduced the efficiency of tubewells around 2014, and many were non-functional at the time of study. Shifting rainfall patterns and lack of water meant that communities could not

[47] Islam, M.K., Saha, S., Mahmud, I., Mohamad, K., Awang, K., Uddin, S.J., Rahman, M.M., and Shilpi, J.A. (2014). An ethnobotanical study of medicinal plants used by tribal and native people of Madhupur forest area, Bangladesh. *Journal of Ethnopharmacology*, 151 (2): 921-930. https://doi.org/10.1016/j.jep.2013.11.056

[48] Akan, M. R., Al Mamun, M. A., Naznin, T., Al Pavel, M. A., Yasmin, L., & Rahman, S. A. (2015). An ethnographic investigation on land and life of Santal community in Barind Tract, Bangladesh. *American Journal of Social Science Research*, *1*(2), 90-95. http://files.aiscience.org/journal/article/html/70330012.html.

[49] Rahman, M.A., Afridi, S., Hossain, M.B., Rana, M., Al Masum, A., Rahman, M.M., and Al-Maruf, A. (2024). Nexus between heat wave, food security and human health (HFH): Developing a framework for livelihood resilience in Bangladesh. *Environmental Challenges*, 14 (2024): 100802. https://doi.org/10.1016/j.envc.2023.100802

cultivate rice (the main crop) during the regular season but planted the crop later in the year. Further, as Akhtar et al. (2021)[50] documented, private tubewells are primarily owned by non-Santali farmers, and therefore, the Santal pay a high cost to access irrigation. The same study also documented increased crop damage from pest infestation.

Like other Barind farmers, the Santal have diversified into crops such as mango, guava, wheat, maize and lentil, and have adopted drought-tolerant rice varieties. At the same time, the conversion of paddy cultivation to "agroforestation" has raised some concerns about loss of jobs in agricultural to marginal communities such as the Santal (Rana and Moniruzzaman, 2021[51]). With the falling water levels in or drying up of ponds, fish cultivation was not possible in the summer.

Other drought responses: Migration – temporary or seasonal for adults, permanent (to Dhaka) for youth – was reported as an important livelihood strategy and respondents linked the rising scale to increasing droughts. Adults time their migration to dry periods (Sep-Dec, Apr-May) and return for winter harvest or monsoon cultivation.

The Munda in Barind and climate change: Islam (2023)[52] found that a majority of Munda peoples (also known as Buno) earned their livelihood through agricultural labour, and while all respondents had some livestock holdings (cows, goats, chickens, etc.), land ownership was very low. Nearly all families leased land for cultivation. Sharmeen (2014)[53] found that the proliferation of tubewells and the commercialization of agriculture (triple cropping, intensification) has enabled a renegotiation of relations between Munda peoples and landowners, since there is more demand for labourers. But the dependence on agricultural livelihoods exacerbates their baseline vulnerability (wage gaps, higher poverty rate, lower average income).

The Garo and Hajong in Haor and climate change: Sunamganj's Garo women reported flash flood as the main climate hazard but also identified droughts, hailstorms, tidal action during monsoon, and drought as concerns (DOE 2008[54]). They noted that rainfall pattern in Apr-Sep has significantly changed in the last two decades, even as overall rainfall has declined. The effect of flash floods is similar to the general effects identified in the Targeted Adaptation Assessment: loss of rice crop, loss of poultry and livestock,

[50] Akhtar, N., Ibnath, A., and Khan, T.Z. (2021). Santal communities' adaptation strategies to cope with drought: A study on the selected households of Niamatpur upazila. *BUP Journal*, 8 (2): 97-122. https://researchgate.net
[51] Rana, M.M.P. and Moniruzzaman. (2021). Transformative adaptation in agriculture: A case of agroforestation in Bangladesh. *Environmental Challenges*, 2 (2021): 100026. https://doi.org/10.1016/j.envc.2021.100026
[52] Islam, M.F. (2023). Cultural change and adaptation of Munda tribe of Bangladesh: A socio-anthropological analysis. *Indian Journal of Anthropological Research*, 2 (2): 139-156. https://www.arfjournals.com/image/catalog/Journals%20Papers/IJAR/2023/No%202%20(2023)/3_FIROJUL.pdf
[53] Sharmeen, S. (2014). The Politics of Irrigation: Technology, Institution and Discourse among the Munda in Barind, Bangladesh. *Journal of South Asian Development*, 9 (1): 49-70. https://doi.org/10.1177/0973174113520584
[54] DOE (2008). Climate change, gender and vulnerable groups. Climate Change Adaptation Research, Department of Environment, Ministry of Environment and Forests. https://core.ac.uk/download/pdf/48024281.pdf

destruction of latrines, lack of drinking water, damage to dry food stock, and disease outbreaks.

ICCCAD (2022)[55] found that the Garo (also known as Mandis) are primarily involved in pineapple and banana cultivation whereas Hajong cultivate paddy and work as day labourers. Perhaps due to the specific upazilas of focus in the ICCCAD (2022) study, the primary climate impacts were severe heat and erratic rainfall, resulting in drought-like conditions and groundwater depletion (not floods and flash floods typical of CRALEP's Haor regions). Similar to the wider population, this has affected crop and livestock production, disrupted water and sanitation facilities, affected women and girls' menstrual hygiene management, and reduced fishery yield. Responses to climate change include ethnomedicine, developing indigenous early warning techniques, crop rotation, and to some extent, home gardening.

[55] ICCCAD (2022). https://www.gci.cam.ac.uk/news/new-blog-impacts-human-induced-climate-change-are-exacerbating-social-and-economic-inequalities

Annex 8: Climate Change - Targeted Adaptation Assessment

Introduction

This Targeted Adaptation Assessment (TAA) was prepared for the Climate Resilience and Livelihoods Enhancement Project (CRALEP). CRALEP was screened as substantial risk in the climate screening procedure and therefore, a Targeted Adaptation Assessment is required.

This assessment is meant to ensure the sustainability of the project and that the impacts of climate change are comprehensively considered, the hazards, exposure, sensitivity and adaptive capacity were reviewed in detail and adaptation options discussed within this context. In preparing the assessment, a review was made of existing climate risk analyses and climate data available. New climate data, forecasts and project-level will become available during the project lifetime. This document can therefore be seen as a living document and may be updated once newer information becomes available. Moreover, some of the adaptation responses discussed in this document may be tested and evaluated during the project lifetime, either by CRALEP or by other projects. Results on their effectiveness and cost-efficiency may be used to further focus interventions going forward.

Bangladesh Climate Baseline and predictions

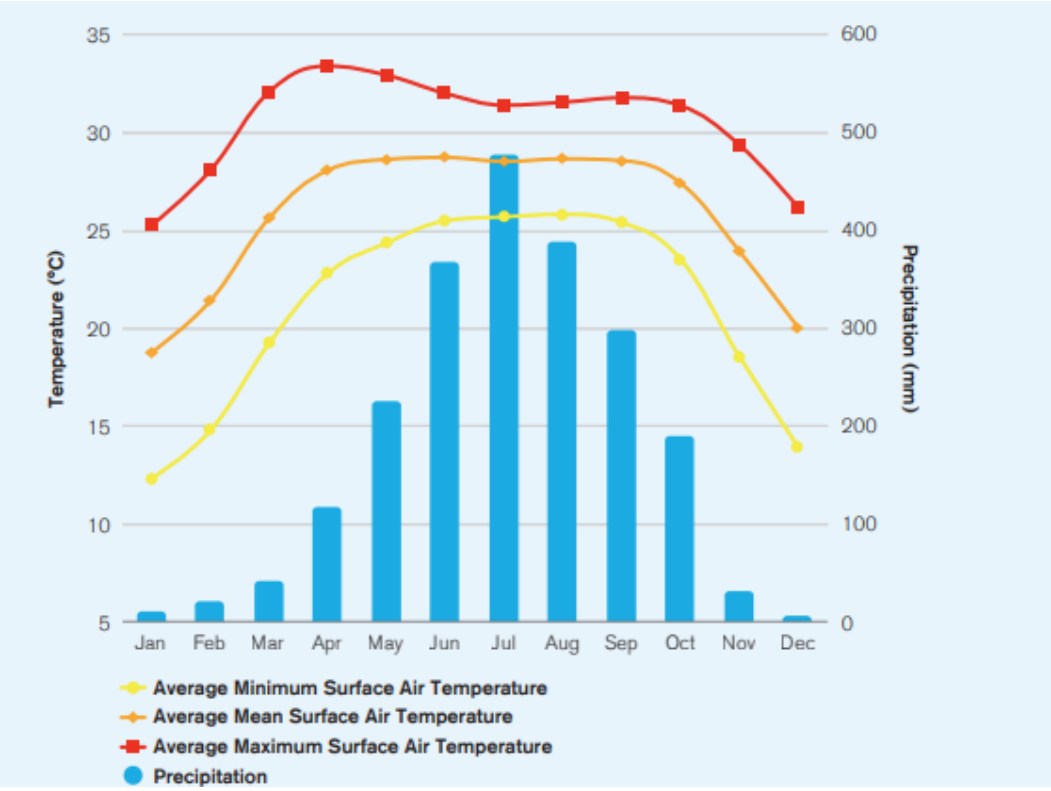

Figure 1: Bangladesh current observed climate, 1991-2020. Source: World Bank (2024)

Temperature. Bangladesh falls under monsoon influenced tropical climate area with an average annual rainfall of 2,700 mm, over 85% of which falls during June and October. Average day time temperature varies between 23 to 27°C, while the average nighttime temperature ranges between 18 and 22°C. While winters are generally dry and mild, summer months are wet and moist, the relative humidity is generally over 85% during monsoon season. During late April and mid-November, the sea surface temperature often rises above a threshold of about 27°C, which creates an ideal climatic condition to form tropical low and depressions. Sometimes, such tropical weather fronts give rise to the formation of cyclones and super cyclones.

Precipitation. Current mean annual precipitation is high, at average 2,174 mm over the current climatology (1991–2020) at the national level. The western floodplains receive between 1,500 mm and 2,200 mm annually, while the eastern floodplains and hills received between 2,100 mm to 3,200 mm annually. Bangladesh has four seasons: a hot pre-monsoon season (March - May), hot and humid monsoon season (June to October), warm and drier post-monsoon season (October to November), and the cool winter dry season (December to February).

Natural hazards. Bangladesh as a whole is highly prone to natural hazards including cyclones, storm surges, floods, landslides, earthquakes, tsunamis, sea-level rise and increasing saltwater intrusion. On an average, one major cyclone hits Bangladesh in every three years. It is believed that the shallow continental shelf, the high tidal range and the inverted funnel shape of the Bay play significant roles to 'guide' tropical cyclones towards the low-lying delta. Most of the casualties/fatalities and destruction associated with cyclones happen as a result of the accompanying water surge and high storm waves that sweep away and drown people. The degree of destruction and the number of casualties/fatalities depend on the time when a cyclone occurs, and on the topography and geomorphological conditions of where it strikes. Although cyclone-related human deaths have been reduced significantly due to improved warnings and pre-hazard preparedness programmes, cyclones in the past have killed many coastal Bangladeshis. Furthermore, lightning strikes cause over 200 lives every year, the majority of whom are farmers, and the frequency of lightning strikes is reported to have increased due to increased temperatures, linked to climate change.

Climate change trends and predictions.
Temperature. Temperatures have increased by about 0.16°C per decade between 1971 and 2020. The eastern divisions have seen the highest increase, especially Sylhet (project area - Haor) where average mean temperature increased by 0.26°C and minimum temperatures even by 0.29°C, adding up to a total increase of 1.45°C over 50 years. Across the country, the annual number of hot days (>35°C) increased by 14.04 days per decade.

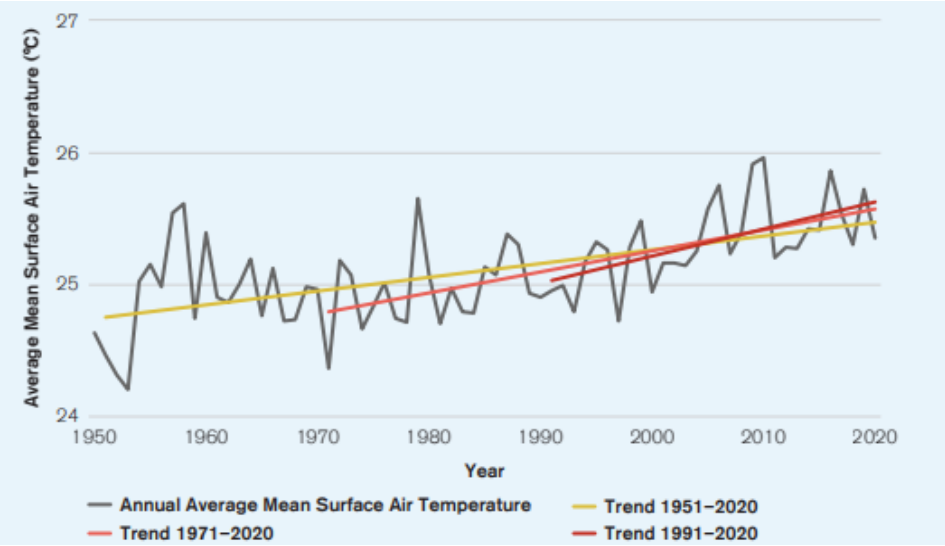

Figure 2: Changes in average annual mean temperature. Source: World Bank (2024)

Climate projections see the number of hot days >35°C increase even further, up to 133 days per year in the 2040-2059 period under the SSP3-7.0 (higher emissions) scenario[56]. Nationwide, mean temperature would increase up to 26.59 °C in this period compared to the current (1991-2020) temperature of 25.71°C – an increase of 0.88°C. Heat risk will be significant for the people living in Bangladesh, for example due to the significant increase in tropical nights (>26°C at night), from 21-32 tropical nights per year currently to 47-64 in the 2040-2059 period.

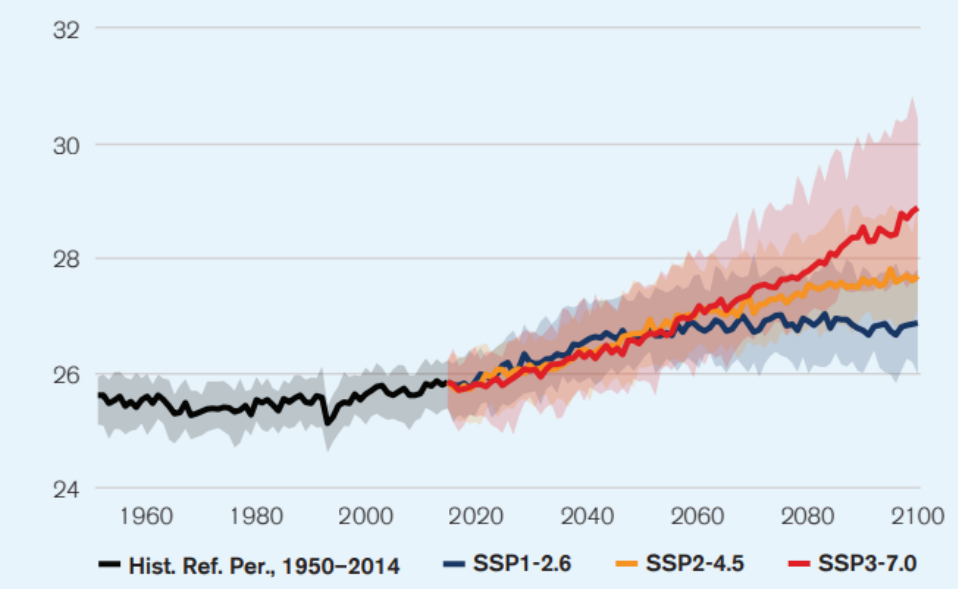

Figure 3: Projected Average Mean Temperature (°C) under different scenarios. Shaded areas indicate 10th-90th percentiles. Source: World Bank (2024)

[56] The World Bank currently uses this scenario in its studies, considering this a "realistic worst-case scenario" that is the most prudent choice for risk assessments.

Precipitation. Over the 50-year period of 1971-2020, changes in precipitation differed between the eastern and western divisions. The eastern divisions have seen a general decline in precipitation, especially during the pre-monsoon period (spring). The western divisions, including the Barind area, have seen an increase in rainfall especially during monsoon and post-monsoon periods (fall).

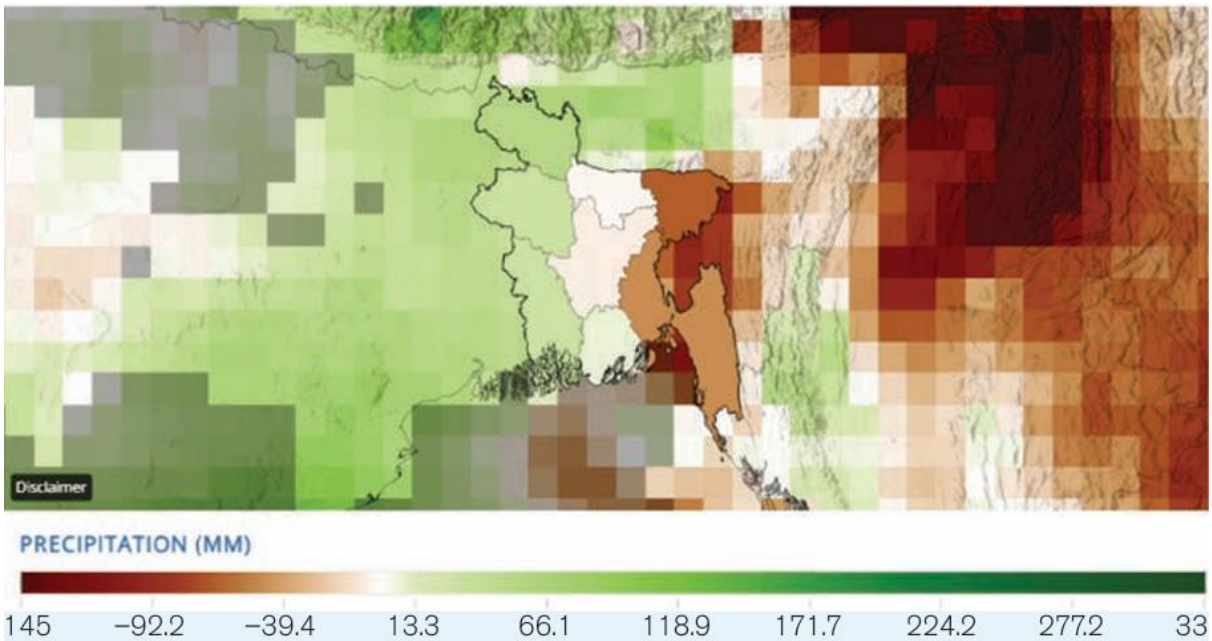

Figure 4: Changes in annual precipitation over the period 1971-2020. Source: World Bank (2024)

The micro-structure of monsoon has also been exhibiting important changes. For example, in some areas the rainfall is exhibiting a bi-modal distribution over monsoon, the first peak coming a lot earlier than expected (shifted from middle of July to early June). There are increasing numbers of extreme rainfall episodes during the monsoon with prolonged rainless days in between.

Overall, mean annual rainfall is expected to rise by 114mm between 2040 and 2059 under the SSP3-7.0 scenario. However, it should be noted that trends in future precipitation in Bangladesh are highly uncertain. Northern divisions, including the project Haor areas, are expected to experience the greatest increases in annual precipitation.

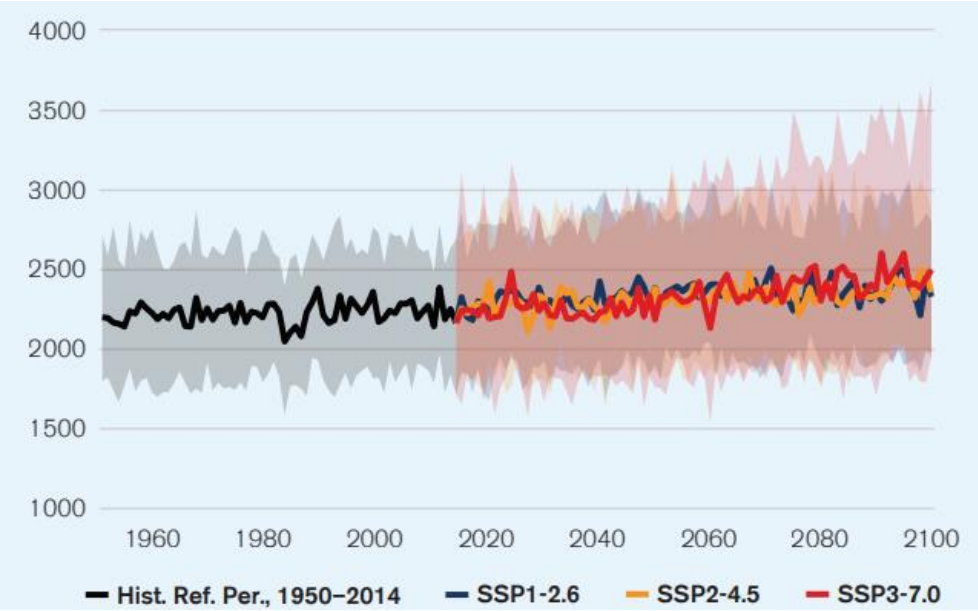

Figure 5: Projected annual precipitation (mm) under different scenarios. Shaded areas indicate 10th-90th percentiles. Source: World Bank (2024)

Extreme precipitation events are expected to increase by the period 2035-2064. Events that currently have a return period of 100 years, will happen once every 50 years, doubling the likelihood of such an event to occur in a given year.
The yearly average windspeed in Bangladesh has also increased.

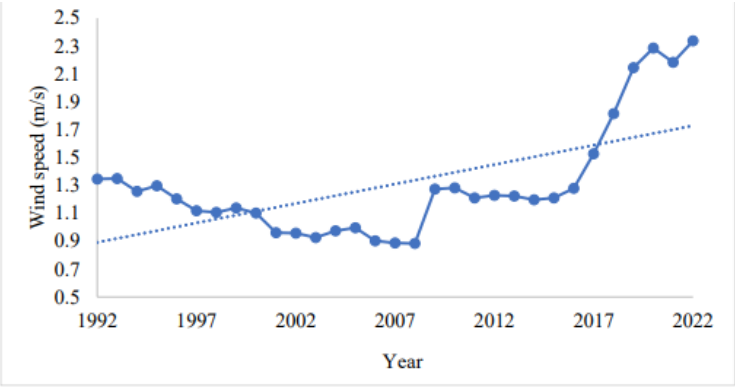

Figure 6: Changes in average annual windspeed. Source: Bangladesh Meteorology Department (2023)

Exposure and sensitivity

The Mujib Climate Prosperity Plan 2022-2041 provides an overall picture of the exposure and sensitivity of Bangladesh to climate change. Among the effects by 2050, are that 22-30% of the country will be subject regular floods and 67% to major floods. Through sea level rise and coastal erosion, 4% of highly fertile land will be lost, and 30% of food production. Moreover, 150,000 additional deaths annually are expected by 2030, due to climate change impacts.

The World Bank (2024) assessment estimates that one-third of agricultural GDP may be lost by 2050, including through floods and droughts in the Haor and Barind areas. There are significant impacts in the coastal zone due to sea level rise, but the project is not active in these regions and therefore not directly affected. However, the pressure on the non-coastal areas in terms of population and economic activities, is likely to accelerate as coastal areas become more risky.

Flood and drought risks will be exacerbated by the impact of climate change. Generally, as a result of changing precipitation patterns and changing melting patterns of glaciers in the Himalaya, the magnitude of a 1-in-100 year flow is expected to increase by 24-39% for the largest rivers in Bangladesh. There are various assessments on the impact on people and economic activity, however, analysis of such impacts is complex as there is a strong interconnection between climate-change induced changes (rainfall, glacier melting) and human activities including river flow alteration, abstraction of water and erosion of upstream lands.

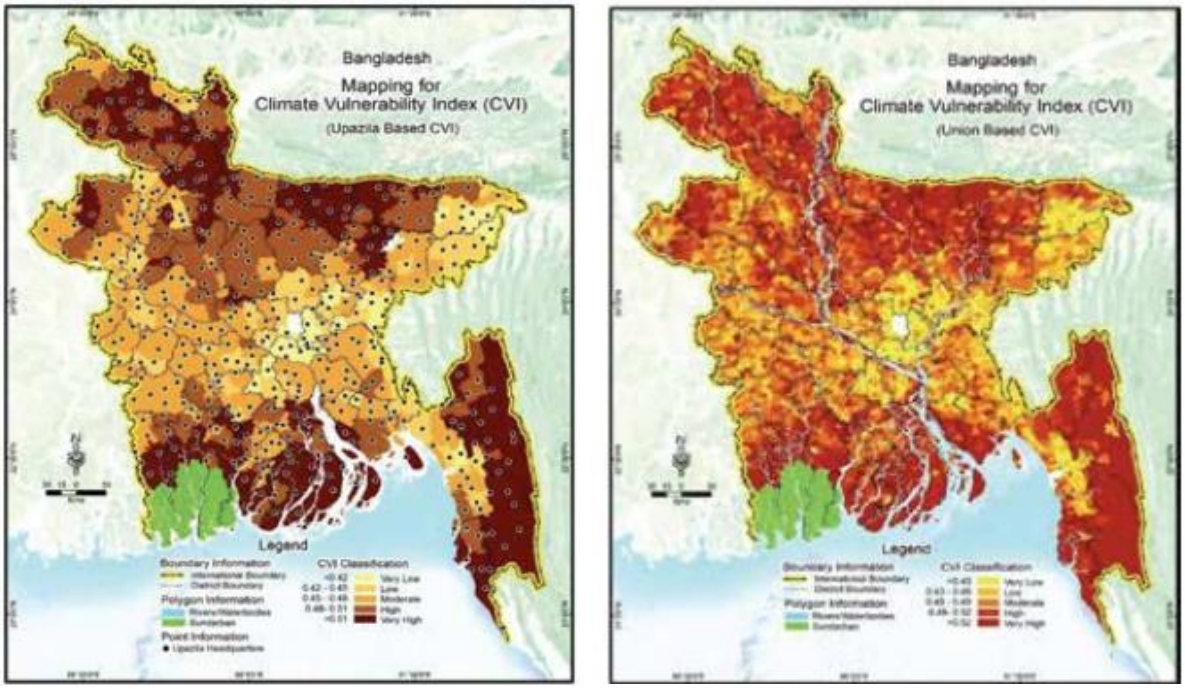

Figure 7: Climate Vulnerability Assessment by Upazila (left) and by Union Parishad (right). Source: LGD (2023)

In 2023, the Local Government Division supported by development partners, carried out a GIS-based climate vulnerability assessment. The Climate Vulnerability Index used in this study is based on the combination of exposure (E), sensitivity (S), and adaptive capacity (AC). It was calculated using the following formula and data sources:

Climate Vulnerability Index	Factors	Data points
$CVI = \frac{(E+S)+(1-AC)}{3}$	E - Exposure	Climate data, land-sea hazard data including riverbank erosion
	S – Sensitivity	Demographic characteristics, household pattern, livelihood and employment, WASH, access to health
	AC – Adaptive Capacity	Level of education, basic facilities, food security, employment

The exposure of people in the targeted CRALEP areas, to the effects of climate change, is unequivocally high, as confirmed by the above-mentioned study. The project areas are deliberately targeted for their climate vulnerability, which is mainly driven by the high exposure and associated climate impacts prior to adaptation options being implemented, as well as the general dependency of communities on the natural resource base for their livelihood.

Haor area

A multi-hazard risk assessment, carried out under the HILIP project (Rahaman et al., 2021) clearly shows the primary hazards and the variability different parts of the Haor region, in terms of the geographic specificities as well as differences in severity. The study shows that especially the northern areas suffer from severe hazards related to excessive rain, early flashfloods, temperature increase, thunderstorms and hailstorms. While the southern parts are relatively less risky in this assessment, it should be noted that the risks are still highly significant also in these areas.

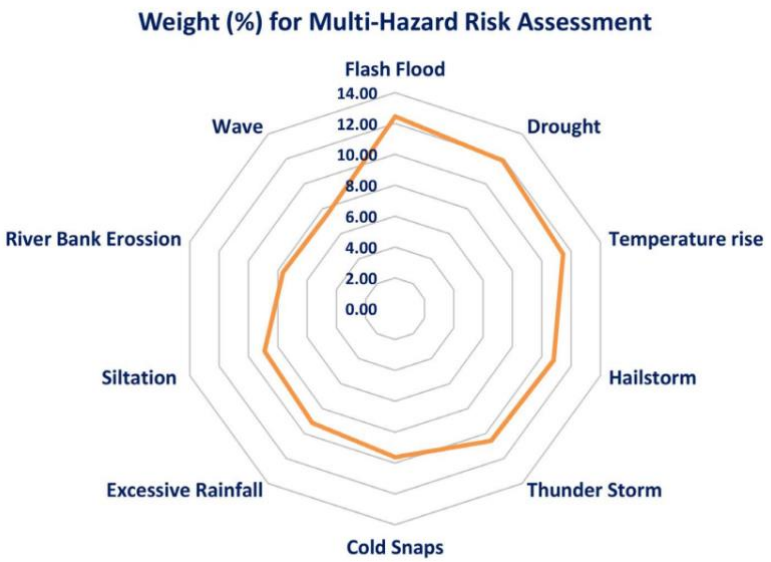

Figure: Community perceptions on multi-hazards. Source: Rahaman et al (2021)

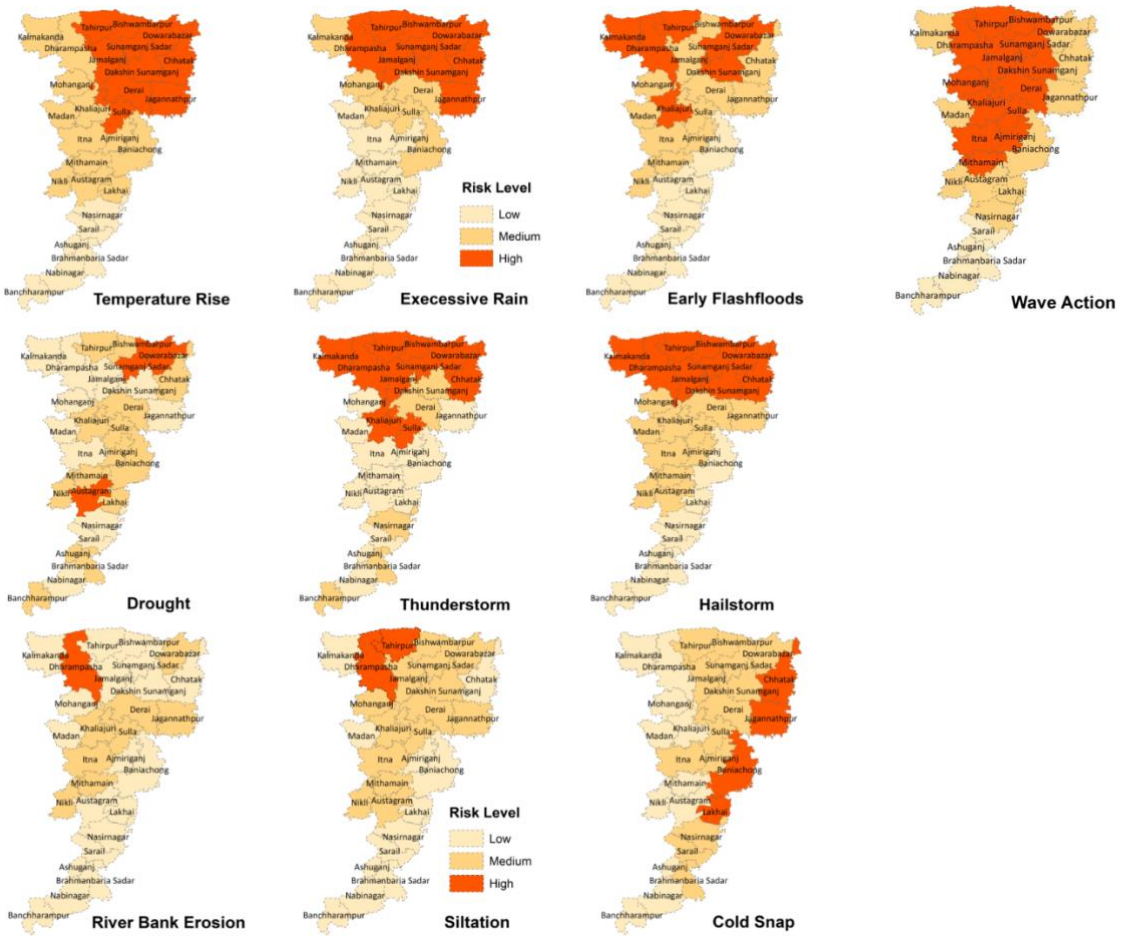

Figure 8: Climate change risk map for different hazards. Source: Rahaman et al (2021)

Specific climate change impacts in the Haor area include an expected increase in peak discharge in the major rivers, further increasing the severity of flooding events. While farming in these areas has always been subject to natural variability and thereby unpredictable, the increasing severity of flooding events further increase the risk to people and the assets they have.

Primary impacts include the washing away of seeds or plants. Secondary effects of such flooding events include the decomposition of immature rice plants, reduction of oxygen levels in water, and subsequent death of fish. Higher temperatures and inadequate rainfall also negatively affect breeding success and survival rates of fish.

The agricultural value chain, and the provision of basic services to the population, is also affected by these flooding events. Not only do flooding events prohibit the movement of people and goods, they can also destroy facilities and stocks of agricultural goods.

Barind Tract

Specific climate change impacts in the Barind Tract relate to the rapidly declining groundwater level, due to lower rainfall and insufficient recharge, though studies also point to a potential positive impact if the projected increase in rainfall in the area going forward, can be used to recharge the groundwater. Timing of the rains, drought periods and floods are however also important in terms of rice cultivation, both in terms of the timely planting as well as the yields.

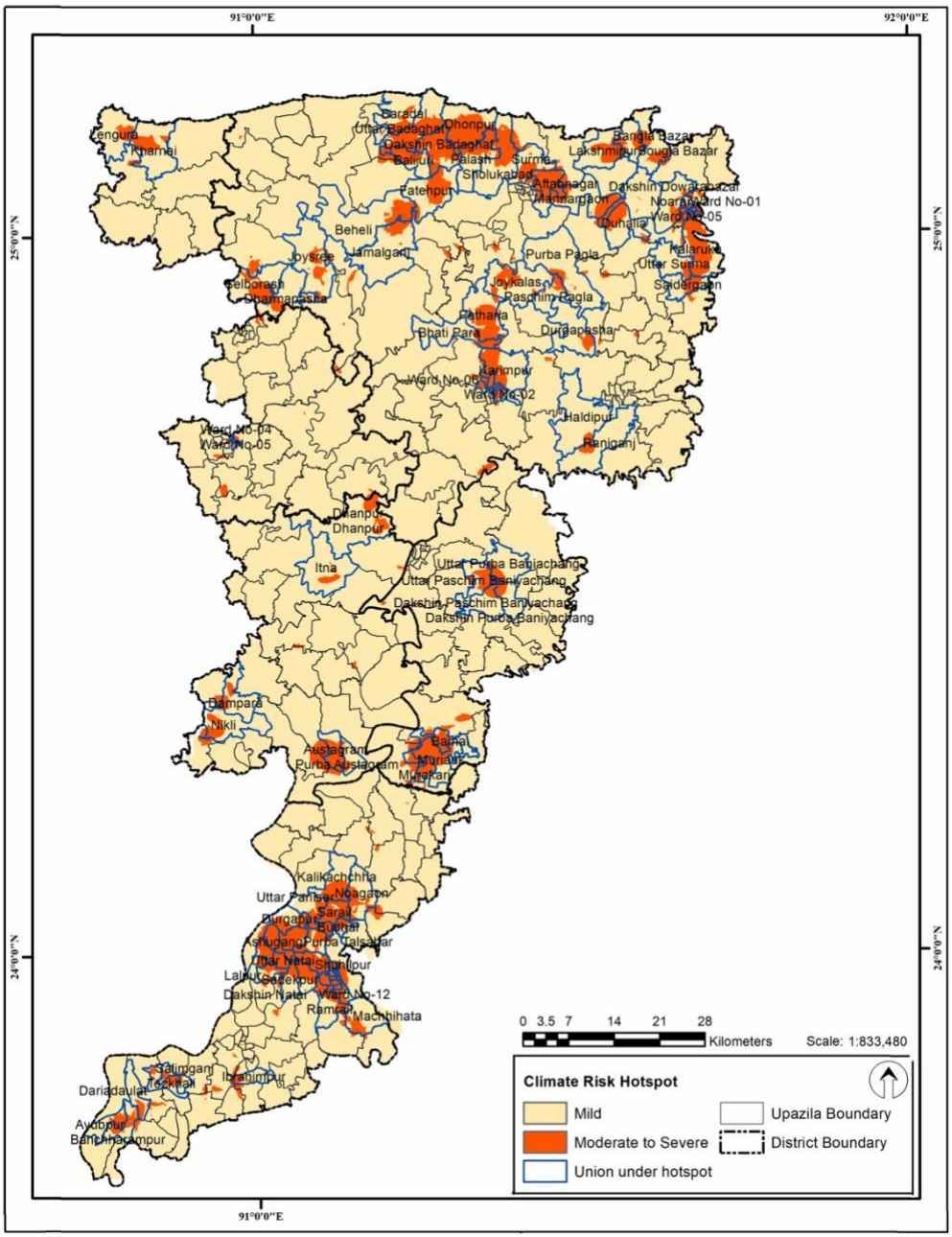

Figure 9: Climate change risk hotspots as identified by Rahaman et al. (2023), prepared under the HILIP project

Adaptive capacity

The adaptive capacity of the people in the project areas can be assessed from various angles. From a formal perspective, the adaptive capacity is limited, as the areas are characterized by lower levels of education, lower asset ownership, fewer employment opportunities and lower access to primary services. Such data points are also reflected in the geospatial vulnerability assessment carried out by the Local Government Division (see above).

At the same time, it should be recognized that there is significant local knowledge in coping with weather extremes and variability in the onset of floods and droughts. Such knowledge and the associated practices can reduce the vulnerability of communities.

One recent study, in the Dingapota haor of Mohanganj upazila (Netrokona district) provides interesting in-depth visibility on farmers' current knowledge of adaptation strategies and their own assessment of the effectiveness of adaptation strategies. Farmers rate themselves as most knowledgeable about crop diversification and floating agriculture, while the majority of farmers also indicate they have at least basic knowledge of the causes and consequences of climate change. They are least proficient in crop insurance and Geographic Information Systems, but a large group also indicates they have limited knowledge on environmental degradation and sustainable farming practices.

Contents of knowledge	Limited knowledge	Basic knowledge	Moderate knowledge	Advanced knowledge	Expert knowledge	Score	Rank order
Crop diversification	67	82	51	65	35	819	1
Floating agriculture	67	98	74	38	23	752	2
Consequences of climate change	92	66	110	17	15	697	3
Reasons behind climate change	89	85	106	15	5	662	4
Sustainable farming practices	110	75	82	21	12	650	5
Environment degradation and protection	120	77	72	21	14	644	6
Climate-smart agriculture	87	113	80	12	8	641	7
Crop insurance	123	85	63	18	11	609	8
Geographic Information System (GIS)	150	60	85	5	0	545	9

Table 1: Farmers' self-assessment of knowledge on topics related to agriculture and climate change. Source: Kabir et al. (2024)

When reviewing the effectiveness of their own adaptation strategies, farmers are mostly positive about changes in their cropping system (dates of planting and harvesting, cropping pattern and crop rotation, crop rotation, using modern crop varities). A significant number of farmers rate the adoption of crop insurance and duck farming as highly effective, although there is also a significant number of farmers who rate these strategies as non-effective. Interestingly, transition from crops to livestock and the starting of homestead farming, receive very mixed reviews.

Adaptation strategies	Effectiveness to your own farm				ASI	Rank
	High	Medium	Low	Not at all		
Changing planting and harvesting dates	120	132	39	9	663	1
Changing cropping pattern and crop rotation	125	90	53	32	608	2
Practicing crop diversification	82	132	71	15	581	3
Using modern crop varieties	93	111	75	21	576	4
Crop insurance	109	83	69	39	562	5
Duck farming	110	76	59	55	541	6
Short time migration to urban area	79	110	65	46	522	7
Shifting from crop to livestock	87	82	76	55	501	8
Taking agricultural credits	80	64	122	34	490	9
Homestead gardening	65	95	73	67	458	10

Table 2: Farmers' own ratings of the effectiveness of different climate change adaptation strategies. Source: Kabir et al. (2024)

When analyzing the responses of individual farmers against personal data such as educational level, experience as farmer and access to support such as NGOs, it shows that farmers' adaptation choices are most influenced by education level, farm size and years in agriculture. Access to information also stands out as highly correlated to adaptation choices. While these results focus on a single haor, and climate change impacts are highly locally specific, this study provides a good basis for further research.

Another study, the Nationwide Climate Vulnerability Assessment (draft), determined a broader set of impacts and adaptation options, including adaptation options that are not within the scope of individual farmers but rather tasks for communities and/or the government. Some of these adaptation options are more aligned with CRALEP's strategic objective and organisational set-up.

Potential impacts	Adaptation options
6. Pre-monsoon flash floods	1. Regular dredging of rivers, haors, and khals
7. Erratic/abnormal weather (rainfall, temperature)	2. Implementation of the master plan of haor basin
8. Drinking water scarcity	3. Protection of beel area (perennial haor) by dredging for fishery
9. Groundwater level depletion	4. Strengthen the Department of Bangladesh Haor and Wetlands Development
10. Declining river flows during the dry season	5. Enhance alternative livelihoods in non-agricultural sector
11. Soil moisture decrease/ irrigation demand increase during dry season	6. Increase surface water use during dry season
12. Drought	7. Deep tubewell installation for meeting irrigation demands during dry season
13. Water quality (both surface & ground water) degradation	8. Expedite rain water harvesting
14. Ecosystem degradation	9. Raise platform of tubewells
15. Water logging increase	10. Purification of drinking water during floods
16. Riverbank erosion	
17. Siltation in river/ haor bed	

Table 3: Local stakeholders' ranking of climate impacts and adaptation options in haor and wetland areas in Northeast Bangladesh. Source: MEFCC and GIZ (2018).

Adaptation assessment

The analysis shows that there has already been a broad range of studies and projects reviewing the impacts of climate change in Bangladesh, with some highly valuable studies providing insights into local adaptation strategies and their (perceived) effectiveness.

Within the context of CRALEP, there are two interconnected pathways for adaptation which the project would support:

1. Developing climate resilient infrastructure, reducing the direct vulnerability of an area to climate change impacts such as floods and droughts; ultimately enabling local stakeholders to uphold, enhance and diversify their livelihoods in the area.
2. Providing technical training to individuals which will eventually help them in pursuing professional opportunities that are less sensitive to climate change (both within agriculture as well as transitioning out of agriculture), and/or that will help communities in adapting to climate change impacts.

Within these pathways, the following adaptation strategies are particularly relevant, which the project seeks to promote:

Adaptation strategy	Specific climate aspects
Climate-resilient infrastructure: changes in design specifications	Incorporate expected changes in the occurrence and intensity of flooding into engineering design
Climate-resilient infrastructure: nature-based solutions	Use of natural vegetation can help to reduce impact from wave action, which is increasing due to climate change
Climate-resilient planning of roads and walkways	Planning and siting of roads and walkways to consider the changing climate, e.g. seeking higher grounds or different routes
Climate-resilient livelihoods: diversification of income	Vocational and entrepreneurial education towards professions that are less exposed to climate change; outside agriculture & fisheries or within those sectors
Climate-resilient livelihoods: access to WASH and other primary services	Improved access to services will reduce the negative impact of a climate change-driven event, such as a flood
Climate-resilient livelihoods: early warning	Early warning systems will allow communities to prepare for climate change-driven events and reduce the negative impact

As observed in the above section, there is a broad range of other adaptation strategies which people resort to, such as agricultural diversification, adaptation of cropping calendars and more. While the project will not be directly supporting such adaptation strategies, the project will be indirectly enabling individuals to implement such adaptation strategies and/or providing additional options, e.g. due to better connectivity, better training and improved access to basic services.

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Annex 9: Gender Action Plan

Introduction

1. The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability in the Haor and High Barind regions of Bangladesh. The project will build climate-resilient infrastructure, provide climate preparedness information, support nature-based solutions, and create local employment through skill development. This Gender Action Plan is developed in line with IFAD policy on gender equality and women's empowerment[57] and the relevant Government of Bangladesh's (GoB) policies including Gender Equality Strategy & Action Plan by Local Government Engineering Department (LGED) (2022-2030)[58], and Mujib Climate Prosperity Plan (2022-2041)[59] to ensure that the project promotes gender equality and women empowerment.

2. CRALEP Gender Action Plan responds to IFAD COSOP 2023 - 2028 which prioritizes women's participation in all projects will be strengthened with a view to ensuring that women play a leadership role in various forums, increasing the number of women business owners and the level of self-employment and wage employment among women, encouraging internet use among women and expanding their access to non-financial services. The action plan aligns to SDG 5 and the Bangladesh UN Sustainable Development Cooperation Framework (UNSDCF) 2022-2025 which pursues an inclusive, gender focused and human rights-based approach to development that leaves no one behind. The UNSDCF emphasizes that all people, in particular the most vulnerable and marginalized, must benefit from and contribute to, in a gender-responsive manner, a cleaner and more resilient environment, an enriched natural resource base, low-carbon development, and become prosperous and more resilient to climate change and its fallouts.

Gender Equality and Women's Empowerment in Bangladesh

3. The population of Bangladesh stands at 165,158,616, of which 49.48% are males; 50.51% are females and 0.008% are transgenders with a density of 1,119[60]. The largest share of the population belongs to 15-to-19-year-olds and the lowest belongs to 95 years old and above. The youth population (age 15–24) has increased from 18.16% in 2011 to 19.11% in 2022[61].

4. The country's commitment towards gender equality and women's empowerment is articulated in key policy documents, such as, the National Women Development Policy 2011, Vision 2041, the Eighth Five-Year Plan (EFYP), and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009. The EFYP 2020-25 and the Mujib Climate Prosperity Plan Decade 2030 emphasize the need for gender-responsive climate actions. Notably the LGED has developed a Gender Strategy and Action Plan (2022 - 2030[62]).

[57] https://www.ifad.org/en/-/document/ifad-policy-on-gender-equality-and-women-s-empowerment-new
[58] https://crelic-lged.gov.bd/wp-content/uploads/2023/02/Book-3_Combined_GESAP-Eng_TOR_f.pdf
[59] https://mujibplan.com/.
[60] Bangladesh Bureau of Statistics, Population and Housing Census 2022
[61] Population and Housing Census 2022
[62] Local Government Engineering Department (LGED): Gender Equality Strategy & Action Plan 2022-2030

5. Bangladesh has made significant progress in social sector. Gender parity has been achieved in primary and secondary education enrolment, though the drop-out rates remain higher for girls than boys. The country has achieved a higher female literacy rate (71.2%) vis-a-vis other neighbours such as India (65.8 per cent), Nepal (59.7 per cent), and Pakistan (46.5 %)[63]. According to the 2023 Global Gender Gap Report by the World Economic Forum, Bangladesh had a score of 72.2%, placing it 59th in the global ranking. UNDP's Human Development Index for 2023-2024 ranked Bangladesh at 129th - the same position held in 2022 in the category of "medium human development".

6. Despite commitments and progress towards gender equality and women's empowerment, Bangladesh still faces significant challenges in achieving GEWE, particularly in the context of climate change. Bangladesh is vulnerable to climate induced natural hazards such as rainfall, rising sea levels, and tropical cyclones. It is widely recognized that the impacts of climate change are not gender neutral as women and girls are disproportionately affected due to social norms, systemic gender inequalities, and reproductive obligations. Vulnerability to environment and climate varies according to geographic locations and socio-economics inequalities. Women, especially those in rural areas, are disproportionately affected by climate-related disasters such as floods, cyclones, and droughts. These events exacerbate existing gender inequalities, limiting women's access to resources, decision-making processes, and economic opportunities. Women often bear the brunt of climate impacts due to their roles in agriculture, water management, and household responsibilities. Women and girls depend on forestry, crop agriculture, water resources and access to energy for livelihoods and household work. Yet, these are some of the most critical sectors affected by climate change.

7. Women in Bangladesh face economic disparities. According to the Bangladesh Bureau of Statistics, the female labor force participation rate is 38.6%, compared to 80.3% for men. Women are primarily engaged in low-wage, informal sectors with limited access to resources and decision-making roles[64]. The 8FYP recognizes that the female labor force participation is not commensurate with aspirations for UMIC Bangladesh. While all legal and regulatory policies are in place to eliminate all kinds of gender discrimination and prevent violence against women, the 8FYP acknowledges reports about continued violation of these laws including early marriages, spousal abuse, and wage and employment discrimination against female employees in the work place. Traditional gender roles, which are particularly prevalent in rural areas of Bangladesh, lead to lower access to formal employment for women (Ahmed and Sen, 2018). Aside from care work, women mainly engage in agriculture- and livestock-related activities (United Nations Women and BCAS, 2014). The 8FYP commits to make stronger efforts to enhance female labor participation rate and implement all legal provisions to eliminate gender discrimination and violence against women.

Gendered impacts of climate change in Bangladesh

[63] UNDP: Human Development Report 2023/2024 (https://www.undp.org/bangladesh/publications/human-development-report-2023-24)
[64] The World Bank: Bangladesh Country Gender Assessment 2021 (https://openknowledge.worldbank.org/server/api/core/bitstreams/25f68522-859f-59df-b98f-8295e07dd215/content)

8. Barind and Haor are both climate hotspots, two of the six identified in the Bangladesh Delta Plan 2100. While the overall trends in both regions, more days in a year with extreme heat, heatwaves, intense rainfall, more frequent spells of heavy rainfall, and increasing frequency and intensity of extreme events (floods, cyclones), they are dissimilar in the primary climatic challenge owing to topography and agroecology. Barind is prone to droughts, which is exacerbated by groundwater depletion, declining trend in annual rainfall and associated fall in surface / groundwater recharge, and shrinkage of surface water bodies (Bari et al., 2019)[65]. The intensity and frequency of droughts has also increased in northwest and southwest areas of Bangladesh since 1980s (Kamruzzaman et al., 202266). Haor is prone to floods and flashfloods, with severe flash floods that damage Boro rice (often the only crop in a year) every 3-4 years.

9. Livelihood impacts: Since women are more dependent on natural resources for livelihoods and are responsible for household food / dietary security, they find it challenging to maintain their homestead gardens, find fish for household consumption in ponds and other water bodies, or ensure that their livestock are well-fed and watered in situations of freshwater paucity (CCC, 2009[67]; Hossen et al., 2021[68]). Women borrowers who set up small agri-business or non-farm enterprises may face asset loss or be forced to prematurely sell their assets to cope with extreme climate events: Hossen et al. (2021) describe a female micro-credit borrower who had invested in two goats to sell during Eid-ul-Adha (a period of high demand); when one goat died due to (heatwave linked) diarrhea, another was sold off at a low price to keep up with loan repayments; this resulted in her pursuing a different source of livelihood (paid housework) to service the loan.

10. Conflicts, risks to women and girls: Islam et al. (2022)[69] in their cross-sectional survey of two Haors in Sunamganj district found that enhanced sedimentation due to climate change and other anthropogenic factors results in loss and damage to home and livelihoods which then triggers outmigration of men to nearby districts. Women and girls in such households reported feelings of insecurity – needing to finish chores before sundown, or instances of sexual harassment in quarries where they separate sand and stone for wage income.

11. Increased workload: Islam et al. (2022) also found that the stunted or lack of aquatic plant growth in Haor meant that women spend more time looking for

[65] Bari, M.N., Roknuzzaman, M., and Islam, M.T. (2019). Effect of Climate Change on Water Resources in Barind Tract of Rajshahi District. Proceedings of the 5th International Conference on Engineering Research, Innovation and Education ICERIE 2019, 25-27 January, Sylhet, Bangladesh.
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firewood, which increases their workload. In Barind, seasonal droughts and falling groundwater tables (owing to irrigated agriculture since 1960s) implies that people – particularly women and girls since it is seen as a feminized task (Sultana, 2009[70]) – have to collect water for basic purposes from long distances. This also applies to care of livestock, including fodder and watering (CCC, 2009). Sultana (2009), in her study of arsenic contamination in Bangladesh, also illustrates how mobility restrictions associated social norms — enforced by both elderly women and men — may force entire households to rely on unsafe water sources, with some variation by household wealth[71].

12. Health impacts: Freshwater scarcity[72], owing to droughts, is associated with increased disease risks associated with hampered sanitary hygiene in Bangladesh (Dey et al., 2011). While morbidity (diarrhea, typhoid, dysentery, etc.) is not gender-disaggregated in Dey et al. (2011), there's evidence of increased vulnerability of women from other studies (CCC, 2009; Abedin et al., 2013[73]; Ferdous and Mallick, 2015; Hossen et al., 2021). This is particularly worsened in situations of food insecurity and poor baseline access to sanitation (or when floods destroy sanitary facilities) when women and girls may choose to forgo meals in a day or refrain from using toilets resulting in urinary tract infections. Women in households may forgo food owing to belief that males are breadwinners of the family and engage in more onerous tasks.

Gendered vulnerabilities to climate change in Haor Area

13. Climate impacts are not gender-neutral and affect women and girls differently from men and boys, due to societal norms, systemic gender inequalities, and gender roles. Restriction on girls' mobility from puberty has limited their economic and social empowerment. This restricted mobility puts women at a higher risk during emergencies such as climate disasters. Because of the unfavorable topographical location, haor inhabitants are identified one of the most vulnerable people in Bangladesh. They are vulnerable to frequent natural disasters, poor or inadequate infrastructure, food insecurity, remoteness, landlessness, ecological degradation, unsafe drinking water and sanitation, deforestation, inadequate livelihood opportunities, and overall poor service provision. The Haors are mostly dry in the winter months (November to April) and are intensely cultivated with paddy rice and other crops. With the onset of the annual monsoons, the haors transform into large, often turbulent waterbodies.

14. The situation became worse in the Haor regions during and after the prolonged flood in 2022. Between May and June 2022, two consecutive waves of flood in haor region of north-eastern Bangladesh directly and indirectly affected 7.2 million people - 3.6 million of them were women and girls (table 1). Given their circumstances and restricted access to social protection and coping mechanisms, vulnerable groups like

[70] Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. *Gender, Place & Culture*, 16(4): 427–444. https://doi.org/10.1080/09663690903003942

[71] Women also exercised agency by leveraging restrictive social norms to reduce their workload (households install a tubewell) or use the daily necessity to socialize.

[72] When tubewells cannot supply adequate quantity of water, and other surface water bodies dry up or have poor quality / unhygienic water.

[73] Abedin, M.A., Habiba, U., Shaw, R. (2013). Gender and Climate Change: Impacts and Coping Mechanisms of Women and Special Vulnerable Groups. In: Shaw, R., Mallick, F., Islam, A. (eds) Climate Change Adaptation Actions in Bangladesh. Disaster Risk Reduction. Springer, Tokyo. https://doi.org/10.1007/978-4-431-54249-0_10

women, children, and people with disabilities were disproportionately affected by the floods.

Table 1: Total 2022 flood affected population by sex, age and disability:

Group	Population
Women	3.64 million
Men	3.61 million
Elderly (60+)	0.55 million
Persons with disability	0.107 million
Children (0-19)	3.5 million
Pregnant and lactating women	0.22 million

Source: NAWG, UN Women[74]

Table 2: Affected male and female population by sex and age group

Group	Population
Adult male	1,828, 469
Boys	1,782,379
Adult female	1,847,589
Girls	1,800,582
Total	**7.2 million**

Source: United Nations[75]

Table 3: Food insecurity in the project Divisions

Division	Severe insecurity	Moderate or severe insecurity
Sylhet (Sunamgonj, Habigonj Districts)	1.37	27.42
Mymensing (Kishorgonj, Netrokona District)	0.57	28.10
Chattaogram (Brahmanbaria)	1.11	19.04
Rajshahi (Rajshahi, Naogaon, Nawabgonj)	0.55	24.42

Source: BBS December 2023, Food Security Statistics 2023, Statistics and Information Division, Ministry of Planning. Government of the People's Republic of Bangladesh.

15. The table 3 show the divisional variation in severe, moderate or severe food insecurity at household level, where Sylhet division had the highest severe food insecurity and Rajshahi has the lowest rate among others. Stunting is high and food diversity is very low in haor.

16. Frequent pre-monsoon floods (March–April) negatively affect the harvesting and storing boro rice, causing loss of food, income, and employment, resulting in increased poverty, food insecurity, malnutrition, short-term outmigration, and more precarious livelihoods. Prolonged flooding causes loss of crops and property,

[74] https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/kin_and_preliminary_analysis_situation_update_26_june_2022_final.pdf?_gl=1*dq3qxe*_ga*OTI2MTM4OTQ4LjE2NjY3OTA0Nzc.*_ga_E60ZNX2F68*MTY2OTc4MzM0MS41LjEuMTY2OTc4NDMyOS4zMi4wLjA.

[75] https://bangladesh.un.org/sites/default/files/2022-06/situation_overview_2_flash_flood_draft_draft_22_june_2022.pdf

resulting in a disproportionate burden on women and girls in terms of food security, and they remain at higher risks of food insecurity and malnutrition. Poverty and food insecurity problems in the haor region are severe compared to other parts of Bangladesh. The seasonal migration of males is high to cope with lean periods.

17. Women and girls in Haor communities face multiple forms of gender inequity and discrimination, compounded by the conservative context. Despite experiencing higher rates of malnutrition and maternal mortality compared to other regions in Bangladesh, they encounter restricted mobility, limited economic opportunities, and reduced participation in social networks. Access to essential healthcare and education services is further hindered by transportation challenges during flood seasons, often preventing adolescent girls from continuing their secondary education due to safety concerns. More than 3,000 primary and secondary schools in Sylhet and Sunamganj districts were affected in 2022 and remained closed for about a month, resulting in learning loss for over 1.5 million learners[76]. School closures affect children's mental health, nutrition, and abuse risk in addition to learning. These conditions heighten the vulnerability of young girls to unintended pregnancies, early marriages, and gender-based violence, particularly in the aftermath of floods, where the stress of displacement and breakdown of social structures increases the risk.

18. In Bangladesh, at least 50% of women have faced physical or sexual violence from their male counterparts during their lifetimes[77]. Emergency flood shelters, designed without addressing gender needs, for example, privacy or security, increase women and girls' risk of GBV and health hazards (mostly related to disrupted sanitation facilities). Flood shelters were also overcrowded and lacked gender-sensitive and disability-inclusive design features. Even after the flood waters subsided, there was still a problem with the lack of clean drinking water due to damaged and non-operational tube wells. Menstruating women and new mothers suffered the most due to inaccessible toilets. Due to their restricted mobility, women and girls have limited access to information on early warning for disasters, which increases risks for women and other marginalized groups.

Gendered vulnerabilities to climate change in Barind Tract

19. Barind is typically characterized by seasonal drought, and future risks include rising temperature, reduced groundwater levels, and reduced wetlands. Increased food insecurity and malnutrition increase the vulnerability of women and girls to gender-based food distribution within the household. Poverty, food insecurity, dropping out of school, and rupture of social networks due to temporary and permanent migration all increase the potential for the trafficking of women and girls. Youth employment is high in this region. Lack of job opportunities due to lack of agricultural activities, illness due to extreme heat, etc, have been reported.

[76] Ministry of Disaster Management and Relief, 2023, Disaster Needs Assessment, Government of the People's Republic of Bangladesh.
[77] UN Bangladesh, 2023. What works to prevent violence against women? Press Release. Retrieved from: https://bangladesh.un.org/en/232033-what-works-prevent-violence-against-women

20. The Santal, Oraon, Munda, Mahali, Murari, and Pahan indigenous communities inhabited the project areas. These communities, predominantly comprised of landless people who rely on agricultural day labor, are facing increasing hardships due to the mechanization of agricultural work. Previously, they were able to secure work for six months annually; the advent of mechanization has diminished their labor demand, exacerbating their lean periods. Compounding their challenges, more farmers are moving away from rice to mango orchards, wheat, and horticulture, a venture requiring the use of pesticides and chemicals that the indigenous people are reluctant to engage with due to the associated health risks. Consequently, both men and women of these communities find themselves bearing the brunt of this evolving landscape. Indigenous children typically receive education up to primary levels, with some extending their studies to class 8 or 9 before dropping out to return to traditional livelihoods.

21. The water and sanitation situation in the area is generally poor, primarily due to the low groundwater levels. Shallow tube wells are no longer functional, leaving only deep tube wells available for drinking water and irrigation. Indigenous communities rely on ponds and other surface water sources for domestic water, including drinking, cooking, dishwashing, bathing, cleaning, and managing livestock. This reliance on surface water poses challenges, as it may not always be clean or readily accessible, highlighting the pressing need for improved water and sanitation infrastructure to ensure the health and well-being of the community.

GESI in Project Design

22. While CRALEP is not flagged as a gender-transformative project according to IFAD's criteria, the project will mainstream gender concerns within its implementation. This will be done in line with the IFAD Policy on Gender Equality and Women's Empowerment and its strategic objectives. This will be achieved through a twin track approach of mainstreaming gender across all components, and implementation of gender specific methodologies through Gender Action Learning System (GALS). Three strategic pathways for gender equality and women's empowerment will be pursued: i) Promote economic empowerment to enable rural women and men to have equal opportunities to participate in and benefit from profitable economic activities; ii) Enable women and men to have an equal voice; and, iii) Achieve a more equitable balance of workloads and the sharing of economic and social benefits between women and men. CRALEP is youth sensitive project at design, social inclusion specialist will be recruited at PMU for the smooth implementation of the interventions and to support M&E responsibilities.

Project Components	**Gender and social inclusion responsive intervention**
Component 1: Climate proofed village road connectivity and market improvement.	
Village road connectivity in Haor & Barind areas	Poor women, men, persons with disability, indigenous and other vulnerable groups will be employed as LCS members for the construction and maintenance of the infrastructure where feasible. Road selection criteria will incorporate effective measures to connect to school, health facility, union, market considering poverty and vulnerability. Collaboration with local entities to update on the status household with PwD in the targeted area. Reasonable action will be taken to prioritize in the selection process. Need basis shorter connection will be reasonably consider for the HH with PwD. Road safety features including speed bumps, walkways an adequate lighting where feasible. Certain % of women and indigenous women will be LCS members; availability of water and separate sanitation facilities and labor shed for the women laborers in the construction sites; no head carry for the women laborers, instead of that carry the materials with a trolley; equal wage for equal value of work. Financial literacy training for the LCS members. Project will ensure the appropriate measure for the protection from sexual exploitation, abuse and harassment of the women LCS member including a reporting line of incidents. All LCS member are aware about the reporting/ grievance mechanism. These clauses will be included in the bidding documents. LCS members will be part of the Gender Action Learning (GALS) program, *access to financial institutions after the IGA training.* Local consultation includes women and youth focused groups, will be arranged with the community to collect their opinions and to let them know about the construction; types of roads are built. Women and youth participation to ensure at the community consultation and to create equal access to information and active participation in decision making process.

Project Components	**Gender and social inclusion responsive intervention**
Rural market improvement in Barind area	Poor women, men, persons with disability, indigenous and other vulnerable groups who are the sellers and buyers will be consulted to know their problems with the existing markets infrastructures and services and recommendation. Separate section for women or allocation of specific number of shops at suitable points/ location for women entrepreneurs. Accessibility for PWD in the market and in the shed area. All access areas are safe for women with light. Separate space for women for prayer and breast feeding. Shop allotees are oriented about tax, tariff, trade license and all legal requirements. Separate toilet and water for women at safe and suitable location. Ensures adequate supply of water, soap and cleanliness, bins for disposal of waste and hooks/ hanging in toilets. Toilets have access for PWD women and men. Toilets to have provision for changing/cleaning children. Information about the MMC including members and contact are visible at the Market publicly. Information related to emergency services are visible in the market area for the safety of the people including women and girls.
Market Management Committees	Feasible support to form and update the MMC periodically according to the law. Promote women and youth representation and voice within MMCs.
Boat landing ghats in Haor	Ramp and safe walkways for PwD and Women. Shed/waiting area to protect from rain/sun with separate provision for women. Water and safe sanitation facilities for women and PWDs. Cleanliness, running water, soap, bins for disposal of waste and hooks/ hanging for hanging purse/ bags in toilets. Separate place for breastfeeding for women in waiting
Component 2. Village services for resilient communities in Haor	

Project Components	**Gender and social inclusion responsive intervention**
Village internal services (walk ways, water and sanitation,)	Poor women, men, persons with disability, indigenous and other vulnerable groups will be employed as LCS members for the construction and maintenance of the infrastructure where feasible. Road selection criteria will incorporate effective measures to connect to school, health facility, union, market considering poverty and vulnerability. Collaboration with local entities to update on the status household with PwD in the targeted area. Reasonable action will be taken to prioritize in the selection process. Need basis shorter connection will be reasonably consider for the HH with PwD. Road safety features including speed bumps, walkways an adequate lighting where feasible. Certain % of women and indigenous women will be LCS members; availability of water and separate sanitation facilities and labor shed for the women laborers in the construction sites; no head carry for the women laborers, instead of that carry the materials with a trolley; equal wage for equal value of work. Financial literacy training for the LCS members. Project will ensure the appropriate measure for the protection from sexual exploitation, abuse and harassment of the women LCS member including a reporting line of incidents. All LCS member are aware about the reporting/ grievance mechanism. These clauses will be included in the bidding documents. LCS members will be part of the Gender Action Learning (GALS) program, *access to financial institutions after the IGA training.* Local consultation includes women and youth focused groups, will be arranged with the community to collect their opinions and to let them know about the construction; types of roads are built. Women and youth participation to ensure at the community consultation and to create equal access to information and active participation in decision making process.
Sanitation, safe water	Water and toilet block will have separate provision for men and women. Awareness program on hygiene, sanitation, climate adoptive practices and menstrual hygiene.
Killa for temporary storage of	Ensures safe access with light for women to animal refuge for feeding and cleaning. Adequate water storage and supply for animals and for cleaning. Animal waste cleaning facilities ensured.

Project Components	**Gender and social inclusion responsive intervention**
harvests and shelter	
Low-cost nature-based village protection system in Shallow Haor (VPS)	Community people including women and youth will produce vetiver grass and involve in the maintenance of nature-based protection system. Feasible measures will be taken to include women participation and their income generation.
Component 3: Livelihood diversification and resilience	
Vocational training for young men and women	Poor disadvantaged and vulnerable young men and women will receive the training and job placement provision will be included. A particular need assessment to conduct to measure the priority of potential women, girl, PwD participants, to identify the the low participation rate in different trades and dropout rate during the training. The overall purpose of the assessment to offer a comprehensive vocational training program tailored to market demand and to attract more female and ethnic minorities. Safety of the female participants will be regularly checked and periodical assessment will be conducted (in relation to new batches). Participant will know how to report on protection from sexual exploitation, abuse and harassment. Partnership development with local industries to facilitate job placement for trained women and girl, PwD and ethnic minority community. Follow up on the job placement will be structured and incident report mechanism will be established in relation to torture and abuse.

Project Components	**Gender and social inclusion responsive intervention**
Micro entrepreneurship training for women and poor	Poor and disadvantaged men and women will receive microenterprise development project to diversify their livelihoods in the disaster-prone areas. Prioritization to women and youth.
LCS in Haor and Barind Tract (Sustainable Livelihoods for LCS members)	Poor men and women will work as LCS members. They will offer a form of wages for the poor who will also be provided technical skill relating to construction and maintenance. The LCS will also be the entry point for implementation of Gender Action Learning system (GALS). GALS will not only help highlighting gender issues but will also support better planning at household level for better use of resource and improved livelhoods.

Gender Action Plan Template (To be update according to AWPB)

Activities		Performance Indicators	Performance Targets	Responsibility	Deadline	Budget
Gender-related objective	**Outcome 1**:					
	Activity^{SOx}					
	Output 1.1:					
	Activity^{SOx}					
	Output 1.2:					
	Activity^{SOx}					
	Output 1.3:					
	Activity^{SOx}					
Gender-related objective	**Outcome 2**:					
	Output 2.1:					
	Activity^{SOx}					
	Output 2.2:					
	Activity^{SOx}					
	Gender actions related to **project management**					
	Activity					

Notes:

1. Gender action plan to be prepared based on the project components and activities according to the AWPB and to achieve gender related objective under the components. This will be updated accordance each AWPB.

2. Gender-related Objectives: indicate what the gender action plan intends to achieve in the project (e.g. Expand women's access to and control over fundamental assets, such as capital, land, knowledge and technologies? Strengthen their agency and thus their decision-making role in community affairs and representation in local institutions? Improve well-being and ease women's workload? Ensure a more gender-equitable participation in and benefit from planned activities?)
3. Activities: implemented under each project component to achieve gender equality and poverty targeting goals. These activities will have to be included in the AWPB and should therefore be described also in terms of who will benefit from them (beneficiaries), financial implications (budget) indicator, target and deadline.
4. SO1 Addresses strategic objective 1 of IFAD's Gender Policy (Promote economic empowerment); SO2 Addresses strategic objective 2 of IFAD's Gender Policy (equal voice and influence in rural institutions and organizations) SO3 Addresses strategic objective 3 of IFAD's Gender Policy
5. Budget: Link to AWPB.
6. Monitoring: the gender action plan will be regularly monitored to assess progress of its implementation. The project coordinator is accountable for the timely and effective implementation of the action plan. The Gender and M&E specialists in the project will support the coordinator in this endeavor

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Environmental, Social and Climate Management Framework (ESCMF)

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Biodiversity Action/Management Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Pest Management Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Cultural Heritage Management Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Chance find procedures

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

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SECAP Attachment 6: Chance Finds Procedure

1. General information – preserving and safeguarding cultural heritage

Activities financed by CRALEP could impact sites of archaeological, socio-cultural, sacred, religious, or heritage value; for instance, during excavation, construction, or temporary storage of building materials. Standard 3, Cultural Heritage, of IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)[1] is in place to ensure that any IFAD-financed project contributes to preserving and safeguarding cultural heritage, in a manner consistent with UNESCO cultural heritage conventions and other applicable national and international legal instruments.

As a first requirement, projects are required to screen and assess projects in order to avoid or minimize negative impacts on cultural heritage, and to define mitigation measures. These "Chance Find Procedures" are part of the mitigating measures. They are to be used by the project lead agency; it must be included in all third-party contracts (e.g. Letters of Agreement) in instances where the contracted party (or project partners) is assisting with project implementation and/or construction activities.

2. Applicability

These procedures apply to all CRALEP project activity. They are particularly relevant for the following activities in the project:

- Preparation of construction sites, including temporary working areas
- Storage of building materials and equipment
- Excavation and other movement of earth
- Construction or upgrade of village roads, markets, and boat landing stations (ghats)
- Construction or upgrade of killas, toilet blocks, tubewells with handpump, and village protection walls

3. Definition and general responsibilities

Definition of cultural heritage items. Cultural heritage items include monuments, structures, works of art, or sites of significant points of view, and are defined as sites, objects, remains and structures having archaeological, historical, architectural / artistic, scientific, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

Responsibility for recognition. As the risk level of chance finds is Low for CRALEP, it will be sufficient to task regular operators with the responsibility of implementing these procedures. Technical experts, such as archaeologists, will only be required in case there is an actual chance find.

Responsibilities of contractors. These procedures must be referred to as standard provisions in construction contracts. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered.

4. Chance Find Procedures

The following procedures apply upon the discovery of a cultural heritage item:

1. **Suspension.** Stop the construction activities in the area of the chance find. This only concerns the area directly adjacent to the area where the item was found.
2. **Demarcation.** Delineate the area and limit access to it.
3. **Secure.** Secure the site to prevent any damage or loss of removable objects. For instance, if removable antiquities or sensitive remains, a night guard may need to be arranged until the responsible local or provincial authorities take over.
4. **Notification of authorities.** Notify the SECAP / Safeguards Specialist and the Supervisory Engineer or other senior person employed by the project, who in turn

[1] See https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures

will notify the responsible local authorities (within 24 hours or less). The Safeguard Specialist will guide / provide oversight to the process from then on.

5. **Report on finding.** In coordination with the local authorities, prepare a report that describes the item that has been found, the exact location including GPS coordinates, time, date; and if possible weight and dimensions. Include photos where possible. Submit this report to the local authorities and PMU, who in turn inform IFAD.
6. **Action by government authority.** The relevant authority, which may be the local authority and/or relevant Ministry, will determine appropriate action to be taken. This may include removal of the item, permission for further work within a specified distance from the identified item, or other changes in layout. The authority may also choose to stop the activities for a longer period and request revision of the plans.
7. **Resume only if permitted by relevant authority, in writing.** Activities can resume only after permission is given (in writing) from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.
8. **Report on the final outcome to IFAD through regular reporting.** Ensure that the chance find, the report and the final outcome are communicated to IFAD through the regular reporting.

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Free Prior and Informed Consent or FPIC implementation plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

SECAP Attachment 4: Ethnic Minority Framework and FPIC Implementation Plan

1. Executive Summary

This Ethnic Minorities Planning Framework described the relevance of ethnic minorities in relation to the proposed CRALEP project. Ethnic minorities are present in the districts where the project operates, and may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, the potential negative impact on ethnic minorities in terms of access to land and resources is limited. The project is anticipated to have an overall positive impact on people from ethnic groups. They can influence the development of small-scale infrastructure and they will have the opportunity to apply for vocational and entrepreneurial training. They will also benefit from improved road access, improved access to water, and improved access to sanitation. People belonging to ethnic minorities will have opportunities to participate in project planning, implementation, monitoring and evaluation, and an integrated process for seeking Free, Prior and Informed Consent has been developed. A grievance redress mechanism will be established in line with existing structures of the lead implementing agency.

2. Description of the project

The Climate Resilience and Livelihoods Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots[1] in Bangladesh, the Haor and the High Barind region.

The Haor regions are low-lying areas situated between the natural levees of rivers or highlands, submerged under water for up to six months each year. They constitute some of the poorest regions in Bangladesh. In the flooding season, the areas are prone to strong water currents and wave action, which negatively affects economic activities but also threatens basic facilities such as drinking water and sanitation. Infrastructural development is critical to protect communities and homesteads against flooding and erosion, and to ensure the connectivity during the flooding season to enable economic development.

The *High Barind Tract* is an uplifted area in northwestern Bangladesh that is prone to drought, erratic rainfall and poor soils; it also has a lower average annual rainfall than the rest of Bangladesh. As a result, there is low agricultural productivity during one or two agricultural seasons.

The project will target a total of 317,000 households through a layered targeting approach. Geographical targeting has been conducted at district and upazila level, based on a WFP poverty map and infrastructural data from LGED. This geographical targeting is complemented by poverty targeting (poor and ultra-poor), as well as by targeting of groups including agricultural laboreres, artisans and marginal and small farmers. More details can be found in the Targeting Strategy.

CRALEP follows earlier IFAD-supported investment in the Haor areas, through the Haor Infrastructure and Livelihood Improvement Project – Climate Adaptation and Livelihood Protection Project (HILIP-CALIP) project, which had a strong climate resilience focus. The main successful project activities of HILIP-CALIP are to be scaled up through CRALEP, and new interventions (primarily Nature-based Solutions, "NbS") will be rolled-out.

Main **project activities** for CRALEP include:

[1] As identified in the Bangladesh Delta Plan 2100

- Construction and rehabilitation of climate-proofed village roads and local markets, including boat landing stations;
- Construction of low-cost village protection systems, including internal walkways and NbS (bamboo, vetiver grasses) around homesteads and on embankments;
- Investments in safe water and sanitation (toilet blocks with septic tanks in markets and villages, tubewells in markets and villages, drainage facilities for markets);
- Vocational and entrepreneurship training to help create opportunities for employment;
- Promotion of income-generating activities to members of LCS;
- Improvement of flash flood early warning system (FFEWS), drought forecast services and innovation in construction technologies and practices.

During project design, the risk of negative impact on ethnic minorities was assessed to be **low**. Ethnic minorities are present in the districts where the project operates, and may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, and the fact that physical works will largely take place on land that is already destined for the same purpose (i.e. upgrading of roads) and/or newly selected through participatory design, the potential negative impact on ethnic minorities in terms of access to land and resources is limited.

3. Description of ethnic minorities

The 2022 Bangladesh census officially registered a total of 1,6 million people belonging to ethnic minorities, representing 1% of the total population of 165 million. As noted in Country Technical Note[2], there are various challenges when it comes to defining the number of different groups of ethnic minorities, their organizations and the total number of people belonging to ethnic minorities, which may cause under-reporting of the total number. In this section, the 2022 census data is followed, which found the largest populations of ethnic minorities in the divisions of Chattogram, Rajshahi and Sylhet.

Division	Ethnic minority population	Percentage of total population

[2] See https://www.ifad.org/en/web/knowledge/-/publication/bangladesh-country-technical-note-on-indigenous-peoples-issues

Barishal	4,181	0,05%
Chattogram	990,860	2,99%
Dhaka	82,311	0,19%
Khulna	38,992	0,22%
Mymensingh	61,559	0,50%
Rajshahi	244,592	1,20%
Rangpur	91,070	0,52%
Sylhet	136,594	1,24%
National total	*1,650,159*	1,00%

The census identifies a total of 49 different ethnic minority groups, plus a population of 68,538 people described as "other" ethnic minorities. The following table lists the largest ethnic minority groups:

Ethnic minority	Total population	Percentage of total ethnic minority population
Chakma	483,299	29,29%
Marma	224,261	13,59%
Tripura	156,578	9,49%
Saontal	129,049	7,82%
Oraon	85,846	5,20%
Others	68,538	4,15%
Mro	52,455	3,18%
Tonchonga	45,972	2,79%
Barman	44,657	2,71%

The census also lists the ethnic minorities at district level. For the selected CRALEP districts, the presence of ethnic minorities is as follows:

District (division)	Ethnic minority population	Percentage of total population
Dhaka division		
Kishoreganj	1,021	0,06%
Mymenshigh division		
Netrakona	21,604	1,31%
Sylhet division		
Sunamganj	5,285	0,32%
Habiganj	41,563	2,52%
Chattogram division		
Brahmanbaria	672	0,04%
Rajshahi division		
Rajshahi	47,832	2,90%
Naogaon	107,292	6,50%
Chapai Nawabganj	23,275	1,41%

Some of the most relevant ethnic minorities for the project areas include:

- Santal. The Santal community is a large ethnic group with population in Bangladesh, India and Nepal, with a total group size of around 7.5 million people. They are widely acknowledged as being some of the first settlers of the subcontinent. In India, an area of Jharkhand state is allocated to the Santal group as a separate division, which many now consider to be the heartland of the group.
- Oraon, also known as Kurukh. The Oraon also form a large group of approximately 3.8 million people, with the majority located in India. Originally forest dwellers, this group is now mostly focused on agriculture and agricultural labour.

- Garo. Originally from Tibet, the Garo group now comprises in total around 1,1 million people across India and Bangladesh. They are a matrilineal society. Garo people are frequently engaged in the cultivation of rice but have now diversified economic affiliations.

The Technical Note also explains that one reason for varying numbers, is that there there are multiple names or spelling by which the same group is known by different peoples as well as the categorization of a subgroup as a separate group itself.

The term Adibashi/Adivasi was and is generally used by Bengali-speakers (the major ethnolinguistic group in Bangladesh), to refer to the ethnic minorities living in the areas outside of the Chittagong Hills Tract (CHT). That area outside of CHT is typically referred to as the "plains".

Generally across ethnic minority groups, research indicates they are hindered by inequitable access to health, education, sanitation and employment3. Ethnic minorities are reported to have lost access to land and face additional hardship as farm labourers, being seen as 'outsider in their own-nurtured land'.
The Technical Note also highlights that ethnic minorities in the plains are more dispersed than those living in the CHT, and that they have lower levels of autonomy. In the plains, the region's traditional leaders remain without state recognition and their population strength is too low to enable direct representation in the elected local government structures.

4. Summary of Substantive Rights and Legal Framework

The Constitution of Bangladesh guarantees equal rights and equality of its citizens. Article 27 guarantees equality of citizens before the law and Article 28 prohibits discrimination on grounds of religion, sex, caste, race, and place of birth. The same article also stipulates measures of 'affirmative actions' by the State in favour of the backward section of the citizens[4].
Besides the Constitution, there is a broad range of legal, institutional and policy documents for the safeguards of the rights of ethnic minorities in Bangladesh. Much of it is focused on the Chittagong Hill Tracts (CHT), an area in which CRALEP does not operate. There are also specific laws for the tribal peoples in the plains.
The Constitution of Bangladesh identifies "tribes, minor races, ethnic sects and communities" in Article 23A, and obliges the State to protect and develop their unique local culture and traditions. The Constitution also identifies particularly disadvantaged sections of the population for special provisions, that include protection from all forms of exploitation (Article 14); outlawing of discrimination on grounds of religion, race, caste, sex or place of birth (Article 28); and equality of opportunity in public employment, while enabling the State to make special provisions to ensure adequate representation of these sections of the population (Article 29).
Several national laws relevant to ethnic minorities are explicitly geographically defined in their application. In the case of the plains, one of the most important laws is the East Bengal State Acquisition and Tenancy Act (1950), which restricts the transfer of land of "aboriginal castes and tribes" to non-aboriginals. Other relevant laws include the Vested and Non-resident Property (Administration) Act, 1974; the Forest Act of 1927; and the Social Forestry Rules of 2004. Furthermore, the Vested Property (Return) Act (2011) enables the return of land and property seized from both the Hindu minority and tribes, minor races, ethnic sects, and communities over the last four decades.
At the international level, Bangladesh is signatory to most of the major international human rights instruments, with a notable abstention from voting on the UN Declaration on the Rights of the Indigenous Peoples (UNDRIP) in 2007. Bangladesh is signatory to

[3] See https://web.esdo.net.bd/attachments/SPED/Final%20Study%20on%20Ethnic%20Minority%20Exclusionx.pdf

the ILO Convention 107 on Tribal Populations although it is yet to ratify the other important ILO convention on tribal peoples, Convention No. 169 of 1989.
The Five-Year Plan 2021-2025 states that "The government is committed to ensuring socio-economic and political rights, fundamental human rights, and social security, while enabling ethnic people to retain their social, cultural, and traditional identities." In this plan, explicit priorities related to inclusion of ethnic minorities are mostly geared towards the CHT.

5. Summary of Social and Environmental Risks Related to Ethnic Minorities and Mitigation Measures

The project is anticipated to have an overall positive impact on people from ethnic groups. Through free, prior and informed consultation, people belonging to ethnic minorities will have opportunities to participate in project planning, implementation, monitoring and evaluation. They can influence the development of small-scale infrastructure and they will have the opportunity to apply for vocational and entrepreneurial training. They will also benefit from improved road access, improved access to water, and improved access to sanitation.

The overall risk rating of CRALEP, with regards to ethnic communities, is Low. Ethnic minorities are present in the districts where the project operates, and may be present in the exact locations where interventions will be made (to be determined during project implementation). Taking into account the relatively small scale of the project activities, and the fact that physical works will largely take place on land that is already destined for the same purpose (i.e. upgrading of roads) and/or newly selected through participatory design, the potential negative impact on ethnic minorities in terms of access to land and resources is limited.

Key instruments for the project to ensure inclusion of, and positive outcomes for, ethnic minorities, are the participatory processes and the application of Free, Prior and Informed Consent (FPIC). These processes are described in detail below.

Ethnic minorities in CRALEP regions, impacts of and response to climate change and use of natural resources

This section presents evidence on how climate change and environmental / natural resource degradation impacts Ethnic Minorities in Bangladesh, and how different Ethnic Minorities manage these effects. In the context of CRALEP's objectives, this is important because the magnitude and speed of climate change, combined with other factors (e.g., environmental degradation, loss of biodiversity), strains the extent to which various Ethnic Minorities — particularly communities that live in or depend significantly on natural resources and forested / wetland ecosystems — can rely on traditional environmental knowledge to anticipate, cope with, or adapt to climate change (Islam et al. 2017[4]; Garay-Barayazarra and Puri 2011[5]; Masinde 2015[6]). At the same time, where feasible, integrating traditional and local knowledge with early warning and climate information delivery is important for effective outreach and increased relevance; it is important to note that not all Ethnic Minorities may be fluent in Bangla, and training and early warning systems must be adapted to their dialects.

[4] Islam, M.S., Nasreen, M., and Huq, H. 2016. Local knowledge and practices can help in drought prediction and extreme weather management. *Indian Journal of Traditional Knowledge*, 16 (3): 448-453. https://csd.ulab.edu.bd/sites/default/files/Islam-M.S.-2017.-Local-knowledge-and-practices-can-help-in-drought-prediction-and-extreme-weather-management.-Indian-Journal-of-Traditional-Knowledge-Vol.-16-3-July-2017-pp.-448-453..pdf

[5] Garay-Barayazarra, G. and Puri, R.K. 2011. Smelling the monsoon: senses and traditional weather forecasting knowledge among the Kenyah Badeng farmers of Sarawak, Malaysia. *Indian Journal of Traditional Knowledge,* 10: 21–30. http://nopr.niscpr.res.in/ handle/123456789/11063

[6] Masinde, M. 2015. An innovative drought early warning system for sub-Saharan Africa: integrating modern and indigenous approaches. *African Journal of Science, Technology, Innovation and Development*, 7: 8–25. https://doi.org/10.1080/20421338.2014. 971558

While there is rich documentation of climate vulnerability, impacts and locally led adaptation strategies in Bangladesh, there is limited literature specific to the Ethnic Minority groups (Bayes et al. 2019[7]). Considering the diversity of socio-cultural, economic, and political contexts, the review findings are organized by Ethnic Minority groups in the CRALEP regions.

Ethnic Minorities in Barind / Haor and use of natural resources: In general, Ethnic Minorities in Bangladesh put wild, forested, and foraged resources to a variety of uses (food, medicine, housing, crafts, etc.). However, Halim et al. (2015)[8] – writing for UNDP – reported that the customary resource rights of Ethnic Minorities / Adivasis in the plains have been restricted owing to declaration of forests as reserved forests, private forests or for social forestry; this has affected non-Adivasi populations as well in some cases. Sarker et al. (2016)[9] documented the changes in Barind-Santal's lives and livelihoods, with a particular focus on natural capital (forests, marshlands, *beels*). In general, the Santal use common pool resources as a source of wild foods, medicinal remedies, grazing grounds, and non-timber forest produce (fungi, honey, roots, edible flowers, etc.); they are also reported to have unique skills in making mats, baskets, and musical instruments out of bamboo and other plants. However, study respondents opined that deforestation / degradation and access restrictions have gradually reduced their use of such resources. And some respondents could not find alternative options to substitute resource loss. When Toppo (2016)[10] interviewed members of various communities (Santal, Oraon, Pahan) in Barind, individuals consistently reported that that collection of wild foods (fruits, vegetables) and diversity of fishes has dropped, contributing to food insecurity since they cannot offset this loss with market purchase.

In Haor (Netrakona), while sand mining from rivers and wetlands has reportedly created some employment for Garo, Hajong, Hodi and Barman peoples, it has simultaneously disrupted their agricultural, fishing and weaving livelihoods by raising river flow velocity and regime, eventually eroding riverbanks[11].

Barkat et al. (2021)[12] found that hunting persists among the Barind's (Rajshahi) Santal and Oraon in areas adjacent to their settlements, with birds, rabbits and turtles being the most common source of animal protein, among others. Rahmatullah et al. (2009)[13] documented the use of wild medicinal plants by the Garo in Haor (Netrakhona) and found that 32 of the 74 plants used by Garo traditional healers have validated

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[7] Bayes, A., Kelman, I., Kamruzzaman, M., Mohiuddin, H., Rahman, M.M., Das, A., Fordham, M., and Shamsudduha, M. (2019). Indigenous people's responses to drought in northwest Bangladesh. *Environmental Development*, 29 (2019): 55-66. https://doi.org/10.1016/j.envdev.2018.11.004

[8] Halim, S., Roy, B.D., Chakma, S., and Tanchangya, S.B. (2015). Natural resource management country studies: Bangladesh. *Regional Indigenous Peoples' Programme*. UNDP. https://www.undp.org/asia-pacific/publications/natural-resource-management-country-studies-bangladesh

[9] Sarker, M.A.R., Khan, N.A., and Musarrat, K.M. (2016). Livelihood and vulnerability of the Santals community in Bangladesh. *The Malaysian Journal of Social Administration*, 12: 38-55. http://dx.doi.org/10.22452/mjsa.vol12no1.2

[10] Toppo, Arook. (2016). Impact of Environmental Change on Natural Resource-based Food System of Tribal Communities of North-Western Region in Bangladesh. Dissertation submitted to the Institute of Environmental Science (IES), University of Rajshahi in partial fulfillment of the requirement for the Degree of Doctor of Philosophy in Environmental Science.

[11] ICCCAD (2022). https://www.dhakatribune.com/epaper/291488/the-untold-environmental-catastrophe-that-is-being

[12] Barkat, A.I., Liza, F.T., Akter, S., Shome, A.R., and Rabbe, F.R. (2021). Wildlife hunting practices of the Santal and Oraon communities in Rajshahi, Bangladesh. *Journal of Threatened Taxa*, 13 (11): 19484-19491. https://doi.org/10.11609/jott.7260.13.11.19484-19491

[13] Rahmatullah, M., Mukti, I.J., Haque, A.K.M., Mollik, M.A.H., Parvin, K., Jahan, R., Chowdhury, M.H., and Rahman, T. (2009). An Ethnobotanical Survey and Pharmacological Evaluation of Medicinal Plants used by the Garo Tribal Community living in Netrakona district, Bangladesh. *Advances in Natural and Applied Sciences*, 3(3): 402-418.

pharmacological activities. Islam et al. (2014)[14] also studied how the Garo, Koch and Hajong communities collect and use wild, medicinal plants (trees, shrubs, vines, climbers, grass) from Madhupur forest in Tangail Haor (the forest does not fall in the CRALEP target area) for treatment of various ailments. Respondents reported that suppliers of plants to herbal companies often collect plants without paying heed to their conservation, and while documented plants are widely available, some are rare and classified as 'vulnerable' due to deforestation and harvesting.

The Santal in Barind and climate change: Bayes et al. (2019), in their qualitative study of the Santal communities' response to droughts, documented several impacts and coping strategies. The respondents were primarily subsistence farmers and paid wage labourers, including small-scale fisheries (inland freshwater) – two-thirds of the population derived more than four-fifths of their income from agriculture. Ninety-seven percent of the Santal people in the study did not own agricultural land – even when they owned their home. Santal villages were typically surrounded by vast fields that are owned by non-Santal landlords and locally influential people from whom they leased cultivation land. Similar findings on landlessness or marginal landholding, with 57% of respondents owning no land and another 27% reporting less than 1 *bigha* (less than 1/3rd of an acre), is reported in Rahman et al. (2015)[15]. Rahman et al. (2024)[16] found that the Santals do not meet the conditions for obtaining credit from various banks, and while the reasons are not described, lack of land ownership could be an explanatory variable.

- Water availability and access: Starting the 1990s, with the setting up of Barind Multipurpose Development Authority (BMDA), 6,000 deep tubewells were installed; 60,000 shallow tubewells were also established – both public and private. Santal respondents reported surface water depletion starting 1999-2000, attributing this to both changes in rainfall pattern and gradual expansion in tubewells for cultivation / drinking water supply. The immediate effect of this was on water collection – with an increase in collection time and distances (79% of the water collection is done by female members of the household). People also reduced consumption of drinking water during shortages.
- Agricultural livelihoods: Tubewells improved water availability and allowed multiple cropping seasons each year, together with livestock rearing by the Santal. However, the increased irrigation water demand reduced the efficiency of tubewells around 2014, and many were non-functional at the time of study. Shifting rainfall patterns and lack of water meant that communities could not cultivate rice (the main crop) during the regular season but planted the crop later in the year. Further, as Akhtar et al. (2021)[17] documented, private tubewells are primarily owned by non-Santali farmers, and therefore, the Santal pay a high cost to access irrigation. The same study also documented increased crop damage from pest infestation.

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[14] Islam, M.K., Saha, S., Mahmud, I., Mohamad, K., Awang, K., Uddin, S.J., Rahman, M.M., and Shilpi, J.A. (2014). An ethnobotanical study of medicinal plants used by tribal and native people of Madhupur forest area, Bangladesh. *Journal of Ethnopharmacology*, 151 (2): 921-930. https://doi.org/10.1016/j.jep.2013.11.056

[15] Akan, M. R., Al Mamun, M. A., Naznin, T., Al Pavel, M. A., Yasmin, L., & Rahman, S. A. (2015). An ethnographic investigation on land and life of Santal community in Barind Tract, Bangladesh. *American Journal of Social Science Research*, *1*(2), 90-95. http://files.aiscience.org/journal/article/html/70330012.html.

[16] Rahman, M.A., Afridi, S., Hossain, M.B., Rana, M., Al Masum, A., Rahman, M.M., and Al-Maruf, A. (2024). Nexus between heat wave, food security and human health (HFH): Developing a framework for livelihood resilience in Bangladesh. *Environmental Challenges*, 14 (2024): 100802. https://doi.org/10.1016/j.envc.2023.100802

[17] Akhtar, N., Ibnath, A., and Khan, T.Z. (2021). Santal communities' adaptation strategies to cope with drought: A study on the selected households of Niamatpur upazila. *BUP Journal*, 8 (2): 97-122. https://researchgate.net

- Like other Barind farmers, the Santal have diversified into crops such as mango, guava, wheat, maize and lentil, and have adopted drought-tolerant rice varieties. At the same time, the conversion of paddy cultivation to "agroforestation" has raised some concerns about loss of jobs in agricultural to marginal communities such as the Santal (Rana and Moniruzzaman, 2021[18]). With the falling water levels in or drying up of ponds, fish cultivation was not possible in the summer.
- Other drought responses: Migration – temporary or seasonal for adults, permanent (to Dhaka) for youth – was reported as an important livelihood strategy and respondents linked the rising scale to increasing droughts. Adults time their migration to dry periods (Sep-Dec, Apr-May) and return for winter harvest or monsoon cultivation.

The Munda in Barind and climate change: Islam (2023)[19] found that a majority of Munda peoples (also known as Buno) earned their livelihood through agricultural labour, and while all respondents had some livestock holdings (cows, goats, chickens, etc.), land ownership was very low. Nearly all families leased land for cultivation. Sharmeen (2014)[20] found that the proliferation of tubewells and the commercialization of agriculture (triple cropping, intensification) has enabled a renegotiation of relations between Munda peoples and landowners, since there is more demand for labourers. But the dependence on agricultural livelihoods exacerbates their baseline vulnerability (wage gaps, higher poverty rate, lower average income).

The Garo and Hajong in Haor and climate change: Sunamganj's Garo women reported flash flood as the main climate hazard but also identified droughts, hailstorms, tidal action during monsoon, and drought as concerns (DOE 2008[21]). They noted that rainfall pattern in Apr-Sep has significantly changed in the last two decades, even as overall rainfall has declined. The effect of flash floods is similar to the general effects identified in the Targeted Adaptation Assessment: loss of rice crop, loss of poultry and livestock, destruction of latrines, lack of drinking water, damage to dry food stock, and disease outbreaks.

ICCCAD (2022)[22] found that the Garo (also known as Mandis) are primarily involved in pineapple and banana cultivation whereas Hajong cultivate paddy and work as day labourers. Perhaps due to the specific upazilas of focus in the ICCCAD (2022) study, the primary climate impacts were severe heat and erratic rainfall, resulting in drought-like conditions and groundwater depletion (not floods and flash floods typical of CRALEP's Haor regions). Similar to the wider population, this has affected crop and livestock production, disrupted water and sanitation facilities, affected women and girls' menstrual hygiene management, and reduced fishery yield. Responses to climate change include ethnomedicine, developing indigenous early warning techniques, crop rotation, and to some extent, home gardening.

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[18] Rana, M.M.P. and Moniruzzaman. (2021). Transformative adaptation in agriculture: A case of agroforestation in Bangladesh. *Environmental Challenges*, 2 (2021): 100026. https://doi.org/10.1016/j.envc.2021.100026

[19] Islam, M.F. (2023). Cultural change and adaptation of Munda tribe of Bangladesh: A socio-anthropological analysis. *Indian Journal of Anthropological Research*, 2 (2): 139-156. https://www.arfjournals.com/image/catalog/Journals%20Papers/IJAR/2023/No%202%20(2023)/3_FIROJUL.pdf

[20] Sharmeen, S. (2014). The Politics of Irrigation: Technology, Institution and Discourse among the Munda in Barind, Bangladesh. *Journal of South Asian Development*, 9 (1): 49-70. https://doi.org/10.1177/0973174113520584

[21] DOE (2008). Climate change, gender and vulnerable groups. Climate Change Adaptation Research, Department of Environment, Ministry of Environment and Forests. https://core.ac.uk/download/pdf/48024281.pdf

[22] ICCCAD (2022). https://www.gci.cam.ac.uk/news/new-blog-impacts-human-induced-climate-change-are-exacerbating-social-and-economic-inequalities

6. Participation, consultation and FPIC processes

This section describes the application of Free, Prior and Informed Consent within the CRALEP project, against the background of IFAD SECAP requirements and the Bangladesh national context. It concerns the application of FPIC with a special focus on ethnic minorities. Further details on the dimension of ethnic minorities in CRALEP can be found in the Ethnic Minorities Planning Framework.

The Free Prior Informed Consent (FPIC) plan follows the IFAD How-To-Do-Note on Seeking free, prior and informed consent in IFAD investment projects[23].

About Free, Prior and Informed Consent

FPIC is an important instrument for IFAD to ensure mutual respect and full and effective participation in decision-making on proposed investment and development programmes. FPIC is based on the following key elements (adapted from IFAD guidance):

- **Free** implies no coercion, intimidation or manipulation.
- **Prior** implies that consent has been sought sufficiently in advance of any decision point or commencement of activities; and respect is shown to time requirements of consultation/consensus processes with the ethnic minorities' communities.
- **Informed** implies that information provided covers (at least) the following aspects:
    - The nature, size, pace, duration, reversibility and scope of the proposed project/activity;
    - The rationale or purpose of the project/activity;
    - The geographical areas that will be affected;
    - A preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit-sharing;
    - Personnel likely to be involved in the execution of the proposed project/activity;
    - Procedures that the project or activity may entail.
- **Consent** is the expected outcome of the consultation, participation and collective decision-making process by the local communities. It is the mutual agreement reached, documented and recognized by all parties.

Consultation and **participation** are crucial components of a consent process and require time and an effective system for communicating among interest-holders. Consultation should be undertaken in good faith, and local communities must be able to participate through their own freely chosen representatives and customary or other institutions. It should be noted that consultation is the process that should lead to consent, but that consent does not require unanimity across a stakeholder group.

FPIC within the context of CRALEP

The borrowing government is responsible for seeking and obtaining FPIC. FPIC is solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle. The PMU will be responsible for seeking FPIC. FPIC should be sought sufficiently in advance of commencement or authorization of activities, taking into account ethnic minorities' own decision-making processes, in phases of assessment, planning, implementation, monitoring, evaluation and closure of a project.

In the case of CRALEP, seeking FPIC will be part and parcel of the participatory design process of the to-be established infrastructure. In this process, first the presence of ethnic minorities will be established. These communities would first consent to discuss the idea of the project that will affect their land, territories and resources. They would further participate in the consultation process leading to consent by contributing to the design of the project, including its implementation and monitoring mechanisms.

[23] See https://www.ifad.org/documents/38714170/40197975/htdn_fpic.pdf

Beyond ensuring inclusion in the project's participatory design process, written consent specifically from ethnic minority groups, will be required in case the project activity directly affects the access ethnic minority groups' access to natural resources or services. This may for instance include the construction of a boat landing site in area currently in use for economic activities by ethnic minorities.
In more detail, the process for seeking FPIC will be as follows:

1. **Assessment of local stakeholders during participatory design.**
   During the initial phase of the participatory design of a sub-project, a review will need to be made of the community stakeholders, landowners and users of the area, including ethnic minorities, who may be affected and who have the right to give or withhold consent. In discussion with the local community, this includes establishing the local customary laws, informal rules as well as claims on land ownership, occupation and use. It also includes the identification of decision-making institutions and representatives of ethnic minorities in the area.

Should there be affected ethnic minorities in the area, the following steps will apply:

2. **Consultations leading to FPIC**
   Consultations will be held with the target ethnic minorities, before the planning of project activities. The project staff will reach out to the identified institutions and representatives, and inform them of the project and the intended participatory design process. In doing so, the project staff will clearly communicate the general context of the project, including its financiers. They will share clear and transparent information on the benefits and risks of the project, as well as the results of the initial assessment on local stakeholders (step 1). They will confirm and if need be update the critical information on local stakeholders, ownership and (formal / informal) access rights, and make records of these consultations. They will also clearly communicate the project Grievance Redress Mechanism.

3. **Participation in further steps of participatory design**
   The ethnic communities, or their chosen representative, will participate in the further participatory design of a subproject.

4. **Formalizing consent agreement**
   Prior to the finalization of subproject design and commencement of construction activities, the consent of ethnic minorities should be formalised in written form. This document should detail the activities on which consent is provided, the expected results, participation of the ethnic minority group in monitoring progress, a reference to the GRM, and the terms for withdrawal of consent.

7. Appropriate benefits

Key process to ensure equitable benefit-sharing for ethnic minorities are the participatory design process for infrastructure investments, and the selection / targeting process of candidates for other project-supported activities such as vocational training, entrepreneurship training and the labour contracting societies.
The project targeting strategy combines geographical targeting with poverty targeting (poor and ultra-poor), as well as by targeting of groups including agricultural laborers, artisans and marginal and small farmers. The project design has found that at the local level, the definition of ethnic minority is not always clear. The project will therefore first validate the presence of ethnic minorities in a specific location, and ensure the project and its benefits are clearly communicated to those people. Participation of ethnic minorities in project activities will also be tracked (disaggregated in the overall M&E system for selected indicators). If participation is found to be low, corrective actions may be taken during the project lifetime to improve this.

8. Capacity support

As described above, the project's capacity building activities will pro-actively target ethnic minorities in a given location. In line with the overall project goal, capacity building activities of indigenous peoples will focus on the technical and economic capacities of individuals.

9. Grievance redress

See SECAP Attachment 5.

10. Monitoring, reporting and evaluation

The project will monitor the effectiveness of measures geared towards inclusion of ethnic minorities, through data collected on participatory processes, participation in project-funded activities, and impact evaluations. The data collected will be made available in aggregated form, allowing for meaningful discussions with representatives of ethnic minorities on the topic.

Through the regular IFAD support and supervision, a periodic review and revision of this document will take place, depending on the need identified.

11. Institutional Arrangements

The primary responsibility for executing the measures contained in this document are with the project lead agency, the LGED. Project partners such as educational institutions will also be required to implement and monitor part of the actions, which are equally included in the project's ESCMP. Given the low-risk rating of the project and the low likelihood of negative impact, no independent audits are foreseen.

12. Budget and financing

The main costs associated with implementation of the actions, are included in the personnel costs relating to participatory processes and monitoring and evaluation. There may be minor costs related to preparation of materials and additional logistics costs to ensure outreach to ethnic minorities, but these are included in the project's overall budget.

Further details on cost will become available during early project implementation and will be included in this document as it gets updated into an Ethnic Minorities Plan.

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Indigenous Peoples Plan or Indigenous Peoples Planning Framework

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

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This annex is not applicable

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Labour Assessment and Management Procedures

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Health Impact assessment

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Outline of Traffic Management Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Resettlement Action Plan (RAP) or Resettlement Action Framework (RAF)

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Vulnerability Impact Adaptation Assessment

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Targeted Adaptation Assessment

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
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SECAP Attachment 2: Targeted Adaptation Assessment

Introduction

This Targeted Adaptation Assessment (TAA) was prepared for the Climate Resilience and Livelihoods Enhancement Project (CRALEP). CRALEP was screened as substantial risk in the climate screening procedure and therefore, a Targeted Adaptation Assessment is required.

This assessment is meant to ensure the sustainability of the project and that the impacts of climate change are comprehensively considered, the hazards, exposure, sensitivity and adaptive capacity were reviewed in detail and adaptation options discussed within this context. In preparing the assessment, a review was made of existing climate risk analyses and climate data available. New climate data, forecasts and project-level will become available during the project lifetime. This document can therefore be seen as a living document and may be updated once newer information becomes available. Moreover, some of the adaptation responses discussed in this document may be tested and evaluated during the project lifetime, either by CRALEP or by other projects. Results on their effectiveness and cost-efficiency may be used to further focus interventions going forward.

Bangladesh Climate Baseline and predictions

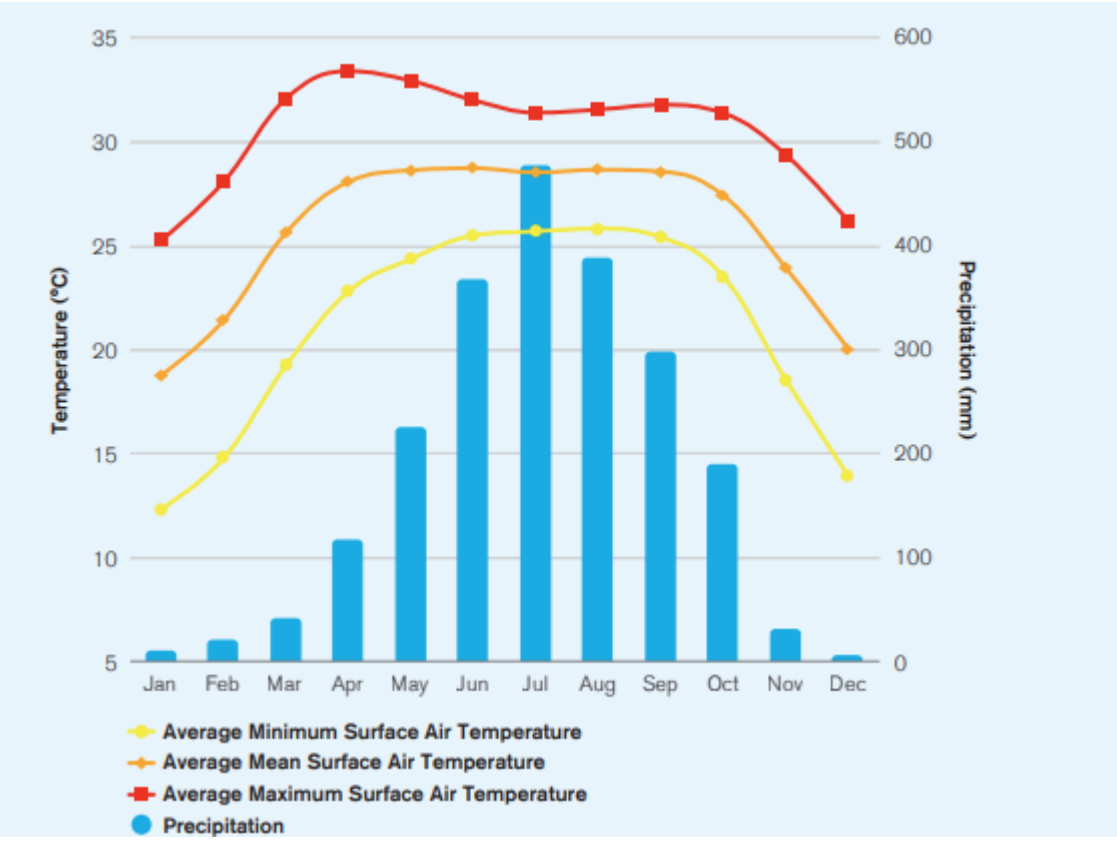

Figure: Bangladesh current observed climate, 1991-2020. Source: World Bank (2024)

Temperature. Bangladesh falls under monsoon influenced tropical climate area with an average annual rainfall of 2,700 mm, over 85% of which falls during June and October. Average day time temperature varies between 23 to 27°C, while the average nighttime temperature ranges between 18 and 22°C. While winters are generally dry and mild, summer months are wet and moist, the relative humidity is generally over 85% during monsoon season. During late April and mid-November, the sea surface temperature often rises above a threshold of about 27°C, which creates an ideal climatic condition to form tropical low and depressions. Sometimes, such tropical weather fronts give rise to the formation of cyclones and super cyclones.

Precipitation. Current mean annual precipitation is high, at average 2,174 mm over the current climatology (1991–2020) at the national level. The western floodplains receive between 1,500 mm and 2,200 mm annually, while the eastern floodplains and hills received between 2,100 mm to 3,200 mm annually. Bangladesh has four seasons: a hot pre-monsoon season (March - May), hot and humid monsoon season (June to October), warm and drier post-monsoon season (October to November), and the cool winter dry season (December to February).

Natural hazards. Bangladesh as a whole is highly prone to natural hazards including cyclones, storm surges, floods, landslides, earthquakes, tsunamis, sea-level rise and increasing saltwater intrusion. On an average, one major cyclone hits Bangladesh in every three years. It is believed that the shallow continental shelf, the high tidal range and the inverted funnel shape of the Bay play significant roles to 'guide' tropical cyclones towards the low-lying delta. Most of the casualties/fatalities and destruction associated with cyclones happen as a result of the accompanying water surge and high storm waves that sweep away and drown people. The degree of destruction and the number of casualties/fatalities depend on the time when a cyclone occurs, and on the topography and geomorphological conditions of where it strikes. Although cyclone-related human deaths have been reduced significantly due to improved warnings and pre-hazard preparedness programmes, cyclones in the past have killed many coastal Bangladeshis. Furthermore, lightning strikes cause over 200 lives every year, the majority of whom are farmers, and the frequency of lightning strikes is reported to have increased due to increased temperatures, linked to climate change.

Climate change trends and predictions.

Temperature. Temperatures have increased by about 0.16°C per decade between 1971 and 2020. The eastern divisions have seen the highest increase, especially Sylhet (project area - Haor) where average mean temperature increased by 0.26°C and minimum temperatures even by 0.29°C, adding up to a total increase of 1.45°C over 50 years. Across the country, the annual number of hot days (>35°C) increased by 14.04 days per decade.

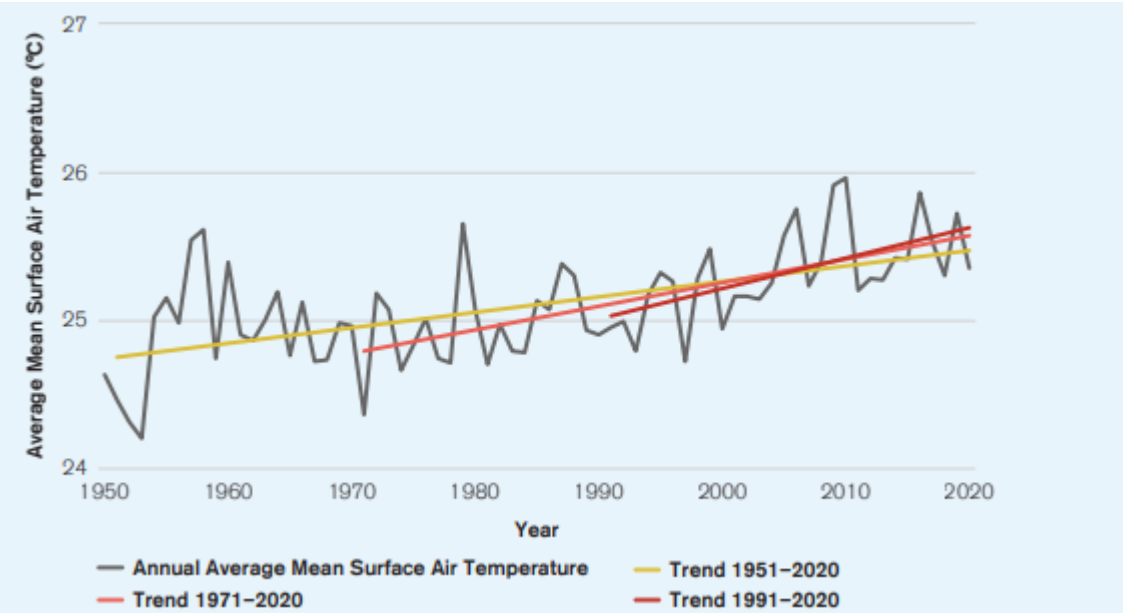

Figure: Changes in average annual mean temperature. Source: World Bank (2024)

Climate projections see the number of hot days >35°C increase even further, up to 133 days per year in the 2040-2059 period under the SSP3-7.0 (higher emissions) scenario[1]. Nationwide, mean temperature would increase up to 26.59 °C in this period compared to the current (1991-2020) temperature of 25.71°C – an increase of 0.88°C. Heat risk will be significant for the people living in Bangladesh, for example due to the significant increase in tropical nights (>26°C at night), from 21-32 tropical nights per year currently to 47-64 in the 2040-2059 period.

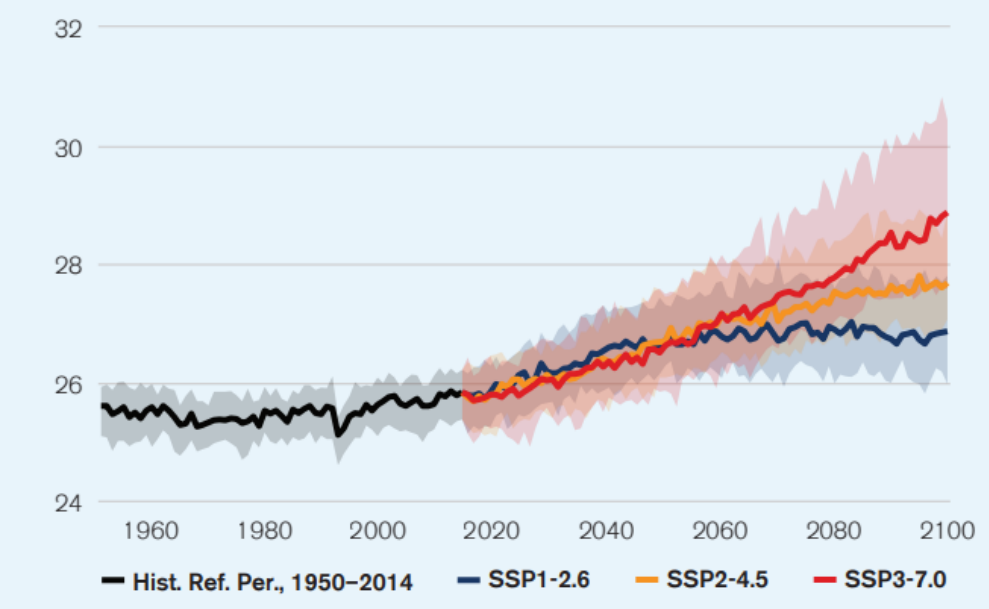

Figure: Projected Average Mean Temperature (°C) under different scenarios. Shaded areas indicate 10th-90th percentiles. Source: World Bank (2024)

Precipitation. Over the 50-year period of 1971-2020, changes in precipitation differed between the eastern and western divisions. The eastern divisions have seen a general decline in precipitation, especially during the pre-monsoon period (spring). The western divisions, including the Barind area, have seen an increase in rainfall especially during monsoon and post-monsoon periods (fall).

[1] The World Bank currently uses this scenario in its studies, considering this a "realistic worst-case scenario" that is the most prudent choice for risk assessments.

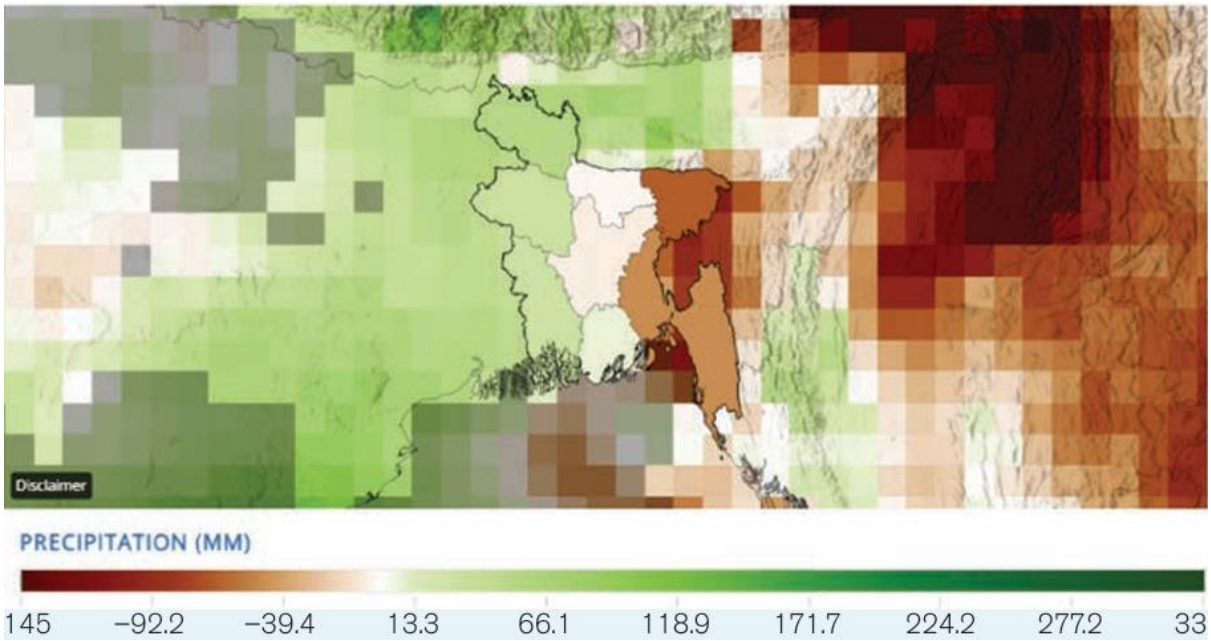

Figure: Changes in annual precipitation over the period 1971-2020. Source: World Bank (2024)

The micro-structure of monsoon has also been exhibiting important changes. For example, in some areas the rainfall is exhibiting a bi-modal distribution over monsoon, the first peak coming a lot earlier than expected (shifted from middle of July to early June). There are increasing numbers of extreme rainfall episodes during the monsoon with prolonged rainless days in between.

Overall, mean annual rainfall is expected to rise by 114mm between 2040 and 2059 under the SSP3-7.0 scenario. However, it should be noted that trends in future precipitation in Bangladesh are highly uncertain. Northern divisions, including the project Haor areas, are expected to experience the greatest increases in annual precipitation.

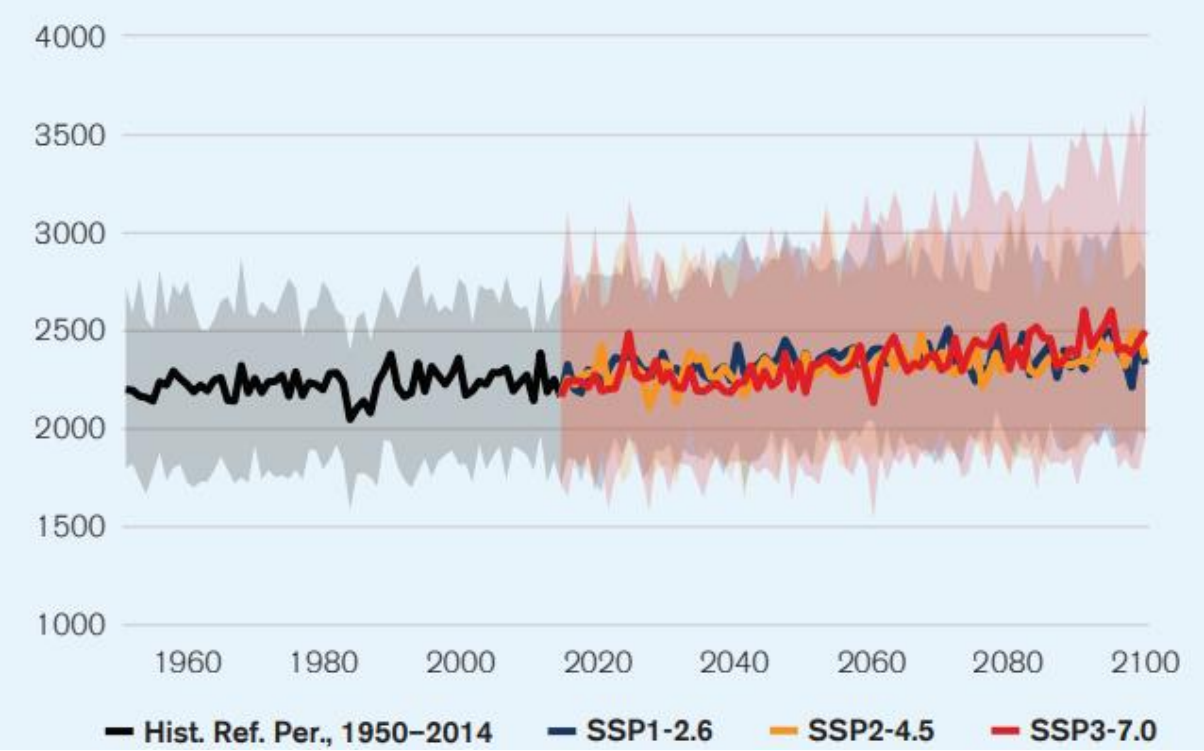

Figure: Projected annual precipitation (mm) under different scenarios. Shaded areas indicate 10th-90th percentiles. Source: World Bank (2024)

Extreme precipitation events are expected to increase by the period 2035-2064. Events that currently have a return period of 100 years, will happen once every 50 years, doubling the likelihood of such an event to occur in a given year.

The yearly average windspeed in Bangladesh has also increased.

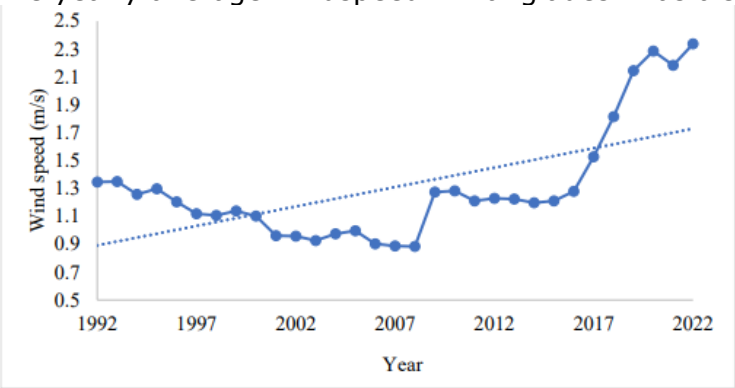

Figure: Changes in average annual windspeed. Source: Bangladesh Meteorology Department (2023)

Exposure and sensitivity

The Mujib Climate Prosperity Plan 2022-2041 provides an overall picture of the exposure and sensitivity of Bangladesh to climate change. Among the effects by 2050, are that 22-30% of the country will be subject regular floods and 67% to major floods. Through sea level rise and coastal erosion, 4% of highly fertile land will be lost, and 30% of food production. Moreover, 150,000 additional deaths annually are expected by 2030, due to climate change impacts.

The World Bank (2024) assessment estimates that one-third of agricultural GDP may be lost by 2050, including through floods and droughts in the Haor and Barind areas. There are significant impacts in the coastal zone due to sea level rise, but the project is not active in these regions and therefore not directly affected. However, the pressure on the non-coastal areas in terms of population and economic activities, is likely to accelerate as coastal areas become more risky.

Flood and drought risks will be exacerbated by the impact of climate change. Generally, as a result of changing precipitation patterns and changing melting patterns of glaciers in the Himalaya, the magnitude of a 1-in-100 year flow is expected to increase by 24-39% for the largest rivers in Bangladesh. There are various assessments on the impact on people and economic activity, however, analysis of such impacts is complex as there is a strong interconnection between climate-change induced changes (rainfall, glacier melting) and human activities including river flow alteration, abstraction of water and erosion of upstream lands.

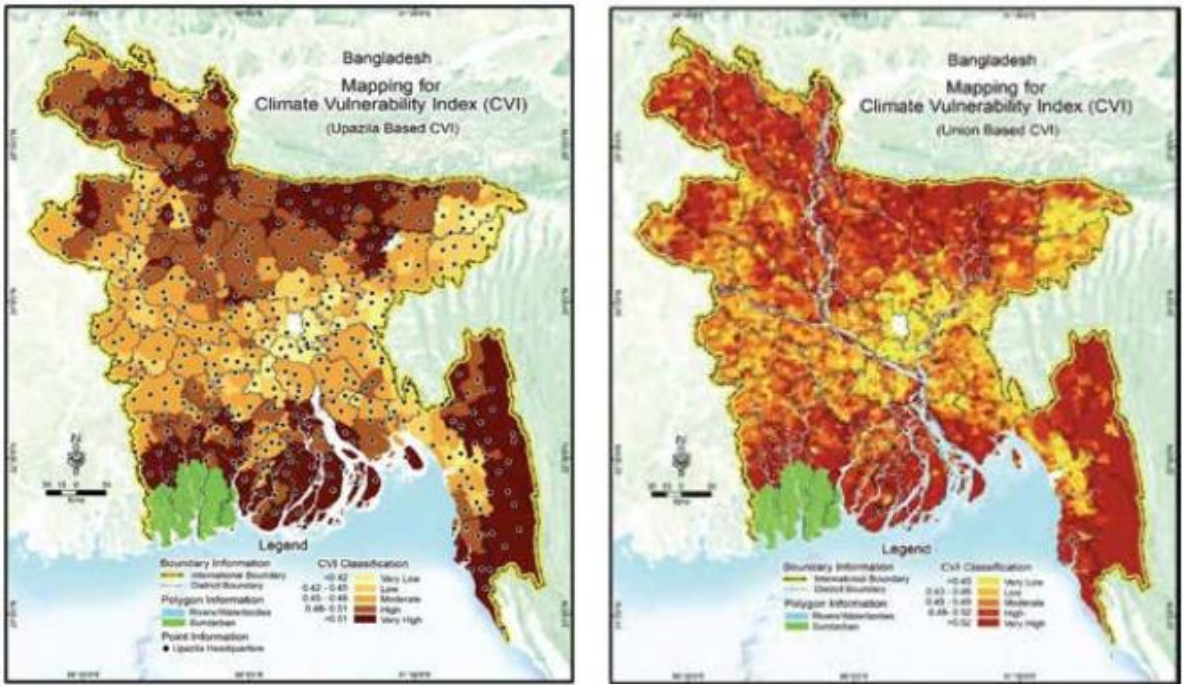

Figure: Climate Vulnerability Assessment by Upazila (left) and by Union Parishad (right). Source: LGD (2023)

In 2023, the Local Government Division supported by development partners, carried out a GIS-based climate vulnerability assessment. The Climate Vulnerability Index used in this study is based on the combination of exposure (E), sensitivity (S), and adaptive capacity (AC). It was calculated using the following formula and data sources:

Climate Vulnerability Index	**Factors**	**Data points**
$CVI = \frac{(E+S)+(1-AC)}{3}$	E - Exposure	Climate data, land-sea hazard data including riverbank erosion
	S – Sensitivity	Demographic characteristics, household pattern, livelihood and employment, WASH, access to health
	AC – Adaptive Capacity	Level of education, basic facilities, food security, employment

The exposure of people in the targeted CRALEP areas, to the effects of climate change, is unequivocally high, as confirmed by the above-mentioned study. The project areas are deliberately targeted for their climate vulnerability, which is mainly driven by the high exposure and associated climate impacts prior to adaptation options being implemented, as well as the general dependency of communities on the natural resource base for their livelihood.

Haor area

A multi-hazard risk assessment, carried out under the HILIP project (Rahaman et al., 2021) clearly shows the primary hazards and the variability different parts of the Haor region, in terms of the geographic specificities as well as differences in severity. The study shows that especially the northern areas suffer from severe hazards related to excessive rain, early flashfloods, temperature increase, thunderstorms and hailstorms. While the southern parts are relatively less risky in this assessment, it should be noted that the risks are still highly significant also in these areas.

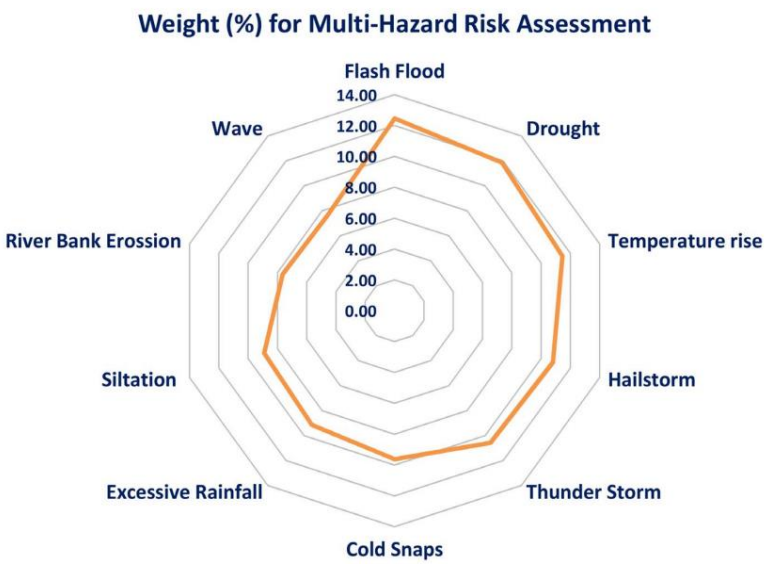

Figure: Community perceptions on multi-hazards. Source: Rahaman et al (2021)

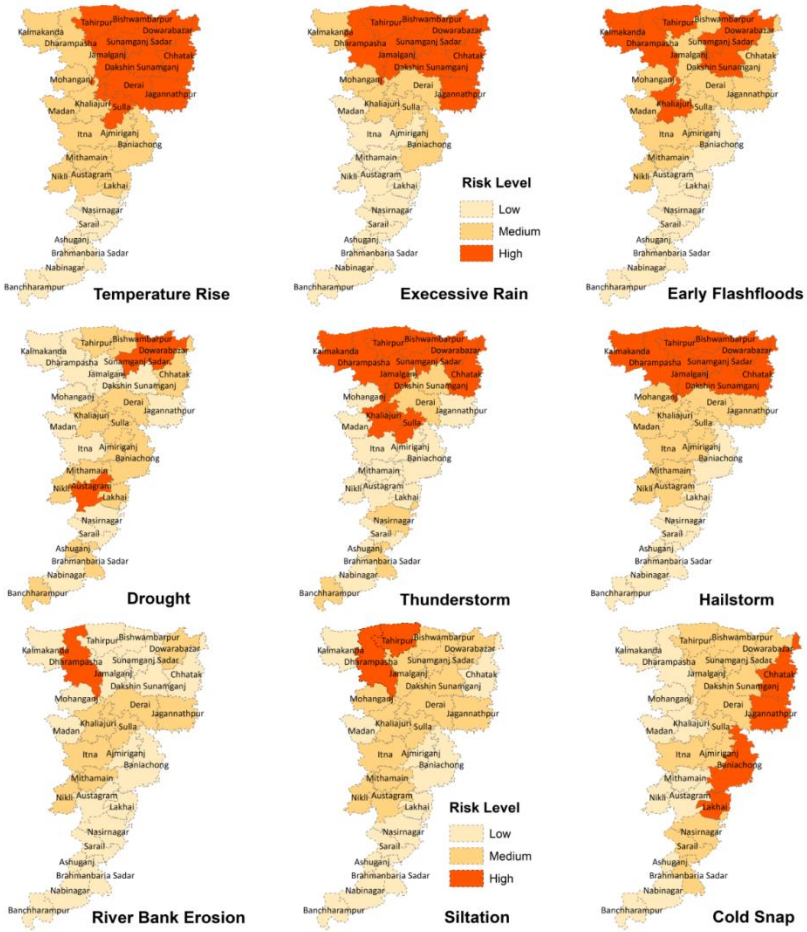

Figure: Climate change risk map for different hazards. Source: Rahaman et al (2021)

Specific climate change impacts in the Haor area include an expected increase in peak discharge in the major rivers, further increasing the severity of flooding events. While farming in these areas has always been subject to natural variability and thereby unpredictable, the increasing severity of flooding events further increase the risk to people and the assets they have.

Primary impacts include the washing away of seeds or plants. Secondary effects of such flooding events include the decomposition of immature rice plants, reduction of oxygen levels in water, and subsequent death of fish. Higher temperatures and inadequate rainfall also negatively affect breeding success and survival rates of fish. The agricultural value chain, and the provision of basic services to the population, is also affected by these flooding events. Not only do flooding events prohibit the movement of people and goods, they can also destroy facilities and stocks of agricultural goods.

Barind Tract

Specific climate change impacts in the Barind Tract relate to the rapidly declining groundwater level, due to lower rainfall and insufficient recharge, though studies also point to a potential positive impact if the projected increase in rainfall in the area going forward, can be used to recharge the groundwater. Timing of the rains, drought periods and floods are however also important in terms of rice cultivation, both in terms of the timely planting as well as the yields.

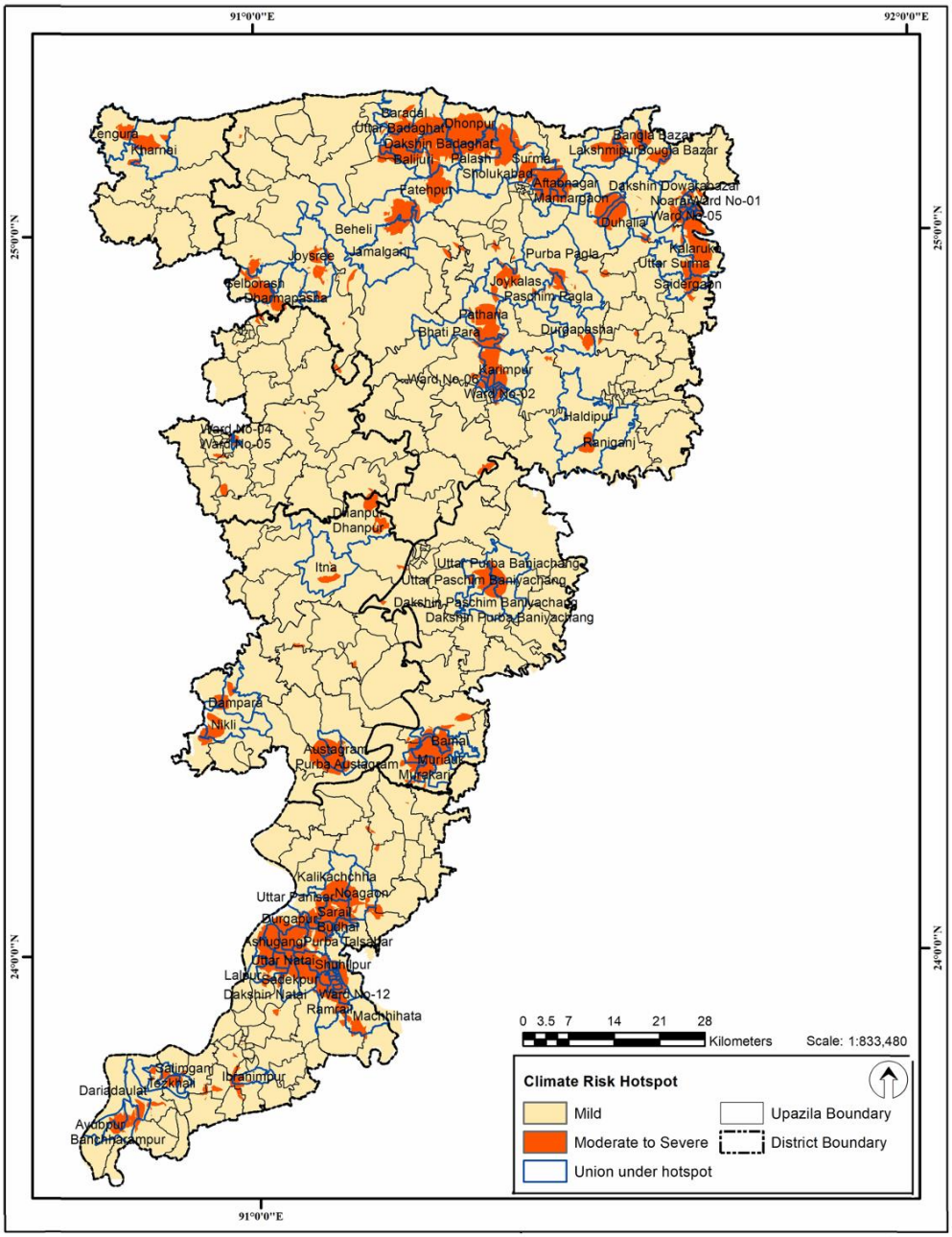

Figure: Climate change risk hotspots as identified by Rahaman et al. (2023), prepared under the HILIP project

Adaptive capacity

The adaptive capacity of the people in the project areas can be assessed from various angles. From a formal perspective, the adaptive capacity is limited, as the areas are characterized by lower levels of education, lower asset ownership, fewer employment opportunities and lower access to primary services. Such data points are also reflected in the geospatial vulnerability assessment carried out by the Local Government Division (see above).

At the same time, it should be recognized that there is significant local knowledge in coping with weather extremes and variability in the onset of floods and droughts. Such knowledge and the associated practices can reduce the vulnerability of communities.

One recent study, in the Dingapota haor of Mohanganj upazila (Netrokona district) provides interesting in-depth visibility on farmers' current knowledge of adaptation strategies and their own assessment of the effectiveness of adaptation strategies. Farmers rate themselves as most knowledgeable about crop diversification and floating agriculture, while the majority of farmers also indicate they have at least basic knowledge of the causes and consequences of climate change. They are least proficient in crop insurance and Geographic Information Systems, but a large group also indicates they have limited knowledge on environmental degradation and sustainable farming practices.

Contents of knowledge	Limited knowledge	Basic knowledge	Moderate knowledge	Advanced knowledge	Expert knowledge	Score	Rank order
Crop diversification	67	82	51	65	35	819	1
Floating agriculture	67	98	74	38	23	752	2
Consequences of climate change	92	66	110	17	15	697	3
Reasons behind climate change	89	85	106	15	5	662	4
Sustainable farming practices	110	75	82	21	12	650	5
Environment degradation and protection	120	77	72	21	14	644	6
Climate-smart agriculture	87	113	80	12	8	641	7
Crop insurance	123	85	63	18	11	609	8
Geographic Information System (GIS)	150	60	85	5	0	545	9

Figure: Farmers' self-assessment of knowledge on topics related to agriculture and climate change. Source: Kabir et al. (2024)

When reviewing the effectiveness of their own adaptation strategies, farmers are mostly positive about changes in their cropping system (dates of planting and harvesting, cropping pattern and crop rotation, crop rotation, using modern crop varities). A significant number of farmers rate the adoption of crop insurance and duck farming as highly effective, although there is also a significant number of farmers who rate these strategies as non-effective. Interestingly, transition from crops to livestock and the starting of homestead farming, receive very mixed reviews.

Adaptation strategies	Effectiveness to your own farm				ASI	Rank
	High	Medium	Low	Not at all		
Changing planting and harvesting dates	120	132	39	9	663	1
Changing cropping pattern and crop rotation	125	90	53	32	608	2
Practicing crop diversification	82	132	71	15	581	3
Using modern crop varieties	93	111	75	21	576	4
Crop insurance	109	83	69	39	562	5
Duck farming	110	76	59	55	541	6
Short time migration to urban area	79	110	65	46	522	7
Shifting from crop to livestock	87	82	76	55	501	8
Taking agricultural credits	80	64	122	34	490	9
Homestead gardening	65	95	73	67	458	10

Figure: Farmers' own ratings of the effectiveness of different climate change adaptation strategies. Source: Kabir et al. (2024)

When analyzing the responses of individual farmers against personal data such as educational level, experience as farmer and access to support such as NGOs, it shows that farmers' adaptation choices are most influenced by education level, farm size and years in agriculture. Access to information also stands out as highly correlated to adaptation choices. While these results focus on a single haor, and climate change impacts are highly locally specific, this study provides a good basis for further research.

Another study, the Nationwide Climate Vulnerability Assessment (draft), determined a broader set of impacts and adaptation options, including adaptation options that are not within the scope of individual farmers but rather tasks for communities and/or the government. Some of these adaptation options are more aligned with CRALEP's strategic objective and organisational set-up.

Potential impacts	Adaptation options
6. Pre-monsoon flash floods 7. Erratic/abnormal weather (rainfall, temperature) 8. Drinking water scarcity 9. Groundwater level depletion 10. Declining river flows during the dry season 11. Soil moisture decrease/ irrigation demand increase during dry season 12. Drought 13. Water quality (both surface & ground water) degradation 14. Ecosystem degradation 15. Water logging increase 16. Riverbank erosion 17. Siltation in river/ haor bed	1. Regular dredging of rivers, haors, and khals 2. Implementation of the master plan of haor basin 3. Protection of beel area (perennial haor) by dredging for fishery 4. Strengthen the Department of Bangladesh Haor and Wetlands Development 5. Enhance alternative livelihoods in non-agricultural sector 6. Increase surface water use during dry season 7. Deep tubewell installation for meeting irrigation demands during dry season 8. Expedite rain water harvesting 9. Raise platform of tubewells 10. Purification of drinking water during floods

Figure: Local stakeholders' ranking of climate impacts and adaptation options in haor and wetland areas in Northeast Bangladesh. Source: MEFCC and GIZ (2018).

Adaptation assessment

The analysis shows that there has already been a broad range of studies and projects reviewing the impacts of climate change in Bangladesh, with some highly valuable studies providing insights into local adaptation strategies and their (perceived) effectiveness.

Within the context of CRALEP, there are two interconnected pathways for adaptation which the project would support:

1. Developing climate resilient infrastructure, reducing the direct vulnerability of an area to climate change impacts such as floods and droughts; ultimately enabling local stakeholders to uphold, enhance and diversify their livelihoods in the area.
2. Providing technical training to individuals which will eventually help them in pursuing professional opportunities that are less sensitive to climate change (both within agriculture as well as transitioning out of agriculture), and/or that will help communities in adapting to climate change impacts.

Within these pathways, the following adaptation strategies are particularly relevant, which the project seeks to promote:

Adaptation strategy	Specific climate aspects
Climate-resilient infrastructure: changes in design specifications	Incorporate expected changes in the occurrence and intensity of flooding into engineering design
Climate-resilient infrastructure: nature-based solutions	Use of natural vegetation can help to reduce impact from wave action, which is increasing due to climate change
Climate-resilient planning of roads and walkways	Planning and siting of roads and walkways to consider the changing climate, e.g. seeking higher grounds or different routes
Climate-resilient livelihoods: diversification of income	Vocational and entrepreneurial education towards professions that are less exposed to climate change; outside agriculture & fisheries or within those sectors
Climate-resilient livelihoods: access to WASH and other primary services	Improved access to services will reduce the negative impact of a climate change-driven event, such as a flood
Climate-resilient livelihoods: early warning	Early warning systems will allow communities to prepare for climate change-driven events and reduce the negative impact

As observed in the above section, there is a broad range of other adaptation strategies which people resort to, such as agricultural diversification, adaptation of cropping calendars and more. While the project will not be directly supporting such adaptation strategies, the project will be indirectly enabling individuals to implement such adaptation strategies and/or providing additional options, e.g. due to better connectivity, better training and improved access to basic services.

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IFAD
Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Stakeholder Engagement Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

SECAP Attachment 3: Stakeholder Engagement Plan

1. Introduction

The objective of this Stakeholder Engagement Plan (SEP) is to enhance the effective participation of key project stakeholders, including both men and women and those identified as disadvantaged or vulnerable stakeholders. The SEP is a live process to ensure that IFAD, the Project Lead Agency LGED, and its implementing partners provide timely, relevant, understandable and accessible information and consult with all relevant stakeholders in a culturally sensitive manner throughout the life of the project. It identifies the main stakeholder groups; evaluates topics of engagements concerning their interests, needs, priorities and ideas; and proposes appropriate engagement techniques and instances to ensure consistent implementation of the plan, monitor the effectiveness of stakeholder engagement and lays documentation and reporting requirements. Since the project's specific sites and activities are not known at the moment of approval, as project information becomes known, the information on the SEP will be systematically reviewed and updated.

This document is informed by IFAD's SECAP, and IFAD's Framework for Operational Feedback from Stakeholders[1].

2. Definition of stakeholders

Project stakeholders are defined as individuals, groups or other entities who are impacted or likely to be impacted directly or indirectly, positively or adversely, by the project. They include individuals or groups whose interests in the project, may affect and who have the potential to influence the project, outcomes in any way.

Cooperation and negotiation with the stakeholders throughout the project, development often also require the identification of persons within the groups who act as legitimate representatives of their respective stakeholder group, i.e. the individuals who have been entrusted by their fellow group members with advocating the groups' interests in the process of engagement with the Project.

3. Main project stakeholders

The main project stakeholders for CRALEP can be categorized as follows:

Stakeholder group	**Includes**
Direct project implementers	LGED staff at various administrative level, project contractors
Targeted project participants	Rural households, farmers, workers, students, vulnerable groups
Other project partners	Other line ministries including Ministry of Water Resources,
Non-targeted people in project areas	People living in project areas but not participating in project activities and/or not directly benefitting from project activities

4. Stakeholder Engagement Plan – project implementers and other partners

The following table outlines the engagement with main project implementers and other partners:

Stakeholder	**Topic of engagement**	**Responsible party**	**Form and frequency of engagement**
Local government (Upazila and Union Parishad)	General project implementation, clearances, participatory processes	PMU	Continuous

[1] See https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf

NGOs / PKSF Partner Organization	Implementation of specific project activities (vocational training)	PMU	Meetings, contract, regular M&E reports
Bangladesh Water Development Board	Implementation of specific project activities	PMU	Meetings, contract, regular M&E reports
Bangladesh Meteorological Department	Implementation of specific project activities	PMU	Meetings, contract, regular M&E reports
Market Management Committees	Planning of project interventions, implementation, monitoring	PMU	Meetings and written reports
Ministry of Land	Land planning process, clearances	PMU	Meetings and written communication linked to subprojects
Ministry of Finance	Overall project progress, disbursement rates, compliance with loan agreement	PMU	Regular basis through PSC meetings, written reports

5. Stakeholder Engagement Plan - Targeted project participants

The engagement of target project participants will be conducted through the established procedures for participatory design of project activities, and consistent with SECAP requirements, as well as through the measures described in the targeting strategy.

6. Stakeholder Engagement Plan – Other stakeholders

The engagement of other stakeholders, including the general public, will be implemented primarily through the project's overall communication function. This includes the development of a project website that, at a minimum, describes the project's objective, key activities and geographies, as well as the ways for people to engage with the project. Furthermore, the project website should make reference to the grievance mechanisms as described in SECAP Attachment 5. The project website should be kept up to date with project progress reports, and any outdated information should be updated or removed.

The project may choose other mediums to communicate to the general public, including social media, traditional tv or radio, or newspapers.

7. Monitoring and evaluation of stakeholder engagement activities

The stakeholder engagement process will be monitored through the regular reporting and supervision cycle with IFAD, to enable the project to take corrective measures if required.

Progress reports should include a section on stakeholder engagement, as a basis to discuss the effectiveness and efficiency of the partnerships established under the project. Key information regarding engagements processes conducted, stakeholders feedback and how this information was integrated/considered in the project will be included in the progress reports.

8. Performance criteria to be used in stakeholder engagement monitoring

The following success criteria and performance indicators should be used when reviewing the effectiveness of stakeholder engagement:

Objective	Success Criteria / Performance Indicators
Provision of information in a timely, accurate and culturally appropriate	• Use of appropriate means to inform stakeholders about the meetings • Advance notice (time) given to stakeholders • Advance agenda given to stakeholders

manner	• Adequate number of meetings, consultations over specified period • Information provided is understood by participants
Stakeholder comments, concerns and feedback are received and incorporated into project activities as appropriate	• Number of grievances received over a specified period • Percentage of grievances handled and closed within provided timeframe • Percentage of people raising grievance who report satisfaction from resolution provided • Nature of participation in stakeholder consultation meetings (gender, age, ethnic groups, other vulnerable groups) • Free Prior and Informed Consents received including minutes of meetings over a specified period.
Informed participation by vulnerable groups	• Proof of explicit outreach to vulnerable groups • Attendance rate disaggregated by vulnerable groups • Utilization of grievance redress mechanism by vulnerable groups
Stakeholder engagement is transparent, inclusive and appropriate	• Program information disclosed to all stakeholders as requested and according to disclosure mechanism. • Representation and percent of resources and loans allocated to vulnerable groups in project activities including women and youth.

9. Participation and provision of feedback from the target group of the project

The project's feedback mechanism from the target group will comprise a mix of informal feedback and formal feedback mechanisms. They include:

- One-to-one interaction, or feedback obtained via trusted intermediaries;
- Dedicated moments for feedback during project meetings (i.e. opening the floor at the end of a meeting and actively facilitating feedback from attendees, within a safe space);
- Surveys and anonymous feedback options,
- Interviews with the target group during project supervision missions, focus groups and community consultations;
- Feedback provided via social media;
- Topics raised via the Grievance Redress Mechanism (See SECAP Attachment 5).

SECAP Attachment 5: Grievance Redress Mechanism

This section describes the Grievance Redress Mechanism (GRM) for CRALEP, based on IFAD requirements and the existing context in Bangladesh relating to grievance redress. The main objectives of the GRM are to provide a robust system of procedures and processes, to ensure transparent and rapid resolution of concerns and complaints identified at the local level in a manner that satisfies all parties involved; and thereby to enhance the social, environmental and climate outcomes of IFAD's projects/programmes or subprojects. The GRM should be known to and accessible to all project affected people. The design of the GRM should be made such that it ensures that marginalized or vulnerable groups (Ethnic Minorities, women, youth, Persons with Disability, older persons) have access to it. The GRM should be reviewed for its effectiveness during project implementation and updated if needed.

IFAD frameworks

IFAD's requirements with regards to Grievance Redress are captured in the Framework for Operational Feedback from Stakeholders[1], the Enhanced Complaints Procedure for alleged Non-Compliance with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)[2] and the SECAP 2021 documents[3] itself.

IFAD requires all borrowers/recipients/partners/vendors/contractors to establish an easily accessible project-level grievance redress mechanism to receive and resolve concerns and complaints of people who believe they have been, or are likely to be, harmed by IFAD-financed projects/programmes. If the lead agency (LGED, in CRALEP's case) is not responsive to stakeholders' concerns, or if they fear retaliation, stakeholders may also raise their concerns directly to IFAD.

IFAD also has a policy to preventing and responding to sexual harassment, sexual exploitation and abuse[4]. The policy applies to IFAD staff, and also applies to borrowers and recipients of IFAD funding, as well as third parties contracted using IFAD's funding such as consultants, contractors and vendors. To support implementing partners, the IFAD Ethics Office has publishe a Guide for Borrowers and Recipients of IFAD funding for preventing and responding to sexual harassment, sexual exploitation, and abuse[5].

IFAD's anticorruption policy establishes zero-tolerance towards prohibited practices, such as fraud and corruption, in IFAD-funded or managed operations and activities. IFAD's legal framework requires IFAD staff, consultants and project parties to promptly notify IFAD of any allegations of fraud and/or corruption in relation to project activities. IFAD's Office of Audit and Oversight (AUO) is to be contacted for reporting at Tel: +39 06 54592888 or by email: anticorruption@ifad.org. These are secure and confidential channels managed by the Investigation Section of IFAD.

Project grievance redress mechanism

CRALEP will feature three-tier GRM based on existing LGED mechanisms at upazila, district and national level. The use of these mechanisms helps in streamlining efforts of LGED across various donor-supported projects and builds structural internal capacity for GRM. Complainants may also use IFAD's complaint procedure at https://www.ifad.org/en/accountability-and-complaints-procedures. Complaints related to sexual harassment, exploitation and abuse can be directed at the IFAD Ethics Office via https://www.ifad.org/en/ethics .

Types of grievance

The following types of grievance may be distinguished:

[1] See https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf
[2] See https://webapps.ifad.org/members/eb/136/docs/EB-2022-136-R-27.pdf
[3] See https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures
[4] See https://www.ifad.org/documents/38711624/42415556/SEA_e_web.pdf
[5] See https://www.ifad.org/documents/38711624/42415576/sea_guidelines_e.pdf

Type 1: Queries, comments, and suggestions – This type is non-contentious and merely requests for information/updates, seeks clarification or a response and suggestions to enhance the project design, improve operations and facilitate administrative/logistical support to the project.

Type 2: Compliance with project policies, processes and implementation – This type of grievance results from the non-observance of project policies or non-performance of obligation of any of the parties involved in project activities, processes and documents.

Type 3: Serious grievances or complaints – These may include grievances or offenses pertaining to misuse of funds, allegations of corruption, falsification of public documents, sexual harassment and sexual abuse, etc.

During implementation, a GRM document that clarifies procedures involved for each type of grievance (Type 1, Type 2, Type 3) and associated time-limit should be developed. This should cover all steps from acceptance of complaint and notification to complainant to communication of resolution decision. The document can also be adapted, by project partners, vendors, contractors and other finance recipients, to their specific project activities (e.g., market upgrades, labour contracts, etc.).

Grievance redress committees and governance

A senior member of the PMU/LGED will be assigned as focal point to oversee the implementation of the GRM. This person will:

1. Ensure information about GRM is disseminated to project villages – particularly MMCs (Market Management Committees), LCSs (Labour Contracting Societies) and subproject stakeholders by Project staff (including LGED staff at district and upazila levels; PISC staff; and Project NGO staff, in particular facilitators). During the process of dissemination (about GRM), the roles and responsibilities of GRM-related project staff, steps and timeframes involved, how decision is made, who the decision makers are, mediation options, etc. should be clearly communicated
2. Collect and collate grievance records from district GRC (Grievance Redress Committee, see below) member-secretaries
3. Display grievance numbers and resolutions in the PMU office and the Project's District offices on a public notice board. Make this information available for disclosure on the LGED website
4. Create GRM summaries for inclusion in the reporting to IFAD
5. Communicate and flag Type 2 grievances, when needed, to the SECAP expert in the PMU and the Project Director for discussion and remedial action
6. Communicate and flag Type 3 grievances, when needed, to the SECAP expert in the PMU and the Project Director for communication to IFAD within agreed-to (specified) timeframes
7. Coordinating Project funding of measures, including compensation measures, devised, and implemented by GRCs
8. Assess and document periodically district GRC functioning and overall GRM effectiveness in preventing and addressing grievances.

The project will utilize the LGED grievance redress committees, which have the following composition:

Administrative level	Composition of the grievance redress committee
Upazila	Upazila engineer, Union Parishad Chairman/Representative, Water Management Cooperative Association Chair, two representatives of the affected people – at least one of whom should be a woman and/or Ethnic Minority, representative of an NGO, a representative for Labour Contracting Societies, a representative for Market Management Committees
District	Executive engineer, Union Parishad Chairman/Representative, Water Management Cooperative Association Chair, two

	representatives of the affected people – at least one of whom should be a woman and/or Ethnic Minority, representative of an NGO, a representative for Labour Contracting Societies, a representative for Market Management Committees

Channels for Grievance Redress and Acknowledgment

Grievances can be submitted in writing or verbally. Grievances can be submitted directly by the affected, or by a person nominated / delegated by the complainant if they are sick, the elderly, or persons with disability (including vision or hearing impairment). The following channels for submission of grievances shall be established prior to project implementation:

- ***Grievance drop box*** at LGED offices.
- ***Hotline number*** at project level.
- ***Official project grievance email*** at project level (this email address should be monitored by SECAP consultant hired by PMU and responses provided within 5 business days)**.**
- ***Official physical address for grievance with contact person***, where complainants may send complaints through letters.

Anonymous complaints are accepted. Confidentiality should be maintained for all grievances received.
All grievances must be acknowledged by the GRC member-secretary, in writing but also verbally (to ensure access for the unlettered), within 5 (five) days of complaint receipt, and initiate the complaint resolution process.

Processing of grievances

The following steps shall be implemented in handling grievances:

- **Filing and recording**. Each upazila and district GRC member-secretary will keep records (logbooks) of GRC activities and of grievances submitted to it. Each grievance record should include the complainant contact information, date of submission, nature of grievance (confidentiality should be maintained by restricting access to the logbook to those only staff or consultants involved in GRM-related processes. Particular care to maintain confidentiality must be maintained in case the complaint relates to a project staff or consultant).
- **Assessing validity.** The GRC member-secretary will analyse the grievance, rapidly gather additional facts if needed, screen for validity and forward to the GRC if found to be valid within the rules of the GRM.
- **Fact-finding.** The GRC will organize meetings and interviews with relevant parties to analyze the case. For non-controversial topics (Type 1), the case may be referred directly to concerned project personnel. For other topics, up to 21 days may be taken to organize interviews or an open hearing, and address the complaint.
- **Resolution.** The GRC will propose a resolution to the aggrieved party. If they agree, a resolution form will be signed between the GRC and the aggrieved party that details the steps to be taken.
- **Monitoring / follow-up.** The GRC member-secretary will follow up with the aggrieved party to establish whether they are satisfied with the resolution and the implementation of any steps that have been agreed upon.
- **Appeal.** Any aggrieved party may reject the resolution proposed by a GRC and appeal the case to a higher level. If LGED does not resolve a grievance in a manner that is satisfactory to the affected person, a multistakeholder committee will be established (ad-hoc) to resolve the dismissed grievance – as an alternative for affected person going to court. If the grievance could not be resolved

satisfactorily by the multistakeholder committee, the affected person may resort to the Court of Law.

Any individual may submit a grievance to an upazila GRC. Records of upazila GRCs activities are kept by their respective LGED Upazila Engineer member secretaries. Records of district GRCs activities are kept by their respective LGED District Engineer member secretaries.

Timeframe. Time-limit for grievance resolution is specified for each step in the redress process.

Costs. Complainants bear no costs associated with the entire complaint resolution process. Costs incurred as a result of grievance resolution will be borne by the project. However, if the complaints bring their case to the court of law as they wish, they will bear the costs associated with their lawsuit.

Special considerations. For hearings of grievances involving ethnic minorities or vulnerable group person(s), the upazila GRC must include member-representative(s) of the concerned group(s). All complaints will be discussed and resolutions must be carried out in the specific communities where affected ethnic minorities live. The project should ensure that the rights of the ethnic minorities are protected

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Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

GHG Assessment

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

This annex is not applicable

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Solid/Liquid Waste Management Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 6: First (Annual) Work Plan and Budgets

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Bangladesh
Climate Resilience and Livelihoods Enhancement Project (CRALEP)
Annual Work Plan and the Budget: 2025

AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)	Budget planned for 2025 (USD 1000)	Budget planned for 2025 (USD 1000): IFAD	Budget planned for 2025 (USD 1000): GOB	Budget planned for 2025 (USD 1000): Gate Foundation	Component / Sub-Component	Expenditure Account	Disb. Acct.	Fin. Rule
Component 1: Climate proofed village road connectivity and market improvement															
I. Investment Costs															
A. Village road connectivity in Haor region															
1. Submergible village road - Vehicles and machineries															
4WDs pickup (@1 per Region - Sunamganj and Kishoreganj)	Number	2	139	2	8000000	69 565	16 000	139	97	42		SUB_COMPONENT_1.1	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Motorbikes (@ 1 per Upazila)	Number	24	42	24	200 000	1 739	4 800	42	29	13		SUB_COMPONENT_1.1	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			181				20 800	181	127	54					
2. Submergible village road - Machinery and equipment															
CBR Testing Machine (Kishorgonj & Sunamgonj)	Number	2	31	2	1 800 000	15 652	3 600	31	22	9		SUB_COMPONENT_1.1	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
VICAT Apparitors (Kishorgonj)	Number	1	1	1	150 000	1 304	150	1	1	0		SUB_COMPONENT_1.1	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
OVEN (Kishorgonj & Sunamgonj)	Number	2	6	2	350 000	3 043	700	6	4	2		SUB_COMPONENT_1.1	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Odometer (Distance measuring wheel) (@1 per upazila)	Number	24	6	24	30 000	261	720	6	4	2		SUB_COMPONENT_1.1	:QUIPMENT_MATERIALS_E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			45				5 170	45	31	13					
3. Submergible village and Union road construction															
Topographic survey, subsoil investigation and pre-design consultation with stakeholders /a	km	141	61	28	50 000	435	7 050	61	9	4		SUB_COMPONENT_1.1	WORKS_EA	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /b	Batch	27	7	1	30 000	261	810	7	0	0		SUB_COMPONENT_1.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
Construction of Submergible village RCC road /c	km	140	19 478	7	16 000 000	139 130	2 240 000	19 478	724	310		SUB_COMPONENT_1.1	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of Submergible Union RCC road /d	km	-	-	-			-	-	-	-		SUB_COMPONENT_1.1	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of UniBlock road as village all weather walkways /e	km	1	130	-	15 000 000	130 435	15 000	130	-	-		SUB_COMPONENT_1.1	WORKS_EA	WORKS_DA	IFAD (70%)
Subtotal			19 677				2 262 860	19 677	733	314					
4. Construction of cross-drainage structures															
Construction of Submergible Drainage structures /f	Meters	420	2 739	21	750 000	6 522	315 000	2 739	102	44		SUB_COMPONENT_1.1	WORKS_EA	EQUIP_MATERIALS_DA	IFAD (70%)
Total Investment Costs			22 642				2 603 830	22 642	993	425					
II. Recurrent Costs															
A. Operations and maintenance of 4WD pickups /g															
1. Operations and maintenance of 4WD pickups /h	Per month	144	75	24	60 000	522	8 640	75	9	4		SUB_COMPONENT_1.1	OPERATION_EA	OPERATION_MAIN_DA	IFAD (70%)
2. Operations and maintenance of motorbikes /i	Per month	1 728	225	288	15 000	130	25 920	225	26	11		SUB_COMPONENT_1.1	OPERATION_EA	OPERATION_MAIN_DA	IFAD (70%)
Total Recurrent Costs			301				34 560	301	35	15					
Total Cost			22 943				2 638 390	22 943	1 028	440					
I. Investment Costs															
B. Village road connectivity in High Barind region															
1. Vehicles and machineries															
4WDs pickup (one per Region office - Chapai Nawabganj)	Number	1	70	1	8 000 000	69 565	8 000	70	51	22		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Motorbikes (@1 per Upazila)	Number	9	16	9	200 000	1 739	1 800	16	12	5		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			85				9 800	85	63	27					
2. Machinery and equipment															
CBR Machine (Chapai Nawabganj)	Number	1	16	1	1 800 000	15 652	1 800	16	12	5		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
CTM (Chapai Nawabganj)	Number	1	15	1	1 750 000	15 217	1 750	15	11	5		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Bitumin Softening Point (Chapai Nawabganj)	Number	1	2	1	250 000	2 174	250	2	2	1		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Bitumin Extractor Machine (Chapai Nawabganj)	Number	1	7	1	750 000	6 522	750	7	5	2		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
VICAT Apparitors (Chapai Nawabganj)	Number	1	1	1	150 000	1 304	150	1	1	0		SUB_COMPONENT_1.2	:QUIPMENT_MATERIALS_E	EQUIP_MATERIALS_DA	IFAD (70%)
OVEN (Chapai Nawabganj)	Number	1	3	1	350 000	3 043	350	3	2	1		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
DCP Apparatus (Chapai Nawabganj)	Number	1	0	1	25 000	217	25	0	0	0		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Odometer (Distance measuring wheel) (@1 per upazila)	Number	9	2	9	30 000	261	270	2	2	1		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Road Roller (8-10 Ton)	Number	1	130	1	15 000 000	130 435	15 000	130	96	41		SUB_COMPONENT_1.2	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			177				20 345	177	130	56					
3. Village and Union Road construction in High Barind Region															
Topographic survey, subsoil investigation and pre-design consultation /a	Km	190	83	38	50 000	435	1 900	17	12	5		SUB_COMPONENT_1.2	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of BC village roads /b	Km	180	19 565	9	12 500 000	108 696	112 500	978	727	311		SUB_COMPONENT_1.2	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of Union BC road for completing full point to point connectivity,	Km	11.34	1 479	-	15 000 000	130 435	-	-	-	-		SUB_COMPONENT_1.2	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of UniBlock road as village all weather walkways /c	Km	2	261	-	15 000 000	130 435	-	-	-	-		SUB_COMPONENT_1.2	WORKS_EA	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /d	Batch	38	17	2	50 000	435	100	1	1	0		SUB_COMPONENT_1.2	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			21 404				114 500	996	739	317					
4. Construction of cross-drainage structures															
Drainage structures in High Barind Upazilas (@5 meter per km of road)	Meters	940	6 130	47	750 000	6 522	35 250	307	228	98		SUB_COMPONENT_1.2	WORKS_EA	WORKS_DA	IFAD (70%)
Total Investment Costs			27 797				179 895	1 564	1 160	497					
II. Recurrent Costs															
B. Vehicle maintenance															
Operations and maintenance of 4WD pickups /e	Per month	72	38	12	60 000	522	720	6	4	2		SUB_COMPONENT_1.2	OPERATION_EA	OPERATION_MAIN_DA	IFAD (70%)
Operations and maintenance of motorbikes /f	Per month	648	85	108	15 000	130	1 620	14	10	4		SUB_COMPONENT_1.2	OPERATION_EA	OPERATION_MAIN_DA	IFAD (70%)
Total Recurrent Costs			122				2 340	20	14	6					
Total			27 919				182 235	1 585	1 174	503					
I. Investment Costs															
C 1. Market development - Barind Region															
1. Topographic Survey/periphery determination (@ 1 per market)	Number	10	17	-	200 000	1 739						SUB_COMPONENT_1.3	WORKS_EA	WORKS_DA	IFAD (70%)
2. Large village market built on open khas land /a	Number	10	870	-	10 000 000	86 957						SUB_COMPONENT_1.3	WORKS_EA	WORKS_DA	IFAD (70%)
Subtotal			887												
C 2. Capacity Building of LCS - Barind region															
1. Training LCS Barind region															
Training of LCS members /b	Batch	30	31	-	120 000	1 043						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Uniform & safety gears, tools, trolly - Barind	Per person	600	78	-	15 000	130						SUB_COMPONENT_1.3	:QUIPMENT_MATERIALS_E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			110												
2. 4Workshop, training of MMC, WMS, traders' association etc. - Barind															
Upazila MMC workshops /c	Per workshop	3	3	-	100 000	870						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Market users/stakeholders workshops (@1 per market)	Per workshop	10	3	-	30 000	261						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
MMC & trader associations workshop (@ 1 per market)	Per workshop	10	3	-	30 000	261						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Market periphery and demarcation workshop (@ 1 per market)	Per workshop	10	3	-	30 000	261						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Market handover & market maintenance (@work per market)	Per workshop	10	3	-	30 000	261						SUB_COMPONENT_1.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			13												
Subtotal			123												
C 3. Market rehabilitation in Haor region															
1. Topographic Survey and pre-design consultation for identifying internal market road rehabilitation and other infrastructure /d	Per contract	24	42	-	200 000	1 739						SUB_COMPONENT_1.3	WORKS_EA	WORKS_DA	IFAD (70%)
2. Large village market rehabilitation /e	Number	48	1 670	-	4 000 000	34 783						SUB_COMPONENT_1.3	WORKS_EA	WORKS_DA	IFAD (70%)
Total			2 721												
I. Investment Costs															
D. Boat landing ghat (Haor and High Barind)															

1. Investment costs														
Soil Investigation	Per contract	44	38		100 000	870					SUB_COMPONENT_1.4	WORKS_EA	WORKS_DA	IFAD (70%)
Topographic Survey and pre-design consultation /a	Per contract	20	52		300 000	2 609					SUB_COMPONENT_1.4	WORKS_EA	WORKS_DA	IFAD (70%)
Ghat construction in Haor region /b	Ghat	24	835		4 000 000	34 783					SUB_COMPONENT_1.4	WORKS_EA	WORKS_DA	IFAD (70%)
Ghat construction in Barind region /c	Ghat	10	348		4 000 000	34 783					SUB_COMPONENT_1.4	WORKS_EA	WORKS_DA	IFAD (70%)
Orientation training of contractors and construction workers /d	Meetings	10	3		30 000	261					SUB_COMPONENT_1.4	WORKS_EA	WORKS_DA	IFAD (70%)
Total			1 276											
Component 2: Village services for resilient community in Haor region														
I. Investment Costs														
A. Village internal services (walk ways, water and sanitation, other infrastructure)														
1. Investment costs														
Topographic survey, village needs' assessment, determine design specification /a	Per contract	25	217	5	1 000 000	8 696	5 000	43	32	14	SUB_COMPONENT_2.1	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of Villages internal services package /b	Nb of Villages	240	10 435	-	5 000 000	43 478	-	-	-	-	SUB_COMPONENT_2.1	WORKS_EA	WORKS_DA	IFAD (70%)
Inter village connecting foot bridge	Foot bridges	3	261	-	10 000 000	86 957	-	-	-	-	SUB_COMPONENT_2.1	WORKS_EA	WORKS_DA	IFAD (70%)
Village extension with earth-filling for community purpose /c	Nb of Villages	47	817	-	2 000 000	17 391	-	-	-	-	SUB_COMPONENT_2.1	WORKS_EA	WORKS_DA	IFAD (70%)
Total			11 730				5 000	43	32	14				
I. Investment Costs														
B. Kila for temporary storage of harvests and shelter														
1. Kila development														
Pre-design assessment visit, site selection, land estimates, earth estimation etc. (@one per Upazila)	Per contract	24	31		150 000	1 304					SUB_COMPONENT_2.2	WORKS_EA	WORKS_DA	IFAD (70%)
Kila building on khas land /a	Nb of Killa	72	1 252		2 000 000	17 391					SUB_COMPONENT_2.2	WORKS_EA	WORKS_DA	IFAD (70%)
Total			1 283											
I. Investment Costs														
C. Low-cost nature-based village protection system in Shallow Haor (VPS)														
1. Construction of VPS														
Pre-design assessment visit, village selection ect /a	Upazila	14	24	7	200 000	1 739	1 400	12.2	8.6	3.7	SUB_COMPONENT_2.3	WORKS_EA	WORKS_DA	IFAD (70%)
Construction of low-cost nature based VPS in Shallow Haor /b	Number	280	4 870	-	2 000 000	17 391	-	-	-	-	SUB_COMPONENT_2.3	WORKS_EA	WORKS_DA	IFAD (70%)
Subtotal			4 894				1 400	12.2	8.6	3.7				
2. Vetiver grass production, plantation, maintenance, and capacity building of LCS for killa for slope protection														
Training on vetiver grass production in nurseries by poor women /c	Nb of Batch	14	4	1	30 000	261	30	0.3	0.2	0.1	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Vetiver grass production in village nurseries for Killa slopes protection /d	Nb of Persons	360	6	18	2 000	17	36	0.3	0.2	0.1	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Vetiver grass plantation in killa slopes and maintenance for 2 years /e	Nb of Killa	73	32	-	50 000	435	-	-	-	-	SUB_COMPONENT_2.3	WORKS_EA	WORKS_DA	IFAD (70%)
Community meeting on killa handover (@ one meeting per killa)	Meetings	73	6	-	10 000	87	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			48				66	0.6	0.4	0.2				
3. Capacity building of LCS, CRALEP, DAE, NGO staff members /f														
TOT on bamboo treatment for NGO staff members and CRALEP field officials /g	Batch	3	2	-	60 000	522	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on bamboo treatment for outdoor application by NGO expert to LCS members and other master trainers /h	Batch	56	15	-	30 000	261	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Technical assistance by BFRI to villagers and NGOs for bamboo treatment /i	Lum sump	1	13	-	1 500 000	13 043	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
TOT on vetiver production by vetiver expert /j	Batch	5	3	-	60 000	522	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on vetiver grass production in nurseries for VPS by LCS HHs /k	Batch	56	15	-	30 000	261	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Vetiver grass production in village nurseries /l	Persons	1 400	24	-	2 000	17	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
VPS maintenance by LCS (2 persons for two years) /m	Villages	280	29	-	12 000	104	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			100				-	-	-	-				
4. Capacity building bamboo treatment of NGOs and Private sector														
Training of private sector microentrepreneurs on bamboo treatment /n	Batch	18	9	-	60 000	522	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on bamboo plantation from branches by BFRI/Forest Dept /o	Batch	240	63	-	30 000	261	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Assembling of machine for bamboo processing /p	Number	14	12	-	100 000	870	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
National Technical Advisor for vetiver protection, nursery development, and application in Kila and VPS	Months	6	26	-	500 000	4 348	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Field visit expenses for national technical advisor /q	Number	72	16	-	25 000	217	-	-	-	-	SUB_COMPONENT_2.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			126				-	-	-	-				
5. Management cost of NGOs for Subcomponent 2.3														
7% of total component 2.3 cost as management cost for Haor-based NGOs /r	Lum sump		361				102	0.9	0.6	0.3	SUB_COMPONENT_2.3	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Total							1 568	13.6	9.6	4.1				
D. Village services for resilient community in Haor region														
I. Investment Costs														
A. TA (PMU, Dhaka)														
1. Team Leader, Rural Dev Specialist	Months	60	157		300 000	2 609					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
2. Design engineer (civil works)/DTL	Months	60	130		250 000	2 174					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
3. Asst Design engineer (2)	Months	120	188		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
4. AutoCAD operator (2)	Months	120	104		100 000	870					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
5. Estimator (2)	Months	120	104		100 000	870					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
6. Market design & planner	Months	36	56		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
7. Livelihood specialist	Months	60	94		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
8. Climate change expert and Hydrologist	Months	60	130		250 000	2 174					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
9. Financial specialist	Months	60	94		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
10. Financial System Specialist (Financial mgt, Audit, system development, trainir	Months	15	20		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
11. One Accounts Officer	Months	60	78		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
12. Junior finance officer	Months	120	104		100 000	870					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
13. Junior software expert (TOMPRO) (2)	Months	120	104		100 000	870					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
14. Internal Audit Consultants	Months	120	157		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
15. Procurement specialist	Months	60	94		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
16. M&E. KM specialists	Months	60	94		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
17. Gender and social inclusion specialist	Months	120	188		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
18. MIS Officer	Months	60	78		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
19. M&E KM Officer	Months	60	78		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
20. Training & logistic support Officer	Months	60	78		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
21. Office assistant/Typist (Outsourced)	Months	60	31		60 000	522					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
22. Office manager (Outsourced)	Months	60	42		80 000	696					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
23. MLSS (2)	Months	120	42		40 000	348					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
24. Direct cost TA Team & Others	Lum sump	1	435		50 000 000	434 783					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Subtotal			2 681											
B. TA to Regional Offices														
1. Quality Control Engineers (1+2=3) (regional engineer)	Months	180	282		180 000	1 565					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
2. Laboratory Technician (3)	Months	180	157		100 000	870					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
3. Laboratory assistant/Helper (3) (Outsourced)	Months	180	63		40 000	348					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
4. Drivers (3) [Three new recruits]	Months	180	78		50 000	435					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Subtotal			579											
C. TA to Districts														
1. Livelihoods officers (8) /a	Months	480	626		150 000	1 304					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
D. TA to Upazilas														
1. Assistant Field Engineer (33) /b	Months	1 980	1 033		60 000	522					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
E. TA Team: annual increment and Operation cost														
1. TA Team annual increment due to inflation (5% of Total)	Lum sump		257								SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
2. Car rentals for TA team & Support Staff	Lum sump	1	217		25 000 000	217 391					SUB_COMPONENT_2.4	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Total			5 393											

Component 3. Livelihoods diversification and resilience														
I. Investment Costs														
A. Vocational training for employment creation for youth														
1. Vocational training and job market assessment	Lum sump	2	26	-	1 500 000	13 043	-	-	-	-	SUB_COMPONENT_3.1	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
2. Vocational training by Partner Organization(POs) of PKSF and others /a	Persons	33 000	11 478	1 650	40 000	348	66 000	574	402	172	SUB_COMPONENT_3.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
3. Training courses not available in NSDA and BTEB courses lists:														
Training module development - Outsourced	Number	5	9	-	200 000	1 739	-	-	-	-	SUB_COMPONENT_3.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
Vocational Training (Non-NSDA/BTEB courses) by providers- outsourced	Number	500	174	25	40 000	348	1 000	9	6	3	SUB_COMPONENT_3.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			183				1 000	9	6	3				
4. Advance training (see list) for semi-skilled persons - outsourced	Number	500	435	25	100 000	870	2 500	22	15	7	SUB_COMPONENT_3.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
5. Documentation, publication and seminars	Number	5	9	-	200 000	1 739	-	-	-	-	SUB_COMPONENT_3.1	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			12 130				69 500	604	423	181				
B. Entrepreneurship training for youth														
1. Entrepreneurship training by PO of PKSF and other providers (see potential list of I	Number	10 000	1 304	500	15 000	130	7 500	65	46	20	SUB_COMPONENT_3.2	TRAINING_EA	TRAINING_DA	IFAD (70%)
2. Documentation, publication and seminars	Number	3	5	-	200 000	1 739	-	-	-	-	SUB_COMPONENT_3.2	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			1 310				7 500	65	46	20				
C. Sustainable Livelihoods for LCS members														
1. Sustainable livelihoods development for LCS members (market Plus Haor village) /	Number	2 980	389	-	15 000	130	-	-	-	-	SUB_COMPONENT_3.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
2. Documentation, publication and seminars	Number	3	5	-	200 000	1 739	-	-	-	-	SUB_COMPONENT_3.3	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			394				-	-	-	-				
Total			13 834				77 000	670	469	201				
Component 4. Capacity development, climate information services, and innovation														
I. Investment Costs														
A. Capacity building of CReLIC	Lum sump	1	348		40 000 000	347 826					COMPONENT_4	TRAINING_EA	TRAINING_DA	GATES_FOUNDATION (100%)
B. FFEWS in Haor and drought early warning in Barind for community resilience														
1. Improvement in FFEWS model by IWFM, Training and installation /a	Lum sump	1	348		40 000 000	347 826					COMPONENT_4	CONSULTANCY_EA	CONSULTANCY_DA	GATES_FOUNDATION (100%)
2. Development of dissemination system of FFEWS by BWDB /b	Lum sump	1	304		35 000 000	304 348					COMPONENT_4	TRAINING_EA	TRAINING_DA	GATES_FOUNDATION (100%)
3. Development of accurate drought EWS and dissemination system for the Barind region by BMD /c	Lum sump	1	174		20 000 000	173 913					COMPONENT_4	CONSULTANCY_EA	CONSULTANCY_DA	GATES_FOUNDATION (100%)
Subtotal			826											
C. Research and Innovation in infrastructure, climate change and environmental issues /d	Lum sump	1	261		30 000 000	260 870					COMPONENT_4	CONSULTANCY_EA	CONSULTANCY_DA	GATES_FOUNDATION (100%)
D. Policy and dissemination	Lum sump	1	65		7 500 000	65 217					COMPONENT_4	CONSULTANCY_EA	CONSULTANCY_DA	GATES_FOUNDATION (100%)
Total			1 500											
Project Management														
I. Investment Costs														
A. Vehicles and office equipment														
1. Office equipment														
Computer with printers	Number	60	63	60	120 000	1 043	7 200	63	43.8	18.8	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Air-conditioner	Number	5	9	5	200 000	1 739	1 000	9	6.1	2.6	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Photo-copier	Number	2	5	2	300 000	2 609	600	5	3.7	1.6	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Laptop computer	Number	10	17	10	200 000	1 739	2 000	17	12.2	5.2	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Scanner	Number	5	1	5	30 000	261	150	1	0.9	0.4	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Projector	Number	2	2	2	100 000	870	200	2	1.2	0.5	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Internet Router (Installation with WIFI)	Number	5	0	5	5 000	43	25	0	0.2	0.1	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Telephone arrangement	Number	8	0	8	5 000	43	40	0	0.2	0.1	COMPONENT_5	:QUIPMENT_MATERIALS_E	EQUIP_MATERIALS_DA	IFAD (70%)
Digital camera	Number	1	1	1	100 000	870	100	1	0.6	0.3	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Officer Arrangement/Equipment	Lum sump	1	26	1	3 000 000	26 087	3 000	26	18.3	7.8	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Furniture	Number	1	35	1	4 000 000	34 783	4 000	35	24.3	10.4	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
TOMPRO, other software, apps & website purchase and	Lum sump	1	26	1	3 000 000	26 087	3 000	26	18.3	7.8	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
License upgrading	Lum sump	1	9	1	1 000 000	8 696	1 000	9	6.1	2.6	COMPONENT_5	:QUIPMENT MATERIALS E	EQUIP_MATERIALS_DA	IFAD (70%)
Subtotal			194				22 315	194	135.8	58.2				
2. Training, capacity building, studies														
Tompro and others software training	Batch	1	0	1	50 000	435	50	0	0.3	0.1	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
LCS management training	Batch	5	1	1	20 000	174	20	0	0.1	0.1	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Monthly review meetings	Batch	162	28	27	20 000	174	540	5	3.3	1.4	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Workshop expenses	Batch	12	5	2	50 000	435	100	1	0.6	0.3	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Exposer visit on climate change related project /a	Batch	2	522	-	30 000 000	260 870	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on M&E	Persons	10	2	-	25 000	217	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on MIS	Persons	10	2	-	25 000	217	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Yearly review meeting on AWPB	Meetings	5	2	-	50 000	435	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Documentation and Publication	Number	100	22	-	25 000	217	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Training on Internal performance audit & Grievances response	Batch	2	1	-	50 000	435	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Workshop with FAPAD & IFAD on external audit.	Batch	2	1	-	50 000	435	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Startup Workshop	Event	1	4	1	500 000	4 348	500	4	3.0	1.3	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Workshop on project impact	Event	2	3	-	200 000	1 739	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
ToT on Livelihood activities/nutrition	Batch	2	1	-	50 000	435	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			595				1 210	11	7.4	3.2				
Subtotal			789				23 525	205	143.2	61.4				
B. Studies and Surveys														
Baseline survey	Lum sump	1	43	1	5 000 000	43 478	5 000	43	30.4	13.0	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Mid-Term survey	Lum sump	1	43	-	5 000 000	43 478	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Edline survey	Lum sump	1	43	-	5 000 000	43 478	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Annual Outcome surveys	Lum sump	5	4	-	100 000	870	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Case studies on sub-components	Number	25	5	-	25 000	217	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Knowledge management products, website design & hosting, Facebook etc.	Lum sump	1	2	1	200 000	1 739	200	2	1.2	0.5	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Project completion activities	Lum sump	6	26	-	500 000	4 348	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
Project success dissemination national seminar	Lum sump	2	9	-	500 000	4 348	-	-	-	-	COMPONENT_5	CONSULTANCY_EA	CONSULTANCY_DA	IFAD (70%)
IMED, ERD, LGD field visit & monitoring	Lum sump	5	13	-	300 000	2 609	-	-	-	-	COMPONENT_5	TRAINING_EA	TRAINING_DA	IFAD (70%)
Subtotal			190				5 200	45	31.7	13.6				
Total Investment Costs			979				28 725	250	174.8	74.9				
II. Recurrent Costs														
A. Salary & office operating costs														
Tota 1. Staff salary PMU														
Project Director	Months	72	94	12	150 000	1 304	1 800	16	-	15.7	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Deputy Project Director	Months	72	94	12	150 000	1 304	1 800	16	-	15.7	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Senior Asst Engineer	Months	72	69	12	110 000	957	1 320	11	-	11.5	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Asst Engineers	Months	72	50	12	80 000	696	960	8	-	8.3	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Sub-asst Engineer (2)	Months	144	75	24	60 000	522	1 440	13	-	12.5	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Accountant	Months	72	38	12	60 000	522	720	6	-	6.3	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Computer operator	Months	72	25	12	40 000	348	480	4	-	4.2	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Accounts Assistants	Months	72	25	12	40 000	348	480	4	-	4.2	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Driver (3)	Months	216	66	36	35 000	304	1 260	11	-	11.0	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
MLSS (Outsourced) (2)	Months	144	38	24	30 000	261	720	6	-	6.3	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Subtotal			573				10 980	95	-	95.5				
2. Staff salary: Districts														
Sub-assistant engineers: Outsourced (8)	Months	576	301	96	60 000	522	5 760	50	-	50.1	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT

3. Office operating costs														
Travel Expenses & overtime	Lum sump	1	174	0.05	20 000 000	173 913	1 000	9	-	8.7	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Telephone, postage, fax, electricity	Lum sump	1	43	0.05	5 000 000	43 478	250	2	-	2.2	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Printing & stationery	Lum sump	1	174	0.05	20 000 000	173 913	1 000	9	-	8.7	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Advertising	Lum sump	1	87	0.05	10 000 000	86 957	500	4	-	4.3	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Security, casual staff etc	Months	960	209	160	25 000	217	4 000	35	-	34.8	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Computer consumables	Lum sump	1	43	0.05	5 000 000	43 478	250	2	-	2.2	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Fuel, Gas & lubricant	Lum sump	1	87	0.05	10 000 000	86 957	500	4	-	4.3	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Remuneration, Fee & honorarium-TEC, PEC, QEC	Lum sump	1	22	0.05	2 500 000	21 739	125	1	-	1.1	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Mid-term evaluation by Planning commission,	Lum sump	1	13	0.05	1 500 000	13 043	75	1	-	0.7	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Meeting cost	Meetings	150	3	25	2 000	17	50	0	-	0.4	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Other expenses	Lum sump	1	22	0.05	2 500 000	21 739	125	1	-	1.1	COMPONENT_5	OPERATION_EA	OPERATION_MAIN_DA	GOVT
Subtotal			877				7 875	68	-	68.5				
Total Recurrent Costs			1 750				24 615	214	-	214.0				

Total AWPB				
Investment Cost	2 896 018	25 183	2 838	1 216
Recurrent Cost	61 515	535	49	235
Total	2 957 533	25 718	2 887	1 451

Component Total	**Budget planned for 2025 (BTk 1000)**	**Budget planned for 2025 (USD 1000)**	**Budget planned for 2025 (USD 1000): IFAD**	**Budget planned for 2025 (USD 1000): GOB**
Component 1: Climate proofed village road connectivity and market improvement				
A. Village road connectivity in Haor region				
Total Investment Costs	2 603 830	22 642	993	425
Total Recurrent Costs	34 560	301	35	15
Total	2 638 390	22 943	1 028	440
B. Village road connectivity in High Barind region				
Total Investment Costs	179 895	1 564	1 160	497
Total Recurrent Costs	2 340	20	14	6
Total	182 235	1 585	1 174	503
C 1. Market development - Barind Region				
D. Boat landing ghat (Haor and High Barind)				
Component 2: Village services for resilient community in Haor region				
A. Village internal services (walk ways, water and sanitation, other infrastructure)				
Total Investment costs	5 000	43	32	14
B. Kila for temporary storage of harvests and shelter				
Total Investment costs				
C. Low-cost nature-based village protection system in Shallow Haor (VPS)				
Total Investment costs	1 568	14	10	4
D. Village services for resilient community in Haor region				
Total Investment costs				
Component 3. Livelihoods diversification and resilience				
Total Investment costs	77 000	670	469	201
Component 4. Capacity development, climate information services, and innovation				
Project Management				
Total Investment costs	28 725	250	175	75
Total Recurrent costs	24 615	214	-	214
	2 896 018			

AWPB by Disbursement Categories	**Budget planned for 2025 (BTk 1000)**	**Budget planned for 2025 (USD 1000)**	**Budget planned for 2025 (USD 1000): IFAD**	**Budget planned for 2025 (USD 1000): GOB**
CONSULTANCY_DA	5 302	46	32	14
EQUIP_MATERIALS_DA	393 430	3 421	588	252
OPERATION_MAIN_DA	61 515	535	49	235
TRAINING_DA	79 186	689	477	205
WORKS_DA	2 418 100	21 027	1 740	746
Total	2 957 533	25 718	2 887	1 451

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 7: Financial Management Assessment

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Detailed FM arrangements in the CRALEP Project Design Report (PDR) [Annex 7]

I. Overview of Financial Management arrangements

1. As a member of the project design team (PDT), the Finance Officer has completed the assessment of financial management capacity and risks of the CRALEP project in accordance with FMD guidelines and templates.
2. As part of this assessment, we conducted a series of reviews and meeting with counterparts of the Local Government Engineering Department (LGED), Promoting Resilience Of Vulnerable Through Access To Infrastructure, Improved Skills And Information (PROVATI), Haor Infrastructure And Livelihood Improvement Project Climate Adaptation And Livelihood Protection (HILIP CALIP), Eco-Social Development Organization (ESDO) and LGED Internal Auditors.
3. We also visited Saidpur and Rangpur of the Hoar Region as part of the FM assessment. We discussed with the LGED District officials. We also visited the market infrastructure and met with member of the LCS on the ongoing PROVATI project. implemented by PROVATI. We discussed with the beneficiaries of the vocational training and the vocational institute. We participated in a two-day design workshop that had IFAD PDT members and representatives of LGED in attendance. We met with the Foreign Aided Projects Audit Directorate (FAPAD) in the Office of the Comptroller and Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh.
4. According to the 2023 CPI, Bangladesh scored of 24/100 and is ranked 149th out of 180 countries in terms of relative degree of corruption. Bangladesh declined from a score of 28 in 2017 to 26 in 2018 and maintained this score for four years until another decline by one point to 25 in 2022. According to the 2021 PEFA assessment of Bangladesh, key strengths are the completeness of budget documentation presented to parliament, annual performance plans and reports are prepared to monitor service delivery, e-procurement systems. In addition, independent review boards have been established for complaint management and financial reporting is comparable to IPSAS cash. The independence of Comptroller and Auditor General is constitutionally guaranteed, and the legislature makes recommendations after reviewing external audit reports on budget execution. Main weaknesses in the PEFA report include lack of credibility, transparency, and preparation of the budget, as well as some shortcomings in the monitoring of budget execution and in external control, non-financial assets are not fully tracked, and the disposal of assets is reported for only for a few assets. There were also some weaknesses around internal and external audit and financial reporting.
5. Overall, inherent, and residual risks at design are substantial on the back of high country, substantial entity, and substantial project specific risks weighted across the six FM pillars. Mitigating measures would be enshrined in the loan covenants but are not adequate to reduce the residual risk at this time. We expect that the residual risks would become lower as soon as we assess the impact of the mitigating actions from the first supervision missions.
6. Actions introduced to mitigate risks and from lessons learnt from previous projects in the country include (1) start-up funds for prompt operationalization of the PMU and to ensure adequate & timely recruitment of staff; (2) complete AWPB and PIM, before disbursement, ensure PIM includes clear guidelines that adapt with the project design and activities; (3) procure an accounting software that meets the project needs at start-up phase; (4) implement internal audit function by supporting already established internal audit organ within LGED; (5) early coordination with FAPAD for timely delivery of the audit reports and timely settlement of audit findings. These actions will be included in the loan covenants and are described in more details in section B of this annex.
7. IFAD shall apply a zero-tolerance policy where it has determined, through an investigation performed by the Fund, the borrower, or another competent entity, that fraudulent, corrupt, collusive, or coercive practices have occurred in projects financed through its loans and grants, and it shall enforce a range of sanctions in accordance with the provisions of the applicable IFAD rules and regulations and legal instruments. The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures.
8. Renewed interest and vigour by the Ministry of Finance in 2023 has seen the development of a detailed internal audit manual and the recruitment of Chartered Accountants consultants to support and enhance the LGED internal audit function. The MOF Internal Audit Manual is expected

to be further customized to agency (LGED) and project (PROVATI/CRALEP) requirements. As at the time of design mission, there are 15 members of the Internal Audit Unit which is still insufficient numbers for the numbers and sizes of the LGED projects.

II. Project financial profile

9. IFAD will provide USD 70 million as loan; Gates Foundation will provide USD 1.5 million, and GOB will provide USD 31.7 million as counterpart funds for the project. The proposed four components will have the following notional allocations: Component 1 (59%); Component 2 (23%); Component 3 (13%); and Component 4 (1%). Estimated project management cost is 3%. The project will explore possibility of adding resources from other sources during the implementation phase. The project is estimated to be implemented over six years. Category wise, works accounts for 73%, training and workshop 15%, consultancy 7%, equipment and materials 4% and operating costs 2%.
10. Gates foundation will fund the entirety of Component 4: Capacity development, climate information services, and innovation. The funding comprises of training and consultancy costs.
11. The government's share in financing comprises cash-based counterpart funding for payment of applicable taxes and other project management costs. PMU shall open a separate Assignment Account to receive and use government counterpart funds (cash) for taxes and project management. The annual requirement of counterpart funds shall be reflected in the project's AWPB and GoB budget. The accounting system shall record government financing separately.
12. The project aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots, the Haor and the High Barind regions, by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to improve resilience, and creating employment through skill development. The project consists of four main components and project management costs:
    a. Component 1: Climate proofed village road connectivity and market improvement:
        - 1.1 Village Road connectivity in Haor areas.
        - 1.2 Village Road connectivity in Barind area.
        - 1.3 Rural market improvement in Barind area, and
        - 1.4 Boat landing stations.

        Activities will enhance access, via roads or through water, to farm and off-farm markets. The project will organize poor women and men into labour contracting societies (LCS) who will receive training on market construction and management.

    b. Component 2. Village services for resilient communities in Haor.
        - 1.1 Village internal services (walkways, tube wells, toilet blocks).
        - 1.2 Killa for temporary storage of harvests and shelter; and
        - 1.3 Low-cost nature-based village protection system in Shallow Haor (VPS).

        Activities will protect homesteads, agricultural land and productive assets; improve quality of living; and increase within-village mobility and connectivity that can underpin social capital and networks, in turn reducing distress migration and encouraging long-term farm or non-farm investments—particularly when combined with vocational training and FFEWS under Component 3 and 4.

    c. Component 3: Livelihood diversification and resilience.
        - 3.1 Vocational training for employment creation for youth (men and women between 18-35).
        - 3.2 Entrepreneurship training for youth; and
        - 3.3 Sustainable livelihoods for LCS members.

        Training will target both non-farm and agri-business sectors; it will result in either wage employment or entrepreneurship. They will receive appropriate financial services through IFAD-supported Partner Organizations (POs) of PKSF. The vocational training will be provided by PKSF POs, GOB training providers and private providers selected through a competitive process as being done under PROVATI 3. Besides, LCS members (along with their spouses) will receive technical and management training for starting income-

generating activities after the completion of their construction works. Lessons other IFAD projects in the region on monitoring outcomes (e.g., through Tracer studies on placement and incomes at 6-24 months post-training) will be replicated.

d. Component 4. Project management, capacity development, climate information services, and innovation.
   - 4.1 Capacity building of CReLIC (Climate Resilient Local Infrastructure Centre).
   - 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience.
   - 4.3 Innovation in construction, materials, and livelihood diversification; and
   - 4.4 Policy and dissemination.
   - The overall project management, including staffing, training and other relevant activities will be included in this component.

   The project will help develop the internal capacity of LGED through the Climate Resilient Local Infrastructure Centre (CReLIC) to train LGED officials on climate change issues and support LGED for screening projects from a climate change point of view, and act as a technical support unit for all departments and projects. The Bangladesh Water Development Board (BWDB), a partner in HILIP-CALIP for FFEWS, and the Bangladesh Meteorological Department (BMD) will be partners in the development and dissemination of FFEWS and drought modelling / forecasts.

III. Implementation arrangements

The Economic Relations Division, of the Ministry of Finance, the government designated agency for coordination of foreign assistance, will be the IFAD financing coordination agency. The Local Government Division (LGD) of the Ministry of Local Government and Cooperatives (MoLG&C) and LGED will be the Executing Agency (EA) and the Implementing Agency (IA) respectively.

A Project Steering Committee (PSC) chaired by the Secretary, LGED, and representatives from LGED and other ministries will oversee the implementation of the project. The LGED will form a Project Management Unit (PMU) headed by a Senior Engineer as the Project Director. Several LGED officials will be deputed to the project. The project will hire the necessary contractual officials including key FM staff detailed below. The District Office of LGED will undertake planning, coordination, M&E and FM of the project activities in their two respective districts.

PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. Finance Manager will be assisted in his functions by an Accounts Officer, and two Accounts Assistants. Project will have largely centralized FM arrangements managed at PMU level.

All project activities will be guided by Annual Workplans and Budgets, based on PDR and Financing Agreement and duly approved by LGED Management and subject to IFAD No Objection. The cost tables, DPP and PIM will have sufficient details on key activities to be implemented and sources of finances for these costs.

IFAD funds would be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.

The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project. There will be two Internal Audit Consultants specifically for the IFAD funded projects.

Project accounting will be managed in accordance with IPSAS Cash basis of financial reporting. PMU, at the very start of the project, shall procure an appropriate accounting software to manage its accounts. For reference, IFAD funded projects in the LGED portfolio use TOMPRO.

Annex 7: FM Arrangements in the Project Design Report

The Foreign Aided Projects Audit Directorate (FAPAD) of OCAG will audit CRALEP as it has done for HILIP CALIP and PROVATI. FAPAD is a specialized arm of the Office of the Comptroller & Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh and entrusted to auditing the activities of all Development and Technical Assistance Projects and programs in the public sector funded by foreign aid.

Table 1: Composition of PMU and distribution at 4-tiers

Level/Tier of Project Management	Project TA Team (Hired by the project)	GOB deputed Civil Servants)
PMU (Dhaka based)	1. Team Leader, Rural Dev Specialist	Project Director (1)
	2. Design engineer (civil works)/DTL	Deputy Project Director (1)
	3. Asst Design engineer (2)	Senior Asst Engineer (1)
	4. AutoCAD operator (2)	Asst Engineers (1)
	5. Estimator (2)	Sub-asst Engineer (2)
	6. Market design & planner	Accountant
	7. Livelihood specialist	Computer operator
	8. Climate change expert and Hydrologist	Accounts Assistants
	9. Financial specialist	Driver (3)
	10. Financial System Specialist (Financial mgt, Audit, system development, training)	MLSS (Outsourced) (2)
	11. One Accounts Officer	
	12. Junior finance officer	
	13. Junior software expert (TOMPRO) (2)	
	14. Internal Audit Consultants	
	15. Procurement specialist	
	16. M&E, KM specialists	
	17. Gender and social inclusion specialist	
	18. MIS Officer	
	19. M&E KM Officer	
	20. Training & logistic support Officer	
	21. Office assistant/Typist (Outsourced)	
	22. Office manager (Outsourced)	
	23. MLSS (2)	
Subtotal – Dhaka	**28**	**14**
Regional Offices (3)	1. Quality Control Engineers (1+2=3) (regional engineer)	--
	2. Laboratory Technician (3)	--
	3. Laboratory assistant/Helper (3) (Outsourced)	--
	4. Drivers (3) [Three new recruits]	--
Subtotal – Regions	**12**	None
District Offices (8)	1. Livelihoods officers (8)	Sub-assistant engineers: Outsourced (8)
Upazila Offices (33)	1. Assistant Field Engineer (33)	--
TOTAL	**81**	**22**

Figure 1: CRALEP Organizational Structure

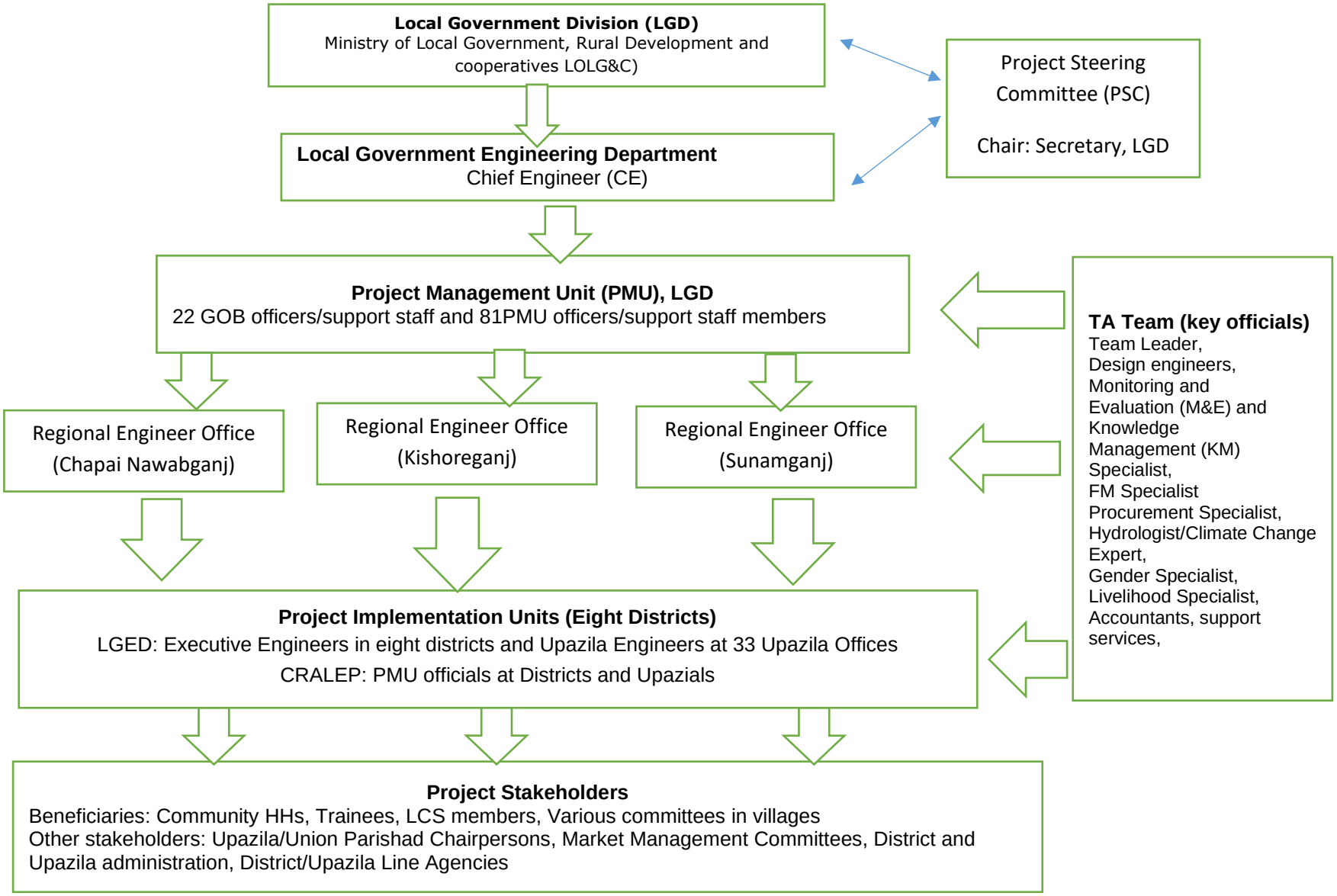


Table 2. Summary FMAQ at design

Summary	Brief description of issues	Inherent Risk at design H/S/M/L	Covenants precedent to disbursement	Residual Risk[1] H/S/M/L	Agreed Mitigation Measures
A. Inherent risk assessment pillars					
i. Country level	Bangladesh has a Corruption Perception Index (CPI) score of 24/100 and is ranked 149th out of 180 countries in terms of relative degree of corruption. Bangladesh declined from a score of 28 in 2017 to 26 in 2018 and maintained this score for four years until another decline by one point to 25 in 2022. The further decline in 2023 to a score of 24 is the first time the country has seen two consecutive year on year decline. Additionally, the Global Corruption Barometer (GCB) shows that 72% of people think government corruption is a big problem and 24% of public service users paid a bribe in the previous 12 months. According to the 2021 PEFA assessment of Bangladesh, key strengths are the completeness of budget documentation	H	Set up of a dedicated PMU and its operationalization will be well detailed in the financing agreement.	N/A	Set up of a dedicated PMU with tailored FM and implementation arrangements to minimize the country and entity level risks.

[1] The residual risk may take into consideration the effects of mitigating actions included in the FA covenants precedent to disbursement. Therefore, the residual risk may be slightly different from the inherent risk in case we have evidence that the actions included in the FA covenants have shown to be effective in that specific context.

	presented to parliament, annual performance plans and reports prepared to monitor service delivery, e-procurement which now covers 70% of procurement. In addition, independent review boards have been established for complaint management and financial reporting is comparable to IPSAS cash. The independence of Comptroller and Auditor General is constitutionally guaranteed, and the legislature makes recommendations after reviewing external audit reports on budget execution. Main weaknesses in the PEFA report include: Lack of credibility, transparency, and preparation of the budget, as well as some shortcomings in the monitoring of budget execution and in external control: ○ Budget execution deviates significantly from the initial budget. ○ No extra-budgetary operations are reported in the fiscal reports. ○ The government has made little budget information available to the public. The monitoring of the sub-national governments (SNGs) is lacking. ○ Non-financial assets are not fully tracked, and the disposal of assets is reported for only for a few assets.				

	There are also weaknesses around internal and external audit and financial reporting: ○ There is no formal internal audit at the budget execution level. Only ex-post reviews of financial compliance have been conducted by the MDAs. ○ There are delays in certifying financial reports and weakness in the management of advance accounts. ○ Financial statements are submitted more than 9 months after the end of the period, and there is a significant backlog of audit reports. ○ Although there is a follow-up system in line with one of the external audit's recommendations, it is not always enforced, and parliamentary committee reports are not available to the public.				
ii. Entity level	The Local Government Engineering Department (LGED) is one of the largest engineering agencies of the country. The department is involved in the development of rural transportation and improvement of rural markets and growth centres. LGED also provides technical assistance, governance improvement and capacity building of Urban Local Bodies (Municipalities and City Corporations). The agency also works to improve agricultural and fish production through small scale	S	Set up a dedicated PMU that is staffed with appropriate technical specialists.	N/A	Ensure there are tailored FM procedures and implementation arrangements that minimize the country and entity level risks. Set up a dedicated PMU that is staffed with appropriate technical specialists.

	water resources (SSWR) development projects. LGED has vast experience implementing donor financed projects in the past and at present. The financiers include the World Bank. ADB, JICA, KFW, OFID, GIZ, etc. LGED has also managed the recently completed IFAD funded HILIP CALIP project and ongoing PROVATI project set for completion in 2026. The quality of financial management has been generally satisfactory. Donor agencies set up focused PMUs because the Finance Function is skeletal and not well structured as LGED is a technical engineering and infrastructure focused entity. There are accounts officers at the national and district levels, but they will not have the capacity to manage the donor financed projects in addition to their departmental functions.				
iii. Project level	Both Haor and Barind are among the regions with highest poverty levels. The Haor and Barind regions are faced with great levels of climate change distress arising from floods, droughts, heat waves, etc. The impact results in extremely road communication, lack of access to safe drinking water, poor sanitation, poor soil quality, low agricultural	S	The implementing partners already identified during design will be specified in the Financing Agreement. Competitive bidding/procurement process will be required for the vendors, contractors and	N/A	Contracts and MoUs with implementing partners must include the minimum clauses required by IFAD. Vendors, contractors, service providers and other implementing agencies not specified in the PDR must be selected through a competitive procurement process with IFAD NO.

	productivity, poor physical markets, and youth unemployment is remarkably high. The project aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots, the Haor and the High Barind regions, by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to improve resilience, and creating employment through skill development. The main activities of the project include works and infrastructure (72%), vocational, entrepreneurial and livelihoods training (15%), capacity building and innovation (4%) and project management costs (9%). The project includes 33 upazilas; twenty-four (24) in Haor and nine (9) in Barind regions within eight (8) districts (5 Haor and 3 Barind). Of the 24 Haor upazilas, 17 are either fully or partially deep Haor, characterized by the depth of inundation and high wave action. Works and infrastructure will be contracted to engineering vendors and contractors and a small portion will be done by the communities through the Labour Contracting Societies (LCS) systems already used on HILIP and PROVATI. The training activities		providers for the works and training activities.		Organizational structure of the PMU at the central and district levels should be adequate to cater for the large geographical expanse covered by the project. Modalities for the composition of the LCS, guidelines and procedures, reporting and monitoring should be well specified in the program implementation manual (PIM).

	will be provided by NGOs, GOB training centres, and private training providers. The capacity development, climate information services, and innovation activities will be implemented by the Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and technology (BUET), Bangladesh Water Development Board, and Bangladesh Meteorological Department (BMD). The project activities are relatively not complex however the project covers a wide expanse of geographical area and there are multiple implementing partners comprising government and private sector participants. Additionally, there would be some community level interventions with attendant risks around accessibility and capacity in that space.				
B. **Control risk assessment pillars**					
1. Organization and Staffing	• There may be delays in recruiting and filling vacant positions with suitably experienced and qualified personnel. Root causes may include weak capacity in the job market, interference in the recruitment process and underpayment on projects compared to market price. • Finance function may not be given the required level of attention and authority because LGED is a core technical	S	• Recruitment of key project staff (including finance personnel) would be set as condition precedent to disbursement. • Implementation arrangements including relevant institutions are to be specified in the financing agreement.	S	• Institution of a well-structured finance unit within the PMU that includes competent and qualified staff who can carry out project financial management as per the fund requirements. • All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions

	engineering and infrastructure organisation. • Complex implementation arrangement with multiple governmental implementing agencies (IAs) and support/oversight by Technical Assistance (TA) teams in some instances. Additionally, there will be private sector/NGO partners and some implementation by the LCS.				on IFAD financial management requirements as conducted by IFAD Finance Officer. • Key to ensure appropriate designation is used for FM staff and that qualification and experience and proposed pay are commensurate with job role and competitive. Finance Manager should have the necessary delegation of authority to submit interim and annual financial reports, WAs and other required documentation to IFAD.
2. Budgeting	• There are delays in the submission of AWPB. This is often due to delays in sitting and approval by the project steering committees and difficulties in consolidating budgets from the lower levels of implementation. • Weak budget monitoring at management level with no cross-functional review of implementation progress. Qualitative explanations are not provided along with budget variance analysis submitted with quarterly IFRs.	S	• IFAD financed category amounts and percentages should be clearly detailed in schedule 2 of the FA. • IFAD NO for the first 18-month AWPB would be a condition precedent to disbursement. • The nature and form of Government and beneficiaries' contribution would be clearly stated in the FA.	S	• AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in booking of the expenditure. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of GoB and submitted to IFAD for NO latest by 2 months before the commencement of the fiscal year. • The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.
3. Funds flow and Disbursement Arrangements	• Prolonged process to obtain or amend development project proforma/proposal (DPP) and revised DPP (RDPPP) approvals for projects implemented through	H	• Key start-up activities including the setting up of the PMU office and DPP approvals would be set as	H	• The cost tables, DPP and PIM will have sufficient details on key activities to be implemented and sources of finances for these costs.

	Government agencies. Variations between DPP and project cost tables also generates confusion and hampers implementation. • Sub-optimal disbursement because of delays in the start-up of projects arising from delays in opening bank accounts and fulfilment of the other disbursement conditions. • Weak capacity at lower levels of implementation such as at the community organizations (LCS) and other sub-national and private partner organizations (POs). Oversight and monitoring of these organizations by the project management is often ineffective. •		conditions precedent to disbursement. • FA to clearly outline the flow of funds/disbursement arrangements. • Start-up funds provision would be made in schedule 2 of the FA for early disbursement to operationalize the PMU for effective start-up.		• Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance. • Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process. • IFAD Disbursements will be based on validated 6 months cash forecast, and expenses will be justified based on quarterly interim financial report.
4. Internal Controls	• Instances of non-compliance with applicable internal controls have been reported by the Auditor General of Bangladesh (FAPAD) Pakistan in recent audit reports, as well as in supervision & implementation support missions. • Absence of internal audit function at project management and lower levels of implementation may pose internal control risks. • Contracts and MoUs with implementing partners may not include key clauses on internal controls and reporting requirements. • Inadequate supporting documentation to justify expenditure especially around	H	• Requirement of IFAD NO for the project PIM (including financial management arrangement) would be a condition precedent to disbursement. • Internal audit arrangements would be documented in the FA.	H	• The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. • There will be two Internal Audit Consultants specifically for the IFAD funded projects. The terms of reference should be submitted to IFAD for NO. This should include requirements to: ○ tailor the already developed internal audit charter and manual to LGED/project requirements, ○ develop the annual audit workplan, ○ conduct of internal audit activities and

	asset management, travel expenses, and vehicle fuelling and maintenance, raising the risk of ineligible expenditure. • Weak segregation of duties may arise if approval and authorization duties are concentrated in one role/office.				○ include the reporting and monitoring mechanisms. ○ Collaborate with FAPAD and follow up on recommended actions of internal/external audit and missions. • The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project. • A few internal control measures will be implemented to mitigate risks of internal controls failure such as ○ monthly bank reconciliation. ○ budgetary controls over each transaction. ○ budget vs actual analysis and reporting to PSC. ○ maintenance of Fixed Asset Registers and verification of assets randomly/periodically. ○ complete documentation of activities especially at the beneficiary level and random/periodic inspection to test credibility of reporting by implementing partners. Details will be provided in the PIM. • Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.

5. Accounting and Financial Reporting	• Accounting software may not be adequately sophisticated or customized to meet project reporting requirements. This may result in difficulties to automatically generate required reports from the system, consolidate reports across multiple financing instruments, implementing layers and levels and report on multiple currencies. • Weak monitoring of physical and financial progress may result in difficulty to track implementation progress and gaps and to take prompt remedial actions. • Project financial procedures in the PIM may lack enough details to provide guidance to the project staff and may not be updated as at when required. • Important project supporting documents and files may be lost in the absence of proper archiving and filing systems. Physical copies may be lost forever when there is no electronic backup and filing.	S	• Procurement and installation of appropriate accounting software would be a condition precedent to disbursement.	S	• PMU shall submit to IFAD; Quarterly Interim Financial Reports within 30-day of period end, annual unaudited financial statements within 4-month of year end and annual audited Financial Statements within 6-month of year end. Reports shall be compliant with IPSAS cash standards. • An appropriate Accounting Software (TOMPRO) will be procured, installed and the finance team trained in its use. Financial reports should be auto generated from the procured accounting software. Integration of the service providers, expenditures in the PMU accounting software. Relevant procedures to be identified in the PIM. The finalization and approval of the PIM Designated Accounts for the project will be opened within eight (8) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance. • Electronic filing and archiving will be required and documented in the PIM. The manual filing and archiving system will also be defined.
6. External Audit	• Persistent gaps with reference to external auditing of projects include weak-follow up with audit office resulting in backlog of audit findings, non-resolution of audit findings —which could potentially create ineligible expenditure for the project.	S		S	• PMU will be guided by IFAD to: Engage with FAPAD for timely completion of audit. ○ Send scanned copies of the final audit report as soon the report is ready to ensure on-time submission to IFAD and to avoid delays resulting from

	• Audit may not be required of key sub-recipients of IFAD Financing; hence, Partner Organizations may not submit annual audit reports to the PMUs. This may weaken the levels of assurance over project funds.				mail services. Then the hard copy can follow to IFAD ICO in Dhaka. ○ Settle Audit observations within four (4) months after the Audit Report has been shared with project executing agency to ensure early resolution. ○ Ensure follow up meetings with the Auditors to settle any unsettled audit findings from previous years. ○ Ensure that NGOs and private organizations engage reputable and acceptable Chartered Accountant Firms.
Overall FM Risk @ design[2]	Overall, inherent risk at design is substantial on the back of high country, entity, and project specific risks weighted across the six FM pillars. Mitigating measures would be enshrined in the loan covenants but are not adequate to reduce the residual risk at this time. We expect that the residual risks would become lower as soon as we assess the impact of the mitigating actions from the first supervision mission.	S			

[2] The Final Risk at design should reflect a combined consideration of inherent and control risks for the project.

IV. Financial Management and Disbursement Arrangements

a) Financial management organization and staffing

PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. FM staff from the recently concluded IFAD funded and LGED implemented HILIP CALIP project should be invited to participate in the recruitment process. Finance Manager will be assisted in his functions by a competitively recruited Accounts Officer, and two Accounts Assistants. Project will have largely centralized FM arrangements fully managed at PMU level.

Key to ensure appropriate designation is used for FM staff and that qualification and experience and proposed pay are commensurate with job role and competitive. Finance Manager should have the necessary delegation of authority to submit interim and annual financial reports, WAs and other required documentation to IFAD. All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer.

Detailed job description and terms of reference as well as organigram for FM Section staff are provided in PIM.

b) Budgeting

All project activities will be guided by Annual Workplans and Budgets, based on PDR and Financing Agreement and duly approved by LGED Management and subject to IFAD No Objection. The cost tables, DPP and PIM will have sufficient details on key activities to be implemented and sources of finances for these costs. Subsequently, the AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in booking of the expenditure. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of GoB and submitted to IFAD NO later than by 2 months before the commencement of the fiscal year.

Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process.

For ease of planning and monitoring, AWPB for each component will be further elaborated in quarterly physical and financial targets which shall become the basis for monthly and quarterly planning and progress reviews. LGED Management will conduct a mid-year review to assess progress against annual plan and approve any required adjustments, revisions, and remedial measures. It is expected that the accounting software is sufficiently customized to enable budget encumbrance, monitoring and controls.

c) Disbursement Arrangements and Flow of Funds.

IFAD funds would be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank. To this end, project may consider Janata Bank currently in use by PROVATi. Choice of bank must be approved by LGED Management, ERD and sent to IFAD for registration in the system. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.

The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM during the implementation period. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast. Each quarter the PMU shall submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.

Project will have two sources of funds- IFAD and Government of Bangladesh. PMU will maintain separate accounts for each of the financiers. The government's share in financing comprises cash counterpart funding for payment of applicable taxes and project management costs. The annual requirement of counterpart funds shall be reflected in the project's AWPB and provincial budget. The accounting system shall record government financing separately. Apart from meeting PMU and DMUs own operational expenses, most of the investment funds will be expended through the labour contracting society (LCS) in the community, implementing partners and vendors/contractors. All LCS and implementing partners will maintain dedicated project accounts to facilitate tracking of funds disbursed and utilized. Modalities for the procurement and payments of vendors and contractors will be specified in the PIM. Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process. The AWPB counterpart fund requirements shall be reflected in the Annual Development Programme and budget.

The flow of funds to implementing partners will be further elaborated in PIM and will be reflected in their contracts. Flow of funds will be based on the activities and expenses agreed in the MOUs & contracts signed between PMU and IPs. Based on MOUs and AWPB targets and phasing, PMU may provide initial one quarter advance to IPs. Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.

IPs will render quarterly financial statements of expenses and cash balance, to the District Offices and PMU. PMU Finance Manager will cause inspection of implementing partner accounts at least once every six months. Detailed financial management framework for PMU and IPs is provided in PIM.

d) Internal Controls and Internal audit arrangements.

The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project.

The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.

There will be two Internal Audit Consultants specifically for the IFAD funded projects. The terms of reference should be submitted to IFAD for NO. This should include requirements to:

- tailor the already developed internal audit charter and manual to LGED/project requirements,
- develop the annual audit workplan,
- conduct of internal audit activities and
- include the reporting and monitoring mechanisms.
- Collaborate with FAPAD and follow up on recommended actions of internal/external audit and missions.

Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.

e) Accounting Systems and Financial Reporting mechanisms.

Project accounting will be managed in accordance with IPSAS Cash basis of financial reporting. PMU, at the very start of the project, shall procure an appropriate accounting software to manage its accounts. For reference, IFAD funded projects in the LGED portfolio use TOMPRO. The accounting system will manage and track funds in accordance with source of funds, component allocations, spending entities and disbursement categories. Financial reports should be auto generated from the procured accounting software. There should be adequate integration of the districts, implementing partners, service providers, expenditures in the PMU accounting software. Relevant procedures to be identified in the PIM.

PMU will maintain a full set of supportive records including fixed Assets Register, an invoice register, a cash book, and a Contracts register. Necessary safeguards will be established and regularly reviewed to mitigate risks of fraud and to ensure faithful implementation of IFAD's anti-corruption policy.

PMU will be required to submit three types of financial reports to IFAD. Interim quarterly financial reports within 30 days of close of each quarter, indicating progress under each component and expenditure category, duly reconciled with the bank, and signed by Finance Manager and PD. Detailed unaudited financial reports for each financial year within four months of the close of the financial year. And finally, the audited Financial Statements within 6 months of the close of the financial year (end of December each year). Reports shall be compliant with IPSAS cash standards.

Electronic filing and archiving will be required and documented in the PIM. The manual filing and archiving system will also be defined.

f) External Audit

The Foreign Aided Projects Audit Directorate (FAPAD) of OCAG will audit CRALEP as it has done for HILIP CALIP and PROVATI. FAPAD is a specialized arm of the Office of the Comptroller & Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh and entrusted to auditing the activities of all Development and Technical Assistance Projects and programs in the public sector funded by foreign aid. As a result of its only one of kind task of development project auditing, FAPAD provides independent assurance and report on the proper accounting of project resources to the National Parliament of Bangladesh as well as to the Development Partners also. The OCAG has adopted the Government's Auditing Standards of Bangladesh, which are based on the International Standards of Supreme Audit Institutions (ISSAIs). OCAG is a member of INTOSAI.

PMU will be guided by IFAD to: Engage with FAPAD for timely completion of audit.

- Send scanned copies of the final audit report as soon the report is ready to ensure on-time submission to IFAD and to avoid delays resulting from mail services. Then the hard copy can follow to IFAD ICO in Dhaka.
- Settle Audit observations within four (4) months after the Audit Report has been shared with project executing agency to ensure early resolution.
- Ensure follow up meetings with the Auditors to settle any unsettled audit findings from previous years.
- Ensure that NGOs and private organizations engage reputable and acceptable Chartered Accountant Firms

V. Implementation Readiness.

Table 3: FM Actions to mitigate risks.

S/N	Actions / Covenants[3]	Responsible Party / Person	Target Date /
1	Set up of a dedicated PMU with tailored FM and implementation arrangements to minimize the country and entity level risks. Obtain all necessary DPP/RDPP approvals.	LGED	After project entry into force/disbursement conditions
2	Implementation arrangements including relevant Government agencies that are implementing partners should be specified in the financing agreement. Competitive bidding/procurement process will be required for the vendors, contractors and providers for the works and training activities.	IFAD/LGED	At negotiation and signing of FA
3	Recruitment of key project staff (including finance personnel) would be set as condition precedent to disbursement.	LGED	After project entry into force
4	IFAD financed category amounts and percentages should be clearly detailed in schedule 2 of the FA.	IFAD/LGED	At negotiation and signing of FA
5	IFAD NO for the first 18-month AWPB would be a condition precedent to disbursement.	IFAD/LGED	At negotiation and signing of FA
6	The nature and form of Government contribution would be clearly stated in the FA.	IFAD/LGED	At negotiation and signing of FA
7	Start-up funds provision would be made in schedule 2 of the FA for early disbursement to operationalize the PMU for effective start-up.	IFAD/LGED	At negotiation and signing of FA
8	Requirement of IFAD NO for the project PIM (including financial management arrangement) would be a condition precedent to disbursement.	LGED	After project entry into force/disbursement conditions
9	Internal audit arrangements would be documented in the FA.	IFAD/LGED	At negotiation and signing of FA
10	Procurement and installation of appropriate accounting software would be a condition precedent to disbursement.	LGED	After project entry into force/disbursement conditions
11	FM staff should be orientated to comply with IFAD's requirements in their work— including those relating to IFAD's Anti-corruption policy.	IFAD/LGED	After project entry into force/disbursement conditions
12	Financing agreement will include the IFAD anti-fraud and anti-corruption procedures.	IFAD	At negotiation and signing of FA

VI. FM Supervision plan

IFAD will conduct two full supervision missions in the first year of implementation to assess project progress train project staff in key aspects of management, identify any bottlenecks and provide solutions. Frequency of subsequent supervision and implementation support missions will be determined based on project progress and level of needed support identified.

[3] Indicate if covenants are required in the FA for each of these: effectiveness condition or disbursement condition or dated covenant.

The Finance Officer or a delegated Financial Management Specialist (FMS) will participate in the IFAD Supervision mission at least once a year. Additionally, FO or FMS may participate in implementation support or special purpose missions every year as required and depending on the risk levels and project circumstances.

The missions will define financial management ratings and ensure compliance with the IFAD's requirements. IFAD will also assess and monitor the adequacy of the financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting, and the auditing practices. The key findings and recommendations of the mission will be captured in the Aide Memoire communicated to the Government and in the published supervision mission reports.

Appendix 1: Flow of funds

Figure 3: Flow of Funds Chart

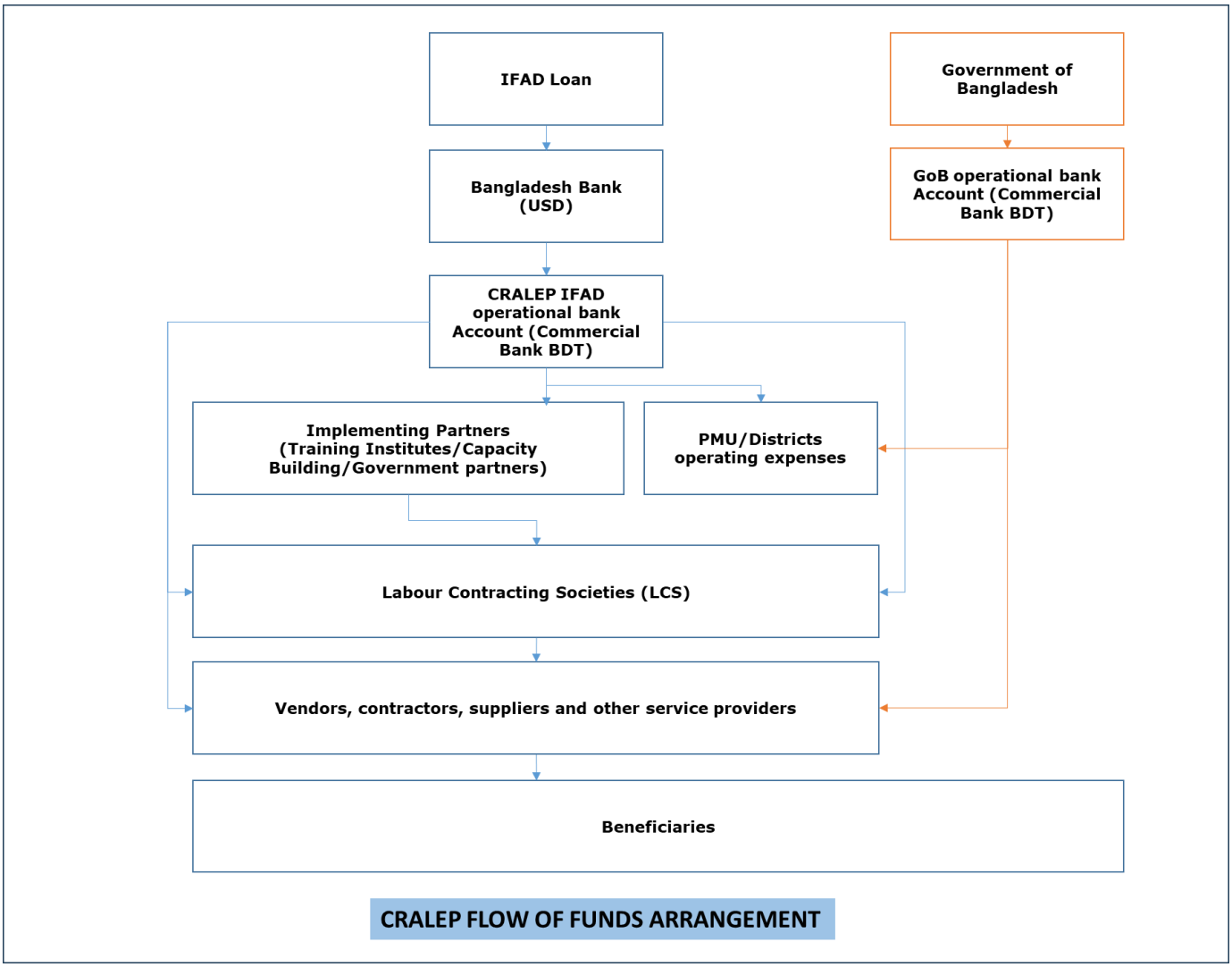


Table 4: Flow of funds per activities, categories and implementers

S/N	Activity	Category	Implementer (Funds flow)
1	Village road connectivity	Works	Vendors/Contractors
2	Rural market improvement (Haor)	Works	Vendors/Contractors
3	Rural market improvement (Barind)	Works	Labour Contracting Society (LCS)
4	Boat landing ghat	Works	Vendors/Contractors
5	Village internal services (walkways, water and sanitation, other infrastructure)	Works	Vendors/Contractors
6	Killa for temporary storage of harvests and shelter	Works	Vendors/Contractors
7	Low-cost nature-based village protection system in Shallow Haor (VPS)	Works	LCS/NGOs
8	Vocational training for employment creation for youth	Training	NGOs/Govt/Private providers
9	Entrepreneurial training for youth	Training	NGOs/Govt/Private providers
10	Sustainable livelihoods for LCS members	Training	NGOs
11	Capacity Building of CReLIC	Training	LGED
12	FFEWS in Haor	Training	IWFM/BWDB (Govt institution)
	drought early warning in Barind for community resilience	Training	BMD (Govt institution)
13	Innovation in construction and livelihoods diversification	Training	LGED
14	Policy and dissemination	Training	LGED
15	Project management costs (salaries, allowances, and operating expenses)	Operating expenses	LGED PMU/Districts

Appendix 2: FMAQ

FMAQ has been uploaded to FMDB.

Annex to the Project Design Report

The Project Implementation Manual is provided in the PDR with FM inputs.

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 8: 18-month Procurement Plan

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Procurement Plan SUMMARY

Country:	Bangladesh
Project Name:	The project is expected to begin in January 2025.
Project ID:	
Version	
Version Date	

Procurement Category	Plan	Actual	Percentage [Value]	Plan - Numbers	Actual - Numbers	Percentage [Numbers]	Prior Review-Numbers
Goods	3 644.75	-	0.00%	23	11	47.83%	4
Works	41 769.00	-	0.00%	161	95	59.01%	51
Consulting Services	2 479.30	-	0.00%	15	10	66.67%	13
BDT	**47 893.05**	**-**	0.00%	199	116	58.29%	68
						Percentage fo Prior r	34%

Prior Review Thresholds

Covnersion Rate
85 BDT per USD

Thresholds	Goods	Works	Non-Consulting Services	Firms - Consulting Services	Individuals - Consulting Services	Single Source
Prior Review	≥ US$ 94,117	≥ US$ 152,942	≥ US$ 94,117	≥ US$ 58,824	≥ US$ 35,294	All Single Source in the PP
Post Review	< US$ 94,117	< US$ 152,942	< US$ 94,117	< US$ 58,824	< US$ 35,294	None

All Direct Contracting (Good above US $ 5,000); Direct Contracting (Works): First LCS Contract in each district subject to Prior review and All Single-Source Consultancy contracts

Procurement Method Thresholds

Covnersion Rate
85 BDT per USD

	Shopping	NCB	ICB	Shopping	NCB	
Goods	≤ US$ 5,882	> US$ 5,882 and < US $ X as per PPR - 2008	No transcation in the project	< BDT 500,000	> BDT 500,000	as per PPR - 2008
Works	≤ US$ 11,765	≥ US$ 11,765 and < US $ X as per PPR - 2008	No transcation in the project	< BDT 1,000,000	> BDT 1,000,000	as per PPR - 2009
Non-Consulting Services	≤ US$ 5,882	≥US$ 5,882 and < US $ X as per PPR - 2008	No transcation in the project	< BDT 500,000	> BDT 500,000	as per PPR - 2008
	ICS	**Single Source**	**QCBS / LCS / FBS / CQS**			
Individuals	As per PPR -2008	As per PPR -2008	Not permisible			
Firms	Not permisible	As per PPR -2008	As per PPR -2008			

Procurement Plan - GOODS

Version		Bangladesh
Date		

		Project ID:	Basic Data								Bidding Process				Bid Evaluation					Contract Award & Signature	
AWPB/Component Ref	№	Description*	Funding	Package/ Lot Number	Pre-or Post Qualification	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (BDT)	Plan vs. Actual	Prep of BD	No-objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt	No-objection Date	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Date Contract Award	Date Contract Signature
	1	4WDs pickup (03 Nos.)	IFAD+GOB		Post-Qual	Prior Review	Plan	**DC**	300.00	Plan	1-Jan-25	2-Jan-25				6-Jan-25	N/A	N/A	Plan	10-Jan-25	12-Jan-25
							Actual			Actual									Actual		
	2	Motor vehicles for PMUs (33 Nos.)	IFAD+GOB		Post-Qual	Prior Review	Plan	**NCB**	82.50	Plan	15-Feb-25	22-Feb-25	24-Feb-25	24-Mar-25	7-Apr-25	14-Apr-25	21-Apr-25	21-Apr-25	Plan	28-Apr-25	26-May-25
							Actual			Actual									Actual		
	3	Machinaries/Tools for Kishorganj & Sunamganj (CBR Testing Machine, VICAT Apparitors, OVEN, Odometer etc.)	IFAD+GOB		Post-Qual	Post Review	Plan	**NCB**	1 885.00	Plan	1-Mar-25		3-Mar-25	4-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
						Post Review	Actual			Actual									Actual		
	4	Machinaries/Tools for Chapai Nawabganj (CBR Testing Machine, CTM, Bitumin Softening Point, Bitumin Extractor Machine, VICAT Apparitors, OVEN, DCP Apparatus, Odometer, Road Roller etc.)	IFAD+GOB		Post-Qual	Post Review	Plan	**NCB**	1 060.00	Plan	1-Mar-25		2-Mar-25	1-Apr-25	15-Apr-25	N/A	N/A	N/A	Plan	22-Apr-25	20-May-25
							Actual			Actual									Actual		
	5	Road Roller	IFAD+GOB		Post-Qual	Post Review	Plan		18.75	Plan	1-Mar-25		3-Mar-25	4-Apr-25	5-May-25	25-May-25	30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
					Post-Qual	Post Review	Actual			Actual									Actual		
	6	Supply of Computer with printers and other accessories	IFAD+GOB		Post-Qual	Post Review	Plan	**NCB/NS**	90.00	Plan	1-Mar-25	2-Mar-25	3-Mar-25	4-Apr-25	5-May-25	25-May-25	30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
							Actual			Actual									Actual		
	7	Supply of Air-conditioner	IFAD+GOB		Post-Qual	Prior Review	Plan	**NCB/NS**	12.50	Plan	1-Mar-25		3-Mar-25	4-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
					Post-Qual	Prior Review	Actual			Actual									Actual		
	8	Office Stationary	IFAD+GOB		Post-Qual	Post Review	Plan	**NCB**	30.00	Plan	1-Mar-25		3-Mar-25	4-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
					Post-Qaul	Post Review	Actual			Actual									Actual		
	9	Supply of Photocopier	IFAD+GOB		Post-Qual	Prior Review	Plan	**NS**	7.50	Plan	20-Apr-25		20-Apr-25	28-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
							Actual			Actual									Actual		
	10	Supply of Laptops	IFAD+GOB		Post-Qual	Post Review	Plan	**NCB/NS**	25.00	Plan	20-Apr-25		20-Apr-25	28-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
							Actual			Actual									Actual		
	11	Supply of Scanner, Projector, Digital camera	IFAD+ GOB		Post-Qual	Post Review	Plan	**NS**	50.00	Plan	20-Apr-25		20-Apr-25	28-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
					Post-Qual	Post Review	Actual	**NS**		Actual									Actual		
	12	Supply of Office furniture for Establishment	IFAD+ GOB		Post-Qual	Post Review	Plan	**NCB/NS**	187.50	Plan	20-Apr-25		20-Apr-25	28-Apr-25	5-May-25		30-May-25	5-Jun-25	Plan	1-Jul-25	2-Jul-25
					Post-Qual	Post Review	Actual			Actual	4-Aug-20		6-Aug-20	13-Aug-20	13-Aug-20	N/A	N/A	N/A	Actual	13-Aug-20	13-Aug-20
	13	Internet Router (Installation with WIFI)	IFAD+ GOB		Post-Qual	Post Review	Plan	**NS/DC**	2.50	Plan	1-Jan-25	N/A	2-Jan-25			N/A	N/A	N/A	Plan	10-Jan-25	10-Jan-25
					Post-Qual	Post Review	Actual			Actual									Actual		
	14	Telephone arrangement from PMU	IFAD+ GOB		Post-Qual	Post Review	Plan	**NS/DC**	0.50	Plan	1-Jan-25	N/A	2-Jan-25			N/A	N/A	N/A	Plan	10-Jan-25	10-Jan-25
							Actual			Actual									Actual		

		Project ID:	Basic Data								Bidding Process				Bid Evaluation					Contract Award & Signature	
AWPB/Component Ref	№	Description*	Funding	Package/ Lot Number	Pre-or Post Qualification	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (BDT)	Plan vs. Actual	Prep of BD	No-objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt	No-objection Date	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Date Contract Award	Date Contract Signature
	15	Office Furniture	IFAD+ GOB		Post-Qual	Post Review	Plan	**NS**	50.00	Plan	25-Sep-20	N/A	26-Sep-20	10-Oct-20	17-Oct-20	N/A	N/A	N/A	Plan	21-Oct-20	23-Oct-20
							Actual			Actual									Actual		
	16	Safety Gears/Uniform/Tools for LCS Members	IFAD+GOB		Post-Qual	Post Review	plan	**NS**	25.00	Plan	25-Jul-25	N/A	26-Jul-25	9-Aug-25	16-Aug-25	N/A	N/A	N/A	Plan	20-Aug-25	22-Aug-25
							Actual			Actual									Actual		
	17	Computer Software: TOMPRO etc.	IFAD+GOB		Post-Qual	Post Review	plan	**NS**	38.00	Plan	15-Feb-25	N/A	16-Feb-25	24-Mar-25	31-Mar-25	N/A	N/A	N/A	Plan	4-Apr-25	6-Apr-25
					Post-Qual	Post Review	Actual	**NS**		Actual											

Prior Review	4	**3 644.75** Plan
		Actual

Prepared by: Approved by: No Objected to by:

Procurement Methods

National Shopping	**NS**
International Shopping	**IS**
National Competitive Bidding	**NCB**
International Competitive Bidding	**ICB**
Limited (International) Bidding	**LIB**
Direct Contracting	**DC**

* Only required when two-envelope system is used

Procurement Plan - WORKS

Version	
Date	

Bangladesh

			Basic Data								Pre-Qualification						Bidding Process				Bid Evaluation					Contract Award & Signature	
AWPB/Component Ref	№	Description*	Funding	Package/ Lot Number	Pre-or Post Qualification	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (BDT)	Plan vs. Actual	Prep of PreQual docs	No Objection Date	PreQual Invitation Date	PreQual Closing Date	Submission of PreQual Report	No Objection Date	Prep of BD	No-objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt	No-objection Date	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Date Contract Award	Date Contract Signature
C 1.3	1	Construction of Submergible village RCC road	IFAD+GOB	PRO/PMU/VR/01-60	Post-Qual	Post Review	Plan	**NCB**	12 480.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	N/A	21-Feb-25	23-Mar-25	6-Apr-25	N/A	13-Apr-25	N/A	Plan	20-Apr-25	18-May-25
				60			Actual			Actual															Actual		
C 1.3	2	Construction of Submergible Union RCC road	IFAD+GOB	PRO/PMU/UR/61	Post-Qual	Prior Review	Plan	**NCB**	195.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	27-Feb-25	1-Mar-25	31-Mar-25	14-Apr-25	21-Apr-25	28-Apr-25	28-Apr-25	Plan	5-May-25	2-Jun-25
				1	Post-Qual	Prior Review	Actual			Actual	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15-Nov-20	N/A	N/A	Actual	N/A	10-Sep-20
C 1.3	3	Construction of Submergible Drainage structures	IFAD+GOB	PRO/PMU/DS/91-191	Post-Qual	Post Review	Plan	**NCB**	975.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	N/A	21-Feb-25	23-Mar-25	6-Apr-25	N/A	N/A	N/A	Plan		
				100			Actual			Actual															Actual		
C 1.3	4	Construction of BC village roads	IFAD+GOB	PRO/PMU/BC/192-242	Post-Qual	Post Review	Plan	**NCB**	8 125.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	N/A	21-Feb-25	23-Mar-25	6-Apr-25	N/A	N/A	N/A	Plan		
				50			Actual			Actual															Actual		
C 1.3	5	Construction of Union BC road for completing full point to point connectivity	IFAD+GOB	PRO/PMU/UBC/243--246	Post-Qual	Post Review	Plan	**NCB**	780.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	N/A	21-Feb-25	23-Mar-25	6-Apr-25	N/A	N/A	N/A	Plan		
				4	Post-Qual	Post Review	Actual			Actual	N/A	N/A	N/A	N/A	N/A	N/A									Actual	N/A	9-Mar-21
C 1.3	6	Construction of Ghat in Haor Region	IFAD+GOB	PRO/PMU/GhatH/247--256	Post-Qual	Post Review	Plan	**NCB**	520.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	N/A	21-Feb-25	23-Mar-25	6-Apr-25	N/A	13-Apr-25	N/A	Plan	20-Apr-25	18-May-25
				10			Actual			Actual															Actual		
C 1.3	7	Construction of Ghat in Barind region	IFAD+GOB	PRO/PMU/GhatB/256-267	Post-Qual	Prior Review	Plan	**NCB**	520.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Feb-25	27-Feb-25	1-Apr-25	1-May-25	15-May-25	22-May-25	29-May-25	29-May-25	Plan	5-Jun-25	3-Jul-25
				10			Actual			Actual															Actual		
C 1.3	8	Development of Large Rural market	IFAD+GOB	PRO/PMU/LM/268-272	Post-Qual	Post Review		**NCB**	650.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	20-Jun-25	N/A	1-Apr-25	1-May-25	15-May-25	N/A	22-May-25	N/A	Plan	29-May-25	26-Jun-25
				5	Post-Qual	Post Review	Actual			Actual															Actual		
C 1.3	9	Construction of Killa building	IFAD+GOB	PRO/PMU/Kill/273-287	Post-Qual	Post Review		**NCB**	1 404.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	25-Aug-25	N/A	1-Apr-25	1-May-25	15-May-25	N/A	22-May-25	N/A	Plan	29-May-25	26-Jun-25
				15			Actual			Actual															Actual		
C 1.3	10	Construction of Villages internal services package	IFAD+GOB	PRO/PMU/VIS/288-337	Post-Qual	Post Review		**NCB**	15 600.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	1-May-25	N/A	1-Jun-25	1-Jul-25	15-Jul-25	N/A	N/A	N/A	Plan	29-Jul-25	26-Aug-25
				50			Actual			Actual															Actual		
C 1.3	11	Construction of Inter village connecting foot bridge	IFAD+GOB	PRO/PMU/VCF/337-341	Post-Qual	Post Review	Plan	**NCB**	520.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	1-May-25	N/A	1-Jun-25	1-Jul-25	15-Jul-25	N/A	22-Jul-25	N/A	Plan	29-Jul-25	26-Aug-25
				4	Post-Qual	Post Review	Actual			Actual	N/A	N/A	N/A	N/A	N/A	N/A									Actual		

Prior Review	51	**41 769.00**	Plan
			Actual

Prepared by: Approved by: No Objected to by:

Procurement Methods

National Shopping	**NS**
International Shopping	**IS**
National Competitive Bidding	**NCB**
International Competitive Bidding	**ICB**
Limited (International) Bidding	**LIB**
Direct Contracting	**DC**
LCS	LCS

* Only required when two-envelope system is used

Version		Bangladesh
Date		

			Basic Data							EOI Shortlist Procedure						Proposal Process				Evaluation					Contract Award & Signature			
Component Ref	№	Description*	Funding	Shortlist (Yes|No)	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (BDT)	Plan vs. Actual	Prep of REOI	No Objection Date	REOI Launch Date	EOI Submission Deadline	Submission of Shortlist Report	No Objection Date	Prep of RFP/RCQ	No-objection Date	RFP/RCQ Launch Date	Proposal submission deadline	Submission of TER	No-objection Date	Submission of CER	No-objection Date	Plan vs. Actual	Negotiations completed	Submission of Draft Contract and MoN	No-objection Date	Date Contract Signature
	1	Topographic Survey and pre-design consultation For Ghat development in Haor Region	IFAD + GOB	Yes	Post Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				Yes		Actual			Actual															Actual				
	2	Topographic Survey and pre-design consultation For Ghat development in Barind Region	IFAD+GOB	Yes	Post Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				Yes		Actual	ICS		Actual															Actual				
	3	Topographic survey, village needs' assessment, determine design specification (Uniblock walkway, water sanitation and other infrastructure)	IFAD+GOB	Yes	Post Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				Yes		Actual	ICS		Actual															Actual				
	4	Topographic Survey and pre-design consultation For Submergible village RCC road	IFAD+GOB	Yes	Post Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				Yes		Actual	ICS		Actual															Actual				
	5	Topographic Survey and pre-design consultation For Submergible Union RCC road	IFAD	Yes	Post Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				No	Post Review	Actual	ICS		Actual															Actual				
	6	Topographic Survey and pre-design consultation For Low-cost nature-based village protection system in Shallow Haor (VPS)	IFAD+GOB	Yes	Prior Review	Plan	CQS	10.00	Plan							2-Feb-25		5-Feb-25	15-Feb-25	20-Feb-25				Plan				26-Feb-25
				Yes		Actual			Actual															Actual				
	7	Team Leader, Rural Dev Specialist	IFAD+GOB	Yes	Prior Review	Plan	ICS	117.00	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	8	Design engineer (civil works)/DTL	IFAD+GOB	Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	9	02 Nos. Asst Design engineer	IFAD+GOB	Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	10	02 Nos AutoCAD operator	IFAD+GOB	Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	11	02 Nos Estimator	IFAD	Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	12	Market design & planner	IFAD+GOB	Yes	Prior Review	Plan	ICS	70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	13	Livelihood specialist	IFAD+GOB	Yes	Prior Review	Plan	ICS	70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	14	Climate change expert and Hydrologist	IFAD+GOB	Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	15	Financial Specialist						70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
									Actual															Actual				
	16	Junior Financial Officer						46.80	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
									Actual															Actual				
	17	02 Nos Junior software expert (TOMPRO)		Yes	Prior Review	Plan	ICS	93.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	18	Procurement specialist		Yes	Prior Review	Plan		70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	19	M&E, KM specialists		Yes	Prior Review	Plan	ICS	70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				

Component Ref	№	Description*	Funding	Shortlist (Yes|No)	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (BDT)	Plan vs. Actual	Prep of REOI	No Objection Date	REOI Launch Date	EOI Submission Deadline	Submission of Shortlist Report	No Objection Date	Prep of RFP/RCQ	No-objection Date	RFP/RCQ Launch Date	Proposal submission deadline	Submission of TER	No-objection Date	Submission of CER	No-objection Date	Plan vs. Actual	Negotiations completed	Submission of Draft Contract and MoN	No-objection Date	Date Contract Signature
	20	Gender and social inclusion specialist		Yes	Prior Review	Plan	ICS	70.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	21	MIS Officer		Yes	Prior Review	Plan	ICS	58.50	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	22	M&E KM Officer		Yes	Prior Review	Plan	ICS	58.50	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	23	Training & logistic support Officer		Yes	Prior Review	Plan	ICS	58.50	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	24	03 Nos Quality Control Engineers		Yes	Prior Review	Plan	ICS	210.60	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	25	03 Nos Laboratory Technician		Yes	Prior Review	Plan	ICS	140.40	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	26	08 Nos Livelihood Officer		Yes	Prior Review	Plan	ICS	421.20	Plan	20-Jan-25	27-Jan-25	1-Jan-25	15-Jan-25	24-Jan-25	31-Jan-25	1-Feb-25	10-Feb-25							Plan	15-Feb-25			25-Feb-25
				Yes		Actual			Actual															Actual				
	27	Baseline Survey		Yes	Prior Review	Plan	QCBS	65.00	Plan	1-Feb-25	10-Feb-25	15-Feb-25	15-Mar-25	15-Apr-25	24-Apr-25	1-Mar-25	10-Mar-25	12-Mar-25	12-Apr-25	15-May-25	25-May-25	26-May-25	5-Jun-25	Plan	15-Jun-25	25-Jun-25	30-Jun-25	6-Jul-25
				Yes		Actual			Actual															Actual				
	28	Vocational Training	IFAD+GOB	Yes	Post Review	Plan	QCBS	260.00	Plan	1-Feb-25	10-Feb-25	15-Feb-25	15-Mar-25	15-Apr-25	24-Apr-25	1-Mar-25	10-Mar-25	12-Mar-25	12-Apr-25	15-May-25	25-May-25	26-May-25	5-Jun-25	Plan	15-Jun-25	25-Jun-25	30-Jun-25	6-Jul-25
				Yes	Post Review	Actual			Actual															Actual				

Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 9: Project Implementation Manuals

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Project ID: 2000004265
Project Name: Climate Resilience and Livelihoods Enhancement Project **(CRALEP)**

PROJECT IMPLEMENTATION MANUAL (PIM)

i. Introduction to PIM and CRALEP

1. This project implementation manual (PIM) has been prepared to guide the project management unit (PMU) to implement all project activities as per project design documents and annual work plans. The PIM should be read in conjunction with the project design report (PDR) with associated Appendices produced during the design process and technical background papers produced during the project start up. Aside from the PIM, there will be separate manuals/documents such as LCS Management Manual; the Financial Management Manual and Procurement Manual to support the PIM are appended herewith.
2. The PIM has been reviewed and approved by LGED and IFAD. The Project Management Unit (PMU), established within the Local Government Engineering Department (LGED) and responsible for implementing this project, will seek IFAD's approval for future amendments and revisions.
3. The PIM provides an outline of the overall project components and their implementation process. However, the PIM will be further elaborated during the start-up period to enable the project to begin its implementation.
4. All the targets for the components and subcomponents are provided in the project cost table, which is annexed to this PIM in Annex 1.

ii. CRALEP Project Context

5. The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability of people in two critical climate hotspots, the flood-prone Haor and the drought-prone High Barind regions, by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to improve resilience of grey infrastructure, agricultural land and homesteads, and creating local as well as non-farm employment through skill development. The main beneficiaries are the poor, smallholders, youth, and women. The Local Government Engineering Department (LGED) will implement CRALEP.
6. **National priorities:** The project aligns with the short, medium, and long-term plans of the country as set out in the on-going 8th Five-year Plan (2021-2025), Perspective Plan 2021-2041, and Delta Plan 2100. The 8th FYP focuses on promoting agricultural diversification, employment growth, constructing sustainable connectivity infrastructure, and improving environmental protection and climate adaptation. The core theme of the Perspective Plan is to make poverty a thing of the past. The Delta Plan sets out a vision for achieving a safe, climate-resilient, and prosperous delta by the end of the twenty-first century.
7. CRALEP aligns closely with National Adaptation Plan of Bangladesh (NAP), Mujib Climate Prosperity Plan and Bangladesh Climate Change Strategy and Action Plan (BCCSAP) through its strong focus on climate-resilient infrastructure, and inclusive and diversified livelihoods responsive to gender, age, and disability in vulnerable regions like Haor and High Barind. It is also aligned with Bangladesh Climate and Development Platform's goals to integrate climate and green dimensions into public planning and incentivize locally led climate actions.
8. **SDGs, UNSDCF and GBFF:** The project contributes to zero hunger and food security (SDG2), income enhancement (SDG1), reduction of climate vulnerability (SDG13), women's development (SDG5), reduced inequalities (SDG10), and water and sanitation (SDG6). It will contribute to UN's Sustainable Development Cooperation Framework (2022-2026)'s Strategic Priority 1 (Inclusive and sustainable economic development) through skill development, and increased and equitable opportunities for decent jobs and livelihoods, Strategic Priority 2 (Equitable human development and well-being) through investments in water, sanitation and hygiene (WASH), and Strategic Priority 3 (Sustainable, healthy and resilient environment) through reduced vulnerability to natural hazards and climate change adaptation as well as Strategic Priority 5 (Gender equality and eliminating gender-based violence) through gender-responsive and targeted livelihood opportunities. GBFF recognizes NbS as a key approach to minimizing impact of climate change on

biodiversity and strengthening resilience. Since the Haor region contributes about 10% of the country's total rice production, any loss of production will have a serious impact on food prices and macro-economic management. Similarly, the Barind region loses between 50-70% of Aman (monsoon) rice production during severe droughts and Boro (winter) rice cultivation is impossible without irrigation[1].

9. COSOP and IFAD's strategic priorities: CRALEP aligns with IFAD COSOP 2023-2028 'Strategic Objective 1: To strengthen the climate change adaptation and mitigation capacities of vulnerable rural communities through resilient infrastructure and climate-smart agriculture'. The project will also address other priorities of IFAD, such as employment creation for the poor and young women and men in the farm and non-farm sectors.

iii. CRALEP Geographic Coverage

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
IFAD *Map compiled by IFAD* | 09-07-2024

[1] https://www.sciencedirect.com/science/article/pii/S221146452400023X

iv. CRALEP Goal, Objective and Outcomes

10. The Theory of Change (ToC) for the Climate Resilience and Livelihood Enhancement Project (CRALEP) addresses key challenges in the Haor and High Barind regions through targeted interventions designed to improve connectivity, protect villages and provide basic services, diversify livelihoods, provide flash floods and drought early warning, and enhance institutional capacity. While both regions face similar challenges owing to climate change (prolonged excess heat, rainfall variability, tropical cyclone, lightning), the key climate challenge in Haor is floods and flash floods and in High Barind is drought. The project's goal is to significantly reduce poverty and increase climate resilience by mitigating the adverse food security and livelihood impacts of climate change in these regions. In Haor, the nature of climate risks (extended flooding, flash floods, wave action) with impacts on physical and mental well-being as well as homes and productive assets necessitates additional investments in basic and protective infrastructure (focus of component 2).

11. The impact development pathways of CRALEP are designed around a series of causal relationships leading from immediate outputs to long-term impacts. Improved road connectivity increases market accessibility, facilitating better livelihood options for adults and youth, and access to social services. Village protection measures, such as nature-based solutions and improved infrastructure, enhance resilience against severe weather events (reducing risks of loss of homestead / productive assets) and result in better living conditions. Diversified income sources from vocational training and micro-entrepreneurship will support economic empowerment, improved gender equality and social inclusion. The project's development outcomes and impacts are, of course, contingent on households and communities effectively utilizing and leveraging skills, services, and connectivity. Strengthening LGED's capacity for innovation that integrates nature-based solutions and early warning systems will enhance preparedness for climate events, reduce agricultural production and asset losses, decrease maintenance costs of grey infrastructure, and promote sustainable and resilient communities.

12. The Haor region faces difficult connectivity during the dry season and use boats where roads are absent or during the flooded season, and the High Barind region struggles with connectivity year-round due to poor village roads; additionally, while upazila roads are well developed in Haor, some upazila roads are poorly developed in Barind. This limited connectivity hinders investments in agriculture and business, by increasing perception of risks and reducing incentives[2]. That is, farmers currently grapple with high cost of transport (for harvests), relatively less ease of accessing quality inputs from markets, and increased risk of post-harvest losses (particularly for horticulture crops and fish / livestock products) due to time / distances involved and poor access to early warning and climate information. The resultant high cost of production and climate risks are implicit disincentives to, for example, agricultural diversification from rice to more profitable and/or climate-resilient fruits, vegetables, livestock and fish, and reduces net profits. Haor households have been forced to rely on waterways for substantive portion of the year, and even with climate-proofed connecting roads, this is likely to continue when such roads are submerged. In High Barind region, boats are also used for navigation in wetlands and rivers / streams. Therefore, CRALEP will also upgrade boat landing stations– this encompasses the roads and pathways connecting the boat stations to markets. Finally, while upazila-level markets in Haor are fairly developed and require upgrades (drainage, internal pathways, composting), similar markets in Barind require development. Improving the buying and selling conditions at the market and strengthening Market Management Committees for maintenance and management will contribute to the organization and functioning of markets.

[2] Over the decades, several studies have also examined how idiosyncratic household shocks or climate shocks and perception of risks can adversely impact livelihoods and agricultural productivity by indirectly influencing attitudes to risk – increasing uncertainty and disincentivizing investment – and directly through damaging productive assets and infrastructure (Morduch 1990, Rosenzweig and Wolpin 1993, World Development Report 2014, Carter, Cheng and Sarris 2016).

CRALEP aims to connect villages with markets, institutions and higher-level road networks t. The expected outcome is improved physical access to markets, improved livelihood options, and expanded access to social services for community members.

13. Village services for resilient communities in Haor areas addresses the unique physical resilience measures that Haor villages require, in the absence of which asset retention and accumulation is challenged. Village erosion due to wave action, poor internal communication, lack of safe water and sanitation, and loss of harvests and productive assets to monsoon floods and flash floods are significant issues in the Haor region. CRALEP proposes building low-cost nature-based village protection systems, developing internal walkways, constructing tubewells for drinking water and toilets blocks, and constructing killas (elevated storage/shelter). The outcome will be improved village protection, living conditions, and resilience against wave action and severe weather events through adoption of environmentally sustainable and climate resilient technologies and practices.

14. In both regions, livelihoods are heavily dependent on agriculture and agricultural labor, with few options for diversification. Limited access to markets exacerbates this issue. CRALEP addresses this through vocational training for young men and women, micro-entrepreneurship development with a focus on agri-business opportunities, and sustainable income generation for Labor Contracting Society (LCS) members. Strong linkages with existing projects and partners (PKSF) will be developed to ensure that micro-entrepreneurs can access credit to incubate or further develop their businesses. Typically, PKSF and its POs also provide business development support as a part of credit programs and this will complement CRALEP training.

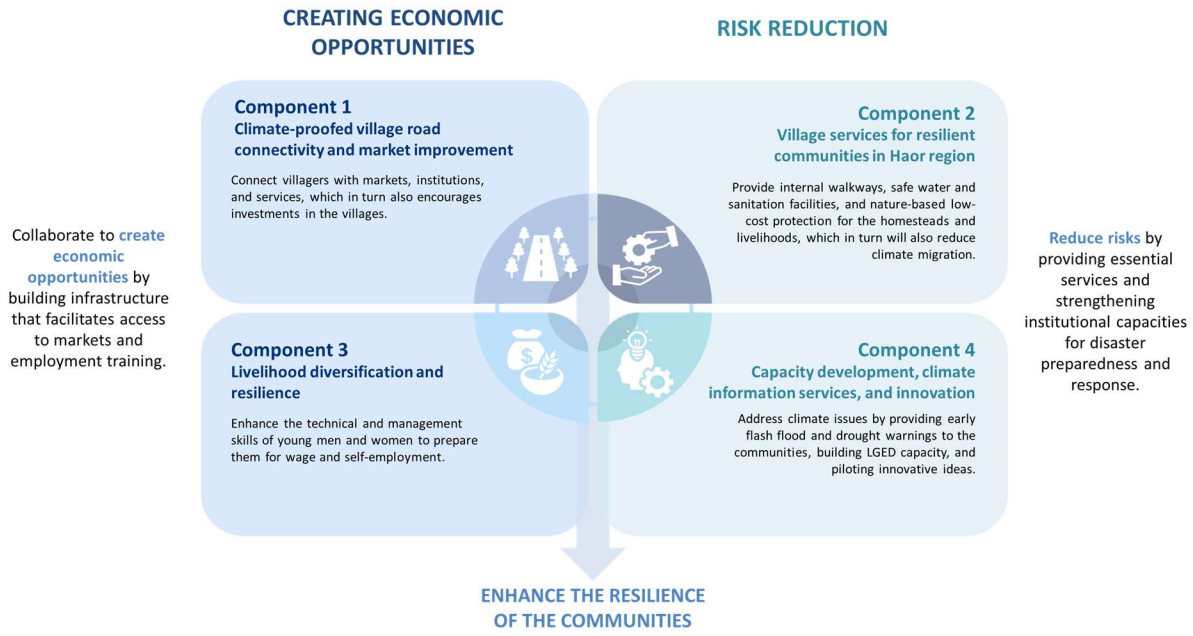
15. The overall approach of the project establishing linkages between households and both input providers and off-takers through improved village roads connecting to local markets, facilitating easier access to inputs and sales of agricultural outputs. Effective market management is highlighted as essential, as roads and markets together enhance household income sustainability, access to social services, and overall resilience when integrated with other project activities. Efforts to engage Market Management Committees are intended to ensure the upkeep of developed market infrastructure.

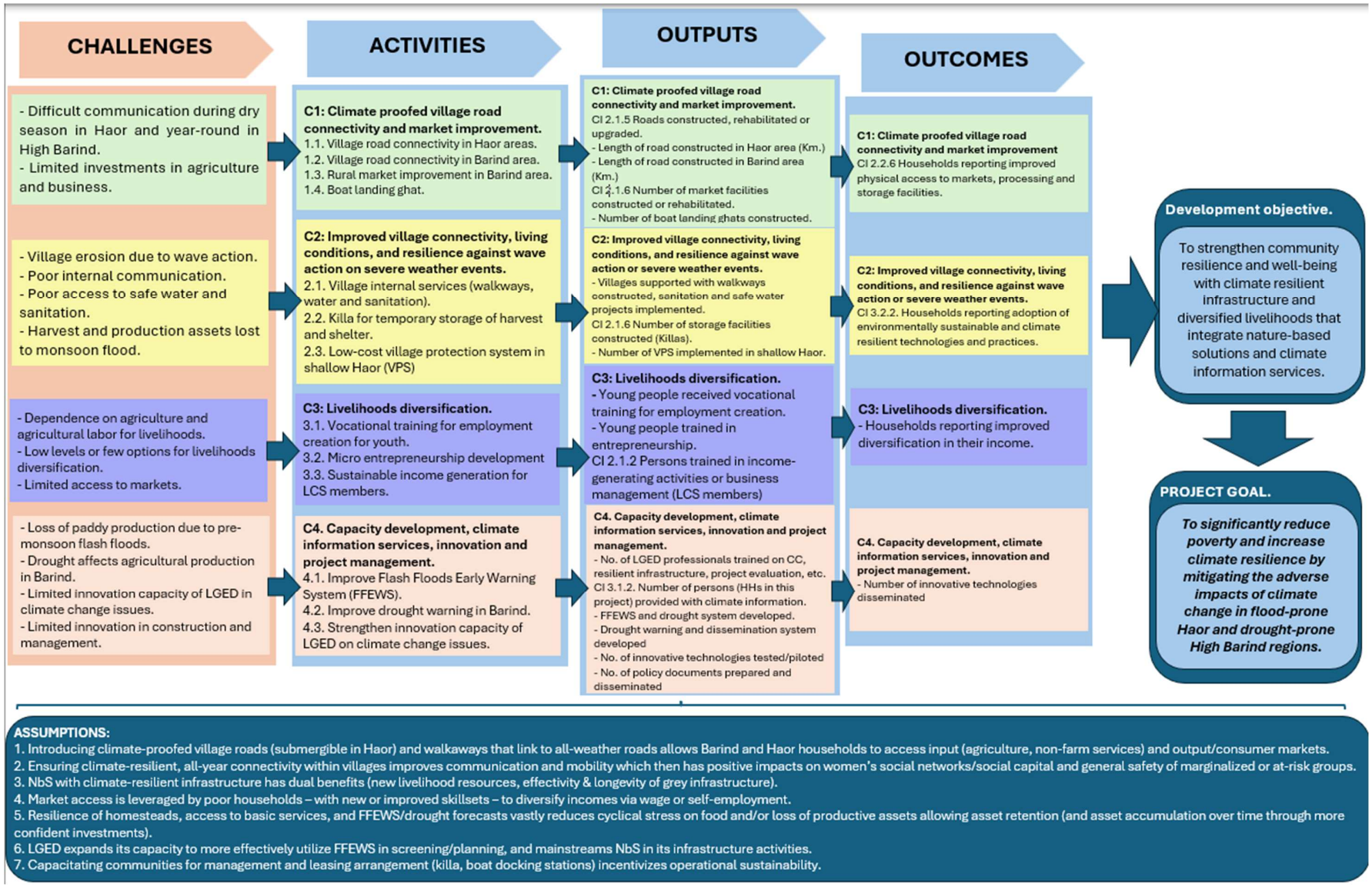
16. The expected outcome is diversified wage and self-employment opportunities for young men and women and members of the LCS.

17. The regions also face loss of paddy production due to pre-monsoon flash floods in Haor and droughts affecting agricultural production in Barind. CRALEP aims to improve flash floods early warning system (FFEWS) in Haor, enhance drought warning in Barind, and strengthen LGED's innovation capacity on climate change issues through Component 4: Capacity development, climate information services, innovation, and project management. The outcome is strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions.

18. The project focuses on socioeconomic empowerment of youth in the Haor and High Barind regions by improving village road connectivity to all-weather roads. This infrastructure upgrade is critical for facilitating market access, reducing transportation costs, and boosting local trade opportunities. By linking remote villages to markets and enhancing market facilities, CRALEP supports agricultural production and trade, particularly fisheries in Haor and crop farming in Barind. Improved road connectivity also enables youth to access social services and diversify their income through vocational training and micro-entrepreneurship. Village protection measures against severe weather improve living conditions and safeguard assets, while early warning systems enhance preparedness for climate events. These combined interventions create a pathway for youth socioeconomic empowerment by providing necessary skills, infrastructure, and opportunities to thrive in a resilient and sustainable environment.

19. A diagram, outlining the intercomponent complementarity is provided below, demonstrating the combined benefits of the project initiatives:




CHALLENGES
ACTIVITIES
OUTPUTS
OUTCOMES
- Difficult communication during dry season in Haor and year-round in High Barind.
- Limited investments in agriculture and business.
C1: Climate proofed village road connectivity and market improvement.
1.1. Village road connectivity in Haor areas.
1.2. Village road connectivity in Barind area.
1.3. Rural market improvement in Barind area.
1.4. Boat landing ghat.
C1: Climate proofed village road connectivity and market improvement.
CI 2.1.5 Roads constructed, rehabilitated or upgraded.
- Length of road constructed in Haor area (Km.)
- Length of road constructed in Barind area (Km.)
CI 2.1.6 Number of market facilities constructed or rehabilitated.
- Number of boat landing ghats constructed.
C1: Climate proofed village road connectivity and market improvement
CI 2.2.6 Households reporting improved physical access to markets, processing and storage facilities.
- Village erosion due to wave action.
- Poor internal communication.
- Poor access to safe water and sanitation.
- Harvest and production assets lost to monsoon flood.
C2: Improved village connectivity, living conditions, and resilience against wave action or severe weather events.
2.1. Village internal services (walkways, water and sanitation).
2.2. Killa for temporary storage of harvest and shelter.
2.3. Low-cost village protection system in shallow Haor (VPS)
C2: Improved village connectivity, living conditions, and resilience against wave action or severe weather events.
- Villages supported with walkways constructed, sanitation and safe water projects implemented.
CI 2.1.6 Number of storage facilities constructed (Killas).
- Number of VPS implemented in shallow Haor.
C2: Improved village connectivity, living conditions, and resilience against wave action or severe weather events.
CI 3.2.2. Households reporting adoption of environmentally sustainable and climate resilient technologies and practices.
- Dependence on agriculture and agricultural labor for livelihoods.
- Low levels or few options for livelihoods diversification.
- Limited access to markets.
C3: Livelihoods diversification.
3.1. Vocational training for employment creation for youth.
3.2. Micro entrepreneurship development
3.3. Sustainable income generation for LCS members.
C3: Livelihoods diversification.
- Young people received vocational training for employment creation.
- Young people trained in entrepreneurship.
CI 2.1.2 Persons trained in income-generating activities or business management (LCS members)
C3: Livelihoods diversification.
- Households reporting improved diversification in their income.
- Loss of paddy production due to pre-monsoon flash floods.
- Drought affects agricultural production in Barind.
- Limited innovation capacity of LGED in climate change issues.
- Limited innovation in construction and management.
C4. Capacity development, climate information services, innovation and project management.
4.1. Improve Flash Floods Early Warning System (FFEWS).
4.2. Improve drought warning in Barind.
4.3. Strengthen innovation capacity of LGED on climate change issues.
C4. Capacity development, climate information services, innovation and project management.
- No. of LGED professionals trained on CC, resilient infrastructure, project evaluation, etc.
CI 3.1.2. Number of persons (HHs in this project) provided with climate information.
- FFEWS and drought system developed.
- Drought warning and dissemination system developed
- No. of innovative technologies tested/piloted
- No. of policy documents prepared and disseminated
C4. Capacity development, climate information services, innovation and project management.
- Number of innovative technologies disseminated
Development objective.
To strengthen community resilience and well-being with climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services.
PROJECT GOAL.
To significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought-prone High Barind regions.
ASSUMPTIONS:
1. Introducing climate-proofed village roads (submergible in Haor) and walkaways that link to all-weather roads allows Barind and Haor households to access input (agriculture, non-farm services) and output/consumer markets.
2. Ensuring climate-resilient, all-year connectivity within villages improves communication and mobility which then has positive impacts on women's social networks/social capital and general safety of marginalized or at-risk groups.
3. NbS with climate-resilient infrastructure has dual benefits (new livelihood resources, effectivity & longevity of grey infrastructure).
4. Market access is leveraged by poor households – with new or improved skillsets – to diversify incomes via wage or self-employment.
5. Resilience of homesteads, access to basic services, and FFEWS/drought forecasts vastly reduces cyclical stress on food and/or loss of productive assets allowing asset retention (and asset accumulation over time through more confident investments).
6. LGED expands its capacity to more effectively utilize FFEWS in screening/planning, and mainstreams NbS in its infrastructure activities.
7. Capacitating communities for management and leasing arrangement (killa, boat docking stations) incentivizes operational sustainability.

20. **Project Goal:** to significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought-prone High Barind regions.
21. **Project Objective:** to strengthen community resilience and well-being through climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services.
22. **Components:** The project has 4 components:
23. **Component 1: Climate proofed village road connectivity and market improvement (USD 61 million).** The outcome of Component 1 is 'Outcome 1: Increased market accessibility, improved livelihood options, and expanded access to social services for community members.' It is divided into four subcomponents: 1.1 Village Road connectivity in Haor areas; 1.2 Village Road connectivity in Barind area; 1.3 Rural market improvement in Barind and Haor; and 1.4 Boat landing platform (Ghat). This component focuses on connecting villagers with markets, institutions, and services, which in turn also encourages investments in the villages. All infrastructure will have enhanced engineering specifications to withstand the adverse effects of climate change and avoid impacts on biodiversity and ecosystems (including wetlands).
24. **Component 2. Village services for resilient communities in Haor region (USD 24 million).** The outcome of Component 2 is 'Outcome 2: Improved village protection, living conditions, and resilience against wave action and severe weather events.' It is divided into three subcomponents: 2.1 Village internal services (walkways, safe drinking water and sanitation, common community space); 2.2 Killa for temporary storage of harvests and shelter; and 2.3 Low-cost nature-based village protection system in Shallow Haor (VPS). This component is to provide internal walkways, safe water and sanitation facilities, and nature-based low-cost protection for the homesteads and livelihoods, which in turn will reduce loss of homesteads, productive assets, and harvests; it could also reduce climate migration (in combination with livelihood interventions in Component 3). The project villages will be selected using predetermined criteria to prioritize poorer, vulnerable and remote villages with nonexistent internal services. The village communities will be organized and trained to maintain this minor infrastructure, including the union parishad in Haor / Barind, community structures in Haor, and water management cooperative associations in Barind.
25. **Component 3: Livelihood diversification and resilience (USD 13.8 million).** The outcome of this component is 'Outcome 3: Diversified wage and self-employment opportunities for young men and women and members of the LCS.' The subcomponents are: 3.1 Vocational training for employment creation for youth; 3.2 Entrepreneurship training for youth; and 3.3 Sustainable livelihoods for LCS members. This component focuses on the enhancement of technical and management skills of young men and women for preparing them for wage and self-employment. The unique feature of this component will be three interrelated elements: selection of young women and men from poor families, demand-driven vocational training and placement for wage-employment through a network of employers or assistance for self-employment, including access to credit through complementary projects such as RMTP (ongoing) and FAST (under design). LCS members will be provided training on livelihoods and be engaged in the plantation and maintenance of bamboo and vetiver grass nurseries (used for NbS) to place them on an empowerment pathway to eradicate poverty.
26. **Component 4. Capacity development, climate information services, and innovation (USD 1.5 million).** The outcome of this component is 'Outcome 4: Strengthened innovation capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies.' It is divided into four small subcomponents: 4.1 Capacity building of CReLIC; 4.2 FFEWS in Haor and drought forecasting in Barind for community resilience; 4.3 Innovation in construction, materials, and livelihood diversification; and 4.4 Policy and dissemination. This component directly addresses climate issues by providing early flash flood and drought warning to the communities, as well as capacity building of LGED and piloting innovative ideas to ensure that climate adaptation considerations are mainstreamed in line with LGED and national goals on climate change and sustainable development.
27. The logical framework of the project is presented below:

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach Project outreach in terms of beneficiaries receiving project services and corresponding households and HHs members	1 Persons receiving services promoted or supported by theproject				MIS/MES	semester/annual	LGED	
	Males	0	201124	670413				
	Females	0	201124	670413				
	Young	0	281573	938578				
	Not Young							
	Non-Indigenous people							
	Total number of persons receiving services	0	402248	1340826				
	1.a Corresponding number of households reached				MIS/MES	semester/annual	LGED	
	Women-headed households	0	14032	46773				
	Non-women-headed households	0	79514	265047				
	Households	0	93546	311820				
	1.b Estimated corresponding total number of households members				MIS/MES	semester/Annual	LGED	
	Household members	0	402248	1340826				
Project Goal To significantly reduce poverty and increase climate resilience by mitigating the adverse impacts of climate change in flood-prone Haor and drought- prone High Barind regions.	HHs reporting increase in income				COI HH survey	BL, MT, End	LGED	
	Percentage of households	0	5	15				
	HHs reporting improvement in household assets				HH survey - FAO FIES methodology (to be added to COI	BL, MTR/PCR	LGED	
	Households	0	5	15				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective To strengthen community resilience and well-being of particularly youth population with climate resilient infrastructure and diversified livelihoods that integrate nature-based solutions and climate information services.	2.2.1 Persons with new jobs/employment opportunities				COI HH survey	BL, MT, PCR	LGED	
	Males	0	5760	14400				
	Females	0	2400	6000				
	Young	0	8160	20400				
	Total number of persons with new jobs/employment opportunities	0	8160	20400				
	SF.2.1 Households satisfied with project-supported services							
	Household members		321798	1072661				
	Households (%)		24	80				
	Households (number)		74837	249456				
	SF.2.2 Households reporting they can influence decision- making of local authorities and project-supported service providers							
	Household members		60604	202014				
	Women-headed households							
	Households (%)		5	15				
	Households (number)		14094	46980				
	% of Households increase the Ability to Recover from Shocks (ATR) - Resilience Capacity				COI HH survey	BL, MT, End	LGED	
	Increase ATR (%)							
Outcome Outcome 1: Increased market accessibility, improved livelihood options, and expanded access to social services for community members.	SF.2.1 Households satisfied with project-supported services							
	Household members		321798	1072661				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)		24	80				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households (number)		74837	249456				
	SF.2.2 Households reporting they can influence decision- making of local authorities and project-supported service providers							
	Household members		60604	202014				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)		5	15				
	Households (number)		14094	46980				
	2.2.1 Persons with new jobs/employment opportunities							
	Males		5760	14400				
	Females		2400	6000				
	Young		8160	20400				
	Total number of persons with new jobs/employment opportunities		8160	20400				
	2.2.6 Households reporting improved physical access to markets, processing and storage facilities							
	Households reporting improved physical access to markets		11	35				
	Size of households		141565	471882				
	Households reporting improved physical access to markets		32922	109740				
	Total households reporting improved physical access		32922	109740				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 1: Climate resilient village road connectivity and market improvement	2.1.5 Roads constructed, rehabilitated or upgraded				MIS/MES	semester/annual	LGED	
	Length of roads	0	100	334				
	2.1.6 Market, processing or storage facilities constructed or rehabilitated							
	Total number of facilities		34	58				
	Number of boat landing ghats constructed				MES/MIS	semester/annual	LGED	
	Number	0	17	34				
Outcome Outcome 2: Improved village connectivity, living conditions, and resilience against wave action and severe weather events.	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI Outcome survey	BL, MTR, PCR	LGED	
	Total number of household members		77400	258000				
	Households		6	19				
	Households	0	18000	60000				
	1.2.3 Households reporting reduced water shortage vis-à-vis production needs							
	Households		6	19				
	Households		18000	60000				
	Total number of household members		77400	258000				
Output Output 2:Village services for resilient community in Haor area	Villages supported with walkways constructed, sanitation and safe water projects implemented				MES	semester/annual	LGED	
	Number of villages	0	72	240				
	Number of tube wells installed	0	216	720				
	Number of toilet block built	0	144	480				
	Paved walkways constructed(km)	0	22	72				
	Storage and shelter facilities constructed (Killas)				MES	semester/annual	LGED	

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Number of Killas constructed	0	22	72				
	VPS implemented in shallow Haor							
	Number of VPS implemented	0	84	280				
Outcome Outcome 3: Diversified wage and self-employment opportunities for young men and women and members of the LCS	Households reporting improved diversification in their income				COI HH survey	BL, MT, End	LGED	
	Households reporting improved income diversification (%)	0	5	15				
	Household members reporting improved income diversification	0	60604	202014				
	Total no. of households reporting improved income diversification	0	14094	46980				
Output Output 3: Diversification of livelihoods	Young people received vocational training for employment creation				MES	semester/annual	LGED	
	Young men trained		7200	24000				
	Young women trained		3000	10000				
	Total young people trained		10200	34000				
	Young people trained in entrepreneurship				MES	semester/annual	LGED	
	Young men trained in entrepreneurship		2100	7000				
	Young women trained in entrepreneurship		900	3000				
	Total young people trained in entrepreneurship		3000	10000				
	LCS members trained on family-based income generating program				MES	semester/annual	LGED	
	Men		179	596				
	Women		715	2384				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Total LCS members trained on IGAs		894	2980				
Outcome Outcome 4: Strengthened capabilities of the LGED in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies	Number of innovative technologies disseminated							
	Number of innovative technologies disseminated	0	1	5				
Output Output 4: Capacity building, weather services and innovation	Number of LGED staffs trained on Climate Change, Climate resilient infrastructure, project evaluation etc.				MES			
	Men	0	42	140				
	Women	0	18	60				
	Total person trained (#)	0	60	200				
	3.1.2 Persons provided with climate information services							
	Males	0	80922	265047				
	Females	0	14280	46773				
	Young		38081	124728				
	Persons provided with climate information services	0	95202	311820				
	Flesh Flood Early Warning System (FFEWS) and drought system developed							
	Number	0	1	1				
	Drought warning and dissemination system developed							
	Number	0	1	1				
	Number of innovative technologies tested/piloted							
	Number	0	2	5				
	Policy 1 Policy-relevant knowledge products completed							

	Number		1	5				

28. The description of the project targets and beneficiaries is provided in the below table:

Main Project Target and Beneficiaries

Sub-comp.	Subcomponent Title	Main activities	Target	Direct beneficiaries (Persons)	Beneficiary HHs (#)	Population
1.1	Village Road connectivity in Haor areas	Village road construction (km)	141		16,920	72,756
1.2	Village Road connectivity in Barind area	Village and union road construction (km)	193		23,160	99,588
1.3	Village Market development and rehabilitation	Market development in Barind (#)	10		20.200	86,860
		Market rehabilitation in Haor (#)	48		96,960	416,928
1.4	Boat landing platform (Ghat)	Ghat construction (Haor and Barind)	34		Included in market	--
2.1	Village internal services in Haor (internal walkways, toilet blocks, tubewells)	Number of villages (#)	240		48,000	206,400
2.2	Killa for temporary storage of harvests and shelter in Haor	Number of killas (#)	72		3,600	15,480
2.3	Low-cost nature-based village protection system in Shallow Haor (VPS)	Number of villages	280		56,000	240,800
3.1	Vocational training for employment creation for youth (Haor and Barind)	Number of trainees (#)	34,000	34,000	34,000	146,200
3.2	Entrepreneurship training for youth	Number of trainees (#)	10,000	10,000	10,000	43,000
3.3	Sustainable livelihoods for LCS members	Number of LCS members (#)	2,980	2,980	2,980	12,814
	Total: Comp 1 to 3			**46,980**	**311,820**	**1,340,826**

29. Following considerations have been made while identifying the targets for the respective subcomponents:
    a. Component 1: All households on both sides of the road within 1 km of radius, the command area for the markets and boat landing stations.
    b. Component 2: All households of the villages provided with internal services and village protection services.
    c. Component 3: Vocational trainees - young men and women from poor and ultra poor families selected by the NGO/Training Providers. A portion of vocational trainees and other young persons who want to expand their income generating activities and potential microentrepreneurs from poor families in the project upazilas who are already managing IGAs will be the target for entrepreneurship training and supported for access to finance via PKSF POs. LCS members will be selected by LGED from ultra poor households following their standard procedure and based on income criteria.
    d. Component 4: Flash Flood Early Warning System: All households of the 24 upazillas in the Haor region. Drought Warning System: All households of the 9 upazillas in the High Barind region.

v. Implementation of components

30. Prior to implementation of project activities, as a matter of practice, LGED and target communities engage in Participatory Rural Appraisal (PRA). PRAs gather essential and early information on stakeholders' perception of needs, select activity sites (including identification of *khas* – public

lands), assess who may be affected by the activity (positively or negatively), ensure participation of local stakeholders in activity planning and implementation, and gain informed consent. These PRAs are also critical to convey expectations and confirm that beneficiaries are willing and able to take full responsibility for operation and maintenance of built structures, and is in line with plans for stakeholder engagement as outlined in the Stakeholder Engagement Plan (SEP). During implementation, the SEP will be updated with plans for the PRA.

31. **Component 1 Climate proofed Union and village road connectivity and market improvement:** The Outcome of Component 1 is Climate resilient village roads (and in particular cases union roads), rural market, and the related infrastructures built and used. It is divided into four sub-components, namely: 1.1) Road connectivity in Haor region, 1.2) Road connectivity in High Barind Region, 1.3) Climate Resilient Rural market improvement, 1.4) Boat landing ghat (Haor and High Barind). The engineering (conceptual) designs for each activity is detailed in Annex 2 (through 13 diagrams). The COSTAB provides unit costs for different road categories.
32. **Subcomponent 1.1 Village Road connectivity in Haor areas.** Road communication is a crucial infrastructure for the development of any rural area, serving as the main artery for advancement. The primary focus of this project is enhancing village roads. In special cases, if the village road being improved cannot connect the village to the arterial road system due to a small unpaved gap in the higher tier i.e. union or upazila road, the project may consider addressing it.
33. In the Haor region, establishing all-weather roads presents significant challenges, particularly due to the substantial ecological impact (if roads bifurcate wetlands) and cost (implementation and maintenance) involved. When roads are raised, wave action and flash floods can easily erode the raised embankments (on the sides of the roads) and result in damage to the road structure itself; this is exacerbated by land and soil characteristics (high clay content, poor drainage characteristics, low cohesion[3]). As a result, the Haor has long remained underdeveloped in terms of road connectivity. During the monsoon, people can only travel by boat, and in the dry season, there are no viable transportation options aside from walking. Villages located isolated from the mainland have effectively remained disconnected.
34. To address the road connectivity of the villagers during the dry season, LGED initiated the construction of submersible roads in Haor region. Submersible roads are designed, in general, almost to be at grade, allowing upstream water to flow uninterrupted, and are intended for use only during the dry season.
35. The project aims to construct roads mainly along existing routes, avoiding land acquisition and the creation of new embankments unless necessary to meet engineering requirements. The planned activities to be implemented under the component include constructing village roads with special consideration for the union road.
36. The project's main emphasis will be on constructing submersible roads. This approach draws from past experiences, including PROVATi3 and HILIP-CALIP. They will serve as vital pathways during the dry season when travel options are limited to foot travel. The project will upgrade submersible roads in the Haor region by using Reinforced Cement Concrete (RCC). In some cases, surfacing by Uniblock or cement concrete block might be suitable depending on the site situation.
37. The major considerations for the selection of a road are (a) Shortest route, (b) benefit of the maximum population, (c) connecting more than one village, (d) straight in nature, (e) connects markets and Ghats (Boat landing station), other public service points, and (f) a short disconnection (i.e., those stretches that are under or poorly developed) of the previously developed union and village road.
38. To finalise the selection for implementation, a comprehensive topographic survey for each road covering the surroundings will be conducted by engaging a third party. The existing and proposed feasible alignments will be marked on the topographic map, which will then be sent to the upazila engineer for consultation with beneficiaries, the landowners where necessary who will provide a No Objection Certificate (NOC) by signing the map for constructing the road along the technically

[3] Islam , Md. Maminul, and Sree Pradip Kumer Sarker. 2024. "Characterization of Soil Properties Influencing Flash Flood-Related Road Damage in North-Eastern Regions of Bangladesh". International Journal of Environment and Climate Change 14 (1):726-34. https://doi.org/10.9734/ijecc/2024/v14i13888.

viable alignment, which will finally be authenticated by the UP chairman. If the NOC cannot be obtained, the road construction will receive lower priority and may be dropped from the project.

39. Generally, roads will adhere to the standard LGED road design where it may not be feasible for the design team to conduct detailed engineering design on a case-by-case basis. However, a typical design concept should be given lower priority.
40. The design of each road will be thoroughly verified, taking into account subsoil characteristics, and anticipated traffic. In the Haor region, the road geometry and structural design can be treated more liberally.
41. Before implementation, a sub-soil investigation of each road alignment, after obtaining the final NOC, must be conducted by a third party. This investigation will provide data for an engineering detailed design or the adoption of a standard design from the road design standards. During implementation, design modifications are often necessary to adapt to field conditions. Therefore, design experts will be engaged intermittently throughout the project. Since the project is located in wetlands, to mitigate risks from civil works, earth motion and sand pollution, pre-design consultations and investigations will involve environment and biodiversity expert – for e.g., through implementation partners of other components such as BFRI or BFD.
42. Due to a lack of timely maintenance, some of the existing roads have developed numerous potholes and large broken sections, causing communication disruptions. Without rehabilitation, these routes risk permanent disconnection. Similarly, numerous roads suffer from a serious lack of earthen shoulder maintenance, and in some cases, shoulders are completely absent, putting the roads at significant risk of damage. Implementing shoulder maintenance activities, including minor protective works in areas affected by wave action, can help the roads last more and ensure connectivity. The government may prioritize the maintenance and rehabilitation of damaged infrastructure using GoB funding.
43. One of the challenges in the Haor region is protecting the slopes of all-weather roads from wave action built under various projects. Traditional methods like tree planting take years after years to become effective and it is also a challenge to reduce the mortality rate, while using concrete cement (CC) blocks, brick walls, RCC retaining walls, or any other high-tech method is very expensive. However, vetiver grass has proven to be a highly effective solution for slope protection. The project will implement vetiver grass for protecting the slopes of all-weather roads already constructed under any project both in Haor and Barind region. Establishing a vetiver nursery, planting it on the road slopes, and maintaining it for three years will be part of the LCS's responsibilities through Sub-component 3.3.
44. **Sub-Component 1.2: Road connectivity in High Barind Region:** The expected outcome of this component is improved road connectivity for men and women in the project areas, enhancing their access to markets and social services. The planned activities include constructing village roads with special consideration for the union road.
45. For the selection of a road the major considerations are (a) Shortest length, (b) benefit of the maximum population, (c) connecting more than one village, (d) straight in nature, (e) connecting markets and Ghats (Boat landing station), flood shelters, other public service points, and (f) a short disconnection of the previously developed road. The primary focus is on enhancing village roads, in special cases, if the village road being improved cannot connect the village to the arterial road system due to a small unpaved gap in the higher-tier road, the project may consider addressing it.
46. The design will consider the elevation of the road surface and the surface runoff considering the impacts of climate change.
47. Specific bays will be provided at designated stops to prevent congestion from vehicles stopping on the road. The road signs and markings will be established. At junction points, the intersections will be provided according to the latest road design standards of LGED.
48. All these road constructions will incorporate measures to ensure adequate drainage infrastructure, including small rural bridges and culverts, and surface drainage systems to accommodate increased runoff and fish passage in floodplains due to climate change. Since the project geography contains ponds, small wetlands and riverine areas, to mitigate risks from civil works,

earth motion and sand pollution, pre-design consultations and investigations will involve environment and biodiversity expert – for e.g., through implementation partners of other components such as BFRI or BFD.

49. The project aims to construct and upgrade roads by paving them with various types of pavements, including Bituminous Carpeting (BC), Reinforced Cement Concrete (RCC), and Herringbone Bond (HBB), over the existing earthen alignments. In some cases, Uniblock surfacing might be suitable.
50. In the High Barind region, the roads passing through markets or densely populated settlement areas, where water ponding on the paved road is likely, will be paved with RCC and must include surface drainage provisions.
51. Priority will be given to paving wider areas beyond the designed road width in markets to accommodate villagers' motorcycles, rickshaws, vans, three-wheelers, etc. for temporary standing, provided that *khas* land is available along the road. This widening might be suitable by Uniblock.
52. The selection of pavement type will depend on the prevailing local conditions. In some areas, HBB roads may be upgraded to bituminous or even RCC roads. Typically, village roads are 12 feet wide according to current road standards. However, in cases of severe land scarcity, the project may accept roads in some crucial sections 10 feet wide.
53. Similar to the Haor region, the topographic survey and consultation with the beneficiaries will be held in the Barind region.
54. For slope stabilization, designs developed under the Coastal Climate Resilient Infrastructure Project (CCRIP) and LGED best practices will be adopted, with necessary adjustments for flood-prone areas. It will be a mandatory design feature for the project to use vetiver grass on all roads for slope protection. Establishing a vetiver nursery, planting it on the road slopes, and maintaining it for three years will be part of the LCS's responsibilities through Sub-component 3.3.
55. Usual selection criteria will be applied for the selection of LCS crews. An open, participatory and transparent process will be adopted to ensure unbiased recruitment in consultation with the respective Union Parishad. LGED has an elaborate LCS management manual, which will be adopted by the project. Lessons from the previous projects may also be incorporated in the manual.
56. Similar to the Haor region, maintenance and rehabilitation are in high demand. The government may prioritize the maintenance and rehabilitation of damaged infrastructure using GoB funding.
57. **Sub-component 1.3 Climate Resilient Rural market improvement. Rural markets in High Barind region:** The goal of this component is to achieve 'Enhanced marketing of farm and non-farm produce in project markets'. The outputs of this component involve the improvement of community (village) market facilities, which include the addition of a multi-purpose shed (single storey), fish/meat shed, open paved area for sellers/traders, toilet blocks, internal roads and drainage, water supply, and the construction and management of dustbins, garbage pits and composting units for solid waste disposal. Since PKSF and its POs have developed significant experience in promoting compositing facilities, lessons and best practices from that experience will be adopted by CRALEP. Market development efforts will primarily focus on relatively poor temporary traders, rather than permanent shopkeepers. As a result, open sheds and platforms will be prioritized.

58. The goal of developing a village market is to enable local farmers and fishermen to bring their produce for sale, facilitating its transport to larger markets. Well-functioning markets where crop, livestock and fish farmers regularly gather are also likely to attract / incentivize input suppliers to offer good quality inputs. This initiative will also offer trading facilities in maintaining safe / hygienic conditions, improve the efficiency of Market Management Committees (MMCs), and provide employment opportunities for poor women as members of LCS.
59. MMCs are 11-member committees headed by the Union Parishad (local government) Chairperson as Ex-officio Chair and a shop owner as Secretary, and have the official mandate for market management under existing government regulations. They receive 25% of lease proceeds for management and maintenance of the market. MMCs are elected for two-year terms by users of the market, including day traders. CRALEP recognizes that the functioning of MMCs is critical to project sustainability and exit strategy, and that there is risk of elite capture in MMCs. Therefore,

budget has been allocated to conduct upazila MMC workshops (30 individuals per batch) – three (3) such workshops across the project implementation timeframe; twenty (20) market users, stakeholders and traders' workshops, and twenty (20) market periphery and demarcation workshops and handover and maintenance workshops. In this process, MMC strengthening will be supported to ensure adequate representation of the smaller traders and women traders.

60. The primary selection criteria for markets (hat/bazaar) are: a) Availability of sufficient khas (public/government) land for development, or the community must provide/donate land for development following government procedures; b) market must be declared as 'market' by UNO (Upazila Nirbahi Officer – the Chief Executive Officer of an upazila); c) small, medium and large markets (haat) will be selected; d) MMC and traders' association must assure support during development and assure proper cleaning and maintenance after development; and e) important local markets that serve many neighbouring villages, and having multi-modal connectivity for accessing greater marketing opportunities. The project will not construct new markets but up-grade existing market sites.
61. During the implementation process, a topographic survey will be conducted to document all physical features and mark the boundaries. A master plan will be developed in collaboration with the Market Management Committee and the beneficiaries.
62. The plan will encompass all proposed physical features, including parking facilities, temporary parking, loading and unloading spaces, a dedicated drainage outfall, etc. The infrastructure design will follow the practices used in previous projects and adhere to LGED standards. Other considerations may include accessibility and cultural aspects related to social inclusion, gender, youth, persons with disability, Ethnic Minorities: for example, to adhere to local privacy preferences, the entrances of gents & ladies toilets should be placed in the opposite direction.
63. Since electricity is now widely available, all market structure designs must now incorporate built-in electrical wiring for every structure.
64. **Rural markets in Haor region:** Land for market expansion is severely limited in the Haor region. However, there is a significant need to rehabilitate the existing market structures built with financial support from previous projects or GOB funds. The project will support both the rehabilitation and maintenance of these structures and the development of an internal road system, including drainage, internal pathways and compositing units.
65. Recognizing that the existing drainage system is not properly maintained, the project will design the road surface to ensure surface runoff can flow over it during rain. Additionally, if land becomes available and there is demand from the community, the market can be expanded as part of this project. In the event of expanding the existing market, the same procedures for selection, planning, and implementation that apply to the Barind region will be followed.
66. All markets will be elevated appropriately to stay above flood levels, taking into account the impacts of climate change. The topographic survey will gather data on flash floods and the highest flood elevations for a 20-year return period based on the local interview.
67. For new construction of the structures, LGED guidelines will be followed but the case-by-case design is preferable.
68. **Subcomponent 1.4: Boat landing ghat (Haor and High Barind):** Bangladesh is a country crisscrossed by a vast network of rivers and water bodies. A boat landing ghat in Bangladesh is a crucial infrastructure feature, particularly in rural areas where road infrastructure is limited but there are plenty of canals, rivers, and water bodies.
69. Boat landing ghats are essential to the transportation network and daily life in Haor and High Barind. They combine practicality, economic activity, and cultural richness, highlighting their significance in the fabric of Bangladeshi society.
70. This component aims to improve connectivity for people in the project areas, in particular the Haor region, enhancing their access to markets and social services through water transport via a suitable boat landing station. Planned activities include a) constructing the ghat, b) incorporating loading and unloading facilities, and c) connecting the ghats to the market's internal road system. The structural design will be improved by adding a waiting place where feasible (seating area for elderly, persons with disability, pregnant women, children) and proper slope. Slope strengthening

will incorporate Nature-based Solutions tested in Sub-Component 2.3 i.e., using boric acid treated bamboo and vetiver grasses (managed by LCS) to increase where feasible in Haor.

71. When choosing a ghat, the following factors are crucial: a) the riverfront market has year-round boat access; b) the larger market loses access during the monsoon season; and c) the availability of land.
72. The Ghat will be designed to endure seasonal variations, especially monsoon floods. The construction will utilize Reinforced Cement Concrete and will include convenient landing and anchoring facilities for rural boats to ensure safe loading and unloading of commodities.
73. **Component 2 Village services for the resilient community in Haor region**: This component focuses exclusively on village protection measures in Haor, where small villages are vulnerable to erosion from wave action and flash floods – a situation not observed in Barind. The expected outcomes of the component include improved internal walkways, enhanced water (tubewell) and sanitation (toilet blocks) facilities, a small boat landing ghat, and infrastructure for common areas built and used. This component has three subcomponents 2.1) Village internal services (walkways, water and sanitation, small boat landing station, common area development and other infrastructure); 2.2) Killa for temporary storage of harvests and shelter; 2.3) Low-cost nature-based village protection system in Shallow Haor (VPS). The conceptual design for each activity is detailed in Annex 2.
74. **Subcomponent 2.1 Village internal services (walkways, water and sanitation, village-level boat landing station - ghat, and other infrastructure):** The expected outcomes of the CRALEP project for this component include improved walkways, enhanced water and sanitation facilities, a boat landing ghat for use during the monsoon, and the development of common areas for public use.
75. A topographic survey will be conducted across the entire village, capturing all its physical features. This topographic map will aid in planning and locating facilities to maximize benefits for the villagers.
76. Walkways in the villages will be constructed using Cement Concrete. Alternatively, Uniblock can be used for internal roads, connecting to nearby submersible roads or where feasible.
77. Water and sanitation are crucial for the villagers' hygiene. Tube wells will be designed based on the aquifer conditions and water quality, which can vary from village to village. Users will receive training to understand potential issues and maintenance procedures. Additionally, they will be provided with a set of tools for minor repair work.
78. Single-pit latrines (SPL) are now nearly obsolete. The project will initiate to provide latrines that are an improved version compared to SPLs, reflecting current demand and socio-economic development. The model provided by the project will serve as an example for the remaining households to follow.
79. During the monsoon, boats are the sole means of transportation. Weekly marketing, students' commute to school, and villagers' travel to nearby service centres rely primarily on private engine-boat services. The project will include the construction of designated boat landing stations with resting sheds at the village level (with Sub-Component 1.3 focusing on higher level boat landing stations).

80. Until the Haor water recedes, children and young people remain mostly idle as they lack playgrounds for sports, common areas for gatherings, spaces for threshing and drying harvested paddy, and land for public events in the villages. The project aims to develop a piece of land adjacent to the village if government or donated land becomes available.
81. **Subcomponent 2.2: Killa for temporary storage of harvests and shelter:** In the Haor regions, earthen killa (raised land) constructions offer significant protection of harvested crops and for keeping cattle and other livestock safe during floods and flash floods. Flash floods in the Haor region of Bangladesh are primarily caused by intense and concentrated rainfall in the upstream hilly regions, often in northeastern India, during the pre-monsoon season. These floods can be sudden and devastating, particularly when they occur just as the paddy in the vast Haor is about to ripen, is ripening, or is in the early stages of harvest.

82. When farmers are warned about an impending flood (through the Flash Flood Early Warning System-FFEWS, Sub-component 4.2), they must quickly harvest their paddy crops. Transporting the harvested crops to the villages is time-consuming and labor-intensive, leading to delays in the harvesting process. As a result, many crops end up submerged and are lost.
83. The earthen Killa constructed in the Haor, away from the villages, serves as raised land where farmers can initially store their harvested crops from the nearby fields. This allows farmers to save time and secure their crops before transporting them to the village, thus protecting the harvest from being submerged by floodwaters.
84. During the planning phase, the site selection involves identifying areas that are cultivated annually and are situated at a distance from nearby villages in consultation with the community and local government representatives, especially the Union Parishad representatives, and subject to allocation of land from the government. This strategic positioning aims to safeguard crops from potential losses due to delayed harvesting before floodwaters inundate the land.
85. The project will design the earthen Killa, taking into account the 10-year or 20-year return period of flash floods in the area. The elevation of the Killa will be determined based on the anticipated flood height, with additional allowance for freeboard. The killas will be bult by private contractors by digging earth from nearby canals under the supervision of the LGED Upazila Office, and selecting sites away from embankments to prevent erosion. Furthermore, Vetiver grass will be planted along the slope of the raised earth to protect the Killa against waves.
86. **Subcomponent 2.3: Low-cost nature-based village protection system in Shallow Haor (VPS):** The activities planned under this component include a) designing and constructing different types of village slope protection using treated bamboo (with Boric acid) and planting Vetiver grass; b) developing common village protection infrastructure (grey infrastructure combined with NbS) against wave action; and c) promoting vegetative species through bamboo and nurseries for stabilizing slopes of all-weather upazila/union roads and sequestering excavated soils.
87. The project will focus on developing low-cost, robust village protection systems that can withstand high-intensity wave action in shallow haors, and on enhancing common village infrastructure. Traditionally, villagers in the haor region protect their villages using local materials like bamboo fencing, but these structures are short-lived and require annual rebuilding.
88. The main objective of this subcomponent is to demonstrate the construction of same protective systems that incorporate some basic engineering considerations and bamboo treatments to extend their lifespan to 10 years at least. These methods can then be replicated by the villagers in thousands of vulnerable haor villages. CRELEP's intervention will support the scaling-up process by providing evidence of the most cost-effective protection measures.
89. The project will organize a training program on bamboo treatment with direct assistance from the Bangladesh Forest Research Institute (BFRI) and Bangladesh Forest Department.
90. The implementation of this sub-component will be contracted to an NGO, who will be selected through a competitive process, with strong field presence and long standing experience in the Haor region being one of the key criteria for selection. The Terms of reference for the selection will be developed by the project and cleared by IFAD during implementation.
91. The overall implementation will be supervised by the district level XEN and sub-district level Upazilla Engineers' offices in close coordination with the PMU.
92. The main criteria for selecting villages for CRELEP support are a) location in shallow haors; b) household poverty levels; c) vulnerability to wave action; d) willingness to accept the planned interventions and maintain them; and e) willingness to backfill land behind the protection wall.
93. **Component 3: Livelihoods Diversification and Resilience.** The objective of this component is to build adaptive capacity of the vulnerable poor and ultra poor populations by diversifying their livelihoods through non-farm skill development. The project will also support agri-business micro-entrepreneurship development, and access to credit through linkages to PKSF and its POs through existing projects such as RMTP and new projects (FAST). This could, for example, incentivize investments by farmers in climate adaptive technologies/practices (through access to inputs and

mechanization) or diversified cropping systems (horticulture crops or livestock, as an alternative rice that is more vulnerable to floods or droughts).

94. The project will achieve this through three major activities: i) vocational training for employment creation for youth, ii) entrepreneurship training for youth, iii) sustainable livelihoods for LCS members. The experience of HILIP and on-going PROVATi3 projects shows that young people, after vocational training, have been successfully engaged in various manufacturing industries, services sector businesses, construction firms, and about half of them started or expanded own businesses. Three factors are key to success of vocational training: selection of right candidates who are unemployed but have strong desire to gain skills for employment; quality of training and demand of the set of skills; and strong job placement efforts by building a strong network of employers. Young trainees prefer wage- and self-employment in their respective Upazilas or at least nearby places that helps them earn and save more, at the same time take care of the families and avoid somewhat rigid working conditions at industries. The PROVATI3 project has been successful in all three areas by enlisting a Partner Organization (PO) of the Palli Karma-Sahayak Foundation (PKSF)[4], which selected trainees from villages through their microfinance branches, provided training in their own well-developed training facilities and either placed trainees in businesses as employees or helped them start businesses.
95. To ensure that trainees find gainful employment, CRALEP support will focus on job placement assistance, entrepreneurial support, and opportunities for continued education and upskilling. Collaborating with local governments, NGOs, and private sector companies for job placement, along with organizing job fairs and recruitment drives, will facilitate employment opportunities. For those interested in entrepreneurship, providing seed funding through microloans (leveraging ongoing RMTP and FAST project that is in the pipeline), mentorship, and business development services will be facilitated.
96. **Subcomponent 3.1: vocational training for employment creation for youth.** The project's vocational training initiative aims to empower poor young men and women by providing them with the skills necessary for gainful employment. By collaborating with experienced partners and following a structured implementation guideline, the project aims to achieve its objectives and create a sustainable impact on the lives of the beneficiaries.
97. Objectives of this subcomponent are:
    a. Enhance Skills: Provide high-quality vocational training to selected beneficiaries.
    b. Increase Employability: Facilitate job placements for trainees post-training.
    c. Sustainable Livelihoods: Ensure that trainees achieve sustainable income through employment or entrepreneurship.
98. Implementation Partners: The CRALEP project will collaborate with the following entities for the successful implementation of vocational training:
    d. Partner NGOs: Partner organizations of PKSF (Palli Karma-Sahayak Foundation), leveraging their experience and reach.
    e. Government Technical Training Centers (TTCs): Utilize existing infrastructure and expertise.
    f. Private Firms: Engage private sector entities with proven track records in vocational training.

99. Eligibility and performance linked criteria
    a. The eligibility criteria will be based on the NGO's relevant experience, availability of training facilities, availability of suitable micro-credit programmes and accreditation by PKSF.
    b. Performance will be linked to successful certification of trainees.
    c. Performance will be assessed and linked to successful placement of all trainees.
100. Roles and Responsibilities:
    g. CRALEP Project Management Unit (PMU)
        i. Coordination: Oversee and coordinate the entire training program.

[4] PKSF is a strong partner of IFAD in Bangladesh since 2003, which implemented five projects funded by IFAD. The FAST project currently under design will also be implemented by PKSF. It has more than 200 NGO-MFIs as partner organizations (POs).

ii. Needs assessment: Conduct a market assessment to understand the demand for skills within the country and in the immediate vicinity of the project geography, making use of available information from secondary sources.
iii. Monitoring & Evaluation: Develop and implement a monitoring and evaluation (M&E) framework.
iv. Funding: Ensure timely disbursement of funds to implementing partners.
v. Quality Assurance: Establish quality standards and conduct regular assessments.
vi. Matchmaking opportunities: Promote Upazila-level opportunities to match trainees to employers through local events like job fairs, where resources are available.

h. Partner NGOs
   i. Community engagement: Popularize and publicize vocational training opportunity at the community / village level. To increase the interest of young women, consider creating video testimonies (that can be shown using laptops or small projectors) of former trainees (particularly young women) and their current jobs.
   ii. Beneficiary Selection: Identify and select eligible trainees (youth between 18-35 years) based on predefined criteria (candidates who are unemployed but have strong desire to gain skills for employment) through several steps (village level screening, counselling, observation).
   iii. Training Implementation: Conduct the majority of the training programs.
   iv. Job Placement: Facilitate job placements and provide post-training support. Consider where and when job fairs and recruitment drives could be helpful, and plan ahead.
   v. Reporting: Track dropout rates, test success rates, and post-placement feedback. Submit regular progress reports to the CRALEP PMU.

i. Government TTCs
   i. Technical Training: Provide technical and vocational training using their facilities.
   ii. Certification: Issue recognized certificates (Bangladesh Technical Education Board-BTEB; National Skill Development Authority-NSDA) to successful trainees to allow transferability of skills.
   iii. Curriculum Development: Collaborate with PMU and NGOs to develop relevant curricula.

j. Private Firms
   i. Specialized Training: Offer training in specialized or emerging sectors.
   ii. Industry Linkages: Facilitate industry exposure and internships for trainees.
   iii. Job Placement Support: Assist in job placement through industry connections.

101. Implementation Steps

k. Step 1: Planning and Preparation
   i. Needs Assessment: Conduct a thorough needs assessment to identify the skills demand in the target areas using secondary data and market assessment/research. Since CRALEP aims to target more young women than PROVATi3, identify sectors and job opportunities that are of interest to young women. For instance, caregiving was identified as a new area under PROVATi3.
   ii. Partner Selection: Select and contract partner NGOs, TTCs, and private firms based on their expertise and capacity.
   iii. Training Needs Analysis: Collaborate with partners to analyze specific training needs and develop a comprehensive training plan.

l. Step 2: Beneficiary Selection
   i. Eligibility Criteria: Define clear eligibility criteria for trainee selection (e.g., age, income level, educational background).

ii. Awareness Campaign: Launch an awareness campaign to inform potential beneficiaries about the training opportunities.
iii. Application Process: Develop and disseminate application forms and guidelines.
iv. Selection Committee: Establish a selection committee comprising representatives from CRALEP PMU, partner NGOs, and community leaders.
v. Screening: Screen applications and conduct interviews to select suitable candidates.

m. Step 3: Training Delivery
   i. Training Centers: Identify and equip training centers in collaboration with TTCs and private firms.
   ii. Curriculum Development: Develop training curricula tailored to the needs of the target groups and market demand.
   iii. Training Schedule: Design a flexible training schedule accommodating the needs of trainees.
   iv. Training Materials: Provide necessary training materials and resources.
   v. Trainers: Recruit qualified trainers and conduct trainer orientation programs.
n. Step 4: Monitoring and Evaluation
   i. Baseline Survey: Conduct a baseline survey to capture pre-training socio-economic status of trainees.
   ii. Regular Monitoring: Implement a system for regular monitoring of training activities and trainee progress.
   iii. Feedback Mechanism: Establish a feedback mechanism for trainees to provide input on the training program.
   iv. Mid-term Evaluation: Conduct a mid-term evaluation to assess progress and make necessary adjustments.
o. Step 5: Job Placement and Post-Training Support
   i. Placement Services: Develop job placement services in collaboration with industry partners.
   ii. Internships: Facilitate internships and on-the-job training opportunities.
   iii. Follow-up Support: Provide follow-up support and mentoring to ensure successful job retention.
   iv. Alumni Network: Establish an alumni network for ongoing support and networking opportunities.
p. Step 6: Reporting and Documentation
   i. Progress Reports: Partner NGOs to submit monthly progress reports to CRALEP PMU.
   ii. Final Report: Prepare a comprehensive final report detailing the outcomes and impact of the training program.
   iii. Case Studies: Document success stories and case studies to highlight the program's impact.

102. **Subcomponent 3.2: Entrepreneurship training for youth.** The CRALEP project seeks to foster entrepreneurship among poor youth by providing comprehensive training and support. This initiative aims to equip young men and women with the skills and knowledge necessary to start and manage their own businesses, thereby enhancing their economic opportunities and self-reliance.

103. Objectives of this subcomponent are:
   a. Empower Youth: Equip young men and young women with entrepreneurial skills and knowledge.
   b. Promote Self-Employment: Facilitate the creation of new businesses by trained youth by linking them to PKSF and its POs for access to credit and business development services.
   c. Economic Development: Contribute to local economic development through new business ventures.

104. Implementation Partners: The CRALEP project will collaborate with the following entities for the successful implementation of entrepreneurship training:
    d. Partner NGOs: Partner organizations of PKSF, leveraging their experience in community engagement and training.
    e. Government Business Development Centers: Utilize existing infrastructure and expertise.
    f. Private Sector Firms and Business Schools: Engage entities with proven track records in entrepreneurship training and business development.
105. Eligibility and performance linked criteria
    a. …. The eligibility criteria will be based on the NGO's relevant experience, availability of training facilities, availability of suitable micro-credit programmes and accreditation by PKSF.
    b. The performance will be linked to the successful completion and certification of trainees.
106. Roles and Responsibilities
    g. CRALEP Project Management Unit (PMU)
        i. Coordination: Oversee and coordinate the entire training program.
        ii. Monitoring & Evaluation: Develop and implement a monitoring and evaluation (M&E) framework.
        iii. Funding: Ensure timely disbursement of funds to implementing partners.
        iv. Quality Assurance: Establish quality standards and conduct regular assessments.
    h. Partner NGOs
        i. Beneficiary Selection: Identify and select eligible trainees based on predefined criteria.
        ii. Training Implementation: Conduct the majority of the training programs.
        iii. Business Mentoring: Provide ongoing mentoring and support to trainees.
        iv. Reporting: Submit regular progress reports to the CRALEP PMU.
    i. Government Business Development Centers
        i. Technical Training: Provide training on business development, management, and regulatory compliance (e.g., BSTI standards– Bangladesh Standards and Testing Institution).
        ii. Certification: Issue recognized certificates to successful trainees.
        iii. Curriculum Development: Collaborate with PMU and NGOs to develop relevant curricula. One-week microenterprise training will include topics such as product and marketing, production management, human resources, and financial management including business accounts keeping and profitability analysis. Special emphasis will be on improvement of product quality, applications of technology for productivity improvement, social media marketing, customer management, and other topics of local sector importance.
    j. Private Sector Firms and Business Schools
        i. Specialized Training: Offer training in specialized areas such as marketing, finance, and business planning.
        ii. Industry Linkages: Facilitate industry exposure and networking opportunities for trainees.
        iii. Business Support Services: Provide additional support services such as incubation, legal advice, and financial planning.
107. Implementation Steps
    k. Planning and Preparation
        i. Needs Assessment: Conduct a thorough needs assessment to identify the entrepreneurial training needs in the target areas.
        ii. Partner Selection: Select and contract partner NGOs, business development centers, and private sector firms based on their expertise and capacity.
        iii. Training Needs Analysis: Collaborate with partners to analyze specific training needs and develop a comprehensive training plan.

l. Beneficiary Selection
   i. Eligibility Criteria: Define clear eligibility criteria for trainee selection (e.g., age, income level, educational background, business ideas).
   ii. Awareness Campaign: Launch an awareness campaign to inform potential beneficiaries about the training opportunities.
   iii. Application Process: Develop and disseminate application forms and guidelines.
   iv. Selection Committee: Establish a selection committee comprising representatives from CRALEP PMU, partner NGOs, and community leaders.
   v. Screening: Screen applications and conduct interviews to select suitable candidates.

m. Training Delivery
   i. Training Centers: Identify and equip training centers in collaboration with business development centers and private firms.
   ii. Curriculum Development: Develop training curricula tailored to the needs of the target groups and market demand. One-week microenterprise training will include topics such as product and marketing, production management, human resources, and financial management including business accounts keeping and profitability analysis. Special emphasis will be on improvement of product quality, applications of technology for productivity improvement, social media marketing, customer management, and other topics of local sector importance.
   iii. Training Schedule: Design a flexible training schedule accommodating the needs of trainees.
   iv. Training Materials: Provide necessary training materials and resources.
   v. Trainers: Recruit qualified trainers and conduct trainer orientation programs.

n. Monitoring and Evaluation
   i. Baseline Survey: Conduct a baseline survey to capture pre-training socio-economic status of trainees.
   ii. Regular Monitoring: Implement a system for regular monitoring of training activities and trainee progress.
   iii. Feedback Mechanism: Establish a feedback mechanism for trainees to provide input on the training program.
   iv. Mid-term Evaluation: Conduct a mid-term evaluation to assess progress and make necessary adjustments.

o. Post-Training Support
   i. Business Plan Development: Assist trainees in developing viable business plans.
   ii. Access to Finance: Facilitate access to microcredit or other financial services for startup capital.
   iii. Mentoring and Coaching: Provide ongoing mentoring and coaching to support business establishment and growth.
   iv. Networking Opportunities: Organize networking events and link trainees with business networks and associations.
   v. Market Access: Support trainees in accessing markets for their products or services.

p. Reporting and Documentation
   i. Progress Reports: Partner NGOs to submit monthly progress reports to CRALEP PMU.
   ii. Final Report: Prepare a comprehensive final report detailing the outcomes and impact of the training program.
   iii. Case Studies: Document success stories and case studies to highlight the program's impact.

108. **Subcomponent 3.3: Sustainable livelihood training for LCS members.** This subcomponent aims to provide sustainable livelihood training for members of the Labour Contracting Society (LCS). This training will focus on enhancing the skills and knowledge of LCS members to enable

them to pursue sustainable livelihood opportunities. The training will be delivered by a selected partner NGO of PKSF, chosen through a competitive process.

109. The objectives of this subcomponent are:
    a. Empower LCS Members: Equip LCS members with skills and knowledge for sustainable livelihoods.
    b. Enhance Livelihood Options: Expand the range of sustainable livelihood opportunities for LCS members.
    c. Promote Gender Equality: Ensure the training addresses gender-related challenges and promotes equality through implementation of GALS (Gender Action Learning System).

110. **GALS.** All LCS members trained in Income-Generating Activities (IGAs) will benefit from a streamlined version of the Gender Action Learning System (GALS). This simplified GALS approach will be integrated into the livelihoods training curricula and implemented by the Selected Partner NGO in close collaboration with the CRALEP GESI Specialist. Although the GALS tools will be condensed, the methodology will be enriched by incorporating nutrition and financial literacy components, offering a more comprehensive empowerment strategy.

111. GALS is a structured community-led empowerment methodology aiming at economic, social and political transformation. It gives women, men and youth more control over their lives to foster empowerment while also improving inclusion and equality.

112. GALS includes a wealth of instruments, visual diagramming tools, principles and peer-to-peer learning mechanisms that can be adapted in many ways for empowerment in rural development programmes. Using the power of symbols and principles of inclusion, it uses a set of tools that enable individuals and households to plan their lives and enterprises, identify and negotiate their needs and interests for equitable livelihoods improvements, financial inclusion and value chain development.

113. For the streamlined version of GALS applied in CRALEP, aspects of youth inclusion, improved nutrition outcomes, financial inclusion as well as climate adaptation will need to be incorporated into the methodology. The main trainers are community members themselves based on self-interest and business cases. The tools are also used by LCS members to build their empowerment vision, enabling them to change dynamics and power relations (including social norms and gender dynamics) that constrain them from achieving their visions.

114. The project will integrate GALS into the IGAs activities to foster behavioral change of LCS and their household members. LCS, in fact, will be used as entry points to roll out GALS with the target groups.

115. Implementation Partner: The sustainable livelihood training will be implemented by one selected partner NGO of PKSF. The NGO will be chosen through a competitive selection process based on their capacity and experience – including past implementation of GALS in Bangladesh.

116. Eligibility and performance linked criteria
    a. The eligibility criteria will be based on the NGO's relevant experience, availability of training facilities, availability of suitable micro-credit programmes and accreditation by PKSF.
    b. Proven track record in implementing activities of similar nature.
    c. Some track record with promoting Nature-based Solutions, including nursery establishment and maintenance related trainings to communities and/or LCS members

117. Roles and Responsibilities
    d. CRALEP Project Management Unit (PMU)
        i. Coordination: Oversee and coordinate the entire training program.
        ii. Monitoring & Evaluation: Develop and implement a monitoring and evaluation (M&E) framework.
        iii. Funding: Ensure timely disbursement of funds to the selected NGO.
        iv. Quality Assurance: Establish quality standards and conduct regular assessments.
    e. Selected Partner NGO
        i. Training Design and Curriculum Development: Design the training program tailored to sustainable livelihood contexts.

- With technical advice of IFAD, a detailed curriculum for GALS will be developed including the following tools: Vision Journey, Happy-Family Tree (also known as the Gender-Balanced Tree), and Social Empowerment Map. The methodology will be enriched by nutrition and financial literacy components.
- With technical advice of BFRI, BFD, and other experts advising on Nature-based Solutions, a curriculum will be developed that covers sustainable construction practices, integrating green building materials - including, safe bamboo treatment with boric acid, and vetiver and bamboo nursery management as well as principles of ecosystem management and erosion control.

ii. Beneficiary Engagement: Engage with LCS members to ensure their active participation. For GALS modules, spouses of LCS members will also be targeted.
iii. Training Delivery: Conduct the training sessions and provide necessary materials and resources.
iv. Follow-up Support: Offer follow-up support to trainees to ensure the practical application of skills learned.
v. Reporting: Submit regular progress reports to the CRALEP PMU.

118. Implementation Steps

f. Planning and Preparation
   i. Needs Assessment: Conduct a thorough needs assessment to identify the specific training needs of LCS members.
   ii. NGO Selection: Conduct a competitive process to select a partner NGO based on criteria such as experience, capacity, and past performance.
   iii. Training Needs Analysis: Collaborate with the selected NGO to analyze specific training needs and develop a comprehensive training plan.
g. Beneficiary Selection
   i. Eligibility Criteria: Define clear eligibility criteria for selecting LCS members for the training.
   ii. Awareness Campaign: Launch an awareness campaign to inform LCS members about the training opportunities.
   iii. Application Process: Develop and disseminate application forms and guidelines.
   iv. Selection Committee: Establish a selection committee comprising representatives from CRALEP PMU and the selected NGO.
   v. Screening: Screen applications and conduct interviews to select suitable candidates.
h. Training Design and Development
   i. Curriculum Development: Develop a training curriculum tailored to sustainable livelihoods.
   ii. Training Materials: Develop and produce training materials, including manuals, workbooks, and visual aids.
   iii. Trainer Selection: Identify and recruit qualified trainers with experience in sustainable livelihoods and gender-sensitive training methods.

i. Training Delivery
   i. Training Schedule: Design a flexible training schedule that accommodates the needs of LCS members.
   ii. Training Centers: Identify and equip training centers or venues in collaboration with the selected NGO.
   iii. Training Sessions: Conduct training sessions focusing on sustainable livelihood strategies, business planning, financial literacy, and gender equality.
   iv. Interactive Methods: Use interactive training methods such as group discussions, role-plays, and participatory exercises to enhance engagement and learning.
j. Monitoring and Evaluation

i. Baseline Survey: Conduct a baseline survey to capture the pre-training socio-economic status of trainees.
ii. Regular Monitoring: Implement a system for regular monitoring of training activities and trainee progress.
iii. Feedback Mechanism: Establish a feedback mechanism for trainees to provide input on the training program.
iv. Mid-term Evaluation: Conduct a mid-term evaluation to assess progress and make necessary adjustments.

k. Post-Training Support
v. Action Plans: Assist trainees in developing individual or group action plans for applying the skills learned.
vi. Mentoring and Coaching: Provide ongoing mentoring and coaching to support the implementation of action plans.
vii. Networking Opportunities: Facilitate networking opportunities for trainees to share experiences and best practices.
viii. Resource Linkages: Link trainees to additional resources, such as microfinance, market access, and technical support.

119. **Component 4: Capacity Development, Climate Information Services, and Innovation:** This component aims to strengthen the innovation capabilities of the Local Government Engineering Department (LGED) in climate mainstreaming, deploying advanced weather warning systems, and promoting nature-based solutions and other technologies. This component is divided into four subcomponents:
I. Capacity building of CReLIC
II. Flash Flood Early Warning System (FFEWS) in Haor and drought forecasting in Barind for community resilience
III. Innovation in construction, materials, and livelihood diversification
IV. Policy and dissemination

120. Objectives of this component are:
V. Strengthen LGED's capacity to mainstream climate change considerations in its operations.
VI. Develop and deploy advanced weather warning systems to enhance community resilience.
VII. Promote innovative construction materials and techniques to improve infrastructure durability and sustainability.
VIII. Formulate and disseminate policies and best practices to support climate resilience.

121. Implementation Partners: To implement this component, the CRALEP project will sign Memoranda of Understanding (MoU) with the following organizations:
i. Climate Resilient Local Infrastructure Centre (CReLIC)
ii. Institute of Water and Flood Management (IWFM) of BUET
iii. Bangladesh Water Development Board (BWDB)
iv. Bangladesh Meteorological Department (BMD)
v. Other stakeholders such as universities and academic researchers)

122. Roles and Responsibilities
IX. CRALEP Project Management Unit (PMU)
i. Coordination and workplan development: Oversee and coordinate the activities under each subcomponent. Develop a yearly workplan for Component 4 informed by in-depth discussions with stakeholders (IWFM, BWDB, BMD, BFRI, BFD, academics supporting NbS), short surveys, and assessment of evolving needs.
ii. Monitoring & Evaluation: Develop and implement a monitoring and evaluation (M&E) framework.
iii. Funding: Ensure timely disbursement of funds to implementing partners.

iv. Quality Assurance: Establish quality standards and conduct regular assessments.

X. CReLIC
   i. Training and Capacity Building: Develop and deliver training programs for LGED officials on climate change.
   ii. Technical Support: Act as a technical support unit for LGED projects on climate resilience.

XI. IWFM
   i. FFEWS Development: Improve the open-source model for flash flood early warning systems in Haor.
   ii. Collaboration: Work with BWDB and other stakeholders to develop and disseminate warning messages.

XII. BWDB
   i. Warning System Implementation: Develop easy-to-understand warning messages for flash floods.
   ii. Community Engagement: Collaborate with communities, NGOs, local government agencies and departments and other stakeholders for effective dissemination including through mobile phones and other accessible tools.

XIII. BMD
   i. Drought Forecasting: Improve the drought forecasting system and produce regular outlooks.
   ii. Warning System Implementation: Develop and disseminate warning messages, including through mobile phones and other accessible tools, in collaboration with stakeholders who may include local NGOs, community leaders and other local government agencies and departments.

123. Subcomponent 4.1: Capacity Building of CReLIC

XIV. Strategic Action Plan Development:
   a. Activities:
      1. Develop a strategic action plan to mainstream climate-related GOB policies within LGED.
      2. Establish CReLIC as an internal expert unit for climate resilience.
   b. Implementation Steps:
      3. Conduct consultations with LGED and relevant stakeholders.
      4. Draft the action plan incorporating feedback.
      5. Finalize and disseminate the action plan.

XV. Climate Change Impact Assessment:
   c. Activities:
      6. Assess the impact of climate change on rural infrastructure.
      7. Recommend design modifications leveraging lessons from other project components.
   d. Implementation Steps:
      8. Conduct field studies and data analysis.
      9. Develop assessment reports and recommendations.
      10. Implement design changes in collaboration with LGED.

XVI. Climate Change Forecast Development:
   e. Activities:
      11. Develop climate change forecasts for vulnerable regions.
   f. Implementation Steps:
      12. Leverage lessons from existing projects.
      13. Use data from subcomponent 4.2 to enhance forecasts.
      14. Disseminate forecasts to relevant stakeholders.

XVII. Local Training for LGED Officials:
   g. Activities:

15. Conduct training sessions on climate change topics for LGED officials.

h. Implementation Steps:

16. Develop training materials and modules.
17. Organize in-person and online training sessions.
18. Evaluate training effectiveness and update materials as needed.

124. Subcomponent 4.2: FFEWS in Haor and Drought Forecasting in Barind

XVIII. Flash Flood Early Warning System (FFEWS):

i. Activities:

19. Improve the open-source FFEWS model for Haor.
20. Develop and disseminate warning messages.

j. Implementation Steps:

21. Collaborate with IWFM and BWDB to enhance the model.
22. Design user-friendly warning messages.
23. Engage with communities and stakeholders for effective dissemination.

XIX. Drought Forecasting System:

k. Activities:

24. Improve drought forecasting for Barind and other regions.
25. Develop and disseminate warning messages.

l. Implementation Steps:

26. Collaborate with BMD to enhance forecasting capabilities.
27. Design and disseminate warning messages.
28. Engage with communities and stakeholders for effective dissemination.

125. Subcomponent 4.3: Innovation in Construction, Materials, and Livelihood Diversification

XX. and Development:

m. Activities:

29. Investigate causes of erosion in submergible infrastructure such as roads, bridges, culverts and other drainage structures.
30. Develop a maintenance system for RCC infrastructure.
31. Develop portable wooden houses and green/climate-proofed roofs for flood-prone areas.
32. Pilot new construction materials (particularly ones that are integrated with Nature-based Solutions or are relatively environmentally friendly such as reclaimed plastic/rubber and clay) and designs, including permeable walkways in villages.

XXI. Implementation Steps:

33. Identify research topics and partners.
34. Conduct research studies and pilot projects.
35. Evaluate results and implement successful innovations under Component 1 and Component 2 activities as well as through training of LCS members under Sub-component 3.3.
36. Document research outputs in the form of technical briefs, discussion papers, training materials with best practice case studies, and so on for knowledge management and dissemination.

126. Subcomponent 4.4: Policy and Dissemination

XXII. Policy Development:

n. Activities:

37. Produce policy documents, technical notes, and discussion papers.

o. Implementation Steps:

38. Identify policy gaps and issues during project implementation, with a priority to those elements integrated into CRALEP (e.g., development of alternative building materials, integrating nature-based solutions into climate-resilient infrastructure, best practices for sustainability of vocational training initiatives).

39. Draft and review policy documents.
40. Disseminate policy recommendations to relevant authorities.

127. Monitoring and Evaluation of the outcome of this component will be done in the following ways:
   XXIII. Baseline Survey: Conduct baseline surveys to capture pre-intervention conditions.
   XXIV. Regular Monitoring: Implement regular monitoring of activities and outputs.
   XXV. Evaluation: Conduct mid-term and final evaluations to assess outcomes and impact.
   XXVI. Feedback Mechanism: Establish a feedback mechanism for continuous improvement.

vi. Targeting Strategy:

128. CRALEP employs a comprehensive targeting strategy to ensure that the most vulnerable and disadvantaged populations in the Haor and High Barind regions benefit from its interventions. This strategy is based on three primary targeting approaches: geographical targeting, poverty targeting, and beneficiary targeting.

129. Geographical targeting. CRALEP focuses on 33 upazilas across eight districts, with 24 upazilas in the Haor region and nine in the High Barind region. The selection criteria for these areas include high climate vulnerability, high poverty incidence , and poor communication infrastructure. Also, the targeted upazilas were carefully selected taking into account the scope and activities of other ongoing projects in the same regions, namely the Japan International Cooperation Agency (JICA) financed Haor Flood Management and Livelihood Improvement Project (HFM&LIP) and IFAD and Asian Development Bank (ADB) financed Climate and Disaster Resilient Small Scale Water Resources Management Project (CDRSSWRMP). The Haor region is particularly characterized by deep inundation and high wave action, affecting 17 of its upazilas either fully or partially.

Table: Project Upazilas

Haor Districts	**District poverty rate (HIES 2016)**	**Upazilas**	**Haor classification**	**Total project Upazilas (#)**
Kishoreganj	53.5%	Austagram, Itna, Mithamoin, Nikli	Deep haor: Austagram, Itna, Mithamoin, Nikli (part)	4
Netrakona	34%	Khaliajhuri, Kamlakanda, Madan, Mahanganj	Deep haor: Khaliajhuri, Kamlakanda, Madan (part), Mahanganj (part)	4
Sunamganj	26%	Bishwambarpur, Derai, Dharmapasha, Dowarabazar, Jagannathpur, Jamalganj, Sulla, Sunamganj sadar, Dakshin Sunamganj (Shantiganj) and Tahirpur	Deep Haor: Bishwambarpur, Dharmapasha, Jamalganj, Sulla, and Tahirpur (part)	10
Habiganj	13.4%	Ajmiriganj, Baniachong, and Lakhai	Deep Haor: Ajmiriganj, Baniachong, and Lakhai.	3
Brahmanbaria	10.3%	Nabinagar, Nasirnagar, and Sarail	Deep Haor: Nasirnagar	3
SUB-TOTAL				**24**
High Barind Districts		**Upazilas**	**Drought classification**	
Rajshahi	20.1%	Tanore and Godagari	Very high Kharif & Pre-Kharif drought risk. Moderate to very low water-holding capacity.	2
Naogaon	32.2%	Patnitala, Shapahar, Porsha, Dhamurhat, and Niamatpur		5
Chapai Nawabganj	39.6%	Nachole and Gomastapur		2
Sub-TOTAL				**9**
TOTAL				**33**

130. Poverty Targeting: Most of the population in the target areas is poor, with a significant percentage being extremely-poor. CRALEP prioritizes these groups to ensure that the interventions reach those who are most in need. For example, village internal services (walkways, sanitation, and safe water) and village protection system, will benefit villages where most of the households are poor or extremely-poor. Road connectivity removes remoteness that benefits all villagers, mostly the poor.
131. Beneficiary Targeting: The main professions of the population in the project Upazilas are agricultural labor, artisans, farming by marginal and small farmers, open water fishing, small non-agricultural producers, and poor young men and women. The road connectivity benefits the farming community by increasing farm prices and reducing transportation costs. Improvements in the market will also directly benefit small producers in the project areas. The vocational training will be exclusively offered to young men and women from the poor and extremely poor families. The LCS members will be from extremely poor families only (80% women).
132. Targeting women and youth. CRALEP also focuses on enhancing the livelihoods of women and youth (between 18-35 years per GOB definition), recognizing their critical role in both community resilience and overall development. Women, who often face greater barriers to economic participation, are provided with vocational training and entrepreneurship opportunities to diversify their income sources. Young men receive skill development training to reduce unemployment rates and improve their economic prospects.
133. Social inclusion. The project places emphasis on social inclusion to ensure the participation of vulnerable and disadvantaged groups including the extremely poor and most excluded. These measures consider the needs related to age, gender, youth, ethnic minorities, and persons with disabilities. By addressing these factors, CRALEP aims to foster an inclusive environment where all community members can benefit equitably from the project's interventions.
134. Target Groups. CRALEP aims to directly benefit 311,820 households, translating to approximately 1.34 million individuals (see Table 3). The target population includes agricultural laborers, artisans, marginal and small farmers, fishing communities, other small producers, non-agricultural producers, and poor young men and women.
135. The targeting process should be carefully monitored to avoid exclusion and inclusion errors, as well as overlapping or double counting with other existing programs. A household census will be used as the baseline information against which progress will be monitored and assessed each year. A beneficiary database will provide detailed information on the poverty classification of target beneficiaries.
136. CRALEP will be implemented across two different regions and multiple Upazilas. To ensure the equitable distribution of resources and prevent elite capture or the domination of interest groups, the programme will implement measures to promote transparency, accountability, diversity, and inclusion. These measures will include: i) open community discussions, advocacy, and sensitization where all community members can voice their opinions and feedback; and ii) leadership training to the most marginalized members who hold active roles within market access committee, to build confidence an ensure they can effectively voice the needs, views, and interests of the marginalized groups.

vii. Project Management

137. Effective project management is crucial for the successful implementation of the CRALEP project. This section outlines the key project management processes, structures, and guidelines necessary to ensure the project's smooth execution, monitoring, and reporting.
138. Formation of PMU
    I. Timeline: The PMU will be formed as soon as possible following the project’s entry into force.
    II. Responsibilities: The PMU will be responsible for the overall coordination, management, and supervision of the project activities.

III. Composition: The PMU will include a Project Director, technical experts, financial managers, procurement specialists, and M&E officers.

139. Key Activities

IV. Team Recruitment: Recruit qualified personnel for all positions within the PMU.

V. Office Setup: Establish a physical office space with necessary infrastructure and equipment.

VI. Orientation: Conduct an orientation program for PMU staff to familiarize them with project objectives, strategies, and procedures.

140. Start-up Workshop

VII. Timeline: Within three months of the project's entry into force.

VIII. Collaboration: The workshop will be organized in collaboration with the IFAD Country Office.

IX. Objectives:

a. To launch the project officially.
b. To align all stakeholders on project goals, strategies, and implementation plans.
c. To discuss roles, responsibilities, and expectations.

141. Key Activities

X. Planning: Develop a detailed agenda and invite all relevant stakeholders.

XI. Execution: Conduct presentations, discussions, and breakout sessions to ensure comprehensive understanding and engagement.

XII. Follow-up: Document the workshop proceedings and circulate minutes to all participants.

142. Social, Environment and Climate Management Procedure (SECAP)

a. Climate Change Expert and Hydrologist and GESI Expert to re-screen project risks, and update the project's ESCMP and exclusion criteria.
b. Climate Change Expert and Hydrologist and GESI Expert to conduct training for PMU on SECAP, including ESCMP mitigation measures, stakeholder engagement, and grievance redress mechanism (GRM).
c. Climate Change Expert and Hydrologist and GESI Expert to develop site-specific ESCMPs as activities and sites are finalized.
d. GESI Expert to develop and set-up GRM at PMU, upazila and district levels. Ensure village level PRAs sensitize and raise awareness of GRM.
e. GESI Expert to develop the Ethnic Minority Plan.

143. Monitoring and Evaluation (M&E) and Management Information System (MIS)

XIII. MIS Development

a. Design Forms: Design MIS forms to capture relevant project data.
b. System Setup: Implement an MIS that integrates data collection, processing, and reporting functions.
c. Training: Train PMU and field staff on the use of MIS tools and systems.

XIV. Baseline Survey

a. Timeline: Conduct the baseline survey in Year 2 when some project activities have progressed.
b. Objectives: To establish a reference point for measuring project impact and outcomes.

XV. M&E Framework

a. Development: Develop a comprehensive M&E framework outlining indicators, data collection methods, and reporting schedules.
b. Implementation: Regularly monitor and evaluate project activities against set indicators.
c. Reporting: Produce periodic M&E reports to inform decision-making and adjustments.

viii. Organizational set-up and Governance

144. The Government of Bangladesh, represented by the Economic Relations Division (ERD) of the Ministry of Finance, is the Borrower of the loan. The Local Government Division (LGD) and the

Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development, and Cooperative is the Executing Agency (EA) and Implementing Agency (IA) respectively. A Project Steering Committee (PSC) (i.e. implementation and steering Committee - IMSC), headed by Secretary, Local Govt. Division (LGD) will be established, which will provide overall strategic guidance, monitor overall implementation progress, facilitate interagency coordination required for smooth project implementation, and resolve any outstanding issues requiring high-level decisions. The committee will meet at least once a year or whenever necessary to review the progress of project implementation.

145. In addition to PSC, a project implementation committee (PIC), headed by Chief Engineer, LGED, will be established to provide necessary assistance or suggestions for implementing project activities, and resolve problems arising during implementation, and will meet at least once in year or whenever necessary. The committees will have the similar composition as in PROVATI3.
146. The detailed terms of reference of the key positions, including their qualifications, experience are annexed to the end of this document.
147. The LGED will establish a Project Management Unit (PMU) headed by a senior engineer as the Project Director. Several LGED officials will be deputed to the project. The project will hire the necessary contractual officials as stipulated in PDR. The PMU will have four tiers: PMU/Dhaka at LGED Head Quarters, three Regional Offices in Chapai Nawabganj, Kishoreganj and Sunamganj, eight District Offices (Haor Region: Netrakona, Kishoreganj, Sunamganj, Habiganj, and Brahmanbaria; High Barind Region: Rajshahi, Naogaon, and Chapai Nawabganj), and 33 Upazila LGED offices. All these PMU offices and respective project officials will be housed in LGED respective District Offices and Upazila Offices. See Table below for human resources at all levels of PMU.

Composition of PMU and distribution at 4-tiers

Level/Tier of Project Management	Project TA Team (Hired by the project)	GOB deputed Civil Servants)
PMU (Dhaka based)	1. Team Leader, Rural Dev Specialist 2. Design engineer (civil works)/DTL 3. Asst Design engineer (2) 4. AutoCAD operator (2) 5. Estimator (2) 6. Market design & planner 7. Livelihood specialist 8. Climate change expert and Hydrologist (co-responsible for SECAP) 9. Financial specialist 10. Financial System Specialist (Financial mgt, Audit, system development, training) 11. One Accounts Officer 12. Junior finance officer 13. Junior software expert (TOMPRO) (2) 14. Internal Audit Consultants 15. Procurement specialist 16. M&E, KM specialists 17. Gender and social inclusion specialist (co-responsible for SECAP) 18. MIS Officer 19. M&E KM Officer 20. Training & logistic support Officer 21. Office assistant/Typist (Outsourced) 22. Office manager (Outsourced) 23. MLSS (2)	Project Director (1) Deputy Project Director (1) Senior Asst Engineer (1) Asst Engineers (1) Sub-asst Engineer (2) Accountant Computer operator Accounts Assistants Driver (3) MLSS (Outsourced) (2)
Subtotal – Dhaka	**28**	**14**
Regional Offices (3)	1. Quality Control Engineers (1+2=3) (regional engineer) 2. Laboratory Technician (3) 3. Laboratory assistant/Helper (3) (Outsourced)	-- -- --

	4. Drivers (3) [Three new recruits]	--
Subtotal – Regions	**12**	None
District Offices (8)	1. Livelihoods officers (8)	Sub-assistant engineers: Outsourced (8)
Upazila Offices (33)	1. Assistant Field Engineer (33)	--
Total	**81**	**22**

CRALEP Project Procurement Strategy (PPS)

Project Overview

Country	Bangladesh
Programme Area (as per design)	
Full Project Name	Climate Resilience And Livelihood Enhancement Project (CRALEP)
Project ID	
IFAD Loan amount (tentative)	

Potential contracts in the first 18 months

Consulting Services

- Topographic Survey and pre-design consultation For Ghat development in Haor Region ($ 8547)
- Topographic Survey and pre-design consultation For Ghat development in Barind Region ($ 8547)
- Topographic survey, village needs' assessment, determine design specification (Uniblock walkway, water sanitation and other infrastructure) ($ 8547)
- Topographic Survey and pre-design consultation For Submergible village RCC road ($8547)
- Topographic Survey and pre-design consultation For Submergible Union RCC road ($ 8547)
- Topographic Survey and pre-design consultation For Low-cost nature-based village protection system in Shallow Haor (VPS) ($ 8547)
- Team Leader, Rural Dev Specialist ($ 100,000)
- Design engineer (civil works)/DTL ($ 80,000)
- 02 Nos. Asst Design engineer ($ 80,000)
- 02 Nos AutoCAD operator ($ 80,000)
- 02 Nos Estimator ($ 80,000)
- Market design & planner ($ 60,000)
- Livelihood specialist ($ 60,000)
- Climate change expert and Hydrologist ($ 80,000)
- Financial Specialist ($ 60,000)
- Junior Financial Officer ($ 40,000)
- 02 Nos Junior software expert (TOMPRO) ($ 40,000)
- Procurement specialist ($ 60,000)
- M&E, KM specialists ($ 60,000)
- Gender and social inclusion specialist($ 60,000)
- MIS Officer ($ 50,000)
- M&E KM Officer ($ 50,000)
- Training & logistic support Officer ($ 50,000)
- 03 Nos Quality Control Engineers ($ 180,000)
- 03 Nos Laboratory Technician ($ 120,000)
- 08 Nos Livelihood Officer ($ 360,000)

- Baseline Survey ($ 55,555)
- Vocational Training ($ 222,222)

Goods

- 4WDs pickup (03 Nos.) ($ 256,410)
- Motor vehicles for PMUs (33 Nos.) ($ 70,513)
- Machinaries/Tools for Kishorganj & Sunamganj (CBR Testing Machine, VICAT Apparitors, OVEN, Odometer etc.) ($ 1,611,111))
- Machinaries/Tools for Chapai Nawabganj (CBR Testing Machine, CTM, Bitumin Softening Point, Bitumin Extractor Machine, VICAT Apparitors, OVEN, DCP Apparatus, Odometer, Road Roller etc.) ($ 905,983)
- Road Roller ($ 16,026)
- Supply of Computer with printers and other accessories ($ 76,923)
- Supply of Air-conditioner ($ 10,684)
- Office Stationary ($ 25,641)
- Supply of Photocopier ($ 6,410)
- Supply of Laptops ($ 21,368)
- Supply of Scanner, Projector, Digital camera ($ 42,735)
- Supply of Office furniture for Establishment ($ 160,256)
- Internet Router (Installation with WIFI) ($ 2,137)
- Telephone arrangement from PMU ($ 427)
- Office Furniture ($ 42,735)
- Safety Gears/Uniform/Tools for LCS Members ($ 21,368)
- Computer Software: TOMPRO etc. ($ 32,479)

Works

- Construction of Killa building ($ 1,200,000)
- Construction of Villages internal services package ($ 13,333,333)
- Construction of Inter village connecting foot bridge ($ 444,444)

The cost table identifies and budgeted other procurement activities throughout the implementation period. During the implementation, the PMU is required to plan the procurement activities in line with the annual budget planning.

Overview of Country, Borrower and Marketplace

Operational Context

Governance aspects: Bangladesh's public procurement system plays a vital role in the country's governance, economic development, and public service delivery. Governed primarily by the Public Procurement Act, 2006 and its subsequent amendments, the system aims to ensure transparency, fairness, competition, and efficiency in the procurement process.

Key features of Bangladesh's public procurement system include:

Legal Framework: The Public Procurement Act, 2006, provides the legal framework for public procurement in Bangladesh. It establishes the rules, procedures, and responsibilities for procurement activities by government entities.

Central Procurement Authority: The Public Procurement Regulation, 2008, established the Central Procurement Technical Unit (CPTU) under the Ministry of Planning. The CPTU serves as the central authority responsible for policy formulation, capacity building, and monitoring of procurement activities across government agencies.

Procurement Methods: Bangladesh's procurement system allows for various methods, including open competitive bidding, limited competitive bidding, request for quotations, and direct procurement under certain circumstances. The choice of method depends on factors such as the nature and value of the procurement.

Transparency and Accountability: Transparency and accountability are fundamental principles of Bangladesh's public procurement system. The system mandates the publication of procurement opportunities, bid documents, evaluation criteria, and contract awards to ensure openness and fairness.

Capacity Building: The government recognizes the importance of building procurement capacity among government officials and stakeholders. The CPTU provides training, workshops, and technical assistance to enhance the skills and knowledge of procurement professionals.

E-Procurement: In recent years, Bangladesh has made significant strides in digitizing its procurement process through the implementation of e-GP (Electronic Government Procurement). E-GP facilitates online bidding, document submission, and evaluation, improving efficiency and reducing the risk of corruption.

Anti-Corruption Measures: Bangladesh has implemented various measures to combat corruption in public procurement, including the establishment of procurement oversight committees, independent review mechanisms, and anti-corruption task forces.

Despite these efforts, challenges remain, including capacity constraints, bureaucratic delays, and the need for further transparency and accountability enhancements. Continuous reforms and investments in procurement infrastructure and human resources are essential to address these challenges and improve the effectiveness of Bangladesh's public procurement system.

There are standard/model bidding documents for goods, works, services,[32] and consultancy at the at the National levels. Central Procurement technical Unit (CPTU) has designed these documents. All the tender documents are available at CPTU website. A large no. of procurements are conducted through electronic tendering.

In line with the procurement risk assessment, procurement under CRALEP will follow IFAD Procurement Guidelines and IFAD Procurement Handbook. Government of Bangladesh recognises precedence of international obligations like IFIs Financing Agreements to use IFI procurement guidelines and document templates. Government of Bangladesh has implemented large numbers of externally aided projects in different sectors.

Economic aspects: Local Government Engineering Division (LGED) will act as the PMU of the project. Government of Bangladesh is committed to provide counterpart funds. Funds utilisation at sub-units and at community level to be monitored with adequate treasury management practices. As the implementation is spread over large geographical area and the national capacity and availability of locally manufactured products and civil contractors, no international bidding requirements are there in the project procurement approach.

Sustainability The SECAP climate risk rating stands as moderate. The project will solicit and adopt cost-effective, structurally sound structures to address natural disasters situations.

Technological aspects: Government of Bangladesh mandates that all public procurement for GOOds and Works to use e-procurement portal called e-GP for receiving bids/proposals. PMU, CRALEP will obtain credentials for e-GP System. The system also has payment options for tender fee and guarantees. The project will also introduce electronic systems for PMU . This would streamline the approvals and enable archiving of documents electronically.

Implementing Agency Capability Assessment

The IFAD-financed project will be implemented through a dedicated Project Management Unit within the Local Government Engineering Division (LGED), Government of Bangladesh. LGED has earlier vast experience to execute IFAD projects. PMU exhibits sufficient ability in advance planning, bids evaluation quality and contract management issues. PMU do not have a dedicated Experienced Procurement professionals. A Procurement Specialist is hence will be hired to conduct the necessary activities. PMU is very familiar to the country procurement system as well as IFAD Procurement Guidelines. PMU have substantial experience to work through the Government e-GP portal. However the following actions will be undertaken with regard to procurement activities_

i) A dedicated Procurement Specialist will be hired and engaged in procurement co-ordination along with PMU regular staff
ii) A comprehensive training on procurement aspects will be organised.
iii) Though the initial 18-month PP, big ticket items are planned which will speed up the implementation. Many of the critical consultancy service engagement to be completed before entry into force.
iv) Performance evaluation and achievement of identified deliverables is a compulsory provision and any shortfall to be followed up for resolution.
v) Responsibility Matrix designed and included in PIM.
vi) Audit will also review procurement performance at all levels.
vii) Large procurement will be planned in advance.
viii) IFAD End-to-End Procurement system (OPEN) and its subsequent enhancements will be deployed.
ix) Government of Bangladesh e-Gp procurement system will be used for soliciting bids, opening, Evaluation and notification of award.
x) Project website will have dedicated page for tenders and awards.

Procurement trends

Public procurement accounts for a significant level of public expenditure and hence strengthening public procurement systems is central to achieve concrete and sustainable results, build effective institutions, and gain substantial savings in the use of scarce public resources. Public procurement has a strategic function as a mechanism for supporting economic development, conserving and

making optimum use of resources through application of sustainable criteria, and increasing job creation and private sector growth including enhanced participation of small and medium enterprises in a country. Government expenditure through public procurement has long been used as a means of stimulating growth at all levels (national, regional, and local), including accomplishing the government's vision and mission.

The Government of Bangladesh (GoB) has progressively undertaken various initiatives in reforming its public procurement system during the past many years, including setting up Central Procurement Technical Unit (CPTU), enacting Procurement Act 2006 and Procurement Rukes 2008 (PPR-2008), preparing procurement category-wise standard tender documents and adopting the electronic government procurement (e-GP) platform.

One of the key initiatives implemented by the government is the e-GP system, which enables suppliers to submit bids electronically and allows for greater transparency and efficiency in the procurement process. The system has been successful in reducing the time and cost of procurement, as well as improving the quality of goods and works procured.

Market analysis of construction sector

With the booming Bangladesh economy, construction of infrastructure (roads, highways and real estate) was well developed. There are sufficient groups of players (large, medium and small) servicing this sector at the national and local levels. In rural areas, availability of suppliers is limited to 4-5, as this sector employs manual labor along with equipment. It is difficult for a contractor to move beyond his operational area due to labor mobilization etc. Cartelization happens to some extent due to small pool of available suppliers.

Market analysis of supply sector

Bangladesh's economy has been growing steadily over the past decade. and the country has emerged as one of the promising economy in the world. This has led to an increase in consumer spending, which has created opportunities for businesses operating in various sectors. The market for goods and services in Bangladesh is diverse, with opportunities in sectors. Almost for all type of generic goods to be procured are available is local supply market. Hence except a very specific and high end technological products almost all the goods are available in Bangladesh to supply through National Competitive bidding.

Analysis of Consultancy Market

The consultancy market in Bangladesh has been growing steadily in recent years, driven by increasing demand for professional services across various sectors of the economy, including government, private businesses, and non-profit organizations. The Government of Bangladesh has been actively promoting entrepreneurship and private sector development, leading to an increase in demand for consultancy services in areas such as business planning, market research, and investment advisory and many other potential areas. Heavy public investment in infrastructure has also created opportunities for consultancies to offer services related to project management, feasibility studies, and technical assistance.

Overall, the consultancy market in Bangladesh is expected to continue growing in the coming years, as the country continues to implement its development agenda and attract investment from both domestic and international sources.

Procurement Risk Analysis for abovementioned contract/group of similar contracts

Procurement Type	Risks	Mitigation Measures
Works Contracts	• Lack of qualified supervision • High cost of maintenance • High cost of construction materials	• Strengthened engineering capacity at the PMU. • Solicit prototypes of climate/disaster proof models. • Promote alternative materials
Goods Contracts	• No proper need assessment conducted • Dispersed destination delivery not preferred by the suppliers • Small traders in the rural areas do not have the capacity to supply.	• Conduct detailed needs assessment • Engage in proper advance planning to ensure goods are obtained in time, without delaying implementation • Create Transparency and Reliability on Govt. Contracts.
Consultancy Services Contracts	• Growing but still small market may result in inadequate expertise in various fields • Project has difficulty in estimating/evaluating the price, as no benchmark price available • Oligopolistic market may constrain competition	• Comprehensive TORs to ensure selection of qualified Consultants. • Automatic advertisement of procurement notices in e-GP system. • Engage technical resource persons in evaluating the proposals

Procurement Objective for abovementioned contract/group of similar contracts(related to the 5 Rs)

1. Maximize Value for Money
2. Timely completion of contracts

3. Achieve adequate competition.
4. Selection of qualified suppliers with good track record in implementation and SECAP concerns

Recommended Procurement Approach for the Project Procurement Approach

Works Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	SECAP compliance requirements to be adhered: i) No child labour to be employed

		ii) Strict oversight for structural stability iii) Mitigation of OSH risks by following statutory legal requirements iv) Making available rest sheds for workers v) Deployment of skilled labour to operate heavy equipment.
Sustainability Requirements	**Yes**	
Contract Type	**A. Traditional**	Most of the works' contracts follow the normal contracting process. These are easy to manage and
Supplier Relationship	**A. Collaborative**	
Price Adjustments	**A. None, fixed price**	Fixed Price applies or Admeasurement price for small variations authorized.
Form of Contract (Terms and Conditions)	**D. State in Particular Conditions of Contract (PCC)**	Include SECAP compliance requirements clearly.
Selection Arrangement	**A. Commercial Practices**	In some instances, the market provides the best option
Market Approach	**A. Type of Competition** **1. Advertised RFQ** **B. Number of Envelopes/Stages** **1. Single Envelope** **C. Negotiations - No**	Open competition places the bids to the entire market to obtain No negotiations are allowed on works contracts

Pre / Post Qualification	**B. Post-Qualification**	Since bids are advertised in the open market, Post qualification is the most ideal method.
Evaluation of Costs	**A. Adjusted Bid Price (corrected fora bidder's minor deviations)**	Adjusted bid price is the most ideal method. Before award, bidder has to accept the corrected price.
Domestic Preference	**No**	All bidders are domestic. No international bidders would be interested due to small packages.
Debriefing	**Preferred**	To be conducted after award to identify the errors/failure to submit documents. This would increase the credibility of the organization to widen the competition.
•		

Goods Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	1. For specialized inputs all the materials should have been authorized by the Government for release. 2. In case of restricted usage of goods, no prohibited goods to be procured.
Sustainability Requirements	**Yes**	Sustainability should always be considered in all procurement activities
Contract Type	**A. Traditional**	The standard traditional contract applies to these procurements of goods.
Supplier Relationship	**A. Collaborative**	Collaborative relationships work well where suppliers agree on the prices and terms to be met.
Price Adjustments	**A. None, fixed price**	Fixed prices will apply to procurement of goods as no negotiations are allowed for procurement of goods.
Form of Contract (Terms and Conditions)	**D. State any special conditions of contract**	
Selection Method	**A. National Competitive Bidding (NCB)** **B. Request for Quotation (RFQ)** **C. International Competitive Bidding (ICB)**	Most of the procurements will go through NCB or ICB to give an opportunity for competition and a wide range of competitors. Need assessment to be done and technical specifications in a range (not exact leading to a particular brand/model). Conduct market survey. RFQ will be used only for very low value consumables for office equipment or for

		other justified grounds.
Selection Arrangement	**A. Commercial Practices** **B. Framework Agreements/LTA**	Both these methods could be used.
Market Approach	**A. Type of Competition** **1. Open** **2. Advertised RFQ** **3. Direct contracting (for low value)** **B. Number of Envelopes/Stages** **1. Single Envelope** **C. Negotiations (No)**	Most of these tenders are open to encourage competition amongst suppliers in the market Single Envelope will be used for procurement of goods. No negotiations are allowed for procurement of goods.
Pre / Post Qualification	**A. Post-Qualification**	Good supplier pool available as such post-qualification will be the most ideal method to be used.
Evaluation of Costs	**A. Bid Price (exclusive of taxes)** **B. Life-Cycle Costs**	Bid price substantially compliant to the specifications. Life cycle costs to be considered for capital assets like machinery (for agro processing)
• **Domestic Preference**	**YES**	All domestic suppliers (manufactured or already imported prior to supply)

Consultancy Services Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	When used on TA/advisory role, SECAP

		requirements to be adopted for final report, which has implications for downstream procurement.
Sustainability Requirements	**Yes**	Sustainability will be a mandatory requirement for any procurement carried out in this project.
Contract Type	**A. Traditional**	Most of the consultancy contracts will follow the traditional method
Pricing and costing mechanism	**A. Lump Sum** **B. Time based**	Most of the consultancy contracts will be lump sum. However, any of these methods can be used.
Supplier Relationship	**A. /Collaborative**	Collaborative relationship will apply in all contracts with consultants
Price Adjustments	**A. Yes, beyond 24 months** **B. Negotiated**	Both Fixed Price and negotiated contracts methods will be used. Price adjustments to be done for long term contracts beyond 24 months. The consultant and the Client to agree on the modality of increase.
Form of Contract (Terms and Conditions)	**D. State any special conditions of contract**	Legal recourse to dispute resolution only after exhausting all appellate and arbitration avenues. Replacement of team at contract stage not allowed. Long term contracts, exceeding 12 months, each replacement requires Client approval. Frequent replacements lead to suspension and termination.

Selection Arrangement	**A. Commercial Practices** **B. United Nations (UN) Agencies** **C. Government agencies on single source** **D. Single source**	Selection arrangements will be based on standard commercials practices.
Market Approach	**A. Type of Competition** **1. Open** **2. Limited** **3. National** **5. No Competition - Direct Selection** **B. Number of Envelopes/Stages** **1. Two Envelopes** **3. Single Stage** **4. Multistage** **C. Negotiations (Yes)**	Competition is national. In very isolated cases direct selection could also be used.
Pre / Post Qualification	**A. Pre-Qualification** **B. Post-Qualification** **C. Initial Selection (limited tendering)**	Shortlisting (pre-qualification) applies to majority of the cases. Where the assignment is specific (like audit where there is hesitancy to submit pre-qualification documents, due to ICAB advisory, post qualification could be used.
Consultant Selection & Evaluation Method	**A. Quality Cost Based Selection (QCBS)** **B. Fixed Budget Based Selection (FBS)** **C. Least Cost Based Selection (LCS)** **D. Quality Based Selection (QBS)** **E. Consultant's Qualifications Based Selection (CQS)** **D. Direct Selection**	All these are acceptable
Evaluation of Costs	**A. Adjusted Bid Price (after negotiations)**	Both methods are applicable

• **Domestic Preference**	**No**	No
• **Rated Criteria**	**List the type of criteria to be used (mandatory/desired)**	Highest combined score for QCBS. Highest technical score within budget (FBS). Highest technical score with lowest financial cost. Though QBS is allowed, it is not generally used for rural development projects.
Government official (serving/retired/resigned) as part of consultancy team		If the proposed consultant is a government official, IFAD may agree on a case-by-case basis to the hiring of a government official of the Government under consulting contracts in the Borrower/Recipient country, either as an individual or as a member of the team of experts proposed by a consulting firm, only when: a) the services of the government official of the Borrower Government are of a unique and exceptional nature, or his/her participation is critical to project implementation; b) his/her hiring would not create a conflict of interest; c) his/her hiring does not conflict with any laws, regulations, or policies of the Government; and d) he/she is on an unpaid leave of absence granted by the current government employer. The contract of the concerned government official (proposed consultant) with its government employer needs

		to have ended (resigned or retired) or has been halted for the duration of the assignment and an official letter from its current employer to this effect must be submitted.

Engagement of Government Agencies

Memorandum of Agreement (MOA) is a form of procurement contract entered between the borrower and a party or parties of special legal status like a ministry, state agency, UN agencies or other international organizations. The MOA specifies the exact service outputs to be delivered, the delivery schedule and stipulates the corresponding service fees and payments over a specified period of time.

Used typically for specialized non-commercially operating providers of a special legal status.

The use of MOA with private firms is not permitted.

Justification to ensure the best value for money for the project compared to a competitive procurement process involving the private sector.

Payment of any kind of salary to government staff is prohibited. Their DSA/per diem, travel and related expenditures to deliver the services or activities specified in the MOA are permissible.

The MOA is written in the template (Letterhead) of the originating ministry/state entity.

The MOA cannot be legally enforced in normal courts, therefore the risk of non-compliance needs to be reduced as much as possible.

Clear payment modalities (time-based or output-based) and payment schedule needs to be included with a high last (final) payment subsequent to full delivery and acceptance.

The MOA should automatically terminate after its expiry (maximum 12 months) and without any automatic extension. If needed, the MOA can be extended beyond 12 months but any extension is subject to positive performance evaluation and completion of identified deliverables. Delay in performance should not be a reason for extension beyond 12 months.

Initial engagement and extension is subject to IFAD prior review irrespective of value and must be supported with a strong justification why entering into a MOA with the designated entity represents the best option and best value for money for the project compared to a competitive procurement process.

Contract Management

It is to be understood that procurement actions do not end when the contract or purchase order is signed. The contractual obligations to be followed up systematically till the intended results are

achieved as a result of procurement and cessation of all legal obligations as per the provisions of the contract with the parties.

During the course of contract administration, the receipt of goods/works as per the technical specifications agreed to be monitored and any shortfall/shortcomings to be informed to the supplier and made good. For Consultancy services, the contract management acquires importance as any delay in achievement of deliverables as per the timeline agreed, impact the project implementation. As per the Responsibility Matrix of PMU Staff (as included in PIM) the contracts to be closely monitored for satisfactory performance and occurrence of any force majeure conditions. Each payment to the consultancy services should be properly validated against the contract provisions and deviations should be communicated to the party, in writing. If unsatisfactory performance continues, appropriate actions to be initiated with strict adherence to the contract. In consultancy contracts, replacement of team members should not be authorized within 12 months except under extraneous or medical conditions. Frequent change of staff with or without justification should be viewed as non-performance and action to be initiated for reduction in management cost and/or suspension/termination of contracts following due process.

All disputes related to the contract should be resolved through mutual consultation and if unresolved disputes persist, arbitration process, as per the national law, should be initiated. All contractors should sign an undertaking that without exhausting the arbitration procedures, no judicial intervention should be proceeded. The results of arbitration will be subject to judicial review.

The end date of the contracts should be closely monitored and if any amendment/extension is warranted, these should be taken up sufficiently in advance. Amendment or extension of contracts, which lapsed, should be strongly discouraged.

Procurement Audit

Procurement is one of the key driver in project implementation. The procurement management is a process that describes how the public resources should be managed until the closure of the contract, to obtain project objectives. These include preparing the independent estimates, constraints, assumptions, procurement documents, bidding and sourcing of suppliers/technical assistance/consultancy services.

A procurement audit is a project management process that reviews different contracts and contracting processes to determine the completeness, efficiency as well as the accuracy and transparency of the procurement process. It is a structured review that stems from the planning of procurement process through the procurement cycle.

The objective of this particular process is to determine the success and failures that require acknowledgement during the implementation which would inform the Project management to resolve problem areas of internal control.

Procurement audit is basically a method in project management that formally evaluates the performance of the procurement processes being practiced. It is also used to create a record that can be used to shape and streamline the procurement practices of the organization.

It is to be understood that the internal audit team which performs the procurement audit function should deploy qualified persons with procurement skills and experience. The ToR should identify the methodology and sampling checks and tools for compliance. The procurement audit observations

and the management responses to resolve these should be submitted to IFAD and placed before the Project Management Committee or Project Steering Committee.

Procurement Capacity Development

The procurement staff engaged for the project should have benchmark qualifications and skills. No staff should be engaged without the benchmark skills.

The capacity of the procurement staff will be augmented in the following manner:

i) Procurement Specialist and other relevant PMU staff should be nominated for the Training Programme on Public Procurement conducted by CPTU, ESCB or other relevant institutes.
ii) ITC/ILO has a project procurement training programme (Blend of online and offline), BUILDPROC. BUILDPROC is a capacity-building programme in procurement for agricultural and rural development. The cost of the programme would be borne by the project resources. To retain the talent, the PMU may specify minimum number of years of service to be completed, beyond certification.
iii) IFAD Bangladesh Country Office will conduct additional need based training programmes through its staff and accredited procurement consultants.

Procurement Supervision Plan

IFAD will field an annual Supervision Mission to the project and the Procurement Specialist in the mission among other issues will (i) review the procurement contracting and implementation processes and timeliness and appropriateness of procurement actions; (ii) assess contract administration and management procedures and review the completeness and updated nature of contract data in the Contract Monitoring Tool; (iii) determine whether adequate systems are in place for procurement planning, implementation and monitoring, and whether procurement documentation and records (including securities) are maintained as per required standards and can be relied upon.

In addition to the annual Supervision Mission, IFAD Bangladesh Country Office will also organise a Startup workshop within 2 months from entry into force.

Additional specific adhoc support missions will also be fielded by IFAD.

SECAP Risk Associated with Procurement

Guidance notes for PMU

Environmental and Social Safeguards			
Biodiversity conservation	**Risk Rating**	**Consequence**	**Guidance for Project**
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource	Moderate	Moderate Project will require procurement of natural resources through primary	While major construction is not foreseen, the inclusion of adequate requirements in bid

materials (wood, gravel, sand, etc.)?		suppliers, and resource extraction is tightly regulated.	documents will be determined through discussions with the Project Management Unit (PMU), contingent upon the type of construction project. Such provisions need not be included for construction work or activities in remote rural areas where it is impractical to obtain or identify material sources.
Resource Efficiency and Pollution Prevention	**Risk Rating**	**Consequence**	**Guidance for Project**
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Moderate	Moderate Pollutants may be released, either routinely or by accident, but treatment systems are proven, verified and affordable. Receiving environment is highly sensitive.	No significant construction projects are anticipated. However, depending on the nature of the construction and activities involved, bid documents and specifications will mandate that contractors or implementers of planned activities ensure sufficient measures are in place to minimize the release of pollutants into the environment and effectively manage waste. 46
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?	Low	Minor Project will only be partly dependent on production of living natural resources, it does not require serious environmental or social controls.	While major construction is not anticipated, the project will tailor bid documents in consultation with the Project Procurement Management Unit (PPMU) to include appropriate requirements promoting ethical and efficient

			utilization of raw materials, depending on the type of construction or activity involved. However, such provisions are unnecessary for construction work or activities in remote rural areas where significant usage of raw materials, energy, and/or water is not identified. Additionally, an impact assessment tool will be developed to assess water usage based on the type of construction or activity, facilitating the identification and management of water resources accordingly.
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	Low	Minor Only a small component of the project will be focused on forestry, and this aspect is well regulated and/or proposed project activities do not have negative impacts.	While major construction is not anticipated, the project will tailor bid documents in consultation with the Project Procurement Management Unit (PPMU) to include appropriate requirements promoting ethical and efficient utilization of raw materials, depending on the type of construction or activity involved. However, such provisions are unnecessary for construction work or activities in remote rural areas where significant usage of raw materials, energy, and/or water is not identified.

			Additionally, an impact assessment tool will be developed to assess water usage based on the type of construction or activity, facilitating the identification and management of water resources accordingly.
Cultural Heritage	**Risk Rating**	**Consequence**	**Guidance for Project**
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	Low	Minor The project could be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	Where relevant, the project will mandate bidder qualifications to include previous experience in executing works within areas of cultural heritage significance. Contract clauses will be included to ensure safeguards for the protection of chance of archaeological discoveries. These provisions will be developed in collaboration with the Project Management Unit (PMU).
3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture	Low	Minor The project will involve minor movements of earth. No damage to/or loss of archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or features is expected.	No mitigation action envisaged

(e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)			
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	Low	Minor The project causes short-term and spatially limited alterations to landscapes. Rehabilitation is straightforward.	. No mitigation action envisaged
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Low	Minor The project could be located in an area that is considered to be of cultural heritage value, but the project does not use tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial purpose.	. No mitigation action envisaged
Labour and Working Conditions	**Risk Rating**	**Consequence**	**Guidance for Project**
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH)	Moderate	Moderate The project will operate in a sector, area, or value chain where workers are occasionally exposed to OSH risks, and where regulation is known to be weak or non-existent. However, there is no evidence of illness or death.	The project will incorporate contract clauses mandating Occupational Safety and Health (OSH) measures to safeguard workers from workplace injuries, illnesses, or other hazards encountered during project activities. Additionally, bid evaluation criteria may

risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)			prioritize contractors with comprehensive Health and Safety Management Plans (HSMPs), tailored to the specific risks and exposures assessed for individual value chain actors. These provisions will be developed in consultation with the Project Management Unit (PMU) to ensure their relevance and effectiveness
Community Health, Safety and Security	**Risk Rating**	**Consequence**	**Guidance for Project**
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Moderate	Moderate The project may lead to moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence protocols in place.	The bidding documents for suppliers, subcontractors, and service providers will include clauses mandating compliance with IFAD's policy on preventing and responding to sexual harassment, exploitation, and sexual abuse. Additionally, tender documents and concluded contracts will include mandatory references to security policies. For all components other than those using IFAD Standard Bidding Documents (SBD), the National Bid Document

			will be utilized. Furthermore, bid documents will incorporate the IFAD self-certification checklist and relevant provisions.
6.7 Could the project lead to an influx of project workers?	Low	Minor The project will require the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	Bid evaluation criteria to favour sourcing workers from the local communities whenever feasible for high value construction based on type of construction and required skill sets.

Project Procurement Arrangement

1. Section 7.05 of the General Conditions provides that the procurement of goods, works and services shall be carried out in accordance with the provisions of the **borrower/recipient's procurement regulations, to the extent such are consistent with the IFAD Project Procurement Guidelines, as amended from time to time**[5]. Each Annual Work Plans and Budget must contain a Procurement Plan, which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines. National Bidding documents to be supplemented as necessary in order to incorporate IFAD's SECAP standards and requirements and IFAD Anticorruption Provisions.

2. Each Annual Work Plan and Budget must contain a Procurement Plan to be submitted through OPEN, which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines. The following procurement methods[6] shall be used[7] for:

    a. Works and works-related Non-Consulting Services:

        (i) International Competitive Bidding (ICB): This procurement method applies to contracts estimated to cost US$ [*3 000 000*] or more. Under ICB, the

[5] Any reference to IFAD Project Procurement Guidelines also includes the IFAD Procurement Handbook. Ensuring that applicable procurement rules are consistent with IFAD's Project Procurement Guidelines is mandatory; the Handbook is used as a guidance document for the borrower/recipient. The regulations set out in these Procurement Arrangements supersede the Handbook in case of conflict. For both the Guidelines and the Handbook, the latest version shall always apply.
[6] In case National Procurement Regulations apply and as far as these do not contradict with IFAD's Project Procurement Guidelines, the equivalent terminology for procurement methods may be used; for example, ICB is the method for a publicly advertised competition at the international level. The Project Implementation Manual (PIM) will map the procurement methods that should be applied in accordance with these Arrangements.
[7] To know the applicable procurement method, the cost estimate shall be for the entire procurement activity whether it is divided into lots or not; in case of lots, the sum of the cost estimates of all lots shall be used for identifying the applicable procurement method for the procurement activity.

borrower/recipient *may apply a margin of domestic preference to local contractors of 7.5% excluding industrial plants*;

(ii) National Competitive Bidding (NCB): might be applied to contracts estimated to cost less than US$ [*3 000 000*]. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;

(iii) Shopping: might be applied to contracts estimated to cost US$ [*40 000*] or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification; and

(iv) Direct Contracting: applies to the indicated contracts in the Procurement Plan with due justification (as mentioned in the Handbook) subject to IFAD's NO under prior review[8] or alternatively without prior IFAD's NO for low-value unforeseen purchases with estimated cost per each purchase of US$ [*5 000*] or less up to an aggregate amount of US$ [*400 000*] per annum.

b. Goods and Goods-related Non-Consulting Services

(i) International Competitive Bidding (ICB): This procurement method applies to contracts estimated to cost US$ [1 000 000] or more. Under ICB, the borrower/recipient may apply a margin of domestic preference of 15%;

(ii) National Competitive Bidding (NCB): might be applied to contracts estimated to cost less than US$ [*1 000 000*]. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;

(iii) Shopping: might be applied to contracts estimated to cost US$ [*40 000*] or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification; and

(iv) Direct Contracting: applies to the indicated contracts in the Procurement Plan with due justification (as mentioned in the Handbook) subject to IFAD NO under prior review[9] or alternatively without prior IFAD's NO for low-value unforeseen purchases with estimated cost of US$ [*5 000*] or less per purchase up to an aggregate amount of US$ [*200 000*] per annum.

c. Consulting Services and related Non-Consulting Services

[8] A sufficiently detailed justification shall be submitted to IFAD to obtain its NO and shall include the rationale for the choice of direct contracting instead of competitive procurement and the basis for recommending a particular contractor/service provider in all such cases. Direct contracting could be justified under any of the circumstances listed in section 6, Module F1: Procurement Methods for Goods, Works and Non-consulting Services of the IFAD Procurement Handbook.

[9] A sufficiently detailed justification shall be submitted to IFAD to obtain its NO and shall include the rationale for the choice of direct contracting instead of competitive procurement and the basis for recommending a particular supplier/service provider in all such cases. Direct contracting could be justified under any of the circumstances listed in section 6, Module F1: Procurement Methods for Goods, Works and Non-consulting Services of the IFAD Procurement Handbook.

(i) Quality and Cost Based Selection (QCBS): This selection method is the default for contracts with firms estimated to cost US$ [*750 000*] or more; International Advertisement is mandatory for consultancy contracts estimated to cost US$ [*300 000*] or more, regardless of the selection method;

(ii) Quality Based Selection (QBS): might be applied to contracts of any value if a proper justification is provided;

(iii) Fixed Budget Selection (FBS), or Least Cost Selection (LCS)[10]: might be applied to contracts with firms estimated to cost less than US$ [*750 000*]. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;

(iv) Consultants Qualification Selection (CQS): might be applied to contracts with firms estimated to cost US$ [*150 000*] or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;

(v) Individual Consultants Selection (ICS): applies to contracts with individuals regardless of the value;

(vi) Shortlisting following a Request for Expression of Interest is mandatory for all CQS and ICS procedures. In addition, Shortlisting is mandatory for all consulting services contracts estimated to cost US$ [1*50 000*] or more;

(vii) Sole/Single Source Selection (SSS): applies to contracts with firms designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review[11] and/or contracts estimated to cost US$ [*5 000*] or less, up to an aggregate amount of US$ [*200 000*] per annum; and

(viii) Sole/Single Source Selection (SSS): applies to contracts with individuals designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review[12] and/or estimated to cost US$ [*5 000*] or less and with a contract duration of three months or less and up to an aggregate amount of US$ [*100 000*] per annum;.

[10] The choice among QBS, FBS and LCS shall be made by the borrower/recipient in the Procurement Plan based on the nature and circumstances of the relevant procurement activity following the guidance of the IFAD Procurement Handbook.

11 Any request for SSS by the borrower/recipient must be accompanied by a detailed justification, which will be carefully examined by IFAD to ensure that no alternative selection methods can be used. To receive IFAD's NO, it must be demonstrated that there is a clear advantage to SSS over competitive selection. Examples of such circumstances are listed in Section 6, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

[12]Any request for SSS by a borrower/recipient must be accompanied by a detailed justification, which will be carefully examined by IFAD to ensure that no alternative selection methods can be used. To receive IFAD's NO, it must be demonstrated that there is a clear advantage to SSS over competitive selection. Examples of such circumstances are listed in Section 7, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

d. Other Procurement Methods or Arrangements:

(i) The use of Force Account is *not allowed*.

(ii) Extensions of contracts funded by IFAD for Goods, Works or related Non-Consulting Services to cover items of similar nature not listed in the original contract may not exceed 10% of the contract value and require IFAD's No Objection (such extension shall be considered as Direct Contracting). However, extensions of existing contracts, issued in order to increase/decrease items already listed in the original contract as a result of evolutionary changes during contract execution and subject to the contractual clauses governing such change may exceed 10%. In this case, the extension is subject to IFAD's No Objection.

(iii) Procurement with Community Participation is *allowed*[13].

(iv) The award of Grants and Investment Agreements are subject to the prior review threshold for Consulting Services (firms). The packaging of Grants and Investment Agreements is encouraged, single awards to entities or individuals are discouraged.

(v) Procurement from United Nations Agencies is *allowed*[14].

(vi) Secondary Procurement (orders against existing Long-term Agreements, national e-catalogues etc.) follows the regulations and applicable thresholds of the national legislation. The prior review threshold of the respective procurement category (goods, works, consulting services and related non-consulting services) applies.

(vii) The borrower/recipient shall adopt and use the Standard Procurement Documents issued by *IFAD (for ICB and (if applicable) for consulting services)* and the ones issued by *National Authorities for other methods as long as the latter are supplemented/adapted to meet IFAD's SECAP standards and grievance mechanisms and the IFAD's Project Procurement Guidelines and IFAD Procurement Handbook. This includes adding the IFAD self-certification form at bidding and at contract.* [15]

7. In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans;
2	General Procurement Notices

[13] *If the Project Design has provisioned for the involvement of communities of the borrower/recipient in the regions where the project is to be implemented in the procurement activities and has analyzed the regulatory environment, organizational capacity, skills, etc. of such communities, then community participation can be allowed for particular activities as outlined in the Project Design and details will be included here in the Procurement Arrangements.*

[14] *If the Project Design has provisioned for the procurement from United Nations Agencies (See IFAD Procurement Handbook Module F1, Section 9) then this can be allowed for particular activities as outlined in the Project Design.*

[15] Further detail is available in Annex 4 to Volume 1 of IFAD's Social Environmental Climate Assessment Procedure (SECAP) 2020.

3	The TOR (Job Description), Advertisement and selection proceedings for the hiring of key project staff responsible for carrying out or administering procurement and other key project management positions (to be defined)
4	Award of any Memorandum of Agreement irrespective of its value
5	Award of any contract for goods and goods-related non-consulting services estimated to cost US$ [*250 000*] or more;
6	Award of any contract for works and works-related non-consulting services estimated to cost US$ [*500 000*] or more;
7	Award of any contract for consulting services provided by firms estimated to cost US$ [*200 000*] or more;
8	Award of any contract for individual consulting services estimated to cost US$ [*40 000*] or more;
9	Award of any contract via Direct Contracting for Goods and related Non-Consulting Services above the low-value threshold specified in paragraph 6 b) iv). Any contract below this low-value threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in paragraph 6 b) iv) in the current fiscal year;
10	Award of any contract via Direct Contracting for Works above the low-value threshold specified in paragraph 6 a) iv). Any contract below this threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
11	Award of any contract via Single/Sole Source Selection of Consulting Services to firms above the threshold specified in paragraph 6 c) vii). Any contract below this threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
12	Award of any contract via Single/Sole Source Selection to individuals above the threshold specified in paragraph 6 c) viii). Any contract below this threshold does not need N.O. as long as the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.

8. In addition, the following interim steps of the procurement process for Goods/Works/Services also require IFAD's No Objection to be submitted through OPEN for contracts designated for **"prior review"** in the project's procurement plan. No downstream procurement action by the Borrower/Recipient can proceed until prior NO is issued by IFAD as to the propriety and compliance of the undermentioned steps with the IFAD PPF:

	Activity / Step of the procurement process for Prior Review Contracts	**IFAD "NO" is required**
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes

3	Terms of Reference for consultancy services and related non-consulting services	Yes, usually as part of NO request for issue of the RFP (step 9 below)
4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
5	Composition of evaluation committees	No
6	Prequalification report for Goods/Works/NCS	Yes
7	Shortlisting report for consultants' selection	Yes
8	The use of "prior lists" for shortlisting consultants	Yes
9	Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable	Yes
10	Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee	Yes
11	Amendments to the Bidding Documents and RFPs, CfPs	Yes
12	Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS)	Yes
13	Technical evaluation report (in two envelope procedures)	Yes
14	The combined evaluation report (in two envelope procedures)	Yes
15	The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS)	Yes
16	Decisions concerning abnormally low bids	Yes
17	Draft contract	Yes
18	Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS	Yes
19	Rejection of all bids/proposals and cancellation of the procurement procedure	Yes
20	Failure of negotiations and proceeding to next ranked consultant	Yes
21	Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS	Yes
22	Determination to reject a bid/proposal because of cross-debarment	Yes, usually as part of steps 13, 14 or 15
23	Amendments to contracts exceeding 10% in value (increase/decrease in quantities as a result of evolutionary changes). Additional unforeseen new items exceeding 10% of the contract value is a new procurement subject to Single Source/DC conditions.	Yes
24	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	Yes
25	Termination of a contract in Goods/Works/NC Services/Consulting Services	Yes

9. Award-related Protests and Appeals: For prior-review procurements, all protests, submitted by bidders to the borrower/recipient as a result of a Notice of Intent to Award, must be communicated to IFAD before a decision on the complaint is issued. IFAD reserves the right to provide inputs or comments to the borrower/recipient to help it reach the decision. A copy of the decision must also be provided to IFAD. For post-review procurements, the borrower/recipient may - at its discretion – inform IFAD about the protest. The borrower/recipient shall inform IFAD of any related Appeal filed to competent national authorities immediately upon becoming aware of such an appeal.

10. IFAD must receive a duly completed Authorised User(s) Letter (see Annex 1), from [the designated representative specified in Section E of the Agreement or his/her delegate], designating the name(s) of official(s) authorised to undertake actions in the IFAD's client project procurement systems which includes client project submitting electronic documentation, entering and updating fiduciary data and to request IFAD's No Objection. The designated representative of the Borrower/Recipient may from time to time change the name/s of the Authorised User(s) or add new ones by written notice to IFAD.
11. Requests for IFAD prior review and no objection, should be routed through OPEN, IFADs Online Procurement End to End System which enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection, to contract signature) according to the type (e.g. national competitive bidding, international competitive bidding) and object of procurement (e.g. civil works, goods, services). OPEN also has a function as a tracking system for non-procurement workflow (e.g. Project Implementation Manual – PIM, Annual Workplan and Budget).

12. All contracts, Memorandums of Agreements,[16] purchase orders and related payments must be recorded in the OPEN. The register of contracts contained within the Contract Monitoring Tool replaces the requirement to complete the Forms C-10 (Register of Contracts) and C-11 (Contract Payment Monitoring Form). Instead, an extract of the register of contracts must be downloaded from the Contract Monitoring Tool for submission together with Withdrawal Applications. The register of contracts must be kept up to date on a continuous basis.

13. All the above-outlined procurement terms and conditions shall also apply to project implementing partners and implementing agents approved by IFAD.

14. The terms and conditions may be modified by IFAD during the course of Project implementation.

Anticorruption Measures

15. IFAD-financed and IFAD-managed activities and operations are governed under the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations; therefore,

[16] IFAD distinguishes between a Memorandum of Understanding, Memorandum of Agreement and a service contract in the following way:
Memorandum of Understanding: equivalent to a letter of intent, it cannot involve payments of any kind.
Memorandum of Agreement: it can involve payments but is only applicable to the public sector. It needs IFAD NO regardless of the value.
Commercial (service) contract: should be used for all private sector entities including NGOs.

the Borrower/Recipient is required to familiarize itself with this Policy in order to comply with all applicable requirements therein.

16. Specifically, paragraphs 11 to 15 in Section II. D (iii) of the Policy states the actions that the Borrower/Recipient will take to prevent, mitigate and combat Prohibited Practices (i.e., fraud, corruption, collusion, obstruction and coercion, as defined by the Fund) in any IFAD-financed and/or IFAD-managed activity or operation. Borrowers/Recipients are instructed to, *inter alia*:

    a. Prior to the implementation of an IFAD-financed and/or IFAD-managed operation or activity, inform the Fund of the arrangements made for receiving and taking action in response to allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations, in particular:

        i. appoint **and inform the Fund of the** independent and competent national or local authority (or authorities, if the activities that follow fall under the jurisdiction of more than one authority) to be responsible for receiving, reviewing and investigating allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations; and;
        ii. provide the name(s), position(s) and contact information of a focal point within that authority (or those authorities, as appropriate) and inform IFAD of any potential changes of that focal point.

    b. Borrower/Recipients are also encouraged to have in place, in accordance with effective whistle-blower protection measures and confidential reporting channels in order to appropriately receive and address allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed operations and activities.

Sexual Harassment, Sexual Exploitation and Abuse

17. IFAD has no tolerance for acts of sexual harassment, sexual exploitation and abuse in relation to its funded activities or operations. In April 2018, IFAD released its Policy to preventing and responding to Sexual Harassment, Sexual Exploitation and Abuse (the IFAD Policy[17]) to define obligations and responsibilities of all individuals who are holders of a contract with IFAD as well as third parties and recipients of IFAD funding.

18. According to Section 7.07 of the General Conditions, the Borrower/Recipient and the Project Parties shall ensure that the Project is carried out in accordance with the provisions of the IFAD Policy as may be amended from time to time. The Fund may take appropriate measures in line with such Policy.

19. In line with Section 34 of the Policy, the Borrower/Recipient shall ensure that contracts with Project Parties include: (i) provisions prohibiting acts of sexual harassment, sexual exploitation and abuse, (ii) obligation to immediately report incidents of sexual harassment, sexual exploitation and abuse to IFAD or to the Borrower/Recipient and (iii) provisions allowing for the immediate termination of the contract based on proven acts of sexual harassment, sexual exploitation and abuse.

20. Pursuant to Section 8.06. of the General Conditions, the Borrower/Recipient and Project Parties shall promptly inform the Fund of any non-compliance with the IFAD Policy. In accordance with Section 12.01 (xxv) of the General Conditions, the Fund may suspend, in

[17] https://www.ifad.org/en/document-detail/asset/40738506

whole or in part, the right of the Borrower/Recipient to request withdrawals from the Loan and/or Grant Accounts if, after consultation with the Borrower/Recipient, it determines that acts of sexual harassment, sexual exploitation and abuse were engaged in by representatives of the Borrower/Recipient or a Project Party or by any other recipients of the proceeds of the Financing without the Borrower/ Recipient having taken timely and appropriate action, satisfactory to the Fund, to address such acts when they occur.

21. Borrowers/Recipients are also encouraged to have in place, effective whistle-blower protection against retaliation measures, victim support and assistance mechanisms and confidential reporting channels in order to receive, address and respond to allegations of sexual harassment, sexual exploitation and abuse relating to IFAD-financed and/or IFAD-managed operations and activities.

PREPARATION OF TECHNICAL DOCUMENTS

Semi-annual Progress Report

The Semi-annual Progress Report should be sent to IFAD every six months, containing a detailed description of the activities carried out in the last six months of the Project, including information on physical and financial progress by component and sub-component and the extent to which they contributed to meeting the Project's goals. The report for the 1st semester, with data from January to June, will be sent to IFAD by August 15, and the report for the 2nd semester, with data from July to December, will be sent to IFAD by February 15.

The Semi-annual Progress Report should present the progress of the LF indicators in relation to the targets estimated by the current AWPB for the year and the total targets set in the design. The Semi-annual Progress Report for the 1st semester should provide the lines of correction to be adopted by the Project in the second semester, so that delays in the execution of activities can be corrected, according to a specific schedule.

The Semi-annual Progress Report for the 2nd semester, in addition to detailing the activities for the period, should present an overview of the Project's activities for the entire year. M&A will be responsible for providing quantitative and qualitative data to the Project team, as well as being responsible for consolidating the final document. The Semi-annual Progress Reports for the 2nd semester must also present an analytical description of the Project's level of progress by component and sub-component, as well as the relevance of the activities carried out to the results of the indicators. This analytical section should i) register, qualify, monitor and evaluate the contracted service providers; ii) qualify the degree of efficiency of the information flows between the stakeholders, as well as contribute to strengthening the local planning coordination processes; iii) evaluate the quality of the Project's products, results and impacts, according to the LF indicators; iv) evaluate the success of the targeting strategy, including issues of gender, race, ethnicity and generation for each component, in order to ensure that the Project is reaching the target groups; and v) evaluate the relationship between the activities and investments and the management of natural resources in the context of climate change.

It is important that the document includes photographs to show the main activities carried out during the period. IFAD has a Semi-annual Progress Report template that will be made available to the Project team.

Project Completion Report (PCR)

The PCR is the final Project report to be elaborated by IFAD team. The PCR must follow IFAD guidelines and should contain information on the implementation of the Project, changes (if any), as well as the results achieved. Focal points should be defined in the PMU with the aim of liaising with the

other Project professionals and supporting IFAD in the inclusion of information in the main document of the PCR.

It is important to note that the document should be elaborated in such a way that the cross-cutting themes related to activities with young people, women, etc., are present throughout the text, including in the Project results. The KM materials and the results and impact evaluations will be fundamental to the preparation of the PCR, and, for this reason, their deliveries should be aligned to ensure complementarity.

Closing workshop: This workshop will be the main closing event and will be attended by the main participants in the Project, such as the beneficiaries, ATER entities and other types of technical assistance, organizations representing family farming and the territories served, federal partner bodies, as well as municipal and state government bodies. During this event, the Project will present its activities and the obtained results, as well as gather information and testimonies from the participants. The results of this event will be systematized and included in the Project's PCR.

Climate Resilience and Livelihood Enhancement Project (CRALEP), Bangladesh

Financial Management section of PIM

June 2024

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Glossary of terms

Term	Description
4P	Public, private, producer partnership(s)
Borrower	Government of Bangladesh
CO	Community Organization
COSOP	Country Strategic Opportunities Programme
DPP	Development project pro forma (of the Government)
DCU	District Coordination Unit
DSA	Daily Subsistence allowance
ERD	Economic Relations Division
FAO	Food and Agriculture Organization of the United Nations
FD	Finance Division (of Ministry of Finance)
FFEWS	Flash Flood Early Warning System (for Haor)
FID	Financial Institutions Division (of Ministry of Finance)
FM	Financial Management
FY	Financial year
GoB	Government of Bangladesh
HH	Household(s)
IA	Implementing Agency
ICP	IFAD Client Portal
IFAD	International Fund for Agricultural Development
IFI	International Financial Institution
IFRs	Interim Financial Reports
IP	Implementation Partner
IPSAS Cash Basis	International Public Sector Accounting Standards - Financial Reporting Under the Cash Basis of Accounting
IT	Information Technology
LCS	Labor Contracting Society (of LGED)
LGED	Local Government Engineering Department
LSO	Local Support Organization
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MIS	Management Information System
MOF	Ministry of Finance
MoU	Memorandum of Understanding
MSME	Micro, small and medium enterprise
NGO	Non–Governmental Organisation
NPGP	National Poverty Graduation Programme
NRSP	National Rural Support Programme
NSER	National Socio-Economic Registry
P.A.	Per Annum
PD	Project Director
PDR	Project Design Report
PIM	Project Implementation Manual
P&D	Planning and Development Board
PDO	Project Development Objective
PMU	Project Management Unit
PO	Partner Organization (of PKSF)
PROVATi3	Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information
PSC	Project Steering Committee
PY	Project Year
SECAP	Social, Environmental and Climate Assessment Procedures
SO	Strategic Objective
SOE	Statement of Expenditure

Upazila	Sub-district
TOR	Terms of reference
UC	Union Council
VC	Value chain
VCD	Value chain development
WA	Withdrawal Application
WFP	United Nations World Food Programme

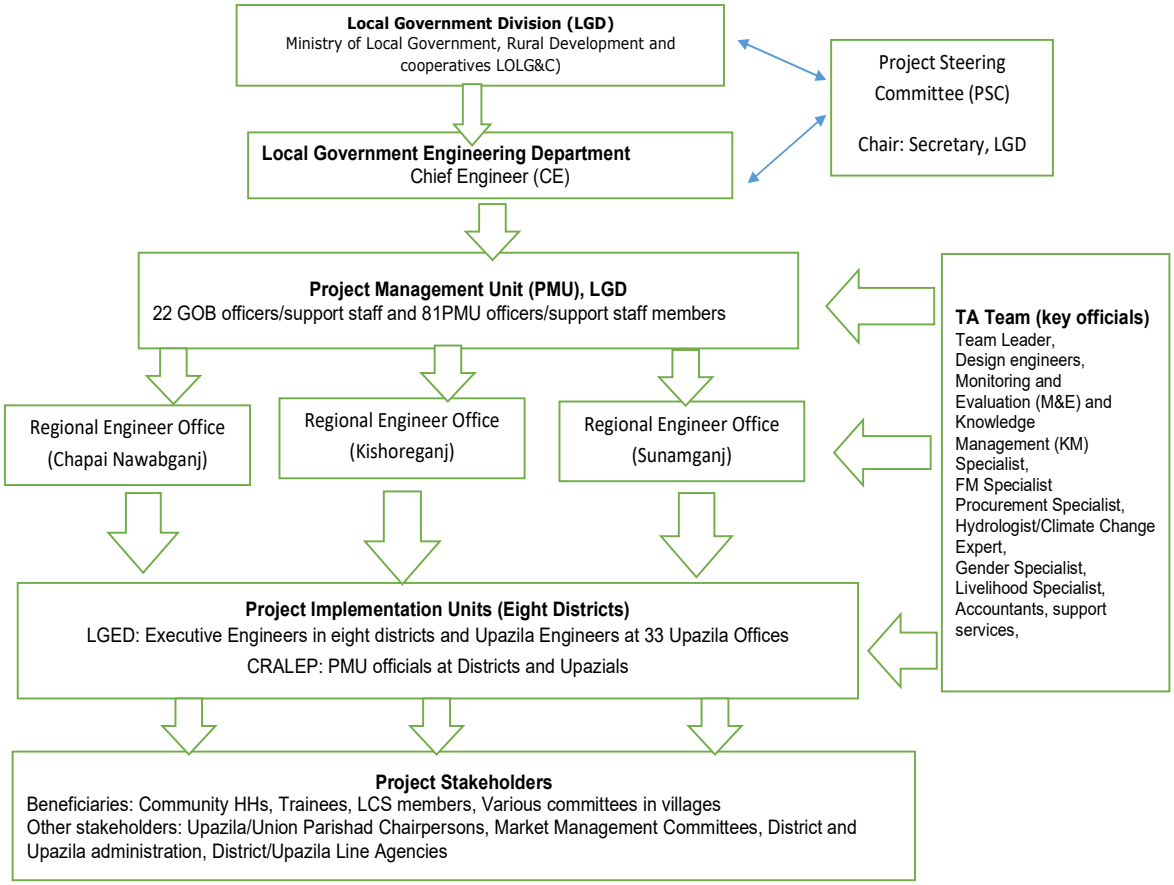
1. Introduction

The LGED will establish a Project Management Unit (PMU) headed by a senior engineer as the Project Director. Several LGED officials will be deputed to the project. The project will hire the necessary contractual officials as stipulated in PDR. The PMU will have four tiers: PMU/Dhaka at LGED Head Quarters, three Regional Offices in Chapai Nawabganj, Kishoreganj and Sunamganj, eight District Offices (Haor Region: Netrakona, Kishoreganj, Sunamganj, Habiganj, and Brahmanbaria; High Barind Region: Rajshahi, Naogaon, and Chapai Nawabganj), and 33 Upazila LGED offices. All these PMU offices and respective project officials will be housed in LGED respective District Offices and Upazila Offices. The PMU will have the responsibility to implement project planning, coordination, monitoring, procurement, and sound financial management practices. This financial manual outlines the financial management processes and procedures to be implemented by the PMU during the duration of the Project.

The PMU will engage private construction contractors, NGOs, private, and government training providers as appropriate for implementation of the project activities and will sign partnership agreements with several national institutions such as the Bangladesh Forest Research Institute (BFRI), the Institute of Water and Flood Management (IWFM), the Bangladesh Water Development Board BWDB), and the Bangladesh Meteorological Department (BMD). PMU will enter MOUs with these agencies which will outline the financial management roles and responsibilities of each party. Refer to 21.16 for proposed MOU terms.

Refer to section xxx of the PIM for an overview of the implementation arrangements.

Figure 1: CRALEP Organizational Structure



<u>Reference material</u>

This document should be read together with the:

- ✓ Project financing agreement entered between the Borrower and IFAD

- ✓ Letter to the Borrower
- ✓ IFAD General Conditions for Agricultural Development Financing
- ✓ Project financial management and financial control handbook for Borrowers
- ✓ IFAD Handbook on Financial Reporting and Auditing of IFAD-funded projects

Click here for links to documents.

Updates and changes to financial management arrangements

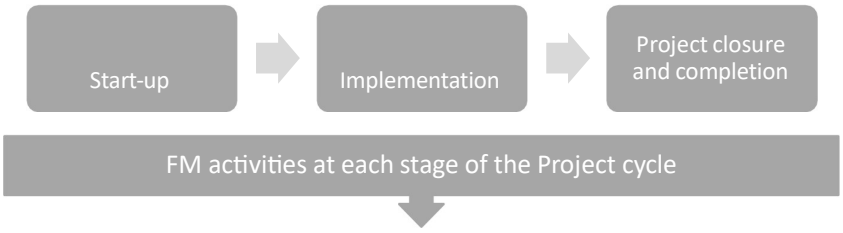
CRALEP is an IFAD-funded Project, therefore, in line with IFAD's efforts to capacitate and support projects, this section was developed during the project design process. It is envisaged that ongoing improvements and updates to financial management arrangements be updated in this section of the PIM under supervision of the Financial Manager and subject to IFAD no objection.

Project summary

Project name	Climate Resilience and Livelihood Enhancement Project (CRALEP)
Financiers, contributors, facilities	IFAD LOAN US$70 million Government of Bangladesh $31.7 million Gates Foundation $1.5 million
Implementation period	6 years
Project area	Haor and Barind regions of Bangladesh

2. Project cycle and financial management activities

The Financial Managers of CRALEP will have final responsibility for the execution of the activities at each stage of the Project cycle as outlined financial management below:



Start-up	Implementation	Project closure and completion
▪ Fill staff vacancies ▪ Implement project module in accounting software	▪ Ongoing improvements to the Financial Manual ▪ Budgeting ▪ Accounting	▪ IFAD Specific completion and closure procedures ▪ Final audit

▪ Identify possible customizations and implement (related to financial reporting) ▪ Preparation of first annual work plan and budget ▪ Opening of bank accounts ▪ Start-up training ▪ Attend anticorruption workshop hosted by IFAD. ▪ PMU: conclude MOUs with implementing partners	▪ Disbursements and withdrawals ▪ Record keeping ▪ Internal controls ▪ Cashflow forecasting ▪ Auditing ▪ On-going training ▪ Implement performance evaluation[1] <u>The PMU only:</u> ▪ Financial reporting to IFAD	▪ Asset and inventory handover ▪ Budget wrap up ▪ Submit final WA for justification ▪ Refund of unspent balance

NB: The PMU Financial Manager will have the final responsibility to prepare consolidated financial reports for submission to IFAD. Refer to 13. for more detail.

3. Pre-implementation activities

During the start-up of the Project, it is recommended that Project staff undertake the following activities. These activities are recommended to ensure that Project staff are well informed and knowledgeable with regards to the financial management aspects of the Project once implementation commences:

Activity	Overview
Financial management staff appointment	• Fill vacancies to ensure capacity to manage the Project. Refer to 4. for the proposed organogram.
Accounting software	▪ PMU to procure accounting software and ensure that new staff are trained in the use of it. ▪ Incorporate correct chart of accounts (categories and components) in line with the detail in Annex 2 of the Financing agreement with IFAD. ▪ Upload the Cost Table (Annex 2 of the Financing Agreement) to the accounting software for the purposes of budgeting / monitoring.

▪ [1] ***Develop (in consultation with the Project Coordinator) a performance evaluation process for FM staff within 1 year of project commencement and document process in the PIM. This process should identify skills gaps and assist with identifying appropriate training interventions.***

Open bank accounts	▪ The Financial Managers, with the assistance from PD, will be responsible for the opening of the Project bank accounts. Refer 8.1 for overview of required bank accounts.
Preparation of first annual work plan and budget	▪ PMU Financial Manager will be responsible for the compilation of the first Annual Workplan and Budget, as directed by the Project Director, subject to IFAD no-objection. This budget will be a consolidation of the budgets obtained from PMU and other implementing partners, following the process as outlined in 6.
Staff training and capacity building	▪ Newly appointed PMUs financial Management staff will be required to complete the IFAD FM e-learning and submit completion certificates to IFAD within 1 month of date of appointment. Refer 20. for link to training. ▪ Existing PMU financial management staff will be required to complete the IFAD FM e-learning within 1 month of project start-up (if not yet completed) and submit the completion certificate to IFAD. ▪ All staff are required to study the project related documents at project start-up.

4. IFAD Anticorruption policy

The management of Project funds shall be sufficiently rigorous to safeguard against Fraud and Corruption. Fraud and corruption include, but are not limited to (as defined in the IFAD anticorruption policy):

- Corrupt practice - offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party.
- Fraudulent practice - any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation.
- Collusive practice - an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.
- Coercive practice - impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in Projects financed through its loans and grants. 'Zero tolerance' means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will be applied to parties or entities involved where the allegations are substantiated. IFAD takes all possible actions to protect individuals who submit allegations of fraudulent or corrupt practices in its activities from reprisal. The primary responsibility for enforcing the Anticorruption Policy lies with the CRALEP, and the first defense for controls shall be exercised by Project staff and counterparts Pursuant to this, the CRALEP shall have the responsibility to incorporate pertinent provisions of the Anticorruption Policy in its contracts with Project staff, cooperating/implementing partners, and suppliers/consultants.

It is the Project Director and the Project Financial Manager's responsibility to make sure that all Project staff are aware of IFAD's and the National's anticorruption policies and whistle blowing procedures.

CRALEP can contact the IFAD Officer of Audit and Oversight to report events.

How to contact the IFAD Office of Audit and Oversight

All communications are treated with the utmost CONFIDENTIALITY.

By phone: +39 06 54592888

By fax: +39 06 54597888

By e-mail: anticorruption@ifad.org

Through the online complaint form:

www.ifad.org/governance/anticorruption/how.htm

In person or by mail to:

IFAD Office of Audit and Oversight, Investigation Section

Via Paolo di Dono, 44

00142 Rome, Italy

(Mark all mail "Personal and confidential")

Refer to annexure 20 for useful links.

5. FM organisational structure, roles and responsibilities

5.1 Overview of FM organizational structure

PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. FM staff from the recently concluded IFAD funded and LGED implemented HILIP CALIP project should be invited to participate in the recruitment process. Finance Manager will be assisted in his functions by a competitively recruited Accounts Officer, and two Accounts Assistants. Project will have largely centralized FM arrangements managed at PMU level. Each District Office will have one Accountant that would be supported by an Accounts Assistant.

Key to ensure appropriate designation is used for FM staff and that qualification and experience and proposed pay are commensurate with job role and competitive. Finance Manager should have the necessary delegation of authority to submit interim and annual financial reports, WAs and other required documentation to IFAD. All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer.

5.2 FM staff - key roles and responsibilities

Detailed job descriptions for the Financial Manager, Accounts Officer, Budget and Finance Officer and Accountant Assistant are outlined in 21.3, 21.4, 21.5, 21.6, 21.7 & 21.8.

6. Planning and budgeting

Project financing has been approved in line with the following expenditure components and categories which will be an important reference for preparation and monitoring of the AWPB and progress in line with the approved financing agreements:

Components	Expenditure categories

Component 1: Climate proofed village road connectivity and market improvement	✓ Works
Component 2: Village services for resilient community in Haor Region	✓ Works
Component 3: Livelihoods Diversification and Resilience	✓ Training & Workshops ✓ Consultancy
Component 4: Capacity development, climate information services, and innovation	✓ Training & Workshops ✓ Consultancy ✓ Equipment and materials
Component 5: Project Management	✓ Operating cost ✓ Equipment and materials

[INSERT TABLES FROM ANNEX 2 OF FINANCING AGREEMENT]

The Financial Manager will be responsible for preparing a consolidated AWPB with input from the PMU technical team and by obtaining the individual budgets from both PMUs and other implementing partners. PMU and the other implementing partners are required to prepare a budget for the components/subcomponents for which they are responsible. The budget is prepared in Excel using the required format as outlined in 21.1. A bottom-up approach is required, whereby budgets are compiled from the community level upwards. The Financial Managers shall start with the AWPB process with sufficient time to seek IFAD no objection as required in terms of the financing agreement.

Once the AWPB has been developed and approved, it must be inserted in the budget module of the accounting system of each of the agencies for the purposes of monitoring actual implementation in line with the budget. Each agency should monitor budget to actual expenditure for their individual components/subcomponents at least once a month. PMU should monitor the consolidated budget to actual performance on a quarterly basis with input from PMU and the smaller implementing partners.

The Financial Manager needs to ensure that consolidated expenditure per category is in line with the approved totals in the Financing Agreement. If the budget monitoring process indicates and expected over-expenditure on one or more of the cost categories, the Project will have to obtain a no objection from IFAD, allowing a reallocation amongst categories.

For information on how to prepare the AWBP (including the roles and responsibilities of various stakeholders and approval processes) refer to the PIM.

7.Internal controls

7.1 Overview of internal controls

It is recommended that the Financial Manager of PMU consider the guidance outlined in *Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)* when developing/improving the system of internal control *(also see COSO Integrated Framework – Internal Control).*

In terms of the Guidelines for Internal Control Standards for the Public Sector (INTOSAI GOV 9199):

Internal control is an integral process that is affected by an entity's management and personnel and is designed to address risks and to provide reasonable assurance that in pursuit of the entity's mission, the following general objectives are being achieved:

- ✓ *executing orderly, ethical, economical, efficient, and effective operations.*
- ✓ *fulfilling accountability obligations.*
- ✓ *complying with applicable laws and regulations.*
- ✓ *safeguarding resources against loss, misuse, and damage.*

Internal control is a dynamic integral process that is continuously adapting to the changes an organization is facing. Management and personnel at all levels must be involved in this process to address risks and to provide reasonable assurance of the achievement of the entity's mission and general objectives.

At project start-up it is recommended that the Financial Manager of PMU use the general framework for considering the internal control environment with the intention of improving the existing control environment. In terms of the general framework:

1) Perform a risk assessment
2) Develop control activities which address identified risks (or improve existing control activities)
3) Implement control activities (by documenting controls, updating the information systems, communicating to relevant parties)
4) Develop a system for monitoring the effectiveness of controls implemented Control activities

should be developed with consideration of the following categories:

Control activities	Description
Authorization and approval procedures	Authorization controls require certification that a transaction or event is acceptable for further processing. The delegated authority of staff should ensure efficient implementation while mitigating related risks. Authorization levels of Project staff should be in line with their underlying roles. For example, only the Project director may be authorized to approve payments.
Segregation of duties	An important element in any control system is the separation of those duties which would, if combined, enable one individual to record and process a complete transaction. For example, an Accountant might prepare a document, but it would then be reviewed and cleared by the Financial Manager, and then approved by the Project Director. It is the Financial Manager's responsibility to ensure that certain

Control activities	Description
	duties are segregated, including authorizing, processing, recording, and reviewing.
Access to resources and records	All data, records and assets should be kept in a physically secure environment. Petty cash should be kept secure. Financial data and other records should also be protected by back up procedures and copy records should be stored securely off site.
Verifications	Transactions and significant events are verified before and after processing, e.g., when goods are delivered, the number of goods supplied is verified with the number of goods ordered. Afterwards, the number of goods invoiced is verified with the number of goods received.
Reconciliations	Reconciliations between independent, corresponding sources of data are a key control for identifying errors and discrepancies in balances. The reconciliations should be done monthly. Any reconciling or balancing amounts should be promptly cleared. Unusually long outstanding reconciling items should be investigated. Physical checks should also be performed on assets and petty cash.
Reviews of operating performance	Operating performance is reviewed against a set of standards on a regular basis, assessing effectiveness and efficiency. If performance reviews determine that actual accomplishments do not meet established objectives or standards, the processes and activities established to achieve the objectives should be reviewed to determine if improvements are needed.
Reviews of operations, processes, and activities;	Operations, processes, and activities should be periodically reviewed to ensure that they follow current regulations, policies, procedures, or other requirements.
Supervision	Competent supervision helps to ensure that internal control objectives are achieved. This includes assigning, reviewing, and approving an employee's work.
Information and technology related controls	Information and technology controls can be both general and related to applications. The major categories of general controls are (1) entity-wide security program planning and management, (2) access controls, (3) controls on the development, maintenance and change of the application software, (4) system software controls, (5) segregation of duties, and (6) service continuity. Application controls are the structure, policies, and procedures that apply to separate, individual application systems, and are directly related to individual computerized applications. These controls are generally designed to prevent, detect, and correct errors and irregularities as information flows through information systems.

Entities should reach an adequate balance between detective and preventive control activities. Corrective actions are a necessary complement to control activities to achieve the objectives.

The Financial Manual incorporates practical guidance on recommended control activities in the sections that follow which can be considered by the Financial Managers of PMUs when developing/improving internal controls. **New/improved controls should be documented in detail in the Financial Manual Controls should be considered at the central offices as applicable.**

7.2 Authorization and approval

- ✓ Each payment to be uploaded to accounting software based on an approved payment request
- ✓ Payments released on on-line banking platform by 2 authorized signatories (by using authorized log-in credentials)

7.3 Segregation of duties

- ✓ Payment requests prepared by Budget and Finance Officer
- ✓ Payments reviewed/approved by Financial Manager / Project Director
- ✓ Payments recorded in accounting software by Accountant
- ✓ Payments released by authorized signatories (Financial Manager/Project Director)

7.4 Access to resources and assets

- ✓ Financial Management Office to be locked after hours and key retained by the Financial Manager
- ✓ Other project offices locked after hours are when not in use

7.5 Verifications

- ✓ Semi-annual fixed asset verifications (register to floor and floor to register)
- ✓ Fixed assets are tagged with unique number or barcode

7.6 Reconciliations, reviews, supervision

The following reconciliations, checks, monitoring and review activities should be prepared monthly (PMU central office level):

Type	Description	Preparer	Reviewer (Signed by)
Designated account bank reconciliation	Reconciliation of the bank balance of the designated accounts to the cash book balance. (IFAD format outlined in Appendix 21.12)	Account Officer or Accountant	Financial Manager
Operational accounts / Interest accounts / tender accounts reconciliations (local currency)	Reconciliation of the bank balance of the operational accounts to the cash book balance.	Account Officer or Accountant	Financial Manager
Petty cash reconciliation	Reconciliation of petty cash to relevant cash book. Refer 21.14 for reconciliation form.	Accountant	Budget and Finance Officer
Petty cash spot checks	Financial Manager to undertake random sport checks of petty cash (compare cash balance to petty cash book)	Account Assistants	Financial Manager
Advance justifications	Clear all outstanding advances within 2 days of each quarter	Account Officer or Accountant	Financial Manager

Type	Description	Preparer	Reviewer (Signed by)
	(Received and record approved expenditure) and follow up on long overdue items for which invoices/supporting documentation has not been received.		
Review of monthly reports from NGOs/Implementing Agencies (as per 21.17)	Obtain monthly reports from implementing partners and confirm: ✓ Report was approved by IA Management ✓ Bank balances agree to bank statement / bank reconciliation ✓ Petty cash balances agree to petty cash reconciliation ✓ Listed expenses are supported by valid invoices and other supporting documentation (review original documentation) ✓ All advances from PMU are recorded in line with advances recorded in accounting software ✓ Expenses have been incurred in line with the approved AWPB	Implementing Partner Accountant	PMU Budget and Account Officer
Quarterly and Monthly internal report	Prepare internal reports for the purposes of monitoring project progress and identifying issues. Refer section 13.7.	Finance team	Project Director

In all instances, issues identified during the review/reconciliation process should be followed up and resolved in a timely manner.

7.6 Information and technology related controls

- ✓ Password is required to log into accounting software
- ✓ Accounting software to require password change on a regular basis
- ✓ User rights are defined and documented and linked to log-in credentials
- ✓ Daily back-up of accounting data on server
- ✓ Sensitive information (e.g. payroll files) are password protected
- ✓ Regular software updates are undertaken to ensure that software is supported by technical team
- ✓ Offsite backup of data on a weekly basis
- ✓ Financial Management staff are not allowed to share passwords or use login credentials of another
- ✓ Desktop access requires login with a password
- ✓ Operating system software updates are performed regularly
- ✓ Use authorised signatory to have log-in credentials for on-line banking

7.7 Internal control environment – implementing partners

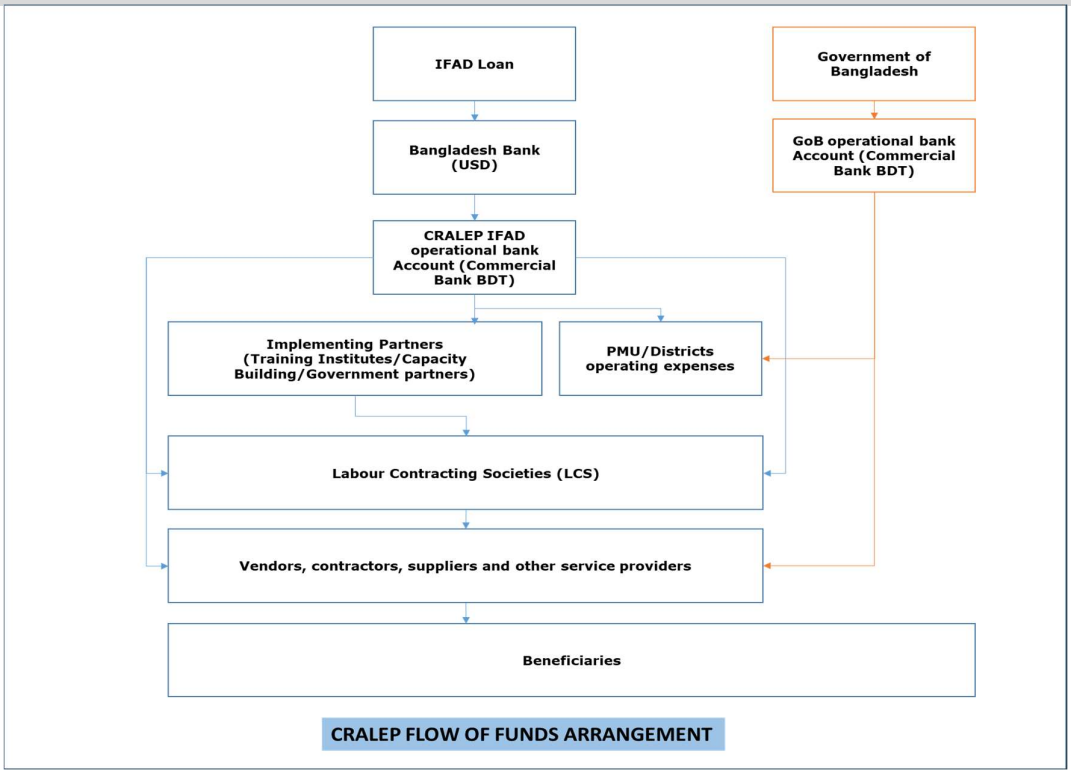
The Financial Manager will be responsible for the assessment of the internal control environment of implementing partners which report to it. In terms of the MOUs, it will be required that implementing partners perform an annual self- assessment of their financial management arrangements are outlined in 21.16. Additionally, annual audit reports should be provided for the main implementing partners. It is recommended that the Financial Managers use the information contained in this section to consider the soundness of the internal control environments and provide guidance on improving controls if weaknesses are identified.

8. Flow of funds

8.1 General flow of funds arrangements:

- ✓ PMU will have the ability to request funds from IFAD (via withdrawal application process and the submission of quarterly interim financial reports (IFRs)) and other financiers for the components which it is responsible.
- ✓ PMU to maintain a designated account with the Bangladesh Bank to receive and use IFAD's Loan
- ✓ The project will open operational accounts with a publicly listed bank that is licensed by the Bangladesh Bank.
- ✓ Project will have three sources of funds- IFAD, Gates Foundation and Government of Bangladesh. PMU will maintain separate accounts for each of the financiers. The government's share in financing comprises cash counterpart funding for payment of applicable taxes and project management costs.
- ✓ The annual requirement of counterpart funds shall be reflected in the project's AWPB and provincial budget.
- ✓ The accounting system shall record government financing separately. Apart from meeting PMU and DMUs own operational expenses, most of the investment funds will be expended through the labor contracting society (LCS) in the community, implementing partners and vendors/contractors.
- ✓ All LCS and implementing partners will maintain dedicated project accounts to facilitate tracking of funds disbursed and utilized.
- ✓ Modalities for the procurement and payments of vendors and contractors will be specified in the PIM. Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process.
- ✓ The AWPB counterpart fund requirements shall be reflected in the Annual Development Programme and budget. The annual requirement of counterpart funds shall be reflected in the project's AWPB and provincial budget.
- ✓ The accounting system shall record government financing separately.
- ✓ All implementing partners will maintain dedicated project accounts to facilitate tracking of funds disbursed and utilized.
- ✓ Flow of funds to other agencies will be based on the activities and expenses agreed in the MOUs signed between PMU and IPs.
- ✓ Based on MOUs and AWPB targets and phasing, PMU may provide initial one quarter advance to IPs.
- ✓ Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.

The flow of funds for CRALEP is depicted below:


IFAD Loan
Government of Bangladesh
Bangladesh Bank (USD)
GoB operational bank Account (Commercial Bank BDT)
CRALEP IFAD operational bank Account (Commercial Bank BDT)
Implementing Partners (Training Institutes/Capacity Building/Government partners)
PMU/Districts operating expenses
Labour Contracting Societies (LCS)
Vendors, contractors, suppliers and other service providers
Beneficiaries
CRALEP FLOW OF FUNDS ARRANGEMENT

8.2 Petty cash account

In addition to the bank accounts as per above, PMU will operate a petty cash account. The purpose of the petty cash is to allow PMU to make payments for low value items in a quick and efficient manner. Payments through petty cash will only be allowed for amounts up to equivalent of 50 USD.

8.3 Authorised bank signatories

All bank accounts will have 3 authorised signatories. All bank transfers will be required to be released by 2 authorised signatories.

9.Accounting

9.1 Accounting system

Most of the Project activities result in the receipt, commitment, or expenditure of funds. The accounting system records, processes, and organizes this data to produce useful financial information in the form of AWPB, Financial Reports, Withdrawal Applications, Financial Statements etc. needed by the financier and project management. The accounting system should reflect the Project's needs and be designed to provide the financial information required by all interested parties. It should also fulfil all the legal and regulatory requirements of CRALEP. In addition, the accounting system should incorporate the reporting requirement of the chosen accounting standard for CRALEP which is IPSAS, Financial Reporting under the Cash Basis of Accounting.

9.2 Centralised accounting at PMU

The accounting function will be centralised at PMU Dhaka and maintained under the supervision of the Finance Manager.

PMU will consolidate the accounting transactions from the various implementing partners monthly by receiving each agency's transactions (in monthly report format) as outlined in 21.17. PMU will record the transactions on a manual basis in the accounting software and clear related advances.

(NB: In case of Advances to implementing partners, they must be recorded in the accounting software (indicating the relevant implementing partner only). Only once advances are cleared, expenses are recorded at the historical exchange rate / within the correct component and expenses category).

The PMU will centrally manage the accounting of transactions.

9.3 Accounting software

Accounting software will be used for CRALEP. The PMU will procure and configure a dedicated module in the accounting software. At project start-up the Financial Managers should identify required customization to ensure that accounting software can generate forms/reports in the formats required by IFAD and/or other financiers.

9.4 Chart of accounts

The accounting software should include the appropriate Chart of Accounts. The Chart of Accounts should be developed to cater for:

- All components and sub-components are incorporated in the AWPB (outlined in the financing in agreement)
- All categories as outlined in the financing agreements
- Sources of finance (Government, IFAD, and Gates Foundation)
- Sub categorization to cater for activities at the various states

The Chart of Accounts should mirror the cost tables (as presented in the Project design report and section 1 of this manual) to enable comparison of actual Project costs during implementation with those estimated during the Project preparation.

9.5 Recording and processing of transactions

Whenever a transaction takes place under the Project, it should be recorded and processed using the accounting software. Transactions are recorded on the cash basis of accounting which requires the recognition of cash flows when they occur (inflows and outflows).

Each transaction should be recorded in the accounting software based on the following:

- Use double entry accounting (debit and credit, with cash always being one of the entries)
- Capture the transaction using the correct account code (as determined by the chart of accounts) – for all transaction, to be confirmed the Financial Manager
- Capture transactions which has the required supporting documentation
- Capture information accurately and completely.

For detailed instructions on how to record the expenditures in the accounting software, please refer to the accounting user manual.

9.9 Accounting for exchange rate matters

When claiming expenditures in local currency in Withdrawal Applications (forms 101, 102 and 104) or preparing a financial report, it is important to use the prevailing rate (historical exchange rate) at the time of transfer of funds from the Designated Account (denominated in USD) to the local currency account. Subsequent expenditures should be recorded on the First in First Out basis.

For example:

Conversion of local currency expenditures funded from the designated account.

- IFAD transfers funds in USD to the Designated Account as per the approved WA
- The Bank of Bangladesh—which maintains the accounts of foreign aid for Bangladesh, shall receive funds from IFAD in USD, convert it at the prevalent exchange rate into local currency, debit the national account for loan, and credit the project's Operational Account in the commercial bank accordingly.
- The project account shall show debits, credits, and balance in BDT along with USD equivalent.
- When justifying the local currency expenditures to IFAD, these expenditures are converted into the denomination of the designated account, using the prevailing rate

(Historical exchange rate) of SBP conversions.

9.10 Accounting for advances

The Project may make advances (petty cash, travel related, advances to implementing partners etc.) either in the form of cash or by bank transfer.

In terms of accounting for advances:

- Advances are recorded in the accounting system at the date that the advance is made, subject to the required approval process.
- The transaction is not recorded as an expenditure (in terms of categories, components) on this date.
- All advances should be cleared in a timely manner by the submission of original invoices.
- All outstanding advances should be cleared by no later than 10 days after the end of the fiscal year-end.
- In terms of the cash basis of accounting advances at the end of the period should be expensed and disclosed in the financial report.

10. Disbursements

10.1 Eligibility of expenditures

In accordance with the IFAD disbursement procedures, between the date of entry into force of the Financing Agreement and the Financing Closing Date, CRALEP may request withdrawals from the IFAD Loan for eligible expenditures.

Eligible expenditures are defined in the IFAD General Conditions Section 4.07 as follows:

The Financing shall be used exclusively to finance expenditures meeting each of the following eligibility requirements:

- *The expenditure shall meet the reasonable cost of goods, works and services required for the Project and covered by the relevant AWPB and Procurement Plan and procured in conformity with the Fund's Procurement Guidelines, and the provisions of the Project Procurement Arrangements as further defined in article II, section 2.01.*
- *The expenditure shall be incurred during the Project Implementation Period, except that expenditures to meet the costs of winding up the Project may be incurred after the Project Completion Date and before the Financing Closing Date.*
- *The expenditure shall be incurred by a Project Party.*
- *If the Agreement allocates the amount of the Financing to categories of Eligible Expenditures and specifies the percentages of such Eligible Expenditures to be financed by the Financing, the expenditure must relate to a category whose allocation has not been depleted and shall be eligible only up to the percentage applicable to such category.*
- *The expenditure shall be otherwise eligible in accordance with the terms of the Financing Agreement.*
- *The Fund may from time to time exclude certain types of expenditure from eligibility.*
- *Any payment prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, shall not be eligible for financing by the Financing.*
- *Any payments to a person or an entity, or for any goods, works or services, if making or receiving such payment constitutes a Prohibited Practice by any representative of the Borrower/Recipient or any Project Party, shall not be eligible for financing by the Financing.*
- *All expenditures must be supported by sufficient supporting documentation as stated in the FMFCL and the IFAD Project Financial Management and Financial Control Handbook for Borrowers.*
- *The proceeds of the financing shall not be used to pay taxes. However, taxes paid by the ultimate recipient of an expenditure (e.g., withholding tax, income taxes paid by a Project employee or taxes on the profits of a contractor) are not considered to be taxes paid by the Project.*

The IFAD disbursement procedures as outlined below are governed by the Financial Management and Financial Control Letter (FMFCL) and the IFAD Project Financial Management and Financial Control Handbook for Borrowers. The handbook is also

available on the IFAD website and CRALEP should ensure that they refer to the most recent version as published at the website.

10.2 Disbursement procedures

The following disbursement procedures may be used for withdrawal from the IFAD Loan and Grant:

Type	Description
Advance withdrawal	The advance withdrawal modality for CRALEP is based on revolving fund modality for which: ▪ For the first disbursement, the PMU may request IFAD to disburse funds into the designated bank account as an initial deposit/advance to pay for eligible expenditures as they are incurred. The first advance shall be based the period of six months' forecast amount of IFAD financed expenditure approved in the first Annual Work Plan and Budget (AWPB) for the six months planned activities. All such advances must be fully accounted for/justified by the Borrower in the manner described in the FMFCL. ▪ After the first advance ("initial deposit") has been disbursed, the Borrower may request further advances during the Project implementation period. the frequency of replenishments is based on cash forecasts for two quarters, as per the approved AWPB for IFAD financing. ▪ The PMU should periodically provide satisfactory accounting evidence ("justify" the advance) that previous withdrawals have been properly spent for eligible expenditures. For this purpose, WAs should be submitted quarterly, even if no further advance or replenishments is being requested. The documentation required to justify such advances is the quarterly Interim Financial Progress Report (IFR) in Annex xx. ▪ In some cases additional reports or statements of expenditures may also be required, as described in the FMFCL.
Reimbursement	Reimbursement is applicable when eligible Project expenditures are pre-financed by the Recipient before access to IFAD Grant finance is possible. Such reimbursements are expected to be claimed no later than 90 calendar days from the date of payment by the Recipient.

Request for disbursement from Government should be submitted on a quarterly basis, in the format required by Government.

10.3 Evidence of Authority to sign Withdrawal Applications

IFAD requires Government of Bangladesh representative, as designated in the financing agreement, to furnish satisfactory evidence of the authority and authenticated specimen signatures of the individuals who will sign WAs on behalf of the Government. This evidence must reach IFAD before the first WA is presented by CRALEP and should be the original (photocopies, facsimiles or other means of transmission are not acceptable). Each WA should be signed by such duly authorized individuals, and the Fund must be notified of any change in the signatories authorized to withdraw funds from the loan/grant account.

IFAD must also be notified of the designated signatories for operating any designated and/or Project or other accounts, including changes thereto, whether these authorized signatories are included in the financing agreement. Such changes, as effected during the life of the Project, must be communicated promptly to the IFAD. CRALEP, should provide the names and specimen signatures of the newly appointed signatories and include the date when such change is to take effect. The original of such changed documentary evidence is to be provided to IFAD.

10.4 The Designated Account

The flow of funds for CRALEP starts with the opening of the Project Designated Accounts (DAs) with the Bank of Bangladesh, in accordance with IFAD's requirements identified in the Financing Agreement and the FMFCL (dollar denominated). The Financial Manager is responsible for opening and managing the Designated Account including preparing a monthly reconciliation and statement in line with the IFAD templates as outlined in 21.12.

10.5 Withdrawal of Financing Proceeds using withdrawal applications

The Financial Managers is required to ensure that WAs are prepared and submitted to IFAD with consideration of the following requirements:

Requirement	Guidance
Timeliness	Under the revolving fund modality, withdrawal applications should be prepared and submitted along with the quarterly IFRs.
Completeness and accuracy of supporting documentation	Prepare and submit the required Interim Financial Reports (IFRs) package as requested in the FMFCL, refer to 21.18. Prepare and submit to IFAD expenditures supporting documents upon request. Ensure that information is complete and accurate.
Account reconciliation	CRALEP should submit the designated account reconciliation and statement, prepared the same reporting period in which the eligible expenditures are being claimed. This form needs to be accompanied by bank statements of the designated account and that of any other operating Project accounts ensuring that the closing bank balances

Requirement	Guidance
	for all these accounts correspond to the balances at the end of the same reporting period as indicated in the WA period.
Duly authorised	Ensure that WAs are duly authorised in terms of CRALEP's authorisation procedures and signed by the duly authorised representatives.
Document retention	Submit copies of supporting documentation upon request. Retain original documentation for inspection by IFAD upon request.

10.6 Initial advance

Ensure the disbursement conditions as per the financing agreement and the Financial Management and Financial Control Letter (FMFCL) have been met which includes provision of the following:

- Evidence that a designated account has been opened and the names/titles of the persons authorised to operate this account.
- The project implementation manual has been approved.
- A letter from the CRALEP, designating the name(s) of official(s) authorised to sign withdrawal applications including their specimen signature(s).
- Specify other conditions

Complete and submit to IFAD:

- The duly filled forms constituting the project's IFRs, as outlined in the FMFCL (refer to 21.18); the main reports to be included in the package:
  1. Designated accounts reconciliation
  2. Summary of Expenditures by Project Categories and by Financiers (to include budget versus actual figures and variances)
  3. Summary of Expenditures by Project Components and by Financiers
  4. Project Cash Forecast
  5. Expenditures transaction list
- The bank statements of the Designated accounts for the reporting period, showing the accounts' opening and closing balance and a summary of the accounts' movements;
- The contracts register, as generated by the project's from the IFAD Client Portal –Contract Monitoring Tool (CMT) Module.

11.9 Foreign exchange conversion in preparing withdrawal applications

When claiming expenditures in local currency in Withdrawal Applications (preparing IFRs), it is important to use the prevailing rate (historical exchange rate) at the time of transfer of funds from the SBP to NBP. This type of conversion is also called the First in First out (FIFO) basis.

The historical exchange rate/FIFO basis of converting is to be used in the following two cases in particular:

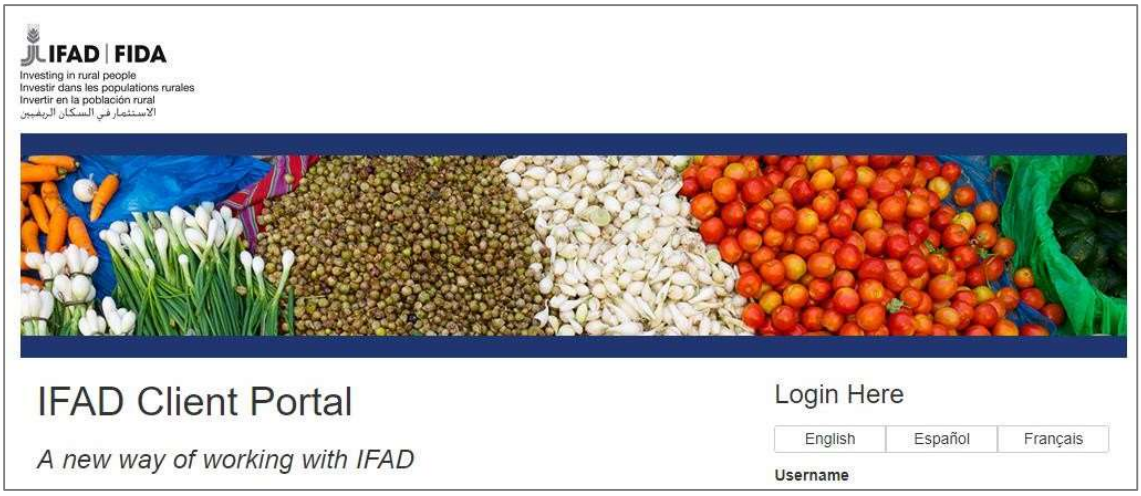
- When preparing a designated account reconciliation as part of a WA or a financial report, the closing balance of the local currency account(s), and any expenditures already incurred in local currency but not yet claimed must be converted to the

denomination currency of the designated account using the historical exchange rate/FIFO basis of converting.

- When preparing withdrawal applications (IFRs 21.18) the expenditures incurred in local currency (or any other currency than the denomination currency of the designated account) and claimed in the WA, must be converted to the denomination currency of the designated account using the historical exchange rate/FIFO basis of converting.

11.10 Suspension and the designated account

During a full suspension, IFAD will not withdraw advances from the designated account. However, Borrowers may continue, except as otherwise indicated, to use any balance in the designated account to meet eligible expenditures and applications documenting these expenditures should continue to be regularly submitted.



11.11 ICP

The IFAD client portal (ICP) enables PMU to:

- access real-time financing information on country portfolios as well as operational and financial information related to Projects
- submit Withdrawal Applications directly and obtain electronic approvals required both from concerned ministries and IFAD
- manage banking instructions electronically
- create and download relevant reports
- Contract Monitoring Tool (CMT) Module

The Project may submit electronic copies of its withdrawal applications and maintain hardcopies for audit purposes.

11.12 Refund of withdrawals

If the IFAD determines that any amount withdrawn from the Loan and/or Grant Accounts was not used for the purposes indicated or will not be needed thereafter to finance Eligible Expenditures, the Borrower shall promptly refund such amount to the IFAD upon instruction by the Fund.

11. Processing of payments

IFAD funds may not be used for payment of taxes, customs or duties unless otherwise agreed.

Procedures for payments is outlined as follows:

1. General payments (12.2)
2. International travel (12.4.1)
3. Local travel (12.4.2)
4. Civil works, equipment (12.5)
5. Consulting services (12.6)
6. Funds transfers to implementing partners/NGOs (12.7)
7. Other

11.1 Supporting documentation

The processing of all payments are subject to CRALEP retaining the following original supporting documentation after processing:

Expenditure type	Supporting documentation

All	▪ Signed contract or confirmed purchase order – showing the specified amount that is due to be paid;
	▪ The bank guarantee for:
	  ○ advance payment, as specified in the contract documents;
	  ○ performance, as specified in the contract documents;
	▪ Copies of communications sent by the IFAD country Project manager to the CRALEP providing the 'no objection' to the contract award; and
	▪ Evidence of payment made by CRALEP.

Goods	▪ Items listed above under "all" ▪ Supplier's invoice, duly certified for payment by the Project Director– specifying the goods, their quantities, and prices; ▪ Bills of lading or similar documents; and ▪ As appropriate, the certificate of delivery (to include condition of goods on delivery).
Civils works	▪ Items listed above under "all" ▪ The claim of the contractor, including a financial progress report, stating the work performed and the amount due; ▪ A certificate – signed by the Project consultants or owner's representative, if any, or by the borrower's chief engineering officer or resident supervising engineer assigned to the Project, to the effect that the work performed is satisfactory and the payment claimed is due in accordance with the terms of the contract; and

Expenditure type	Supporting documentation
	▪ A copy of the contract payment monitoring form signed in original by the certifying officer.
Services (including consultants)	▪ Items listed above under "all" ▪ The supplier's or consultant's claim duly certified for payment by the Project director and showing sufficient detail. ▪ As appropriate, a certificate of delivery of satisfactory services.
For payment of Trips, fuel, stationary and other expenses	▪ Items listed above under "all" ▪ Supplier invoices; ▪ Evidence of payment; ▪ Back to office report; ▪ Training certificate, ▪ Travel authorization; and/or ▪ Expense reports by the traveler (including invoices) ▪ Boarding passes

Pro forma invoices are not acceptable replacements for invoices. In all instances, supporting documentation need to include final invoices.

11.2 General guidelines for processing of payments

For invoice related payments, the following general process is applicable:

Activity	Procedures
Request and approve activity in line with AWPB	Generally, ensure that expenses are in line with the AWPB/Procurement Plan and that IFAD no objection has been obtained if required.
Service delivered, or goods received	Obtain evidence that the goods were delivered / services received to the satisfaction of the Project. Evidence to be retained for the purposes of providing supporting evidence for processing of invoice. (delivery notes, completion reports etc.)
Prepare payment request	▪ Once invoices are received, the disbursement specialist prepares a payment request which includes supporting documentation and indicates accounting codes, category of payment, component of payment and source of finance. ▪ The Financial Manager reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The Budget and Finance Officer forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.
Review of payment request	The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained (if applicable).

Activity	Procedures
	▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1)
Approve payment request	The Project director shall review and sign payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1) ▪ The payment request was reviewed and approved by the Financial Manager.
Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) **(NB: Cheques are not used for general payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.4 Travel related payments

The following type of travel may take place by Project staff or Project beneficiaries:

- International travel – 12.4.1
- Local travel – 12.4.2

All types of travel payments follow the general process:

The proses for each type of travel is outlined below:

12.4.1 International travel

International travel	
Type of travel	▪ Training which is conducted for Project staff or beneficiaries at an international location. ▪ Business trips
Overview of entitlement	▪ Individuals are entitled to DSA, paid based on the number of days of travel for training purposes. ▪ The per diem should be used to pay for the cost of accommodation, meals and travel ▪ Taxi trips to/from airport and visa is paid for separately based on actual cost estimates. ▪ Unused per diem is not returned to the Project. ▪ The per diem amount is determined in line Government decree. ▪ The per diem is reduced in the event that meals or accommodations is provided to the individual. ▪ 100% of the DSA is advanced before commencement of the travel. ▪ The number of travel days are calculated from date of departure from home until last day of the training. ▪ Air travel is booked by the project and paid for by the Project directly.
Request for travel	The relevant department will prepare a request for travel which includes: ▪ List of individuals to attend external training ▪ Dates of training ▪ Invitation to training / training registration confirmation ▪ Overview of training (agenda, location noted) – brochure / email correspondence or other suitable evidence ▪ Related AWPB classification (category, component) ▪ Calculation of total per diem due (100%) ▪ Estimated cost of air travel ▪ Estimated cost of visas *(Air travel is paid directly by the Project)*

Approval of travel request	▪ The travel request is reviewed by the accountant for:
	  ○ Accuracy and compliance with the Government decree in terms of the per diem rate applied.
	  ○ Alignment with the approved ABPB
	▪ The travel request is submitted to the Project Director for approval.
	▪ IFAD and MoF no-objection should be obtained for travel request after approval by the Project Director.

Advance provide	▪ Upon approval of the travel request by the Project Director, the Project accountant will advance 100% of the total per diem to individuals or the team leader as appropriate. (Prepare cheque for signing by the Project Director) ▪ The Project accountant will record the advance in the accounting system, indicating the amount, date of advance, to who advanced and related budget line item. (Advance is not recorded as an expense at this stage)

International travel	
Justification of travel expenses	▪ Within 10 business days after the travel, the team leader / individual is required to prepare a travel expense report which includes: ○ Advance report (refer 21.11) ○ Boarding passes for air travel ○ Attendance register completed at the training event ○ Back to the office report ○ Confirmation of IFAD/Ministry no objection (email correspondence) ▪ The travel expense claim is submitted to the accountant who confirms the accuracy and validity of the travel expense claim. ▪ The Financial Manual reviews the travel expense claim for accuracy and validity and captures the correct account codes on the request (in line with AWPB line items). (sign as evidence of review)
Approval of travel payment	▪ The travel expense is approved by the Project Director by way of signing the travel expense report.
Recording of expense	▪ The total travel expense is recorded as training expenditure/business trip, by clearing the travel advance, in terms of the correct category and component, in line with the account codes which are captured on the travel expense report.

In all instances, unjustified travel advances will need to be reimbursed to the Project by the traveler within one month after the travel date or the amount will be deducted from the payroll.

12.4.2 Local travel

Local travel	
Type	Training / field visits
Overview of entitlement	▪ The number of travel days used for the calculation of per diem is calculated from date of departure from home until last day of the training. ▪ If Project vehicles are used, the driver is responsible for ensuring the vehicle is refueled in terms of the process outlined in 12.9 ▪ If private vehicles are used, staff are reimbursed in line with the allowable rate per kilometer as specified in the staff bylaws, based on actual distance travelled.
Request for travel	The relevant department will prepare a request for travel which includes: Training: ▪ List of individuals to attend training ▪ Dates of training ▪ Overview of training (agenda, location noted) – brochure / email correspondence or other suitable evidence ▪ Related AWPB classification (category, component)

Local travel	
	▪ Confirmation from the Officer Manager that a Project vehicle(s) is available for the travel dates should this be the mode of transportation ▪ Calculation of per diem in line with Government decree. Field visits: ▪ Request for field trip from technical department

Approval of travel request	▪ The travel request is reviewed by the accountant for:
	  ○ Accuracy and compliance with the staff bylaws in terms of the pocket money allowance / estimation for fuel costs
	  ○ Alignment with the approved ABPB
	▪ The travel request is submitted to the Project Director for approval.
	▪ Once approved, the team leader or individual should submit a request for vehicle use.

Advance provide	▪ No fuel advances are provided in cash (driver will use fuel card to refuel) ▪ Applicable per diem is advanced in cash.

Justification of travel expenses / return of unused fuel advance	▪ Within 5 business days after the travel, the team leader / individual is required to prepare a travel expense report which includes:
	  ○ Attendance register completed at the training event
	  ○ If a private vehicle was used, indication of total distance travelled in kilometers with payment due to vehicle owner, based on the approved rate in the bylaws.
	  ○ If a Project vehicle was used, invoiced for fuel which was paid from fuel advance.
	  ○ Back to the office report (in case of field visits)
	▪ The travel expense claim is submitted to the accountant with the fuel advance which was not used.
	▪ The accountant confirms the accuracy and validity of the travel expense claim and determines the per diem which is due.
	▪ The Project accountant reviews the travel expense claim for accuracy and validity and captures the correct account codes on the request (in line with AWPB line items). (sign as evidence of review)

Approval of travel payment	▪ The travel expense is approved by the Project Director by way of signing the travel expense report.
Recording of expense	▪ The total travel expense is recorded as expenditure in terms of the correct category and component, in line with the account codes which are captured on the travel expense report. (Advance cleared at this stage) ▪ Only fuel expenses may be charged to the training budget code. If other vehicle maintenance was incurred, this expense is recorded as maintenance.

12.5 Civil works, equipment and tools

Activity	Procedures
Request and approve	▪ Civil works, equipment and tools are defined and outlined in both the AWPB and the Procurement Plan.

Activity	Procedures
activity in line with AWPB	▪ Civil works, equipment and tools is contracted via a procurement process as outlined in the Project Operations Manual. ▪ IFAD no objection is required on the bidding document, recommendation of award and contract outline before the final bid award is made. (Refer to Procurement Arrangement Letter)
Prepare payment request	▪ The procurement officer will request payment of invoices, subject to providing the following supporting documentation: - Copy of civils contract with award letter (for civils only) - Contract amendment letter (if applicable) - Bid analysis and evaluation report - Evidence of IFAD no objection related to the contract award - Purchase order / Invoice - Progress report prepared by consulting engineer ▪ The accountant prepares a payment request which includes the supporting documentation. ▪ The disbursement specialist reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The accountant forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.
Review and approval of payment request	The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1). ▪ ***Where stipulated in the contract, the required bank guarantees are valid and is retained in the project's safe.***
Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) **(NB: Cheques are not used for these payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.6 Payments for consultant services

Activity	Procedures
Request and approve activity in line with AWPB	▪ The process for requesting and approving consultants is outlined in the procurement section of the POM (and LTR) and is dependent on whether the service is recruited internationally, nationally, locally or on a single source basis. ▪ In all instances the procurement of consulting services is subject to IFAD's no objection.
Prepare payment request	▪ The procurement officer will request payment of consulting services subject to providing the following supporting documentation: - Copy of consulting contract and invoice requesting payment (invoice to specify bank details in line with contract) - Copy of output (report / study etc) - Copy of timesheets (if time-based payment is required) - Written recommendation for payment from the relevant technical department which confirms that the consultant(s) have delivered the key outputs as specified in the consulting contract. - Confirmation of IFAD no objection. ▪ The accountant prepares a payment request which includes the supporting documentation. ▪ The disbursement specialist reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The accountant forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.
Review and approval of payment request	The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1). The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head.

Activity	Procedures
	▪ All supporting documentation is attached (refer 12.1).
Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) ▪ **(NB: Cheques are not used for these payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.7 Advances to implementing partners

Implementing partners will request funds from PMU for the purposes of implementing activities.

Activity	
Receive payment request	▪ Implementing agency submit ad-hoc funds requests in writing, using a request for funds form. ▪ The request for funds form to be duly authorized by the Project Director of the Implementing Agency. ▪ The request for funds form to stipulate the individual activities for which funds are requested in line with the approved AWPB.
Prepare payment request	▪ The PMU budget specialist to receive and review the request for funds from the implementing agency and confirm that requested funds are for activities approved in the AWPB related to the specific agency. ▪ *The disbursement specialist may reject a request for funds if the implementing agency has large advances which have not been justified for previous funds requests.* ▪ The accountant prepares a payment request which indicates the details of the implementing agency and amount to be transferred.
Review and approval of payment request	▪ The budget specialist submits the payment request and supporting documentation to the Project Director for review and approval. ▪ The Project Director shall review and sign the payment request, checking/confirming that the funds allocation is included in the approved AWPB.
Process payment	▪ The approved payment request will be submitted to the accountant. ▪ The accountant to load the payment on the online banking platform. ▪ Payment released by 2 authorised signatories.

Activity	
Record payment	▪ Accountant to record the advance in the accounting software against the specific implementing agency. ▪ *Do not record the advance as an expense. Once advance is justified (refer procedures in 9.2), account for expenses using the correct expense codes (component, category) at the historical exchange rate.*

12.8 Petty cash payments and replenishments

The advance to petty cash is XXX BDT (at each location – xxx BDT at the PMU and xxx BDT at the districts) and is managed by the Officer Manager (or administrative assistant). The purpose of the petty cash is to make payments for low value items in a quick and efficient manner.

The Petty cash disbursements may be in the form of an advance or a reimbursement. Advances must be justified with proper supporting documentation (receipts etc.) on a timely basis.

- The cash is placed in a locked cash box which is kept in the Officer Manager's custody. The Petty cash disbursements may be in the form of an advance or a reimbursement (when the staff member has personally advanced the funds).
- For advances, the Officer Manager delivers petty cash advances based on the approved request. After the purchase is made, the requestor must return the invoice/receipt along with the change, if any, to the Finance Officer for recording into the accounting system.
- For reimbursements (i.e., when the goods or services have already been delivered), the invoice or receipt is given to the Officer Manager who reimburses the requesting staff member or directly pays the supplier. The form is signed by the individual who receives the money.
- All disbursements from the Petty Cash must be recorded on a Cash Voucher form showing all particulars: the amount, the account being charged, the description of the transaction, authorization (by Office Manager) and the signature of the payee. The necessary documents (invoice, payment tapes, receipts) must be firmly attached. The Office Manager must never disburse from the petty cash to herself without the Finance Manager's authorization.
- The petty cash replenishment point is set to XXX BDT. Once the level of the petty cash on hand falls below this point, the Officer Manager must request replenishment by submitting a completed petty cash replenishment form (21.14). This form will show a listing of all disbursements made, the accounts debited and the total sum replenished. All the necessary petty cash vouchers and their supporting documents will be attached. A payment request will be prepared for the amount to be replenished and the Financial Manager is required to review and confirm all disbursements on the Petty Cash form before signing the check.
- Petty cash is replenished upon presentation of actual receipts to the Financial Manager. All Petty cash replenishments will bring the balance of cash on hand to BDT XXX.
- The Petty Cash Vouchers, Receipts and Electronic Petty Cash Reconciliation Sheet should be updated frequently. At the end of each week, the accountant will reconcile the petty cash journal with the physical cash count. These will be checked, along with a surprise cash count by the Finance Manager, (or Project Director in the absence of the Financial Manager) via unannounced inspections at least once per month.

12.9 Payments for fuel

Vehicles may be refuelled at the local preferred fuel station, based on approved purchase orders issued to drivers by the Project accountant. In such instances the driver does not pay in cash for fuel. On a monthly basis the preferred petrol station will submit a customer statement for payment to the Project. The customer statement should:

- List all individual invoices separately with supporting purchase orders issued by the Project accountant

- Indicate the date and amount (value and volume)
- Indicate the vehicle registration number

The administrative assistant will compare the customer statement information to the respective Project vehicle logbooks to confirm accuracy of the customer statement. In addition, the administrative assistant with confirm that only approved Project vehicles are listed on the customer statement. Once the administrative assistant is satisfied with the customer statement, a payment request will be prepared in line with the procedures in 13.2

If drivers are not able to refuel at the preferred fuel station, drivers may use fuel advances to procure fuel. In all instanced, travel is approved in line with required procedures as outlined in section 13. The fuel invoices should be attached to the trip expense to be filed upon return to the office.

12. Financial Reporting

The section on financial reporting deals with:

- Financial reports for submission to IFAD and other financiers
- IPs reporting to PMU
- Internal reporting within each IP

12.1 Financial reports for submission to IFAD and other financiers

The PMU is responsible for submitting consolidated financial reports to IFAD. *The applicable financial reporting requirements applicable to IFAD-financed Projects are outlined in the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects* which may be updated from time to time. The Financial Manager should ensure adherence to the latest version of the Handbook.

The PMU is required to prepare financial reports and submit to IFAD as outlined in the table below:

Type	Period / Frequency of submission
Annual Financial Statements	▪ Unaudited: Prepare annual reports and submit to IFAD within 4 months of the end of the financial year-end. ▪ Audited: Submit audited financial statements within 6 months of the end of the financial reporting period. The reports should be prepared in line with requirements are outlined in 13.4. The annual financial statement should be authorised by the Project Director for authorisation before submission to the auditor/IFAD.
Interim financial reports	Prepare quarterly reports and submit to IFAD within 30 days of the end of the quarter. The reports should be prepared in line with requirements as outlined in the FMFCL.

12.2 Financial reporting requirements

PMU is required to prepare financial reports in line with IPSAS, "Financial Reporting under the Cash Basis of Accounting" (IPSAS Cash). Should CRALEP propose to use a different accounting standard, this should be agreed with IFAD. In all instances, IFAD requires projects to use internationally accepted accounting standards.

12.3 General principles for the preparation of financial reports

CRALEP shall prepare financial reports with consideration of the following specific principles:

Principal	Guidance
Completeness	▪ The financial reports shall be complete and include the activities of both PMUs and other NGOs/implementing partners and present the results of a single entity. ▪ The sources and uses of all categories/components shall be included (including sources received in-kind). ▪ The sources and uses from all financiers shall be included, including: ○ IFAD Loan ○ Gates Foundation Grant ○ Government Contributions
Accuracy	▪ Ensure that the various disclosures as outlined in 13.4 are reconcilable as appropriate
Accountability	▪ The financial reports should promote the concept of accountability.

12.4 Minimum prescribed content for interim and annual financial reports

The PMU is required to prepare financial reports (annual and interim) which includes the following minimum prescribed content (an illustrative interim financial reports is outlined in FMFCL.

The IFRs package and documents mainly include, refer to 21.18:

- The duly filled forms constituting the project's IFRs, as outlined in the FMFCL; the main reports to be included in the package:
  A. Designated accounts reconciliation
  B. Summary of Expenditures by Project Categories and by Financiers (to include budget versus actual figures and variances)
  C. Summary of Expenditures by Project Components and by Financiers
  D. Project Cash Forecast
  E. Expenditures transaction list
- The bank statements of the Designated accounts for the reporting period, showing the accounts' opening and closing balance and a summary of the accounts' movements;
- The contracts register, as generated by the project's from the IFAD Client Portal –Contract Monitoring Tool (CMT) Module.

For the annual financial statements, detailed guidance on the preparation of the disclosures as prescribed by IPSAS Cash can be found in the Standard (https://www.ifac.org/publications-resources/revised-cash-basis-ipsas). The PMU is required to adopt all reporting requirements as outlined in Part 1 of IPSAS Cash. The Project is encouraged to adopt Part 2 of IPSAS Cash on a voluntary basis.

Content	Source of requirement	Guidance on preparation of content
Statement of Cash Receipts and Payments	Prescribed by IPSAS Cash	▪ Layout: ○ Receipts – Payments = Surplus/Deficit + Opening Cash +/- Exchange rate difference = Closing Cash Balance ▪ The opening and closing cash balance should include the balance of the designated accounts (USD) and all Project accounts (BDT) ▪ The opening and closing cash balance in the Designated Account is derived by applying the spot rate on the date of translation ▪ Disclose cash receipts using an appropriate classification system (Contributions from external financiers, Contributions from Government, Contributions from Beneficiaries, Cash generated from Project activities) ▪ Disclose cash payments in line with the categories outlined in Schedule 2 of the IFAD financing agreement
Budget to Actual Comparison	Prescribed by IPSAS Cash	▪ Ensure that the Budget period corresponds to the Financial Reporting Period ▪ Derive the budget disclosure from the approved AWPB. Disclose both the original and final approved AWPB. ▪ Calculate the variance between budgeted and actual results for both receipts (sources) and uses (payments) ▪ Provide narrative on the reason for the variances observed.
Accounting policies and explanatory notes	Prescribed by IPSAS Cash	▪ Develop accounting policies with reference to the guidance provided in IPSAS Cash ▪ Disclose the authorisation date ▪ Disclose the basis of presentation ▪ Disclose the presentation currency as Bangladeshi Taka (BDT).
Sources and Uses of Funds Statement	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Include both cash and in-kind contributions in the Sources of Funds ▪ Provide disclosure on uses of funds by financier/by category and financier/component

Content	Source of requirement	Guidance on preparation of content
Designated account reconciliation	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Prepare reconciliation which provide justification for the IFAD advance – disclose for each designated account. ▪ Explain variances.
Designated account Statement	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Prepare for each designated account. ▪ Ensure that opening and closing cash balances presented in this Statement is reconciled with the cash balances used in the Statement of Cash Receipts and Payments. ▪ Disclose the exchange rate gain/loss separately and ensure that this is reconciled with the Statement of Cash Receipts and Payments.
Summary of Withdrawal Applications	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Provide a summary for PMU separately and display combined total. ▪ Ensure that summary information is reconcilable with the IFAD historical transaction statement (to be requested from the IFAD Finance Officer) with regards to the value date of the transaction amount of withdrawal in loan denomination currency. ▪ Cross reference amounts included here per WA to amounts included in the Designated Account Statement / Designated Account Reconciliation.
Fixed asset register	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Include a fixed asset register which lists all Project assets *(including those purchased on behalf of the Community Groups if the Project retains the title and the assets will be returned to the Project at Project closure).* ▪ Indicate the implementing agency which procured the asset and related component. ▪ Ensure that all fields are included – refer illustration included in 21.12.

In addition to the above disclosures, the Project is required to maintain and Action Tracker log which is a log of agreed actions. This document should be maintained on an ongoing basis provide together with the financial report (interim or annual). The Action Tracker format is outlined in 21.12. It is required that the Action Tracker include actions which have been agreed on with IFAD during missions or the Auditor during the audit (derived from the management letter). The purpose of the Action Tracker is to keep track of progress regarding agreed on actions.

12.5 Other considerations

The following specific issues should be considered in the preparation of the financial reports:

- Accrual related information should be disclosure in the notes of the financial statements. This includes outstanding advances, which, in terms of the cash basis of accounting, should be expensed when provided. This entails that the advance will be recorded in the relevant categories /components at year-end. *(NB: Best practice is that zero advances are outstanding at the end of the fiscal year).*
- In-kind contributions from Government and beneficiaries should be reported in the financial statements in line with the process as outlined in section 9.7. Also refer to 21.12 to see the illustrative accounting policy and explanatory notes.
- Where applicable, disclose information for PMU separately and on a consolidated manner. In all instances the user of the financial statements should be able to identify if the information relates to activities of PMU.

12.6 IPs reporting to PMU

All implementing partners which report to PMUs are required to submit monthly reports to the PMUs. The PMUs will review the reports and verify bank balances/expenses with reference to supporting documentation attached to the report. PMU will proceed to record individual transactions in the accounting software and clear related advances. The IPs are required to submit monthly reports using the report format as outlined in 21.17.

IPs are responsible for the accuracy and completeness of reports submitted to PMUs and will be required to respond to queries on report content in a timely manner.

12.7 Internal reporting

The following internal reports will be prepared by PMU for the purposes of internal monitoring of project finances and progress:

Type	Period / Frequency of submission
Quarterly project reports	The PMUs Financial Managers to prepare a quarterly project report which includes (but not limited to): ▪ Consolidated budget to actual expenditure comparison with variance explanation. ▪ Individual budget to actual expenditure report per implementing agency with variance explanation. This report assists the PMU project director to monitor overall and implementing agency level performance for the purposes of taking corrective action if needed.
Monthly management accounts	It is required that each implementing agency prepare monthly management accounts for the purposes of monitoring allocated components/sub-components. The content may include (but not limited to): ▪ A financial progress report (sources and uses) ▪ Monthly bank reconciliations ▪ Cashflow forecast ▪ Summary of contract commitments ▪ Overview of budget to actual expenditure analysis with variance explanations ▪ Monthly vehicle maintenance and fuel consumption report ▪ Travel and DSA report.

Type	Period / Frequency of submission
	The monthly management accounts should be prepared within 10 days of the end of the month and submitted to the respective Project Directors for review and discussion during management meetings. The purpose of the monthly management accounts is to provide a monitoring tool for management with the purposes of identifying issues and taking corrective action.

13. Audit matters

13.1 Internal Audit

There will be two Internal Audit Consultants specifically for the IFAD funded projects. The terms of reference should be submitted to IFAD for NO. This should include requirements to:

- tailor the already developed internal audit charter and manual to LGED/project requirements,
- develop the annual audit workplan,
- conduct of internal audit activities and
- include the reporting and monitoring mechanisms.
- Collaborate with FAPAD and follow up on recommended actions of internal/external audit and missions.

13.2 External Audit

13.2.1 Auditing standards

IFAD promotes the use of internationally acted auditing standards and requires that CRALEP be audited in terms of the International Standards of Supreme Audit Institutions (ISSAI).

13.2.2 Appointment of the auditor

The Foreign Aided Projects Audit Directorate (FAPAD) of OCAG will audit CRALEP as it has done for HILIP CALIP and PROVATI. FAPAD is a specialized arm of the Office of the Comptroller & Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh and entrusted to auditing the activities of all Development and Technical Assistance Projects and programs in the public sector funded by foreign aid. As a result of its only one of kind task of development project auditing, FAPAD provides independent assurance and report on the proper accounting of project resources to the National Parliament of Bangladesh as well as to the Development Partners also. The OCAG has adopted the Government's Auditing Standards of Bangladesh, which are based on the International Standards of Supreme Audit Institutions (ISSAIs). OCAG is a member of INTOSAI.

PMU shall submit to FAPAD, the Annual Financial Statements of the project within two months of the end of financial year. External Audit will be completed within six months of the end of each financial year and project audit report together with the management letter shall be furnished to IFAD by 31 December each year. PMU will maintain regular liaison with the Auditor General office post-audit to ensure timely settlement of audit observations in the Departmental Audit Committee.

FAPAD has adopted the International Organization of Supreme Audit Institutions (INTOSAI) code of ethics and auditing standards.

13.2.3 Audit opinion and audit package

The audit report will outline the audit opinion on the audited financial statements. FAPAD is required to issue an audit opinion in accordance with ISSAI 2700.

The auditor is expected to submit an audit package that at a minimum includes the audited financial statements and the management letter. The management letter is an integral part

of the audit package, which documents internal control issues identified by the auditor. The management letter should:

- Outline the auditor's recommendations to address identified internal control issues, and the responses to them on the part of the Project's management.
- Where applicable, provide follow-up commentary on the issues identified in the previous year's management letter.
- Include any ineligible expenditures identified during the audit be outlined in the management letter.

13.2.4 Audit reporting period

IFAD generally requires an annual audit of Project financial statements. However, the frequency of the audit may be changed by IFAD as a function of the Project's risk profile. In all instances, IFAD will confirm the frequency with which CRALEP's financial statements are to be audited.

The audit reporting period may be amended for the first and/or final audits, in line with the following guidance:

- For the first audit, in cases in which the Project commences during the financial year, the following procedures will generally apply:
  - When the period between the first disbursement and the end of the financial year is less than six months, IFAD may allow the results for the first financial period to be included in the following financial year's audit subject to agreement with IFAD Finance Officer; or
  - When the period between the date of the first disbursement and the financial year- end is greater than six months, audited financial statements for the period are always required subject to agreement with IFAD Finance Officer.
- For the final audit, IFAD may recommend an audit reporting period that is longer or shorter than 12 months, but that in no case may exceed 18 months. This is to ensure that the final audit can be concluded, and the audit report submitted to IFAD by the Project Closing Date subject to agreement with IFAD Finance Officer.

In such instances, IFAD will discuss and agree on its requirements with the borrower well in advance of commencement of the final audit.

13.2.5 IFAD Audit reviews

IFAD will conduct reviews of CRALEP audit reports. The main purpose of the reviews is to determine whether the auditor conducted a quality audit resulting in an audit opinion acceptable to IFAD, and to assess the quality of the financial reporting of CRALEP.

IFAD will communicate the results of the audit report review process within sixty days following receipt of the audit package. If required, CRALEP will be requested to take corrective actions within a specified time frame. These actions should be included and monitored in the Action Tracker (illustrated in 21.12).

13.2.6 Public disclosure of audit reports

IFAD will publicly CRALEP Project financial statements and audit reports, subject to processes applicable to their publication. In line with the standards of the International Aid Transparency Initiative, CRALEP is encouraged to publish financial information on it's own website, for increased accountability. CRALEP must ensure that the audit TORs explicitly mention the right of the CRALEP and of IFAD to publish the audit report, with no limitation-of-use clause.

14. Records Management

14.1 Maintenance of separate accounts and records

In terms of IFAD's General Conditions for Agricultural Finance:

"The Project Parties shall maintain separate accounts and records in accordance with consistently maintained appropriate accounting practices adequate to reflect the operations, resources and expenditures related to the Project until the Financing Closing Date..."

In order to comply with the above requirement, The PMU and other implementing partners are required to maintain accounts. Such accounts and records may include:

Type	Example
Electronic information	• Data and information maintained within the accounting software • Other documents and files maintained electronically, either on desktops, laptops, or removable storage devices
Correspondence	• Emails • Hard copy correspondence (letters)
Documents received from external sources	• Bank statements • Supplier documentation
Internally generated information	• Employee files • Withdrawal applications • Forms

All documents and information are the property of CRALEP and may not be removed.

14.2 Filing and storage of the financial records

The PMU and other implementing partners are responsible for filing records. To fulfil this responsibility:

- Project parties should maintain files in a chronological order, assigning appropriate codes/sequential numbers.
- Project parties should perform filing activities on a regular basis to prevent the accumulation of papers and to ensure that the financial records are always maintained in an up-to-date manner.
- Project parties should allocate an appropriate storage area for the financial records in paper format and maintain them in locked cabinets, safe from water and fire to which access is controlled and limited.
- Project parties should also classify the financial records as "Confidential", or "General".

14.3 Off-site archiving of financial records

The respective Financial Managers should ensure that the financial records are archived at an off-site location on a regularly basis. Once a year, the Financial Managers should make sure that the completed or inactive files are archived in a manner that will allow for easy retrieval of the files in case they are required at some future date.

14.4 Electronic back-up procedures

Back-up of electronic information is an important function to be undertaken under instruction from the Financial Manager. It is required that:

- Daily: Electronic information at each Project office is backed up on the local server
- Weekly: Electronic information is saved on an external storage device and kept in a locked cabinet

Project staff access to backup files are subject to authorization by the Project director or Financial Manager. The access of external persons is prohibited except for the auditors and IFAD staff.

14.5 Retention period

Project parties are required to retain accounts and records for at least ten (10) years after Financial Close. The Financial Manager should ensure that all documents and records (electronic and paper) are handed over to GoP at financial closure to ensure that records can be maintained for the 10-year period.

15. Fixed Asset Management

Fixed asset management is an important process that seeks to track fixed assets for the purposes of financial accounting and to ensure preventive maintenance, and theft deterrence. Adequate Fixed asset maintenance also increases the sustainability of the Project. There are three elements in fixed asset management that require the attention of the Financial Managers:

- Purchase of equipment
- Setting up and maintaining an asset register including verification
- Setting up a plan for disposal and/or handover of the asset once the Project is completed

15.1 Purchase of Equipment

The Accountants should follow the following process for each fixed asset purchased:

- Assign a unique, sequential asset number (excluding minor items such as stationary).
- Tag each item with its unique asset number.
- Record the item of equipment in fixed asset register

15.2 Fixed asset register

The accountants must maintain a fixed asset register in the asset management module of the accounting software. The asset register should record the following information for each individual piece of equipment (refer 21.12 for illustration):

- Asset description
- Asset number
- Individual responsible for asset
- Implementing agency responsible for purchase
- Source of funding of asset (IFAD, government etc),
- Location of the asset
- Date of purchase
- Cost of purchase and invoice number
- Remarks regarding the condition of the asset

The Finance Managers shall ensure that the consolidated fixed asset register is maintained and updated regularly.

Assets purchased for beneficiary use should be included in the fixed asset register if the assets remain under the ownership of the Project (therefore beneficiaries to return to Project at Project closure).

15.3 Asset Verification Review

Under the management of the Financial Manager, CRALEP must conduct an annual asset verification process whereby the following checks are performed:

- Verify that all fixed assets are still held in the location recorded on the register;
- Confirm the completeness and accuracy of the information recorded on the fixed asset register;
- Check that equipment and vehicles are still in a reasonable state of repair and that remarks regarding the condition of the assets are correct as recorded in the fixed asset register;

The verification review must be performed by different staff from those who use the equipment, to ensure adequate segregation of duty. Discrepancies between the verification exercise and the fixed asset register should be investigated. Where assets are missing or seriously damaged, they should be removed from the asset register. The removal should be formally documented and approved by Financial Manager and Project Director. Moreover, the Financial Managers will undertake random verification of fixed assets during field visit.

15.4 Vehicle Maintenance and Fuel

Drivers are required to maintain waybills/itinerary lists and vehicle history records (21.15).

No cash shall be advanced to drivers for the purposes of refueling.

- Each vehicle to have dedicated fuel card which indicate the vehicle registration number.
- Each fuel card to have a set daily / monthly limit based on average consumption.
- Changes to the monthly limit is subject to approval by the Financial Managers (which will be approved

base on approved trips).

- The waybill shall indicate the reading of odometer at the beginning and end of the period, i.e., the mileage of the car, as well as fuel consumption. This process shall be checked by an Accountant.
- Fuel stations shall provide a monthly summary report on fueling and invoice which the accountant shall compare to the fuel invoices attached to the waybill. Differences to be followed up/resolved.
- Provision of fuel and lubricants shall be strictly limited per each vehicle per month in accordance with the order signed by the Management.

Vehicle insurance

The Financial Managers should ensure that all Project vehicles are comprehensively covered and that all drivers are noted on the insurance policy. Under no circumstances may uninsured drivers drive the vehicles. The insurance policies should be renewed annually or as stipulated in the policy. The safety of cars is the responsibility of the drivers assigned to the vehicles. Consequently, they must ensure that the vehicles are parked in a secure area when not in use or outside working hours.

Maintenance

The drivers are required to monitor the maintenance of their assigned vehicles. The drivers must notify the xxxx of maintenance needs so that the cars can be serviced on a timely basis. The xxx is required to request the car maintenance, subject to approval by the Project Director. The assigned cars must always be taken to the selected garage for repairs and maintenance.

16. IFAD financial management support

16.1 Overview of IFAD support

IFAD's Financial Management Division (FMD) will remain involved with CRALEP from Project inception (starting at Project design) to Financial Closure to ensure that CRALEP fiduciary requirements are met.

FMD's Finance Officer will establish ongoing contact with the Project, by liaising with the Financial Manager of PMU and will be available to provide remote support on financial management matters. In addition, FMD will visit CRALEP during missions to the Project (represented by either the Finance Officer or an appointed consultant). Mission types include supervision missions, mid-term reviews and implementation support missions.

During missions, FMD will assess and monitor the adequacy of CRALEP financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting, and the auditing practices.

If financial management arrangements of CRALEP are deemed acceptable, IFAD will rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies weaknesses in the financial arrangements, it will require CRALEP to take the appropriate measures to mitigate those risks.

The key findings and recommendations of missions will be captured in the Aid Memoire which is a document which is shared with the Government and includes an overview of issues identified and proposed actions to be undertaken by the project/IFAD to address issues identified.

16.2 Roles and responsibilities related to IFAD support

CRALEP will be required to participate in IFAD missions as follow:

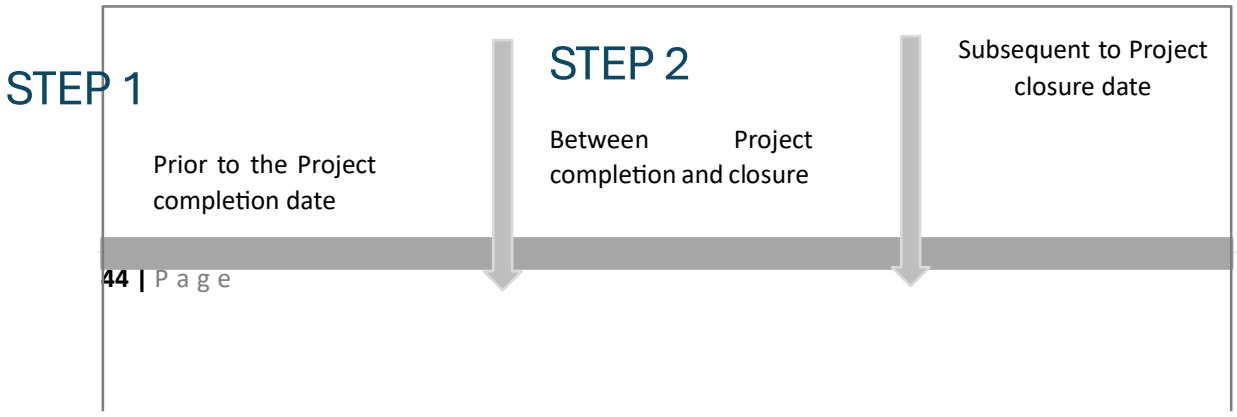
Stage	Project roles and responsibilities
Before IFAD missions	• Prepare Appendix 1 (21.13) and submit to the FO/Consultant in electronic format (Excel Workbook, including formulae) before commencement of the mission – the FO/Consultant will specify the date range to be covered within Appendix 1. • Each project party (PMU and other implementing partners) to complete the Financial Management Assessment Questionnaire (FMAQ) and submit to the FO/Consultant in electronic format (FO to provide most recent template). • Prepare all other information as requested by FO/Consultant before commencement of the mission (refer 21.2).

During IFAD missions	• Provide the FO/Consultant with all information which was requested before the mission.
	• Arrange meeting with the auditors (internal and external) and any other selected party requested by the mission.
	• Ensure that all FM staff are available to assist the FO/Consultant in performing their duties which may include:
	  ○ Review of financial reports, reconciliations
	  ○ Physical verification of fixed assets and inventory
	  ○ Meeting with the auditor
	  ○ Reviewing and completing the FMAQ
	• Discuss identified FM weaknesses and risks and assist the FO/Consultant with developing appropriate actions for inclusion in the aide memoire.

After IFAD missions	• Respond to any wrap-queries from the FO/Consultant • Commence with implementing all actions which are included in the Aide Memoire • Update the Action Tracker (see illustration in 21.12) with all actions raised during the missions.
Ongoing	• Monitor and update the Action Tracker to ensure all actions are implemented in a timely manner. Liaise with the Financial Manager if required. • Respond to ad-hoc queries received from the Financial Manager or other IFAD staff as it related to FM matters.

17. Project completion and closure

The Project completion date is defined in the financing agreement and the Project closure date is 6 months thereafter. The following is relevant to period before Project completion up to Project closure:



Project completion date ***STEP 3***

Project closure date

STAGE 1	STAGE 2	STEP 3
Up to the Project completion date	Between Project completion and closure	Project closure date
▪ Justification of advances for all expenditures spent by completion date ▪ Agree on the audit scope of work and submit to IFAD for no objection ▪ Incur eligible expenditure up to the Project completion date	▪ Commencement of the final audit ▪ Auditor performs the final audit in line with scope of work approved by IFAD ▪ Incur winding up expenditure only (cost of audit, staff salaries, operating costs, Project completion report) ▪ Submit final withdrawal application for justification ▪ Develop an asset handover and disposal plan (include up to date fixed asset register, indicate condition of all assets and to which entity the assets will be transferred.	▪ Submit final audit report on or before the Project closure date ▪ Submit Project completion report on or before the Financial Closure Date (as required in the financing agreement) ▪ Confirm the final withdrawal application with IFAD ▪ Return outstanding advance if applicable (all unjustified balances) ▪ Closure of the project with IFAD

A notice is sent to the Borrower at least six months prior to the PCD to advise that all applications must be submitted before the closing date, and to remind the Borrower that expenditures incurred, and commitments made after the PCD will not be honored, except for authorised expenditures during the "Winding Up Period" (from PCD to Financing Closing Date). This means that goods are delivered, civil works are completed, and services are rendered on or before such date.

After the financing closing date, IFAD informs the Borrower of the formal closure of the loan/grant account, provides a history of disbursement transactions, and cancels the unused loan/grant balance. A re-amortisation plan should be sent where relevant.

Asset handover plan

The plan should develop report outlining the following for the purposes of handing over Project assets to the identified beneficiaries:

- The value of all the assets bought under the Project
- Summary of the current condition of the assets,
- To which entity, will the assets be transferred to and on which date and for what purpose.
- List the assets that will be disposed and the reason for being disposed.

18. IFAD Financing agreements – amendments and budget reallocations

If amendments are required to the financing agreement:

- a formal written request should be submitted to IFAD
- outlining the required amendment and motivation thereof. Amendments to the

agreement may be required for (but not limited to):

- Changes to the project completion date and grant closing date,
- Changes to the project budget/budget reallocation (noting that the budget may not be increased above the original total amount)

Budget reallocations

- In some cases, the expenses category amounts as outlined in the financing agreement requires a revision if the project notes that actual expenditure is deviating from the original budget.
- In such instances a reallocation is required, depending on the size of the reallocation per category (expressed as %)
- Reallocation of equal to or less than 10% (of each category) between the various categories if such a reallocation ***does not change the basic purpose of the project.***
- For reallocation greater than 10% of any expense category, the Borrower is required to formally request a reallocation from IFAD (supported by a detailed motivation).

19. Useful links

Document	Link
IFAD financial management e-learning	*Project Financial Management e-learning course*
Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)	https://www.ifad.org/en/document-detail/asset/40189695
Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)	Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100).pdf
IFAD General Conditions for Agricultural Development Financing	https://www.ifad.org/documents/38711624/39421024/general_e.pdf/47c5f14b-2903-4285-b0b0-62c67cd650b8
IFAD Handbook for Financial Reporting and Auditing of IFAD -financed projects (English) includes: Illustrative financial statements, audit TOR and audit reports.	IFAD Handbook for Financial reporting
IFAD FMFC Handbook	IFAD Financial Management and Fi
IPSAS Cash Standard	https://www.ifac.org/publications-resources/revised-cash-basis-ipsas
ICP page	https://icp.ifad.org/

ICP support email	icpsupport@ifad.org
Interim Financial Reports (illustrative templates)	IFR Reviewing tool for Clients_230202_v IFRs Template - Annex 3.zip

20. Annexures

20.1 AWPB Structure and preparation checklist

The PMU is responsible for the development of the Annual Work Plan and Budget (AWPB), generally covering a period of 12 months, which should include the following mandatory sections:

Section	Description
Introduction	▪ Provide a brief background ▪ Include narrative covering the strategic focus, target group, geographical focus (Project sites), outreach (with gender disaggregation), Project components, specific activities to be undertaken and the planned output for each activity.
Risks and mitigation	▪ Outline of major risks that could affect adversely the Project outcomes and mitigating actions taken.
Budget and financing plan	▪ Describe the necessary inputs and outputs for each activity, including the expenditures, financing source and expected completion date. ▪ The expenditures should be classified per activity and should also be linked to a component, expenditure category as per the financing agreement and a financing source. ▪ Each activity should be coupled with tangible outputs or physical targets to facilitate the measurement of Project progress.
Procurement plan	▪ Outline detailed plan outlining procurement activities, include expected cost for each item, procurement method and timeline. ▪ *The first Procurement plan should cover the first 18 months of the Project lifecycle while the subsequent procurement plans should cover 12 months of the Project lifecycle.*
Progress and past performance (include in 2nd AWPB onwards)	Outline the following with: ▪ Summary of the key achievements ▪ Problems encountered and how these were resolved ▪ Budget execution, comparing actual expenditure per category/component to prior AWPB with an indication of category overspend
Other	▪ Training and technical assistance schedule ▪ PMU/PIUs staff development plan ▪ Project staff payroll (including the names, titles, salaries, and incentives)

***AWPB Check:* The checks listed below are designed to improve the quality of the AWPB during the final preparation stage.**	***Yes***	***No***
Is the AWPB complete and clearly presented? Does it disclose sufficient information?		
Is the AWPB in line with the Project description and rational (schedule 1) as per the financing agreement and the Project log-frame? Are all the activities relevant to the Project?		
Does it contain the necessary summary tables by component and financier and by expenditure category and financier as well as the detailed tables by component?		
Does the implementation schedule seem realistic and does it show appropriate targets and milestones? Are the targets and execution level realistic compared to past years progress?		
Does it contain a separate annex disclosing the details of the Project payroll?		
Does it contain a separate annex containing outlining the planned trainings?		
In the detailed tables are the expenditures structured by activity and linked to a component, expenditure category and financing source?		
Are the cost categories of the AWPB in line with the Schedule 2 of the IFAD financing agreements and are expenditures within the agreed allocations?		
Is any expenditure category going to be overdrawn during the year? Is a reallocation of IFAD funds needed?		
Does the total (and subtotal) costs add up? Are the inputs (unit cost) and outputs (physical targets) adequately quantified? Is there coherence between the inputs and outputs? And does these represent value for money (i.e. what is the unit cots for per output, e.g. cost per trained farmer)?		
Are the unit cost are realistic and do they reflect market prices?		
Is the AWPB accompanied by a procurement plan? Is the procurement plan consistent with the AWPB?		
Is the format of the AWPB compatible with other financial reports and the accounting software to allow input in the budget module and generation of actual vs budget reports and		
If last audit, does it take into account completion date of the Project as well as winding up activities such as Project completion report, final audit as handover/disposal of Project assets (computers, vehicles etc.),		

A.1. Annual Work Plan and Budget

Project Name:
Recipient:
Reporting period: DD.MM.YYYY – DD.MM.YYYY

Detailed Tables per Component, Expenditure Category and Financier - (Separate sheet for each component as applicable).																	
Description		Budget Category	Location		Items (cost in USD)				Physical Outreach/target by activity	Timeline					Financing Source (USD)		
Budget item by Component, Subcomponent and Activity	Methods		Implementing entity	Country/site	Unit	Unit cost	Quantity	Total		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Delivered by	IFAD Grant	Recipient	Co-financier
Component 1 Activity 1.1 Expenditure item Expenditure item																	
Subtotal																	
Activity 1.2 Expenditure item Expenditure item																	
Subtotal																	
Activity 1.3 Expenditure item Expenditure item Expenditure item Expenditure item																	
Subtotal																	
Total (Component 1,2,3 etc)																	

20.2 Information checklist – preparing for IFAD missions

It is required that CRALEP prepare the following in anticipation of IFAD missions:

	Information	Guidance
1.	*Appendix 1*	• Prepare Appendix 1 in Excel Workbook and include formulae as appropriate.
2.	*FMAQ*	• Include comments in the Financial Management Assessment Questionnaire (with exception of the summary section).
3.	*Withdrawal applications/ Transaction listing*	• Make hardcopy files of all recent withdrawal applications/statement of expenditures available (at least covering 12 months prior to the missions). Upon request, provide supporting documentation for a selection of expenditures. • Provide a summary of pending withdrawal applications/IFRs for review.
4.	*Bank and petty cash reconciliations*	• Make hardcopy files of most recent bank and petty cash reconciliations available. Include copies of relevant bank statements. Ensure that IFAD designated account reconciliations are prepared in the correct format as outlined in the IFAD Loan Disbursement Handbook
5.	*Financial reports*	• Provide most recent financial reports (as at end of most recent completed month), which include summary information (including all sources and uses of funds). • Provide most recent interim financial reports (format illustrated in 22.9) • Provide copy of most recent audited financial statement.
6.	*Fixed asset register*	• Provide updated fixed asset register in Excel Workbook format (export from accounting software).
7.	*Manuals and procedures*	• Provide an electronic of the most recent version of the Financial Manual (to which IFAD provide a no objection). • Provide a copy of the accounting software manual.
8.	*Contract register and monitoring forms*	• Make available the update Contract Register and Contract Monitoring Forms (export from accounting software).
9.	*Action tracker*	• Update the action tracker with progress to date.
10.	*AWPB/Procurement Plan*	• Make available electronic copies of the AWPB and Procurement Plan (provide in Excel Workbook format).
11.	*Advances*	• Make available a summary of outstanding advances with supporting documentation.

20.3 Terms of reference: Financial Manager

Post title: Financial Manager of *(The PMU)*

Organisation: *(The PMU)* **Location:** Dhaka, Bangladesh

Name of Project: CRALEP

Duration: One-year renewable

Type of contract: Fixed term

Closing date: XXX

1. Objective

The main objective of the assignment is to maintain accounting procedures and manage activities related to the project financial management arrangements. In his/her activity the Finance Manager shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

2. Scope of Services and Key Tasks

The Financial Manager's tasks and responsibilities include, but are not necessarily limited to, the following:

- ensuring proper management of project funds and their disbursement in accordance with the accounting, budgeting, and financial control procedures established for the PMU/ in the light of IFAD and other donors requirements;
- preparing, and securing approval of budgets based on the operating plans of the projects' subcomponents;
- periodically evaluating the financial reporting and internal control arrangements for the projects' subcomponents and preparing proposals for improvements;
- performing a monthly review of the projects' general ledgers with a view to identifying and clarifying any errors and anomalies, and particularly with reference to receivables and payables which have been overdue for more than one month;
- scrutinizing financial reports submitted by project components and subcomponents and agencies or institutions implementing or managing such components and subcomponents to ensure that they follow established procedures, and to take corrective action where necessary;
- monitoring the status of budget utilization by project component and category of expenditure and reporting to the Director on any significant variances, together with recommendations for appropriate actions;
- liaising with officials of the Ministry of Finance, the Ministry of Agriculture of the Government of Bangladesh and other concerned government bodies on financial issues pertaining to the PMU and the projects, for which it is responsible, and particularly on the timely payment of government counterpart funds;
- paying periodic visits to remote project locations to check the operation of the system of internal control and control of reports submitted by the components;
- ensuring the timely preparation of financial, activity and monitoring reports to the Government of Bangladesh, donors, and providing the projects' internal and external auditors with all information, documentation and explanations required for the purposes of audit;
- Review and confirm the final version of the interim financial reports (IFRs) required for withdrawing funds from IFAD as indicated in the FMFCL, refer to 21.18;
- approving and updating the PMU Financial Manual and ensuring adherence to its provisions;
- preparing TORs for the annual external audits; technical and financial assessment of auditors' proposals; preparing annual financial statements and explanatory notes in accordance with

donor requirements and with IPSAS, to the extent applicable; agreeing with the auditors the form of their report;

- organizing and providing training workshops in accounting and financial management topics for finance staff of the PMU and components;
- supervising the operation of the projects' Designated Accounts and project accounts in accordance with IFAD and other donors' procedures;
- standing in for the Financial Unit specialists and performing their routine duties during periods when they are absent;
- Preparation and submission Government required financial reports to relevant Government Agencies;
- Responsible for consolidation of all financial reports for the PMU & coordination with external auditors on audit for all project accounts and submission to IFAD final consolidated report;
- Ensure that procedures for collecting, checking and preparing documentation required for verifying Supplier's invoices are maintained. Supervise record of payment documentation and payments to Suppliers. Ensure that all payments are made on a timely basis and according to contract terms and conditions as well as the IFAD relevant guidelines, regulations, legal agreements and other applicable documents;
- Review and maintain appropriate Fixed Assets register to safeguard assets of the project;
- Perform such other duties as may be required by the PMU Director.

3. Institutional Organization

The Financial Manager will work closely with the PMU staff, all partners, implementing partners of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

4. Reporting and Approval

The Financial Manager will report to the PMU Director who will evaluate performance of his/her responsibilities every year.

5. Client's Contribution

The client will provide a local specialist with relevant information on the Project, the basic documents of the Project, procurement plans and available technical materials on assignments described in the scope of work. The client will provide a specialist with necessary working conditions in the PMU (room, furniture, office telephone, access to Internet, etc.).

6. Qualification Requirements

- MBA or equivalent qualification in accounting and finance for international standard;
- Broad experience of budgeting, accounting and reporting procedures of IFAD and other donors;
- Knowledge of Bangladesh Accounting and Tax regulations;
- Hands-on experience of setting up and running a project financial management and accounting information system in accordance with best international practice;
- Complete, practice-based command of double-entry bookkeeping;
- Ability to present financial information in a clear, concise manner and in formats suitable for non-specialists;
- Fluency in English;

- Experience in training staff of local counterparts and subcontractors in disbursement procedures and in accounting theory and practice;
- Computer literate; familiarity with Windows-based programs such as Word and Excel, PowerPoint, Accounting Program and other MIS.
- Chartered Accounting Certificate will be considered as advantage;

7. Duration of Appointment

The period of assignment in the position will be initially 12 months and may be extended by mutual agreement, with probation period of three months.

20.4 Terms of reference: Account Officer

Post title: Account Officer of *(The PMU)*

Organisation: *(The PMU)*

Location: Dhaka, Bangladesh

Name of Project: CRALEP

Duration: One-year renewable

Type of contract: Fixed term

Closing date: XXX

8. Objective

The main objective of the assignment is to maintain accounting procedures and support the PMU Finance Manager in managing the activities related to the project financial management arrangements. In his/her activity the Finance Specialist shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

9. Scope of Services and Key Tasks

The Financial Specialist's tasks and responsibilities include, but are not necessarily limited to, the following:

- Support the Finance Manager in ensuring proper management of project funds and their disbursement in accordance with the accounting, budgeting, and financial control procedures established for the PMU/ in the light of IFAD and other donor's requirements.
- Assist the Finance Manager in preparing and securing approval of budgets based on the operating plans of the projects' subcomponents.
- Assist in the periodic evaluating of the financial reporting and internal control arrangements for the projects' subcomponents and preparing proposals for improvements.
- performing a monthly first review of the projects' general ledgers with a view to identifying and clarifying any errors and anomalies, and particularly with reference to receivables and payables which have been overdue for more than one month; this is subject to the Finance Manager final review.
- scrutinizing of financial reports submitted by project components and subcomponents and agencies or institutions implementing or managing such components and subcomponents to ensure that they follow established procedures, and to take corrective action where necessary, subject to the Finance Manager final review
- support the Finance Manager in monitoring the status of budget utilization by project component and category of expenditure and reporting to the Director on any significant variances, together with recommendations for appropriate actions.
- paying periodic visits to remote project locations to check the operation of the system of internal control and control of reports submitted by the components.
- follow up on timely preparation of financial, activity and monitoring reports to the Government of Bangladesh, donors, and providing the projects' internal and external auditors with all information, documentation and explanations required for the purposes of audit.
- preparing and submitting the interim financial reports (IFRs) required for withdrawing funds from IFAD as indicated in the FMFCL (refer to 21.18);

- play a key role and be proactive in updating the PMU Financial Manual and ensuring adherence to its provisions.
- preparing drafts of TORs for the annual external audits; technical and financial assessment of auditors' proposals; preparing annual financial statements and explanatory notes in accordance with donor requirements and with IAS, to the extent applicable; agreeing with the auditors the form of their report.
- support the finance manager in organizing and providing training workshops in accounting and financial management topics for finance staff of the PMU and components.
- standing in for the Financial Unit specialists and performing their routine duties during periods when they are absent.
- assist in the preparation and submission of Government required financial reports to relevant Government Agencies.
- assist in maintaining procedures for collecting, checking, and preparing documentation required for verifying Supplier's invoices. Supervise record of payment documentation and payments to Suppliers. Ensure that all payments are made on a timely basis and according to contract terms and conditions as well as the IFAD relevant guidelines, regulations, legal agreements, and other applicable documents.
- prepare, update and monitor Fixed Assets register to safeguard assets of the project.
- Perform such other duties as may be required by the PMU Director and Finance Manager.

10. Institutional Organization

The Financial Manager will work closely with the PMU staff, staff, all partners, implementing partners of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

11. Reporting and Approval

The Financial Specialist will report to the PMU Director and Finance Manager who will evaluate performance of his/her responsibilities every year.

12. Client's Contribution

The client will provide a local specialist with relevant information on the Project, the basic documents of the Project, procurement plans and available technical materials on assignments described in the scope of work. The client will provide a specialist with necessary working conditions in the PMU (room, furniture, office telephone, access to Internet, etc.).

13. Qualification Requirements

- Bachelor's degree in accounting and/or finance for international standard.
- MBA or equivalent qualification in accounting and finance for international standard is preferred.
- Experience of budgeting, accounting, and reporting procedures of IFAD and other donors.
- Knowledge of Bangladesh Accounting and Tax regulations.
- Experience in project financial management and accounting information system in accordance with best international practice.
- Complete, practice-based command of double-entry bookkeeping.
- Ability to present financial information in a clear, concise manner and in formats suitable for non-specialists.
- Fluency in English;

- Experience in training staff of local counterparts and subcontractors in disbursement procedures and in accounting theory and practice.
- Computer literate; familiarity with Windows-based programs such as Word and Excel, PowerPoint, Accounting Program, and other MIS.

14. Duration of Appointment

The period of assignment in the position will be initially 12 months and may be extended by mutual agreement, with probation period of three months.

20.5 Terms of reference: Account Assistant

Post title: Account Assistant of *(The PMU)*

Organisation: *(The PMU)* **Location:** Dhaka, Bangladesh

Name of Project: CRALEP

Duration: One-year renewable

Type of contract: Fixed term

Closing date: XXX

1. **Objective**

The main objective of the assignment is supporting the finance unit to maintain accounting procedures and manage activities related to the project financial management arrangements. In his/her activity the Finance Manager shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

2. Scope of Services and Key Tasks

The Account Assistant must responsibly perform the activities detailed in the Terms of Reference and Scope of Services. The Account Assistant's duties include the following:

- Disbursements for advancing the project components' costs according to applications, payment of the PMU costs from the project designated accounts.
- Preparation of monthly cash flow reports for all available project accounts.
- Inventory of fixed assets, assets procured under the projects, monitoring and the like.
- Accounting, ensuring proper control over the project (projects) financial resources, flow of resources and disbursements following the adopted procedures and accounting standards of the Government of Bangladesh complying with the requirements of IFAD and other donors.
- Processing the reports by components and primary documents, keeping the entire entries and daily banking operations in the accounting software according to bank statements.
- Processing the advance reports of both the PMU staff and the components' staff.
- Keeping the electronic cash book and control over bank statements.
- Control over the fuel consumption and keeping the SOE.
- Cash payments and advances from the project (projects) cash for operating and other project (projects) costs.
- Preparation of all supporting documents on the project (projects)costs accompanying the withdrawal application.
- Preparation of monthly cash flow reports for all available project (projects) accounts.
- Participation in preparation of various reports, information materials at the request of the Ministry of Finance, IFAD and other donors or organizations.
- Act as a Disbursement Specialist, Finance Manager, Finance Specialist and perform specific duties during their absence.
- Conduct regular reconciliations of the bank account balances to the project accounts.
- Perform other relevant duties at the request of the PMU management and/or the PMU Finance Manager.

3. Reporting and approval

The accountant will report to the PMU Director, Finance Manager who will assess fulfillment of his/her duties regularly.

4. Institutional arrangement

The accountant will work closely with the PMU staff, with all partners, implementing partners of the project(s) and its(their) components, state institutions and other organizations relative to the project(s) implementation.

5. Client's contribution

The Client will provide the Consultant with relevant information on the Project(s), the basic documents of the Project(s), work plans and available technical materials on assignments described in the scope of work.

The Client will provide the employee with working place in the PMU as well as all necessary materials and tools needed to carry out this assignment.

6. Assignment venue

The accountant shall perform main part of works at the PMU office. If necessary, the Consultant shall travel to districts and regions of the country to perform certain project(s) tasks.

7. Qualification and Experience

The Assistant Accountant shall meet the following criteria and qualifications:

- Higher education in accounting and finance.
- At least 3-year experience in accounting.
- At least 3-year experience in international organizations for a similar position.
- Good knowledge of procedures for financial management, accounting of Bangladesh, tax policy and other legislative regulations on financial management.
- Knowledge of the procedures for financial management in international organizations such as IFAD, other donors etc.
- Good knowledge of English.
- Mandatory knowledge of the accounting software.
- Mandatory knowledge of computer programs based on Microsoft Office.

8. Duration of work

The period of this position assignment initially will be 12 (twelve) months and may be extended by agreement of the parties, with a trial period of 3 months.

20.6 Terms of reference: Internal Audit Services

Contract	Internal audit services
Project	CRALEP
Location	Dhaka Bangladesh
Duration	XX month per annum
Starting Date	[insert]
Languages required	English

1. Background:

[INSERT]

2. Reporting System:

The objective of the Internal Auditor firm is to add value and improve the Project's operations and assist Project's Board of Directors and management by independently reviewing all activities, processes and systems with particular regard to risk and control aspects and bringing a systematic and disciplined approach to the effectiveness of risk management, control, and governance processes.

The successful firm will possess a thorough knowledge of internal auditing procedures, accounting procedures and have sound judgment on risk identification and management.

The firm will produce a monthly internal audit report presented to the Project Steering Committee.

Internal Audit firm shall monitor the appropriate follow-up on audit findings and recommendations. All significant findings will remain in an open issues file until cleared.

3. Independence:

The internal audit firm reports to the Project Steering Committee, who appoints and terminates the firm upon recommendation of the Donors. The firm will work under the overall supervision of the Project's Steering Committee.

All internal audit activities shall remain free of influence by any element in the organisation, including matters of audit selection, scope, procedures, frequency, timing, or report content to permit maintenance of an independent and objective mental attitude necessary in performing the function.

Internal Audit shall have no direct operational responsibility or authority over any of the activities it reviews. Accordingly, it shall not develop nor install systems or procedures, prepare records, or engage in any other activity which would normally be considered management or staff's responsibility.

4. Authority and confidentiality:

Authority is granted for full and unrestricted access to all THE PROJECT records, physical properties, and staff relevant to any area under review. All employees are requested to assist the internal audit in fulfilling its function.

Documents and information obtained by the internal audit firm will be handled in the same prudent and confidential manner as by those employees normally accountable for them.

5. Duties and Responsibilities:

Within the framework, as described above, the internal audit firm will carry out the following tasks

- Conduct a post-audit procedures on the PMU and NGOs/implementing partners which report to it, with respect to their functions and activities within the project. Make recommendations on possible improvements of the procedures to enhance control mechanisms, financial performance and produce quality reports for senior management and Board of Directors, to enhance decision making, on monthly basis.
- Audit all contracts signed between PMU and/or implementing partners with service providers, suppliers, and contractors to verify that (i) compliance with terms and conditions of grant / loan agreements and procurement regulations and donor guidelines; and (ii) the contract is in line with best practice with respect to compliance with terms of reference, request for proposal, tender documents etc.
- Develop professional and constructive working relationships with key managers and be able to challenge when necessary.
- Lead development of specific innovative ways of working and new ideas for reviewing risk and control issues.
- Assess risk and control related policies and procedures, provide input to updates in existing procedural documents with respect to controls as necessary
- Apply internal audit procedures to audit the financial statements, accounting records and other financial and non-financial registries applying acted internal audit standards.
- Undertake special assignments and investigations and in particular undertake more complex and high-level audit investigations under advisement of the Project Steering Committee.
- Reviewing the means of safeguarding assets and, as appropriate, verifying their existence.
- Reviewing and appraising the economy and efficiency with which resources are employed.
- Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned, including verify the adherence of the PMU//Implementing partners staff to AWPBs, policies, plans, procedures, laws, and fund regulations that are influential on Fund works as well as donors accounting procedures.
- Asses the efficiency, effectiveness and economy of the usage of resources and reports of any deviations in case they are existed.
- Reviewing the adequacy, implementation and operation of donors' transparency and accountability policies and of other anti-corruption, fraud and related misuse policies and procedures.
- Confirming adherence to the Financial Manual (as approved by IFAD).

6. Audit Planning:

- Internal Audit firm shall regularly submit to the Project Steering Committee an up-to- date summary of the audit work schedule.
- The audit work schedule is developed based on a prioritization of the audit universe using a risk-based methodology. Any significant deviation from the formally approved work schedule shall be communicated to the Project Steering Committee through periodic activity reports.
- The audit planning shall pay specific attention to the activities of the implementing partners which report to the PMU.

7. Qualification criteria:

- Internal audit firm should be member of recognized professional international Accountancy/ Audit body

- The firm shall govern themselves by adherence to The Institute of Senior Internal Auditors' Code of Ethics. The Institute's International Standards for the Professional Practice of Internal Auditing shall be adhered to by the firm. The Institute of Senior Internal Auditors' Practice Advisories will be adhered to as applicable.
- Assigned employees to have:
  - Proven relevant working experience in Internal Audit.
  - Proven experience of risk management frameworks and approaches.
  - Experience of operational auditing & risk based approach to review.
  - Excellent negotiating and high level influencing skills and the ability to challenge at a senior level when necessary.
  - Ability to work in challenging environments.
  - Ability to work and deliver to tight deadlines.
  - Logical and systematic in analytical thinking.
  - Facilitation and presentational skills.
  - Full Working knowledge of English, including excellent drafting and presentation skills..
  - Excellent computer skills, including full working knowledge of standard word processing, spreadsheets and presentation packages.

20.7 Supporting documentation upon request from IFAD

As specified in chapter 3 of the IFAD Loan disbursement handbook, the following supporting documentation should be submitted upon request by IFAD:

Type of payment	Supporting documentation
All types of payments	▪ The signed contract or confirmed purchase order (Showing the specified amount that is due paid.) ▪ The bank guarantee for advance payment, as specified in the contract documents ▪ The bank guarantee for performance, as specified in the contract documents ▪ Copies of communications sent by the IFAD country Project manager to the lead Project agency (LPA) providing the IFAD's no objection (post or Prior) to the contract award, and ▪ Evidence of payment.
Payment of goods	▪ Supplier's invoice duly certified for payment by the Project director – specifying the goods, their quantities, and prices ▪ Bills of lading or similar documents; and ▪ As appropriate, the certificate of delivery (to include condition of goods to delivery.
Payments for services (including consultants)	▪ The supplier or consultant claim, duly certified for payment by the Project director and showing sufficient detail. If such Services relate to the importation of goods (for example, freight and insurance payments), adequate reference should be given to enable IFAD to relate each of these items to specific goods whose cost has been or is to be financed by the financing closing date; and ▪ As appropriate, a certificate of delivery of satisfactory services
Progress and retention payments of civil works	▪ the claim if the contractor, including a financial progress report, stating the work performed and the amount due. ▪ A certificate-signed by the Project consultants or owner's representative, if any, or by the borrower's chief engineering officer or resident supervising engineer assigned to the Project, to the effect that the work performed is satisfactory and the payment claimed is due in accordance with the terms of the contract, and ▪ A copy of the contract payment monitoring form signed in original by the certifying officer.

20.8 Travel advance report

TO BE INSERTED BY THE PMU

20.9 Illustrative forms

[PROJECT NAME] Appendix 1

Financial: actual financial performance by financier; by component and disbursements by category

Table 1: Financial performance by financier (USD '000)

Financier	Appraisal	Disbursements	Percent disbursed
IFAD Grant			
IFAD Loan			
Government			
Beneficiaries			
Total			

Table 2: Financial performance by financier by component (USD '000)

	IFAD Loan			**IFAD Grant**			**Government**			**Beneficiaries**			**Total**		
Component	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**

Table 3: IFAD Loan disbursements (USD, as at [Insert date: dd-m-yy])

Category	Category description	Original Allocation	Revised Allocation	Disbursement	W/A pending	Balance	Per cent disbursed
I							
II							
III							
IV							
	Initial deposit						
	Total						

Present separate table for each IFAD managed finance facility (IFAD Loan, IFAD Grant)

Petty cash request form

Date:

Requested by:

Signature of requester:

Mode of payment: (tick selected):

- Reimbursement
- Advance

Description of purchases (goods/services)	Unit price	Quantity	Total cost**	Activity code	Explanation / Comments
TOTAL AMOUNT					

Approved by Processed by Payment received by

** Attach supporting document (invoice, receipt, etc.)

Petty cash reconciliation

Date of reconciliation:

Part 1. Petty cash reconciliation

Petty cash balance brought forward (a) _____

Replenishments during the current month (b) _____

Total petty cash balance (c = a + b) _____

Disbursements during the current month (d) _____

Petty cash book balance (e = c – d) _____

Cash count balance (f) – see part 2. below _____

Difference (G = E – F) _____

Explanation of Difference

_____

Part 2 - Cash Count

Description	Quantity	Total amount
Total in CURRENCY		

Counted/reconciled by (Accountant):

Reviewed by (Financial Manager):

Date:

20.11 Vehicle and fuel documents

Waybill

PMUs to add copy of the used/standard waybills

Itinerary list

Itinerary list for the period:

Driver:

Vehicle type:

Starting Speedometer reading _____as at _____

Date	Time		Name	Trip purpose	Mileage, km		Signature	
	from	to			post	prior	Passenger	Driver

Starting Speedometer reading _____as at _____

Vehicle History Record

Vehicle registration number _____ **Assigned driver** _____

Date	Repairs			Service & maintenance			Insurance			Fitness tests	
	Description of repair	Garage	Cost	Description of service	Garage	Cost	Type	Period covered	Cost	Checked by	Cost

Report accidents in the space below, providing all relevant details for each occurrence:

Date:
Place:
Name of driver:
Circumstances:
Damage to project vehicle:
Damage to other vehicles:
Injuries (indicate name of victims and describe injuries): Insurance settlement:

20.12 Implementing partners/NGOs – MOU terms

To be used/amended as applicable.

The PMU/ will enter into MOUs with other implementing partners/NGOs. The following recommended financial management roles and responsibilities are proposed for inclusion:

PMU shall:

- ✓ Provide financial management support to the implementing agency;
- ✓ Ensure that implementing agency performs its duties and enjoys rights indicated in the Memorandum.
- ✓ Provide financial management training at project start-up and annually thereafter in order to strengthen the financial management capacity of the implementing agency.

The implementing agency shall:

- ✓ Implement sound financial management practices and procedures to the satisfaction of the PMU.
- ✓ Ensure that all financial management staff responsible for dealing with the CRALEP attend financial management training (hosted by PMU) at project start-up and annually thereafter.
- ✓ Ensure that a qualified and experienced accountant is responsible for dealing with the financial management aspects of the CRALEP for the duration of the MOU.
- ✓ Inform the PMU Financial Manager of any finance staff vacancies.
- ✓ Perform an annual financial management self-assessment (questionnaire template to be provided) and submit the results to the PMU Financial Manager. Cooperate with the PMU Financial Manager to address identified shortcomings within a specified timeframe.
- ✓ Assist the PMU with the annual budgeting process by preparing a budget for the component/sub-component which it is required to implement. For this purpose, the PMU Financial Manager will provide a budget template which should be used. In addition, strictly adhere to deadlines for submission of inputs.
- ✓ Retain all project related document (invoices, bank statements, supporting documentation) for inspection. Documents should be retained in line with the terms and conditions as outlined in the IFAD General Conditions for Agricultural Development Financing.
- ✓ When required, submit written request for funds in line with the template included in the FMFCL & 21.18. Written requests should be signed by the duly authorized representatives. Request letters should clearly indicate the related budget activity as included in the PMU approved AWPB (and related procurement plan).
- ✓ Prepare and submit a monthly report for IFAD in line with the template included in 21.17. Attach original bank statements and original supporting invoices/documents to the monthly report (documents to be returned after review by PMU).
- ✓ Use the monthly report to IFAD for the purposes of internal monitoring of budget to actual performance. Take corrective action as required.
- ✓ Respond to queries / resubmit information as requested by the PMU Budget and Finance Officer or Financial Manager in a timely manner.

21.17 Monthly reporting template – implementing partners/NGOs

MONTHLY REPORT - IMPLEMENTING AGENCIES/NGO

Month
Implementing agency/NGO:
Contract date:
Project

					CASP+						
					Tajikistan Somoni						
						IFAD		GCF		Government	
№ category	Component/ Sub-component	№	Items of expenses	Supporting document ref	amount	Grant	Loan	Grant	Loan	Grant	Loan
		I	Balance at the beginning		-	-	-	-	-	-	-
		1	Bank		-						
		2	Petty cash		-		-				
		II	Advance		-	-	-			-	-
		1	Transfer		-						
		2	By cash		-						
		III	Expenses		-	-	-			-	-
		1				-	-			-	-
		2									
		3									
		4									
		5									
		6									
		7					-			-	-
		8									
		9									
		IV	Balance at the end		-	-	-	-	-	-	-
		1	Bank		-						
		2	Petty cash		-						

Director _____ **Checked**

Accountant _____ **Disbursement specialist** _____

stamp **Date:**
Date: _____

Submit the report together with copies of bank statements, petty cash reconciliation, invoices, supporting documentation. Cross-reference supporting documentation to report.

Forms to be copied from FMFCL once finalized

Terms of Reference for key project positions

Terms of Reference (ToR) for Team Leader (Rural Development Specialist)

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Team Leader (Rural Development Specialist)

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Team Leader will be responsible for overseeing and managing the implementation of CRALEP. This position requires a seasoned Rural Development Specialist with extensive experience in programme management, who will lead the project team, coordinate with stakeholders, and ensure the successful achievement of project objectives.

3. Key Responsibilities

- **Project Leadership and Management:**
  - Provide overall leadership and strategic direction for the CRALEP.
  - Manage and coordinate all project activities to ensure they are completed on time, within scope, and within budget.
  - Develop and implement a comprehensive project plan, including timelines, milestones, and performance metrics.
  - Ensure effective communication and coordination among project team members, stakeholders, and partners.
- **Stakeholder Coordination and Liaison:**
  - Serve as the primary point of contact for LGED, MOLG&C, and other key stakeholders.
  - Facilitate regular meetings and communication with project partners, community leaders, and beneficiaries.
  - Ensure alignment of project activities with the goals and objectives of LGED and MOLG&C.
- **Technical Guidance and Support:**

    - Provide expert advice on rural development, climate resilience, and poverty reduction strategies.
    - Oversee the design and implementation of climate-resilient infrastructure and nature-based solutions.
    - Ensure the integration of gender and social inclusion considerations into project activities.
- **Monitoring and Evaluation:**
    - Develop and implement a robust monitoring and evaluation framework to track project progress and impact.
    - Ensure accurate and timely reporting on project performance, challenges, and outcomes.
    - Conduct regular field visits to monitor project activities and engage with communities.
- **Capacity Building and Training:**
    - Identify training needs and provide capacity-building support to project staff and local partners.
    - Promote knowledge sharing and best practices in rural development and climate resilience.

4. Qualifications and Experience

- **Education:**
    - Advanced degree (Master's or higher) in Rural Development, Environmental Science, Climate Change, Development Studies, or a related field.
- **Experience:**
    - At least 25 years of relevant programme management experience in rural development, climate resilience, or related areas.
    - Proven track record of leading and managing large-scale development projects, preferably in flood-prone and drought-prone regions.
    - Experience working with government agencies, international organizations, and local communities.
    - Strong background in designing and implementing climate-resilient infrastructure and nature-based solutions.
- **Skills:**
    - Excellent leadership, management, and organizational skills.
    - Strong analytical and problem-solving abilities.
    - Effective communication and interpersonal skills.
    - Proficiency in project management software and tools.
    - Ability to work under pressure and meet deadlines.

5. Reporting

The Team Leader will report to the Project Director of CRALEP and will provide regular updates on project progress, challenges, and achievements.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Assistant Design Engineer

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Assistant Design Engineer

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Assistant Design Engineer will support the Design Engineer (Civil Works) in the development and implementation of climate-resilient infrastructure. This position requires a motivated and skilled civil engineer with experience in infrastructure design and an interest in sustainable and resilient development practices. The individual should closely coordinate with PMU's Climate Change Expert and Hydrologist and Gender and Social Inclusion (GESI) Expert to ensure that SECAP mitigation measures (as outlined in the ESCMP) for social inclusion, gender, youth, biodiversity and environment are implemented in all infrastructure activities.

3. Key Responsibilities

- **Support in Infrastructure Design:**
  - Assist the Design Engineer in developing detailed designs and specifications for climate-resilient infrastructure projects, in coordination with the Climate Change Expert and Hydrologist as needed.
  - Participate in site assessments and surveys to gather data and inform design decisions.
  - Prepare technical drawings, models, and reports using design software and tools.
- **Technical Assistance:**
  - Provide technical support during the construction phase, ensuring adherence to design specifications and standards and are in line with site-specific ESCMP (environment, social and climate management procedures.

    - Assist in resolving technical issues or modifications required during construction.
    - Conduct field visits to monitor construction progress and compliance with design plans, including site-specific ESCMP mitigation measures.
- **Coordination and Communication:**
    - Collaborate with project team members, contractors, and local stakeholders to ensure smooth implementation of design activities.
    - Assist in preparing and presenting design proposals, reports, and documentation to the Project Director and other stakeholders.
    - Facilitate communication between the Design Engineer, construction teams, and local communities.
- **Community Engagement and Capacity Building:**
    - Support participatory processes to involve community members in the design and implementation of infrastructure.
    - Work closely with the Gender and Social Inclusion Specialist to ensure that infrastructure design incorporates the requirements and needs of poor households, women, youth, Persons with Disability, elderly, etc. where feasible.
    - Participate in training sessions and workshops to enhance knowledge and skills in climate-resilient design and construction.
    - Support local engineers and construction teams in adopting best practices and innovative engineering solutions.
- **Monitoring and Evaluation:**
    - Contribute to the development and implementation of a monitoring and evaluation framework to assess the impact and effectiveness of designed infrastructure.
    - Assist in collecting and analyzing data to measure project outcomes and inform continuous improvement.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Civil Engineering or a related field. A Master's degree in Structural Engineering, Environmental Engineering, or a related field is an advantage.
- **Experience:**
    - At least 3 years of relevant experience in civil engineering, with a focus on infrastructure design.
    - Experience in designing and implementing projects in flood-prone and drought-prone areas is preferred.
    - Familiarity with sustainable and climate-resilient engineering practices is an asset.
    - Experience working with international organizations or government agencies is a plus.
- **Skills:**
    - Proficiency in design software such as AutoCAD, Civil 3D, and other relevant engineering tools.
    - Strong technical, analytical, and problem-solving skills.
    - Good communication and interpersonal skills.
    - Ability to work collaboratively in a multidisciplinary team.

- Strong organizational skills and attention to detail.

5. Reporting

The Assistant Design Engineer will report to the Design Engineer (Civil Works) and provide regular updates on design support activities, technical assistance, and construction progress.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for AutoCAD Operator

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: AutoCAD Operator

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The AutoCAD Operator will be responsible for creating and modifying technical drawings and plans for climate-resilient infrastructure under the guidance of the Design Engineer and Assistant Design Engineer. This role requires proficiency in AutoCAD and related software, attention to detail, and the ability to work collaboratively in a team.

3. Key Responsibilities

- **Technical Drawing and Drafting:**
  - Create detailed technical drawings and plans using AutoCAD and other relevant software.
  - Modify and update existing drawings based on instructions from the Design Engineer and Assistant Design Engineer.
  - Ensure all drawings adhere to project specifications, standards, and guidelines.
- **Collaboration and Coordination:**
  - Work closely with the design team to understand project requirements and translate them into accurate technical drawings.
  - Coordinate with the Design Engineer and Assistant Design Engineer to ensure consistency and accuracy in all drawings.
  - Participate in design review meetings and provide technical input as needed.
- **Documentation and Filing:**
  - Maintain an organized filing system for all drawings and related documents.
  - Ensure all drawings are properly labeled, stored, and easily retrievable.

    - Provide updated drawings and documentation to relevant stakeholders as required.
- **Quality Control:**
    - Conduct quality checks on all drawings to ensure accuracy and completeness.
    - Identify and correct any errors or discrepancies in the drawings.
    - Ensure all drawings meet the required technical and safety standards.

4. Qualifications and Experience

- **Education:**
    - Diploma or degree in Drafting, Engineering Technology, or a related field. Certification in AutoCAD is highly desirable.
- **Experience:**
    - At least 3 years of experience as an AutoCAD Operator or Draftsman, preferably in civil engineering or infrastructure projects.
    - Experience in creating technical drawings for flood-prone and drought-prone areas is an advantage.
    - Familiarity with climate-resilient and sustainable design practices is a plus.
- **Skills:**
    - Proficiency in AutoCAD and other relevant drafting software.
    - Strong technical drawing and drafting skills.
    - Attention to detail and accuracy.
    - Good communication and teamwork skills.
    - Ability to work under pressure and meet deadlines.

5. Reporting

The AutoCAD Operator will report to the Design Engineer (Civil Works) and the Assistant Design Engineer. Regular updates on drawing progress and related activities will be required.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Civil Work Estimator

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Civil Work Estimator

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Civil Work Estimator will be responsible for preparing detailed cost estimates for all civil engineering works associated with the CRALEP. This role requires a thorough understanding of construction costs, materials, and methods, as well as the ability to accurately predict project costs and manage budgets.

3. Key Responsibilities

- **Cost Estimation:**
  - Prepare detailed and accurate cost estimates for all civil works, including materials, labor, equipment, and overheads.
  - Review and analyze project plans, drawings, and specifications to determine the scope of work and required quantities.
  - Develop and maintain unit cost databases for various construction activities.
- **Budget Management:**
  - Assist in the preparation of project budgets and financial plans.
  - Monitor and track project costs against budgets, identifying variances and potential cost overruns.
  - Provide recommendations for cost-saving measures and budget adjustments as necessary.
- **Tender Preparation:**
  - Prepare and review tender documents, bills of quantities (BOQs), and cost proposals for contractors and suppliers.

    - Evaluate and analyze contractor bids and proposals to ensure competitiveness and compliance with project requirements.
    - Participate in contract negotiations and provide input on cost-related matters.
- **Collaboration and Communication:**
    - Work closely with the Design Engineer, Assistant Design Engineer, and project team to ensure accurate and comprehensive cost estimates.
    - Collaborate with procurement and finance teams to align cost estimates with purchasing and financial strategies.
    - Communicate cost-related information and updates to project stakeholders, including LGED and MOLG&C.
- **Quality Control:**
    - Ensure all cost estimates are prepared in accordance with relevant standards, guidelines, and best practices.
    - Conduct regular reviews and audits of cost estimates to ensure accuracy and reliability.
    - Stay updated on industry trends, market conditions, and advancements in construction cost estimation techniques.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Civil Engineering, Construction Management, Quantity Surveying, or a related field.
- **Experience:**
    - At least 5 years of relevant experience in cost estimation for civil engineering or construction projects.
    - Proven track record in preparing cost estimates for projects in flood-prone and drought-prone areas is preferred.
    - Experience with climate-resilient and sustainable construction practices is an advantage.
    - Experience working with government agencies, international organizations, or large-scale development projects is desirable.
- **Skills:**
    - Strong analytical and numerical skills.
    - Proficiency in cost estimation software and tools, such as MS Excel, CostX, or similar.
    - Excellent communication and interpersonal skills.
    - Ability to work independently and as part of a team.
    - Attention to detail and strong organizational skills.

5. Reporting

The Civil Work Estimator will report to the Team Leader and provide regular updates on cost estimation activities, budget management, and financial tracking.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Clerk

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Clerk

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Clerk will provide essential clerical and administrative support to ensure the efficient operation of the project office. This role requires attention to detail, organizational skills, and the ability to handle various administrative tasks effectively.

3. Key Responsibilities

Administrative Support:

- Assist in the preparation and organization of project meetings, workshops, and events.
- Manage office correspondence, including emails, letters, and phone calls.
- Maintain office files and records, ensuring they are organized and accessible.

Documentation and Filing:

- Prepare and file documents such as reports, memos, and project correspondence.
- Assist in archiving and maintaining project documents and records.
- Handle incoming and outgoing mail and deliveries.

Data Entry and Record Keeping:

- Enter data into project databases and spreadsheets accurately and promptly.
- Maintain records of project expenditures, petty cash, and other financial transactions.
- Assist in preparing financial reports and statements as required.

Logistical Support:

- Assist in coordinating logistical arrangements for project activities, including travel and accommodation bookings.
- Support procurement activities by obtaining quotations, processing purchase orders, and maintaining supplier relationships.
- Ensure office supplies are adequately stocked and replenished.

Communication and Coordination:

- Facilitate communication within the project team and with external stakeholders.
- Assist in scheduling appointments and maintaining calendars for project staff.
- Provide support during meetings, workshops, and other project events as needed.

4. Qualifications and Experience

- **Education:**
  - Minimum of a high school diploma. Additional certification in office administration or related field is an advantage.
- **Experience:**
  - At least 1-2 years of relevant experience in clerical or administrative roles.
  - Experience working in an office environment, preferably in a development project or NGO setting.
- **Skills:**
  - Proficiency in using office software (e.g., Microsoft Office suite).
  - Strong organizational and time management skills.
  - Excellent written and verbal communication skills.
  - Attention to detail and accuracy in work.
  - Ability to multitask and prioritize tasks effectively.

5. Reporting

The Clerk will report to the Office Manager or Administrative Officer and provide regular updates on administrative activities and tasks.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Design Engineer (Civil Works)

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Design Engineer (Civil Works)

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

---

1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Design Engineer (Civil Works) will be responsible for designing and overseeing the construction of climate-resilient infrastructure within the CRALEP. This position requires a highly skilled civil engineer with substantial experience in designing infrastructure that can withstand flood and drought conditions. The individual should closely coordinate with PMU's Climate Change Expert and Hydrologist and Gender and Social Inclusion (GESI) Expert to ensure that SECAP mitigation measures (as outlined in the ESCMP) for social inclusion, gender, youth, biodiversity and environment are implemented in all infrastructure activities.

3. Key Responsibilities

- **Infrastructure Design:**
  - Develop detailed designs and specifications for climate-resilient infrastructure, including flood protection systems, water management structures, and drought mitigation facilities, in coordination with the Climate Change Expert and Hydrologist as needed.
  - Ensure designs incorporate nature-based solutions to enhance resilience and sustainability and are in line with site-specific ESCMP (environment, social and climate management procedures.
  - Conduct site assessments and surveys to inform design decisions and adjustments.
- **Technical Supervision:**

    - Oversee and provide technical guidance during the construction phase to ensure adherence to design specifications and standards, including site-specific ESCMP mitigation measures.
    - Collaborate with contractors and construction teams to address any technical issues or modifications required during implementation.
    - Ensure that all infrastructure works comply with relevant safety, quality, and environmental standards.
- **Project Coordination:**
    - Work closely with the Team Leader and other project staff to align design activities with overall project objectives and timelines.
    - Coordinate with local authorities, community representatives, and other stakeholders to ensure designs meet local needs and conditions.
    - Prepare and present design proposals, reports, and technical documentation to the Project Director and other stakeholders.
- **Community Engagement and Capacity Building:**
    - Facilitate participatory processes to involve community members in the design and implementation of infrastructure.
    - Integrate gender and social inclusion considerations into all technical aspects of the project. Work closely with the Gender and Social Inclusion Specialist to ensure that infrastructure design and implementation are accessible and beneficial to all community members, including women and marginalized groups (e.g., poor households, youth, persons with disabilities, elderly), and incorporate their requirements and needs where feasible.Provide training and capacity-building support to local engineers and construction teams on climate-resilient design principles and practices.
    - Promote the adoption of innovative and sustainable engineering solutions within the project and among local communities.
- **Monitoring and Evaluation:**
    - Participate in the development and implementation of a monitoring and evaluation framework to assess the effectiveness and impact of the designed infrastructure.
    - Conduct regular field visits to monitor construction progress and ensure compliance with design plans.
    - Provide detailed reports on design implementation, challenges, and recommendations for improvements.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Civil Engineering. A Master's degree in Structural Engineering, Environmental Engineering, or a related field is preferred.
- **Experience:**
    - At least 10 years of relevant experience in civil engineering, with a focus on designing infrastructure for flood-prone and drought-prone areas.
    - Proven experience in designing and implementing climate-resilient infrastructure projects.
    - Familiarity with nature-based solutions and sustainable engineering practices.
    - Experience working on projects funded by international organizations or government agencies is an asset.
- **Skills:**

- Strong technical skills in civil engineering design and construction.
- Proficiency in design software such as AutoCAD, Civil 3D, and other relevant engineering tools.
- Excellent problem-solving and analytical skills.
- Strong communication and interpersonal skills.
- Ability to work independently and as part of a multidisciplinary team.

5. Reporting

The Design Engineer (Civil Works) will report to the Team Leader and provide regular updates on design progress, challenges, and construction activities.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Financial System Specialist

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Financial System Specialist (Financial Management, Audit, System Development, Training)

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Financial System Specialist will be responsible for overseeing the financial management, audit, system development, and training functions of the project. This role requires expertise in financial systems, strong analytical skills, and the ability to train and support project staff in financial management practices.

3. Key Responsibilities

Financial Management:

- Develop and maintain financial management systems and procedures for the project.
- Ensure compliance with financial regulations, policies, and guidelines.
- Oversee budgeting, accounting, and financial reporting processes.
- Monitor and control project expenditures to ensure alignment with approved budgets.

Audit:

- Coordinate internal and external audits of the project's financial operations.
- Ensure timely preparation and submission of audit reports and responses to audit findings.

- Implement recommendations from audit reports to improve financial management practices.
- Ensure transparency and accountability in financial transactions.

System Development:

- Design and implement financial systems and software to streamline financial operations.
- Ensure the integration of financial systems with other project management systems.
- Maintain and update financial databases and ensure data integrity.
- Provide technical support and troubleshooting for financial systems.

Training:

- Develop and deliver training programs on financial management, audit procedures, and system usage for project staff.
- Build the capacity of project staff in financial planning, budgeting, and reporting.
- Ensure staff are knowledgeable about financial policies, procedures, and best practices.
- Conduct regular training needs assessments to identify areas for improvement.

Documentation and Reporting:

- Prepare and submit financial reports to project management, donors, and stakeholders.
- Ensure accurate and timely documentation of financial transactions and records.
- Maintain comprehensive financial records and ensure they are accessible and secure.
- Provide financial analysis and recommendations to support decision-making.

Collaboration and Coordination:

- Work closely with project management, administrative, and technical teams to ensure integrated financial management.
- Liaise with external auditors, financial institutions, and regulatory bodies as required.
- Participate in project planning and review meetings to provide financial insights.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Accounting, Finance, Business Administration, or a related field. A Master's degree or professional certification (e.g., CPA, CMA) is an advantage.
- **Experience:**
  - At least 7-10 years of relevant experience in financial management, auditing, and system development.
  - Experience working with development projects, NGOs, or government agencies.
  - Proven experience in training and capacity building for financial management.
- **Skills:**
  - Strong knowledge of financial management principles, practices, and regulations.

- Proficiency in financial software and systems (e.g., QuickBooks, SAP, or similar).
- Excellent analytical and problem-solving skills.
- Strong communication and training skills.
- Ability to work independently and as part of a team.
- High level of integrity and attention to detail.

5. Reporting

The Financial System Specialist will report to the Project Director or Senior Management and provide regular updates on financial management, audit activities, system development, and training programs.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Livelihood Specialist

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Livelihood Specialist

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Livelihood Specialist will be responsible for developing and implementing strategies to enhance the livelihoods of communities within the project areas. This role requires expertise in livelihood development, capacity building, and sustainable economic practices to ensure long-term community resilience and well-being. The individual should closely coordinate with PMU's Climate Change Expert and Hydrologist and Gender and Social Inclusion (GESI) Expert to ensure that livelihood activities (vocational training, Labour Contracting Societies-LCS, agri-business micro-entrepreneurship) are climate resilient and that SECAP mitigation measures for social inclusion, gender, youth, biodiversity and environment are implemented.

3. Key Responsibilities

- **Livelihood Development:**
  - Design and implement climate resilient livelihood enhancement programs tailored to the needs of the communities in the Haor and High Barind regions.
  - Integrate gender and social inclusion considerations into all aspects of livelihood strategies and interventions. Collaborate closely with the Gender and Social Inclusion Officer to ensure that these activities address the specific needs and priorities of diverse community members, including the poorest households, women, youth, ethnic minorities, and marginalized groups. This alignment ensures that livelihood strategies are in line with project-wide gender and social inclusion objectives.Identify and promote viable and

adaptive livelihood opportunities, including non-farm employment, skill development, and entrepreneurship.
    - Facilitate access to resources, markets, and services necessary for climate resilient livelihood activities.
- **Vocational and Entrepreneurship Training:**
    - Plan and execute vocational training programs for youth to enhance their skills and employability.
    - Develop and deliver entrepreneurship training for youth to foster innovation and self-employment opportunities.
    - Design and implement sustainable livelihood training for members of Labour Contracting Societies (LCS) to improve their income-generating capabilities and resilience.
- **Capacity Building:**
    - Conduct training programs and workshops to build the capacity of community members in various livelihood skills and sustainable / climate resilient practices.
    - Develop training materials and curricula that are context-specific and relevant to the target communities.
    - Provide ongoing technical support and mentorship to beneficiaries to ensure the sustainability of livelihood initiatives.
    - Ensure that communities are aware of and able to access the Flood Forecasting and Early Warning System (FFEWS) and Drought Early Warning. Work closely with Climate Change Expert and Hydrologist to assess that FFEWS and Drought Early Warning are context specific and how content / dissemination can be improved.
- **Community Engagement:**
    - Work closely with community leaders, local authorities, and other stakeholders to understand the specific needs and challenges of the communities, including livelihood specific climate risks.
    - Facilitate participatory processes to involve community members in the design and implementation of livelihood programs.
    - Foster strong relationships and networks within the communities to support program goals and activities.
- **Monitoring and Evaluation:**
    - Develop and implement a monitoring and evaluation framework to assess the effectiveness and impact of livelihood programs, with a focus on climate resilience.
    - Collect and analyze data on livelihood outcomes and provide regular reports on progress and achievements.
    - Identify challenges and lessons learned to inform continuous improvement of climate resilient livelihood strategies.
    - Regularly monitor and evaluate the impact of livelihood interventions on gender and social inclusion outcomes. Collect disaggregated data by gender, age, disability status, and other relevant indicators to assess progress and identify areas for improvement.
- **Collaboration and Coordination:**
    - Collaborate with other project team members to ensure livelihood activities are integrated with overall project objectives.
    - Coordinate with local and national government agencies, NGOs, and other partners to leverage resources and expertise.

    - Represent the project in relevant forums and meetings to share experiences and best practices.
    - Conduct capacity-building activities within the livelihood team to enhance understanding and implementation of gender and social inclusion principles. Foster a culture of inclusivity and diversity awareness among team members.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Development Studies, Social Sciences, Economics, Agriculture, or a related field. A Master's degree in a relevant discipline is preferred.
- **Experience:**
    - At least 5 years of relevant experience in livelihood development, community development, or rural development.
    - Proven track record in designing and implementing livelihood programs, particularly in flood-prone and drought-prone areas.
    - Experience in capacity building and training delivery.
    - Experience working with government agencies, international organizations, or community-based projects is an asset.
- **Skills:**
    - Strong technical knowledge in livelihood development and sustainable economic practices.
    - Excellent facilitation, communication, and interpersonal skills.
    - Ability to conduct participatory processes and engage effectively with diverse community members.
    - Strong analytical and problem-solving skills.
    - Proficiency in project management and monitoring and evaluation techniques.
    - Ability to work independently and as part of a multidisciplinary team.

5. Reporting

The Livelihood Specialist will report to the Team Leader and provide regular updates on livelihood program activities, progress, and impact.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Monitoring and Evaluation (M&E) and Knowledge Management (KM) Officer

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Monitoring and Evaluation (M&E) and Knowledge Management (KM) Officer

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The M&E and KM Officer will support the implementation of the project's monitoring, evaluation, and knowledge management activities under the guidance of the M&E and KM Specialist. This role requires technical expertise in data collection, analysis, and reporting, as well as knowledge management practices to promote learning and best practices within the project.

3. Key Responsibilities

Monitoring and Evaluation (M&E):

- **Data Collection:**
    - Assist in the design and implementation of data collection tools and methodologies.
    - Support the M&E and KM specialist with the coordination with project staff for data entry and collection.
    - Conduct field visits to collect data from project sites and stakeholders.
    - Ensure data quality and accuracy through regular checks and validations.

      Ensure communication as a project focal point for third parties involved in data collection processes.

- **Data Analysis:**
    - Assist in data entry, cleaning, and analysis using appropriate software and tools.
    - Support in preparing M&E reports, progress updates, and presentations.
    - Contribute to the interpretation of data findings and recommendations.

Knowledge Management (KM):

- **Documentation and Sharing:**
    - Support the documentation of project activities, case studies, and success stories.
    - Collect in the field good practices, lessons learned and possible case studies to feed the knowledge management strategy.
    - Assist in the preparation of knowledge products such as reports, briefs, and newsletters.
    - Contribute to knowledge sharing events, workshops, and learning sessions.
- **Capacity Building:**
    - Facilitate training sessions on M&E data collection methods and tools.
    - Support in building the capacity of project staff and partners in knowledge management practices.
    - Assist in maintaining the project's knowledge management platform and database.

Collaboration and Coordination:

- **Internal Coordination:**
    - Coordinate with project teams and stakeholders to ensure timely data collection and reporting.
    - Assist in organizing M&E and KM-related meetings, workshops, and reviews.
- **External Engagement:**
    - Liaise with external partners, consultants, and stakeholders on M&E and KM matters.
    - Represent the project in relevant forums and meetings related to M&E and KM.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Social Sciences, Development Studies, Economics, Statistics, or a related field.
- **Experience:**
    - At least 2-3 years of relevant experience in monitoring and evaluation, knowledge management, or a related field.
    - Experience in data collection, analysis, and reporting within development projects.
    - Familiarity with M&E methodologies, tools, and best practices.
- **Skills:**
    - Proficiency in data analysis software such as Excel, SPSS, or similar tools.
    - Strong analytical and problem-solving skills.
    - Excellent written and verbal communication skills.

- Ability to work effectively in a team environment.
- Strong organizational skills and attention to detail.
- Ability to manage multiple tasks and deadlines.

5. Reporting

The M&E and KM Officer will report to the M&E and KM Specialist and provide regular updates on M&E data collection, analysis, and knowledge management activities.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Monitoring and Evaluation (M&E) and Knowledge Management (KM) Specialist

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Monitoring and Evaluation (M&E) and Knowledge Management (KM) Specialist

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The M&E and KM Specialist will be responsible for designing and implementing the project's monitoring, evaluation plan, ensuring effective tracking of project progress and impact. Additionally, the specialist will lead the development and management of knowledge sharing mechanisms to promote learning and best practices within the project and stakeholders.

3. Key Responsibilities

Monitoring and Evaluation:

- **Framework Development:**
  - Develop and implement a comprehensive M&E framework and plan, including key performance indicators (KPIs), indicators development sheets, and data collection methods according to IFAD's guidelines.
  - Ensure the integration of IFAD Core Indicators in the M&E framework.
  - Establish baselines and set targets for project outcomes and impacts.
- **Data Collection and Analysis:**
  - Design and conduct surveys, assessments, and evaluations to collect quantitative and qualitative data.Oversee the design of data collection tools, sample designs and methodologies.

    - Coordinate with third parties responsible for data collection processes and ensure quality control.
    - Analyze data to assess project performance, identify trends, and provide insights for decision-making.
    - Ensure data quality and integrity through regular verification and validation processes, considering their reliability and context relevance.
- **Reporting and communication:**
    - Prepare regular M&E reports, including physical progress reports, impact assessments, and evaluation findings.
    - Identify data needs for project implementation feedback and operational adjustments.
    - Provide timely and accurate information to project management and stakeholders to support project implementation and accountability.
    - Develop and maintain a project database for efficient data management and retrieval.
- **Capacity building:**
    - Develop capacity building strategy on M&E for project staff and implementing partners.
    - Provide training and technical support on M&E activities and responsibilities of project staff.
    - Build the capacity of project stakeholders to collect, analyze, and use data for decision-making and learning.

Knowledge Management:

- **Strategy Development:**
    - Develop and implement a knowledge management strategy to capture, document, and disseminate project experiences and best practices within the project and with stakeholders.
    - Identify knowledge gaps and develop solutions to address them.
    - Identify opportunities between the project strategy and IFAD's Knowledge Management Strategy 2019-2025.
- **Knowledge Sharing:**
    - Facilitate the exchange of knowledge and information among project stakeholders through workshops, seminars, and other forums.
    - Create and maintain knowledge products such as case studies, technical briefs, newsletters, and success stories.
    - Promote the use of knowledge sharing platforms and tools within the project.
    - Ensure the development of communication tools to disseminate knowledge management products for each audience.

4. Qualifications and Experience

- **Education:**
    - Bachelor's degree in Social Sciences, Development Studies, Economics, Statistics, or a related field. A Master's degree in a relevant discipline is preferred.
- **Experience:**
    - At least 5 years of relevant experience in monitoring and evaluation, knowledge management, or a related field.

    - Proven track record in designing and implementing M&E frameworks and knowledge management strategies.
    - Experience in data collection, analysis, and reporting, preferably in development projects.
    - Experience working with government agencies, international organizations, or community-based projects is an asset.
- **Skills:**
    - Strong analytical and critical thinking skills.
    - Proficiency in M&E and data analysis software such as SPSS, STATA, or similar tools.
    - Excellent communication, writing, and presentation skills.
    - Ability to conduct participatory processes and engage effectively with diverse stakeholders.
    - Strong project management and organizational skills.
    - Ability to work independently and as part of a multidisciplinary team.

5. Reporting

The M&E and KM Specialist will report to the Team Leader and provide regular updates on monitoring, evaluation, and knowledge management activities, progress, and impact.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Market Design and Planner

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Market Design and Planner

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Market Design and Planner will be responsible for the design and planning of market facilities that support local economies and enhance climate resilience. This role requires expertise in market infrastructure design, urban planning, and a thorough understanding of local economic needs and conditions.

3. Key Responsibilities

- **Market Infrastructure Design:**
  - Develop designs for market facilities that are resilient to flood and drought conditions, in coordination with the Climate Change Expert and Hydrologist as needed.
  - Ensure market designs incorporate climate-resilient and sustainable practices, including nature-based solutions and are in line with site-specific ESCMP (environment, social and climate management procedures).
  - Ensure that all market design and planning activities incorporate gender and social inclusion considerations. Work closely with the Gender and Social Inclusion Specialist to ensure that market infrastructure and services are accessible to and address the specific needs of women, youth, persons with disabilities, poor traders, and other marginalized groups involved in market-related activities. This includes conducting gender-sensitive market

assessments, if and as needed.Prepare detailed architectural and engineering drawings, specifications, and cost estimates for market facilities.

- **Urban and Regional Planning:**
  - Conduct site assessments and feasibility studies to determine the most suitable locations and designs for market facilities.
  - Develop comprehensive market plans that integrate with local urban and regional development strategies.
  - Ensure market plans meet the needs of local communities and support local economic activities.
- **Stakeholder Engagement:**
  - Work closely with local authorities, community representatives, and stakeholders to receive consent, gather input and ensure market designs meet local needs.
  - Facilitate public consultations and workshops to involve the community in the planning process.
  - Collaborate with other project team members to align market designs with overall project objectives.
- **Project Management:**
  - Develop and manage project plans, schedules, and budgets for market design and construction activities.
  - Monitor and track progress to ensure market facilities are completed on time and within budget.
  - Provide regular updates and reports to the Project Director and other stakeholders on the status of market design and planning activities.
  - Facilitate capacity-building initiatives to enhance team members' understanding and implementation of gender and social inclusion principles in their work.
- **Capacity Building:**
  - Provide training and capacity-building support to local planners, engineers, and community members on market design and planning principles.
  - Provide training and capacity-building to Market Management Committees and Trader Associations so that they manage and maintain the market facilities.
  - Promote the adoption of best practices and innovative solutions in market design and planning.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Urban Planning, Architecture, Civil Engineering, or a related field. A Master's degree in Urban Planning, Development Studies, or a related field is preferred.
- **Experience:**
  - At least 5 years of relevant experience in market design, urban planning, or infrastructure development.
  - Proven track record in designing and planning market facilities, preferably in flood-prone and drought-prone areas.
  - Experience with climate-resilient and sustainable design practices.
  - Experience working with government agencies, international organizations, or community-based projects is an asset.

- **Skills:**
  - Strong technical skills in urban planning and market infrastructure design.
  - Proficiency in design software such as AutoCAD, SketchUp, or similar tools.
  - Excellent communication and interpersonal skills.
  - Ability to work collaboratively in a multidisciplinary team.
  - Strong project management and organizational skills.
  - Ability to conduct effective stakeholder engagement and community consultation.

5. Reporting

The Market Design and Planner will report to the Team Leader and provide regular updates on design and planning activities, stakeholder engagement, and project progress.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Management Information Systems (MIS) Specialist

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Management Information Systems (MIS) Specialist

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The MIS Specialist will be responsible for designing, implementing, and managing the project's information systems to support data collection, analysis, and reporting needs. This role requires expertise in database management, information system design, and data analytics to ensure effective project management and decision-making.

3. Key Responsibilities

System Development and Management:

- **Design and Implementation:**
  - Develop and implement a comprehensive Management Information System (MIS) to support the project's data needs.
  - Design database structures, data input forms, and reporting tools to capture and manage project data effectively.
  - Ensure the MIS integrates with other project systems and platforms.
  - Ensure MIS integration with IFAD's Operational Results Management System (ORMS).
- **Maintenance and Updates:**
  - Manage and maintain the MIS, ensuring it is up-to-date, secure, and functioning optimally.

    - Regularly update the system to incorporate new data requirements and improvements.
    - Troubleshoot and resolve any issues related to the MIS.
    - Regularly develop MIS information backups to ensure data maintenance.

Data Management:

- **Data Collection and Entry:**
    - Develop and implement protocols for data collection and entry to ensure accuracy and consistency.
    - Train project staff and partners on data entry procedures and the use of the MIS.
    - Monitor data entry activities to ensure compliance with established protocols.
- **Data Quality Assurance:**
    - Conduct regular data quality checks to identify and correct errors or inconsistencies.
    - Implement data validation procedures to ensure the integrity and reliability of the data.
    - Develop and enforce data security measures to protect sensitive information.

Reporting and Analysis:

- **Report Generation:**
    - Design and generate regular and ad-hoc reports to meet the needs of project management, stakeholders, and donors.
    - Develop dashboards and visualizations to present data in an accessible and meaningful way.
    - Provide data insights and analysis to support project planning, monitoring, and evaluation.
- **Collaboration:**
    - Work closely with the M&E Specialist to ensure data from the MIS supports monitoring and evaluation activities.
    - Collaborate with other project team members to understand their data needs and ensure the MIS meets these requirements.
    - Collaborate with IFAD and other stakeholders reports and data needs to develop project reports, impact evaluation or
    - Support the preparation of project reports, presentations, and other documentation as needed.

Training, technical support and Capacity Building:

- **User Training:**
    - Develop and deliver training programs for project staff and partners on the use of the MIS.
    - Provide ongoing technical support and guidance to ensure effective use of the system.
    - Provide technical support to stakeholders in the
    - Develop user manuals, guides, and other training materials.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Information Systems, Computer Science, Data Management, or a related field. A Master's degree in a relevant discipline is preferred.
- **Experience:**
  - At least 5 years of relevant experience in MIS development and management, preferably in development projects.
  - Proven track record in designing and implementing information systems and databases.
  - Experience in data collection, management, and analysis.
  - Experience working with government agencies, international organizations, or community-based projects is an asset.
- **Skills:**
  - Strong technical skills in database management, software development, and data analytics.
  - Proficiency in database software such as SQL, MS Access, or similar tools.
  - Excellent problem-solving and troubleshooting skills.
  - Strong communication and interpersonal skills.
  - Ability to train and support users effectively.
  - Strong organizational and project management skills.

5. Reporting

The MIS Specialist will report to the Team Leader and provide regular updates on the development, implementation, and management of the MIS.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.

Terms of Reference (ToR) for Office Assistant

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Office Assistant

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Office Assistant will provide administrative and logistical support to ensure the smooth functioning of project office operations. This role requires organizational skills, attention to detail, and the ability to handle a variety of office tasks efficiently.

3. Key Responsibilities

Administrative Support:

- Assist in organizing and scheduling meetings, workshops, and events.
- Manage office correspondence, including emails, letters, and phone calls.
- Maintain office files and records, ensuring they are organized and easily accessible.

Logistical Support:

- Arrange travel and accommodation for project staff and visitors.
- Coordinate logistics for workshops, trainings, and other project activities.
- Assist in procurement processes, including obtaining quotations and processing purchase requests.

Office Management:

- Ensure office supplies are adequately stocked and replenished.
- Maintain cleanliness and orderliness of the office space.
- Assist in the maintenance of office equipment and liaise with IT support as needed.

Documentation and Reporting:

- Assist in preparing meeting minutes, reports, and other documents as required.
- Support in archiving and filing project documents and reports.
- Handle basic financial transactions, such as petty cash management and expense reimbursements.

Support to Project Teams:

- Assist project teams in logistical arrangements for field visits and activities.
- Coordinate with other project staff to facilitate efficient communication and collaboration.
- Provide support during workshops, trainings, and other project events as needed.

4. Qualifications and Experience

- **Education:**
  - Minimum of a high school diploma. Additional certification in office administration or related field is an advantage.
- **Experience:**
  - At least 2 years of relevant experience in office administration or similar roles.
  - Experience working in development projects or with NGOs is preferred.
- **Skills:**
  - Proficiency in using office software (e.g., Microsoft Office suite).
  - Strong organizational and time management skills.
  - Excellent communication and interpersonal skills.
  - Ability to work independently and as part of a team.
  - Attention to detail and accuracy in work.

5. Reporting

The Office Assistant will report to the Office Manager and provide regular updates on office operations and support activities.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Office Manager

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Office Manager

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Office Manager will oversee the administrative and operational functions of the project office, ensuring efficient office management and support to project staff. This role requires strong organizational skills, leadership abilities, and the capability to manage office resources effectively.

3. Key Responsibilities

Administrative Oversight:

- Manage day-to-day operations of the project office, including supervision of administrative staff.
- Ensure smooth implementation of administrative policies, procedures, and guidelines.
- Coordinate administrative support functions such as office maintenance, security, and logistics.

Human Resources Management:

- Oversee HR-related activities such as recruitment, onboarding, and performance management for administrative staff.

- Maintain staff records and facilitate staff development initiatives and training programs.
- Provide guidance and support to project staff on HR policies and procedures.

Financial Management:

- Manage project budgets and financial transactions in collaboration with the Finance Officer.
- Monitor expenditure against approved budgets and ensure compliance with financial regulations.
- Prepare financial reports and forecasts for project management and donors as required.

Logistical Support:

- Coordinate logistical arrangements for meetings, workshops, and project events.
- Manage travel arrangements and accommodations for project staff and visitors.
- Oversee procurement processes, including sourcing quotations, processing purchase orders, and maintaining supplier relationships.

Documentation and Reporting:

- Ensure accurate and timely preparation of administrative reports, meeting minutes, and correspondence.
- Maintain records and files in accordance with project and organizational requirements.
- Support in the preparation of project proposals, presentations, and other documentation as needed.

Communication and Coordination:

- Serve as the focal point for internal and external communication on administrative matters.
- Facilitate effective communication and coordination among project teams and stakeholders.
- Represent the project office in meetings, workshops, and other forums as required.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Business Administration, Management, Public Administration, or a related field. A Master's degree is an advantage.
- **Experience:**
  - At least 5 years of progressive experience in office management or administrative roles, preferably in development projects or NGOs.
  - Proven experience in supervising and leading administrative teams.
  - Strong knowledge of administrative procedures, financial management, and HR practices.
- **Skills:**
  - Excellent organizational and leadership skills.

- Strong interpersonal and communication abilities.
- Proficiency in MS Office and other relevant software applications.
- Ability to prioritize tasks and manage time effectively.
- Attention to detail and problem-solving skills.

5. Reporting

The Office Manager will report to the Project Director or Senior Management and provide regular updates on office operations, administrative functions, and logistical support activities.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Procurement Specialist

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Training & Logistic Support Officer

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Procurement Specialist will be responsible for carrying out procurement of goods, works and services to ensure smooth implementation of project activities.

3. Key Responsibilities

a) In general, in close coordination with Procurement Associates, provide strategic and operational guidance and assistance to different project procuring entities.
b) In collaboration with Procurement Associates review project wide Procurement Plan in the IFAD OPEN(Online Procurement End to End system).
c) Monitor implementation and primarily responsible for project wide contracts management.
d) Ensure timely updating of data in IFAD Client Portal Contract Management Tool(ICP-CMT)
e) Provide technical assistance to project procuring entities in the preparation of draft bidding documents including technical specifications of goods and terms of reference for consulting services ensuring compliance with national procurement law consistent with IFAD Project Procurement Guidelines.

f) Conduct initial review of proposed bidding documents, bid evaluation reports, draft contract in procurement packages subject of request for IFAD No Objection as per applicable Project Procurement Arrangements Letter.
g) Assist the procuring entities of the CRALEP Project in the preparation of the PPMP and consolidate and prepare the GoB Annual Procurement Plan (APP) taking into account the type of procurement per item and threshold requiring prior review;
h) Evaluate and assess every item in the APP i.e. services, goods and works, and ensure the procurement of the same within then timelines in close coordination with the procuring entity;
i) Assist the Design Engineer in the review, evaluation, procurement and monitoring of the FMR Infrastructures to be procured by the PMU;
j) Maintain and update procurement records and stock inventory and indicating therein re-order points to ensure availability of needed office supplies;
k) Monitor, assess and ensure that all project procurements abides with existing national procurement regulations and procedures;
l) Require procuring entities to retain electronic copies of all project wide procurement documents for IFAD review.
m) Review purchase contracts and provide recommendation to management;
n) Conduct field visits to monitor, evaluate, conduct physical check and assess procurements process, records and stock inventories at the PMU level to ensure compliance to existing rules and standards;
o) Prepare Monthly Calendar of activities and Monthly Accomplishment Report of the Unit assigned and attend meetings to represent project office as required;
p) Performs other duties and responsibilities that may be assigned by the Project Director/ Project Manager.

4. Qualifications and Experience

Education: Bachelor's degree in either Accounting, Economics, Marketing, Public Administration, Engineering or other related discipline. Master's degree or units earned is preferred.

Experience: At least four (4) years in position/s involving the procurement process, contract management between the suppliers, with background in project development, and evaluation, preferably in foreign assisted projects implemented by an economic government agency.

Training: At least twenty-four (24) hours of training in planning and procurement, project development, coordination or related field.

Competency:

- Knowledgeable in Public Procurement Rules (PPR)
- Knowledgeable in the procurement processes and tools from selecting vendors / due diligence, establishing payment terms, strategic vetting, selection, the negotiation of contracts and actual purchasing of goods;
- Experience in the preparation of AWPB, APP, PPMP, and the competitive bidding process;

- Knowledgeable in Microsoft Office (Word, Excel, and Powerpoint)

5. Reporting

The Procurement Specialist will report to the Project Director and provide regular updates on training activities, logistical support, and related documentation.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

TERMS OF REFERENCE FOR PMU CLIMATE CHANGE EXPERT AND HYDROLOGIST (CONSULTANT)

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Climate Change Expert and Hydrologist

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

The following is meant to serve as a sample Terms of Reference and should, therefore, be amended accordingly to fit the context of the CRALEP project once final decisions have been made about budget and division of tasks.

1. BACKGROUND

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development

2. OBJECTIVES OF THE ASSIGNMENT

Local Government Engineering Department (LGED) seeks the Consultancy Services of an experienced Individual Consultant "Climate Change Expert and Hydrologist" as part of the Project Management Unit-PMU. The objective of this assignment is (a) support to the project activities on climate-proofed infrastructure, climate-resilient livelihoods, and early warning systems, and (b) monitoring compliance of the project activities with Environmental and Climate Safeguards in line with Government of Bangladesh and IFAD norms, as defined under the Social, Environmental and Climate Assessment Procedure (SECAP) 2021.

In addition, the Consultant will coordinate with the PMU Gender and Social Inclusion (GESI) Specialist, PMU Livelihood Specialist, and District-level Livelihood Officers, as well as M&E Specialist / Officers at national and upazila/district levels.

3. SCOPE OF WORK

Duties and Responsibilities:

The Consultant will report to and support CRALEP Project Director and Team Leader (Rural Development Specialist) to handle climate change, environment (including hydrology) and biodiversity related responsibilities. The specific tasks stipulated in this ToR to be undertaken by the Climate Change Expert and Hydrologist include, but are not limited to, the following:

Support to CRALEP activities on Climate Change, Biodiversity, Environment:

- Across all project activities, ensure aspects related to climate, environment and biodiversity are mainstreamed and adequately considered.
    - (i) Particularly, (i) ensuring livelihood activities are climate resilient and not maladaptive, (ii) promoting integration of climate-proofed design in infrastructure (roads, markets, village protection services, village internal services, killas, boat landing stations, etc.), (iii) ensuring awareness of early warning and climate information system among all project stakeholders, including appropriate content and dissemination mechanisms, (iv) ensuring (ESCMP) exclusion criteria are enforced and avoiding adverse impacts of project activities on the ecosystem and biodiversity, and (v) promoting mainstreaming of climate change, environment and biodiversity considerations in all investments and trainings of the PMU and LGED, particularly through CRELiC.
    - (ii) Undertake site visits, on-ground review, and check and document implementation of climate change and environmental activities.
- Coordinate with Design Engineers, Assistant Design Engineers, and other specialists to provide expert guidance on Hoar and High Barind hydrology – including historic flood levels, flood return periods, drainage capacity, groundwater recharge rates, etc. – to ensure that infrastructure design is climate-proof.
- Provide guidance on the width and location of culverts needed, the need to add or replace water control gates, the type of water control gate, the O&M of water control gates, location of boat landing places in view of river stability, etc.
- Coordinate with Market Design Planner to ensure that (i) market structures are designed to cope with / ensure adequate ventilation in periods of high temperatures and humidity, and high rainfall (for drainage), (ii) compositing units are properly built and managed to both reduce food waste and reduce community health risks, and (iii) other relevant climate and environment considerations for market facilities.
- Review the TOR and outputs of technical design and feasibility studies for project-supported infrastructure (roads, boat landing stations, market infrastructure, village internal services, killas, village protection system).
- Coordinate with project partners on the development and implementation of the Flood Forecasting and Early Warning System (FFEWS) in Haor, and Drought Early Warning in Barind.
- Ensure that the timing, content, and medium of communication for FFEWS and Drought Early Warning are context specific; periodically engage in focus group discussions and provide inputs to M&E surveys to get feedback on the community and households in order to improve content / dissemination of FFEWS and Drought Early Warning.
- Develop partnerships with other IFAD (and non-IFAD) projects in Haor and Barind to promote wider uptake of FFEWS and Drought Early Warning.
- Coordinate with PMU's Livelihood Officer and provide oversight and guidance to the work of Direct-level Livelihood Officers to ensure that livelihood activities (vocational training, Labour Contracting Societies-LCS, agri-business micro-entrepreneurship) are climate resilient.
- Support the Livelihood Specialist and Livelihood Officers in implementing Nature-based Solutions (bamboo and vetiver nurseries).
- Review and provide inputs to the TORs and outputs of livelihood-related assessments to ensure assessment criteria considers climate change adaptation, avoidance of adverse impacts on environment and biodiversity, and is not maladaptive.
- Draft and provide inputs to M&E and Knowledge Management on climate change adaptation, environment and biodiversity across all components. This includes inputs on reporting semi-annually or annually.
- Identify implementation problems, bottlenecks or delays and inform the Project Director and Team Leader about the need for corrective actions.

Support to SECAP functions:
In performing these functions, s/he will work closely with the PMU GESI Specialist.

- Design and participate in training for PMU and Regional / District / Upazila officials on climate, environment and biodiversity aspects of SECAP. Ensure they have full understanding of project objectives and specific activities / recommended actions related to environment and climate risk management.
- Review contractors TORs for infrastructure activities, and coordinate with and guide the contractor's Environment/Biodiversity Specialist on SECAP 2021 requirements and measures to avoid adverse impacts on biodiversity and environment.
- Review and update SECAP risk screening and ESCMP – with a focus on environment, climate change and biodiversity, through a review of all project activities and Annual Workplan and Budget.
- Compile baseline data for ESCMPs, with a focus on environment, climate change and biodiversity, at upazila or district level based on requirements of GOB and IFAD.
- Based on the ESCMP and other SECAP documents, identify and prioritize site-specific and/or activity-specific priority mitigation measures for implementation (i.e., site-specific ESCMPs).
- Ensure that project activities are designed to avoid or appropriately mitigate potential Environmental and Climate risks, as recommended in the ESCMP and site- or activity-specific ESCMPs.
- Prepare detailed, year-by-year workplan for implementation of aforesaid mitigation measures by geography and by activity, as needed.
- Provide inputs to the M&E Specialist and coordinators to ensure that the M&E system is designed and setup to monitor and report on SECAP activities, with a focus on environment, climate change and biodiversity aspects.
- Undertake site visits, on-ground review, and check and document compliance with site-specific measures as presented in site-specific ESCMPs. Ensure that in the event of a noncompliance, agreed remedial actions are applied and documented.
- Provide guidance to and monitor the work of contractors, site supervisors, and other stakeholders on manner of implementation and documentation of compliance related to environmental mitigation and monitoring measures, as presented in site-specific ESCMPs.
- Participate in Supervision Missions, Implementation Support Missions, and other technical visits by IFAD, and work closely with the IFAD Specialists and PMU Specialists to follow-up on agreed actions within indicated timeframes.
- Contribute to, along with the other specialists, the preparation of semi-annual ESCMP compliance reports for IFAD.
- Undertake other actions related to environmental, agrobiodiversity and climate aspects of the Project, as may be instructed by the Project Director or Team Leader from time to time, in order to ensure full compliance of the Project with national and international environmental and social standards and legislation.

4. QUALIFICATIONS REQUIREMENTS

The Climate Change Expert and Hydrologist should have the following qualifications:

- Master's degree, preferable in the Water Resource Management, Hydrology, Environmental or Climate Science, or equivalent professional qualifications appropriate to the Consultancy Services requested.
- A minimum of 12 years of demonstrable experience in implementing and monitoring rural infrastructure and agriculture livelihood projects.
- A minimum of 5 years of relevant experience in implementing environmental safeguards is required.
- Knowledge of Bangladesh's procedures, regulations, and laws – particularly in the ESG/EIA processes – is required.

- Familiarity with the IFAD's or other MDB's (Asian Development Bank, World Bank, etc.) Safeguards standards will be an advantage.
- Proficiency in using computer and office software packages (MS-Word, MS-Excel, MS-Outlook, OneDrive / Google Drive, etc.).
- Fluent in written and spoken Bangla and English.

5. REPORTING OBLIGATIONS

The Consultant will work under the direction of and report to the CRALEP Project Director and Team Leader, and in close consultation with various infrastructure, Gender and Social Inclusion (GESI), and Livelihood Experts. The Consultant will deliver monthly progress reports concerning the accomplishment of their assignments.

6. CLIENT'S INPUTS

The position will be based in the project regions (Haor and High Barind) with frequent travel to project sites and occasional travel to the LGED headquarters in Dhaka.. LGED will provide the office space and equipment required to perform the tasks assigned.

7. TERMS OF THE ASSIGNMENT AND DURATION

- The Consultant will work on a full-time basis, not exceeding 60 months in total.
- The initial contract with the Consultant will cover one year (full-time), with a three-month probation period, at which time the performance of the Consultant shall be evaluated, and extension may be made annually pending continued performance.
- Remuneration will be paid monthly.

Terms of References for the Gender and Social Inclusion Specialist

The Gender and Social Inclusion Specialist in the project management unit has overall responsibility for implementing the project's targeting, gender and social inclusion strategies in an efficient and effective manner. The aim is to promote Gender Equality, Women's Empowerment and Social Inclusion (SI) through embedding gender and SI-related programmatic and operational approaches into all aspects of project implementation. This role will build on work undertaken during design to deepen the gender, targeting and social inclusion strategies and oversee implementation.

Under the supervision of the project director, the Gender and Social Inclusion Specialist will undertake activities in the following areas:

1. Targeting strategy and Gender Action Plan

1.1 Conduct a detailed analysis of social and gender norms and the underlying structures of exclusion and discrimination, and their potential impact on rural livelihoods (for guidance tools and methodologies please contact gender@ifad.org).

1.1 Finalise the gender-sensitive rural poverty and livelihoods analysis developed during the design phase, undertaking additional fieldwork if necessary, in the proposed project area(s) to deepen the understanding of the needs, priorities and expectations of poor rural women and men (including their livelihood strategies and outcomes, vulnerabilities and coping mechanisms, local poverty processes) and the composition of social institutions (formal and informal) active in the community.

1.2 Deepen and update the targeting strategy, gender action plan and theory of change developed during the design phase, setting out pathways to GEWE and social inclusion, with a special attention on youth's engagement:

- Identify the key poverty, livelihood and gender-related issues to be addressed by the project, disaggregating data by sex, age and other relevant variables where possible.
- Ensure project interventions address all three objectives of IFAD's gender policy: (i) economic empowerment; (ii) equal voice; and (iii) equitable workloads.
- Set targets for women's engagement across all target groups (including youth, people living with disabilities etc) and project components
- Ensure gender-related activities are linked to the main project components and pathways leading to the main project outputs and outcomes (they should not be standalone activities).

2. **Operationalise targeting strategy and gender action plan**:

- Prepare an itemised budget and a timebound action plan for the SI-related activities and for the operationalization of the SI strategic approaches.
- Identify and recruit partners and service providers with relevant SI experience to assist with implementation.
- Explain the objectives of the gender, targeting and social inclusion strategy at launch events and how gender-related activities are mainstreamed into project components.
- Contribute to GESI advocacy and policy engagement.

3. Support for GALS implementation in LCS (Labour Contracting Societies)

Under CRALEP, all LCS members trained in Income-Generating Activities (IGAs) will benefit from a streamlined version of the Gender Action Learning System (GALS). This simplified GALS approach will be integrated into the livelihoods training curricula and implemented by NGOs with experience in similar activities. Although the GALS tools will be condensed, the methodology will be enriched by incorporating nutrition and financial literacy components, offering a more comprehensive empowerment strategy.

- The GESI Specialist will oversee the design and roll-out of GALS within the defined target groups, providing guidance and supervision to the Service Provider recruited for its implementation.
- Support the recruitment and selection of GALS Service Provider/Consultant, as needed.

4. Human resources and capacity building

- Participate in the development of detailed ToRs and tender documents of service providers to select those with a proven commitment to GEWE and Social Inclusion.
- Work with project staff and partners to mainstream gender and social inclusion considerations into project components and review implementation processes to strengthen implementation from a gender and social inclusion perspective.
- Undertake capacity building with project staff, partners and service providers to initiate critical reflection on deep-rooted social and gender norms and attitudes in order to challenge power dynamics and bring about a paradigm shift.
- Establish linkages with, and act as a channel of communication between, the project and others working on gender and social inclusion issues in the government, implementing agencies, NGOs, CSOs, other development partners and IFAD.

5. Monitoring, evaluation and learning system

- Work with the MEL staff to establish an M&E system that collects, analyses and interprets disaggregated data on GEWE and youth's engagement.
- Track progress on the composition of beneficiaries in each project component to ensure (i) women and youth are empowered through their engagement with substantive aspects of project activities, and (ii) there are no adverse impacts/unintended consequences on target groups. Make recommendations, if necessary, for strengthening project performance on GEWE.
- Monitor the potential **risks** to project outcomes if the project fails to address persistent gender inequalities (for example, gender-based violence) and exclusion, and identify appropriate mitigation measures.
- Document and present evidence-based information on good practices and experiences to address inequalities and promote Social Inclusion and GEWE in national forums.
- Ensure gender-related issues are addressed during supervision missions and mid-term review, and reported on in various progress reports.

6. Financial resources

- Participate in the annual preparations and regular monitoring of annual workplan and budget which clearly itemises SI-related activities and resource requirements.

7. SECAP-related tasks:

- Facilitate compliance with the processes and requirements outlined in the Ethnic Minority Peoples Planning Framework/Free and Prior Informed Consent-

Implementation Plan (IPPF/FPIC-IP) and with the Stakeholders' Engagement Plan/Grievance and Redress Mechanism (SEP/GRM) – refer to Project Implementation Manual (PIM) for details.

- Compile baseline data for refining SECAP reports and ESCMP, with a focus on Gender, Youth, Ethnic Minorities and their livelihoods, resource use, and other indicators.
- Based on the ESCMP and other SECAP documents, identify and prioritize site-specific and/or activity-specific priority mitigation measures for implementation (i.e., site-specific ESCMPs) to address Social Inclusion aspects.
- Ensure that project activities are designed to avoid or appropriately mitigate potential Social risks, as recommended in the ESCMP and site- or activity- specific ESCMPs. Prepare detailed, year-by-year workplan for implementation of aforesaid mitigation measures by geography and by activity, as needed.
- Provide inputs to the M&E Specialist and coordinators to ensure that the M&E system is designed and setup to monitor and report on SECAP activities, including FPIC, Ethnic Minorities Plan, GEWE/GAP, and Grievance Redress Mechanism (GRM).
- Ensure that other SECAP requirements such as those related to labour laws and community health are observed in the different component activities that engaged women, youth and Ethnic Minorities.
- Develop and conduct trainings to orient the project personnel on the GEWE/GAP, IPPF-IP and SEP/GRM plans, processes, and activities.
- Carry out regular field visits at the district levels to supervise and support gender, youth and IP inclusion activities, detect gaps, and identify possible solutions to improve project performance.
- Undertake site visits, on-ground review, and check and document compliance with site-specific measures as presented in site-specific ESCMPs. Ensure that in the event of a noncompliance, agreed remedial actions are applied and documented.

Qualifications and experience

- Master's degree in social sciences, rural development of related discipline
- At least five years' experience working on GEWE
- Experience in agricultural and rural development projects
- Experience with GALS will be a plus
- Experience in integrating gender and social inclusion considerations across project components and activities, and MEL
- Experience in designing and delivering training and capacity building modules
- Highly motivated and committed to GEWE
- Working knowledge of spoken and written English
- Ability to work in other languages of region, in additional to national language, would be an advantage
- Good understanding of gender and social issues in the project area

Terms of Reference (ToR) for Junior Software Expert (TOMPRO)

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Junior Software Expert (TOMPRO)

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Junior Software Expert (TOMPRO) will support the development, implementation, and maintenance of the TOMPRO financial management software to ensure the effective and efficient management of project financial operations. This role requires technical proficiency in software development, strong problem-solving skills, and the ability to work collaboratively with the project's financial and technical teams.

3. Key Responsibilities

Software Development and Maintenance:

- Assist in the development and customization of the TOMPRO software to meet project requirements.
- Implement software updates, patches, and enhancements as needed.
- Troubleshoot and resolve software issues in a timely manner.
- Ensure the software's security, stability, and performance.

System Implementation:

- Support the installation and configuration of TOMPRO software for project use.
- Collaborate with the financial team to integrate TOMPRO with existing financial systems and processes.
- Conduct testing and validation of the software to ensure it meets functional and performance requirements.
- Document software configurations and implementation procedures.

User Support and Training:

- Provide technical support to project staff using the TOMPRO software.
- Develop user manuals, training materials, and guides for TOMPRO software.
- Conduct training sessions for project staff to enhance their proficiency in using the software.
- Respond to user queries and provide solutions to software-related problems.

Data Management:

- Ensure accurate and timely data entry into the TOMPRO system.
- Maintain the integrity and confidentiality of financial data stored in the software.
- Generate reports and dashboards as required by the project's financial team.
- Assist in data migration and backup processes.

Collaboration and Communication:

- Work closely with the financial management team to understand their requirements and provide software solutions.
- Coordinate with external vendors or consultants for advanced technical support or customizations.
- Participate in project meetings to provide updates on software-related activities and issues.
- Collaborate with other IT staff to ensure overall system compatibility and integration.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Computer Science, Information Technology, Software Engineering, or a related field.
- **Experience:**
  - At least 2-3 years of experience in software development, implementation, and support.
  - Familiarity with financial management software, particularly TOMPRO, is preferred.
  - Experience in training and providing technical support to users.
- **Skills:**
  - Proficiency in programming languages and software development tools.
  - Strong problem-solving and analytical skills.
  - Excellent communication and interpersonal skills.
  - Ability to work independently and as part of a team.
  - Attention to detail and a commitment to quality.

5. Reporting

The Junior Software Expert (TOMPRO) will report to the Financial System Specialist and provide regular updates on software development, implementation, and support activities.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference (ToR) for Training & Logistic Support Officer

Project Title: Climate Resilience and Livelihood Enhancement Project (CRALEP)

Position: Training & Logistic Support Officer

Location: Haor and High Barind regions

Duration: Six years

Implementing Agency: Local Government Engineering Department (LGED) of the Ministry of Local Government and Cooperatives (MOLG&C)

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1. Background

The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and enhance climate resilience in the flood-prone Haor and drought-prone High Barind regions. The project objective is to strengthen community resilience and well-being by building climate-resilient infrastructure, providing weather and climate preparedness information, supporting nature-based solutions to strengthen the resilience of grey infrastructure and homesteads, and creating non-farm employment through skill development.

2. Objective

The Training & Logistic Support Officer will be responsible for coordinating and facilitating training programs and providing logistical support to ensure smooth implementation of project activities. This role requires organizational skills, attention to detail, and the ability to manage training logistics effectively.

3. Key Responsibilities

Training Coordination:

- **Training Needs Assessment:**
  - Conduct assessments to identify training needs of project staff, partners, and stakeholders.
  - Develop training plans and schedules based on identified needs and project objectives.
- **Training Delivery:**
  - Coordinate the delivery of training programs, workshops, and capacity-building sessions.
  - Liaise with trainers, consultants, and facilitators to ensure effective delivery of training content.
  - Monitor training sessions to ensure quality and relevance to participants' needs.

Logistic Support:

- **Event Planning and Management:**
  - Plan and organize logistics for training events, workshops, meetings, and other project activities.
  - Arrange venues, accommodations, catering, and transportation for participants and facilitators.
  - Ensure all logistical arrangements comply with project policies and budgetary constraints.
- **Procurement and Inventory Management:**
  - Assist in procuring training materials, equipment, and supplies as needed.
  - Maintain inventory of training materials and equipment, ensuring adequate stock levels.
  - Coordinate with suppliers and vendors to ensure timely delivery of goods and services.

Documentation and Reporting:

- **Documentation:**
  - Maintain accurate records of training sessions, participant attendance, and evaluations.
  - Prepare training reports, summaries, and documentation for internal and external stakeholders.
  - Ensure proper archiving and filing of training-related documents and materials.
- **Monitoring and Evaluation Support:**
  - Assist in collecting feedback and evaluations from participants to assess training effectiveness.
  - Support the M&E team in gathering data and information related to training activities.

Collaboration and Communication:

- **Internal Coordination:**
  - Collaborate with project teams, supervisors, and stakeholders to align training activities with project objectives.
  - Communicate regularly with team members to coordinate schedules and logistics.
- **External Engagement:**
  - Liaise with external training providers, consultants, and stakeholders to facilitate collaboration and knowledge sharing.

4. Qualifications and Experience

- **Education:**
  - Bachelor's degree in Business Administration, Management, Social Sciences, or a related field.
- **Experience:**
  - At least 3 years of relevant experience in training coordination, event management, or logistics support.

    - Experience working in development projects or with NGOs is an asset.
- **Skills:**
    - Strong organizational and multitasking abilities.
    - Excellent interpersonal and communication skills.
    - Proficiency in Microsoft Office suite and other relevant software.
    - Ability to work effectively under pressure and meet deadlines.
    - Attention to detail and problem-solving skills.

5. Reporting

The Training & Logistic Support Officer will report to the Project Manager or Team Leader and provide regular updates on training activities, logistical support, and related documentation.

6. Location and Travel

The position will be based in the project regions (Haor and High Barind) with occasional travel to project sites and the LGED headquarters in Dhaka as required.

Terms of Reference for the recruitment of a Service Provider to implement the Gender Action Learning System for the Climate Resilience and Livelihood Enhancement Project (CRALEP)

I. Background

Under the Climate Resilience and Livelihood Enhancement Project (CRALEP), all LCS members trained in Income-Generating Activities (IGAs) will benefit from a streamlined version of the Gender Action Learning System (GALS). This simplified GALS approach will be integrated into the livelihoods training curricula and implemented by NGOs with experience in similar activities. Although the GALS tools will be condensed, the methodology will be enriched by incorporating nutrition and financial literacy components, offering a more comprehensive empowerment strategy.

Within this framework, CRALEP seeks to recruit an organization with expertise in implementing the Gender Action Learning System (GALS). The organization should have experience using the GALS methodology in the agriculture sector, with a focus on value chains, climate change, and nutrition security, particularly in promoting women's economic empowerment, youth engagement and financial inclusion.

The Gender Action Learning System (GALS) is a structured community-led empowerment methodology aiming at economic, social and political transformation. It gives women, men and youth more control over their lives to foster empowerment while also improving inclusion and equality.

GALS includes a wealth of instruments, visual diagramming tools, principles and peer-to-peer learning mechanisms that can be adapted in many ways for empowerment in rural development programmes. Using the power of symbols and principles of inclusion, it uses a set of tools that enable individuals and households to plan their lives and enterprises, identify and negotiate their needs and interests for equitable livelihoods improvements, financial inclusion and value chain development.

For the streamlined version of GALS applied in CRALEP, aspects of youth inclusion, improved nutrition outcomes, financial inclusion as well as climate adaptation will need to be incorporated into the methodology. The main trainers are community members themselves based on self-interest and business cases. The tools are also used by LCS members to build their empowerment vision, enabling them to change dynamics and power relations (including social norms and gender dynamics) that constrain them from achieving their visions.

The project will integrate GALS into the IGAs activities to foster behavioral change of LCS and their household members. LCS, in fact, will be used as entry points to roll out GALS with the target groups.

II. Objectives of the assignment

The main objective of this assignment is to implement the Gender Action learning System (GALS) in all its phases to CRALEP context with integration of the methodology into 100% of LCS members (2.980 people) to foster behavioral change of LCS and their household members.

III. GALS Methodology Adaptation for CRALEP

The Gender Action Learning System (GALS) methodology, adapted to the Climate Resilience and Livelihood Enhancement Project (CRALEP) and based on a selection of tools—such as the Vision Journey, Happy-Family Tree (also known as the Gender-Balanced Tree), and Social Empowerment Map—will be used to build the capacity of Labour Contracting Society (LCS) members across the project's intervention zones. Aspects of youth inclusion, nutritional behaviours and improved nutrition outcomes, financial inclusion, and climate adaptation will be incorporated into the methodology to maximize its empowerment and transformative potential.

IV. Responsibilities of the Recruited Organization

The recruited organization will be responsible for:

- **Revising and adapting the GALS methodology to the context**: in line with the experience successfully piloted by PROVATi, the service provider should review the methodology and develop its roll-out plan as needed.
- **Applying the GALS Methodology**: Implement the adapted GALS methodology in the selected project areas, focusing on catalyst phase tools, peer-to-peer learning mechanisms, and monitoring.
- **Facilitating Change Catalyst Workshops**: Develop a pool of local "champions" who, by making changes in their own lives, will emerge as change-makers and influence others within their communities.
- **Training LCS Facilitators**: Ensure that LCS facilitators grasp the core gender, participatory, and leadership principles of GALS, with a focus on nutrition security, youth engagement, climate resilience and financial inclusion, building/strengthening their skills as effective GALS facilitators.
- **Ensuring Comprehensive Training**: Adhere to all steps of the GALS methodology, ensuring that trainees fully understand the tools and process and are prepared to guide other group members and their communities.
- **Monitor results achieved and changes enabled within the target group and organize exchange visits** between champions from different LCS groups and districts.

V. Duration of the assignment

The duration of the assignment is for two years and half with a one-year renewable contract starting from the time of signing the contract. (The contract can be renewable upon the progress and performance of the service provider).

IFAD
Investing in rural people

Bangladesh

Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 10: Integrated Project Risk Matrix

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	**Substantial**	**Substantial**
Political Commitment	*Substantial*	*Substantial*
Governance	*Substantial*	*Substantial*
Macroeconomic	*Substantial*	*Substantial*
Fragility and Security	*Moderate*	*Moderate*
Sector Strategies and Policies	**Moderate**	**Moderate**
Policy alignment	*Low*	*Low*
Policy Development and Implementation	*Moderate*	*Moderate*
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	*Moderate*	*Moderate*
Project vulnerability to climate change impacts	*Substantial*	*Substantial*
Project Scope	**Moderate**	**Moderate**
Project Relevance	*Moderate*	*Moderate*
Technical Soundness	*Moderate*	*Moderate*
Institutional Capacity for Implementation and Sustainability	**Moderate**	**Moderate**
Implementation Arrangements	*Moderate*	*Moderate*
Monitoring and Evaluation Arrangements	*Moderate*	*Moderate*
Project Financial Management	**Substantial**	**Substantial**
Project Organization and Staffing	*Substantial*	*Substantial*
Project Budgeting	*Substantial*	*Substantial*
Project Funds Flow/Disbursement Arrangements	*High*	*High*
Project Internal Controls	*High*	*High*
Project Accounting and Financial Reporting	*Substantial*	*Substantial*
Project External Audit	*Substantial*	*Substantial*
Project Procurement	**Moderate**	**Moderate**
A.1 Legal, Regulatory and Policy Framework	*Moderate*	*Moderate*
A.2 Institutional Framework and Management Capacity	*Substantial*	*Substantial*
A.3 Public Procurement Operations and Market Practices.	*Substantial*	*Substantial*
A.4 Accountability, Integrity and Transparency of the Public Procurement System	*Substantial*	*Substantial*
B.1 Assessment of Project Complexity	*Moderate*	*Moderate*
B.2 Assesment of Implementing Agency Capacity	*Moderate*	*Moderate*
Project Procurement Overall	*Moderate*	*Moderate*
Environment, Social and Climate Impact	**Substantial**	**Moderate**
Biodiversity Conservation	*Moderate*	*Moderate*
Resource Efficiency and Pollution Prevention	*Moderate*	*Moderate*
Cultural Heritage	*Low*	*Low*
Indigenous People	*Low*	*Low*
Labour and Working Conditions	*Moderate*	*Moderate*
Community health, safety and security	*Moderate*	*Moderate*

Risk Category / Subcategory	Inherent risk	Residual risk
Physical and Economic Resettlement	*Low*	*Low*
Financial intermediaries and direct investments	*Low*	*Low*
Climate change	*Substantial*	*Substantial*
Stakeholders	**Moderate**	**Moderate**
Stakeholder Engagement/Coordination	*Low*	*Low*
Stakeholder Grievances	*Moderate*	*Moderate*
Overall	**Moderate**	**Moderate**

Country Context	**Substantial**	**Substantial**
Political Commitment	***Substantial***	***Substantial***
Risk: • Elections or changes in LGED leadership could impact the priorities of the Ministry. Political instability and leadership changes can result in shifts in policy focus, resource allocation, and support for ongoing projects. This can disrupt project continuity, lead to re-evaluation of project components, or cause redirection of funds. Furthermore, the risk of slow start-up due to delays in government processes is heightened by bureaucratic inefficiencies and procedural bottlenecks. These delays can stem from lengthy approval processes, changes in regulatory requirements, and the need for extensive consultations and revisions. These factors collectively pose significant risks to the timely and effective implementation of the project.	Substantial	Substantial
Mitigations: • LGED is a well-established institution and has a long history with IFAD, with several projects managed successful during / after electoral transitions. • LGED will prepare Development Project Pro-forma (DPP) as per GOB system. The DPP preparation will begin after completion of PDR. LGED has already appointed a team to work with IFAD mission.		
Governance	***Substantial***	***Substantial***
Risk: • Risk related to governance failures that may undermine project implementation. Government processes leading up to the start-up of activities (e.g., preparation and revision of the DPPs) are quite cumbersome and can delay project implementation. Additionally, the political situation in Bangladesh poses significant risks, as the country reported the lowest score in the 2023 Corruption Perception Index, ranking 10th from the bottom. This high level of perceived corruption may further hinder project progress and effectiveness.	Substantial	Substantial
Mitigations: • The country team supports with the preparation and revision of the DPPs for the proposed additional financing phase • Liaise with key persons to expedite approval processes		
Macroeconomic	***Substantial***	***Substantial***

Risk: The macroeconomic outlook is expected to stabilize and remain with real GDP growth at 5.4% in 2024 and showing an upward trend of 6.6% in 2025 (IMF staff estimates and projections, 2024). This is mainly due to the import compression which was 31% of GDP in 2022 and dropped to 4% in 2024, and export growth from US $ 36,903 million in 2021 to US$ 55,076 million in 2024. Inflation is projected to remain elevated at approximately 9.4% (year-on-year) in 2024, with a projection of dropping it to 5.8% in 2025, with projected lower global food and commodity prices and improving exports. Medium- and long-term external public debt is showing an increase from US$ 65,482 million in 2022 to US$ 74,007, a 13% increase, but the percentage of debt out of GDP remains at 15% and 17% in the two years respectively. There is a growth in the foreign direct investment from 3% to 4% during the two-year period from 2022. The foreign exchange market has experienced significant fluctuations. In response, Bangladesh Bank (BB) has allowed greater exchange rate flexibility resulting the Taka depreciated by 15.2% against the U.S. dollar in 2023 with and 4.5% in real effective terms. The current account deficit has narrowed considerably (0.7% of GDP in 2023 compared to 4.1% of GDP in 2022). Net international reserves however declined to US$20 billion as of October 31, 2023 from US$ 28 billion in 2022. The overall indication of these trends is that there are uncertainties surrounding the economic outlook. However, the growth, stability and therefore the return to public investment risks predominantly leaning towards the downside and be moderate. Risk • Price escalation of various construction works and inputs as import compression during project implementation and associated risk of reduction in project output. • Foreign exchange rate variations with an upward trend.	Substantial	Substantial
Mitigations: • LGED has established rules for revising costs with variations in market prices, in line with GoB rules. The cost estimation by IFAD has built in appropriate price escalation taking inflation rate into account, and price and physical contingencies. • All construction materials will be procured locally. Price escalation is built into the COSTAB. Foreign exchange forecast will be applied at disbursement based on past experience. GOB and other reputed sources will be used for determining the forex rate in the COSTAB.		
Fragility and Security	***Moderate***	***Moderate***
Risk: • Political volatility may adversely impact the performance of public institutions. • Bangladesh is prone to extreme climate events, particularly tropical cyclones in southern and southeastern coastal areas. If the scale of natural disasters is large, it may impact time / resource allocation of CRALEP some partner institutions (e.g., BMD, LGED engineers may be additionally deployed for reconstruction efforts, etc.).	Moderate	Moderate
Mitigations: v• LGED performed well even in volatile political environment. The works of LGED have widespread political and social support. • In general, the project will work closely to monitor emergencies; partners for early warning systems have strong commitment to CRALEP activities (since flash floods and drought also cause regular socio-economic losses). Besides PMU, LGED is hiring technical and administrative consultants at various levels. CRALEP will engage with local NGOs and vendors / contractors where feasible to ensure minimal disruptions. LGED, through IFAD projects, has been building local capacity for implementation (e.g., Labour Contracting Societies).		
Sector Strategies and Policies	**Moderate**	**Moderate**
Policy alignment	***Low***	***Low***

Risk: While the project aligns well with national policies and IFAD's strategic priorities, there is a risk associated with potential changes in rural infrastructure development policies by the Government of Bangladesh. Such changes could impact project implementation through policy shifts, budget reallocations, and new regulatory requirements. To mitigate these risks, continuous policy monitoring, strong stakeholder engagement, flexible project design, and contingency planning are necessary to adapt to any policy changes without significant disruptions.	Low	Low
Mitigations: • Rural infrastructure development is a high priority of the GOB. IFAD will periodically review any changes in the GOB policies and adjust accordingly.		
Policy Development and Implementation	***Moderate***	***Moderate***
Risk: • Less emphasis on development of Haor area. o There is a moderate risk that the Government of Bangladesh may place less emphasis on the development of the Haor area, which could impact the allocation of resources and attention to these regions. This could slow down progress and affect the achievement of project objectives in the Haor area. o Supporting Info: Historically, the Haor area has received fluctuating levels of attention in national development plans. Any shift in focus away from this region could lead to reduced investment and support for infrastructure and social development projects. • Less emphasis on skill development and vocational training. o There is a moderate risk that policies may not prioritize skill development and vocational training, which are crucial for enhancing local employment opportunities and economic growth. Insufficient emphasis could lead to gaps in the workforce's ability to meet the demands of evolving job markets. o Supporting Info: While there are ongoing initiatives for skill development, there is variability in policy emphasis and resource allocation. Shifts in government priorities could deprioritize these initiatives, impacting the long-term sustainability and effectiveness of the project.	Moderate	Moderate
Mitigations: • Development of Haor and other climate vulnerable areas is high priority of the government as reflected in all development plans. IFAD will periodically review any changes in this regard. • Skill development and vocational training for youth employment are high priority of the government. IFAD will periodically review any changes in this regard.		
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	***Moderate***	***Moderate***
Risk: • Contaminated soil or water in the Haor region due to poor baseline conditions (flooding-induced, poor water and sanitation) may affect the watershed as a whole, in turn posing risks to tubewell / handpump for villages and water connections for markets. • Changes in river flow or siltation, particularly due to activities in upstream riparian provinces or countries, may o negatively impact the effectiveness of climate-resilient infrastructure and Nature-based Solutions. At the same time, improperly implemented NbS may introduce or worsen existing risks (i.e., maladaptation). o complicate flash flood forecasting models. • High Barind has low seismic risks, but Haor falls in a more active seismic zone.	Moderate	Moderate

Mitigations: • Design of water and sanitation infrastructure within communities will determine appropriate design / location to assess and avoid existing sources of contamination. • While risks due to activities in the upper riparian zones are unavoidable, project will improve early warning systems (including expansion of the observation network) to reduce risks to people's lives and their assets. • The Bangladesh Meteorological Department (BMD), Institute of Water and Flood Modelling (IWFM) and Institute of Water Modelling (IWM) are aware of variables that drive uncertainties / errors in the forecasting models. Therefore, observational data from new equipment and mapping products will be used to improve these models. • The choice, scale and location of NbS will consider potential trade-offs, and be designed to complement the effectiveness / longevity grey infrastructure (roads, boat landings, killas). The project is also setting aside funds to conduct research in the project context and further develop evidence. • Where feasible, project-supported infrastructure (single-storey open sheds in existing marketplaces, toilet blocks) will be in geographies with reduced risk of earthquakes. In general, design standards will take earthquake resistance into account in line with GOB norms and regulations. Finally, the nature of CRALEP project infrastructure is not expected to increase risks (during earthquakes) to people or their assets.		
Project vulnerability to climate change impacts	***Substantial***	***Substantial***
Risk: • Infrastructure or Nature-based Solutions funded by the project may be destroyed by floods or excessive sedimentation during flash floods. • Extreme climate events (floods, drought) may result in loss of lives and/or damage livelihood assets (including housing). When the intensity or frequency of events increase, it may have multiplier effects on resilience and erode project benefits. Extreme climate events that affect agricultural production (crops, fishery) might affect food security and income of target households, with effects on project outcomes and impacts.	Substantial	Substantial
Mitigations: • The project focuses on appropriate design of climate-resilient infrastructure, combined with Nature-based Solutions, through technical feasibility studies (including through use of hydrological data and modelling). All infrastructure will be designed to work with local ecological / topographical conditions and avoid / reduce climate risks. For example: roads will be submergible in the Haor region. • Project will also work with communities through Participatory Rural Appraisal (PRA) to understand historic inundation levels in both Haor and Barind (since floods do occur in both regions) to ensure the design and site selection for infrastructure is carefully done. • To reduce climate impacts on livelihoods, project is supporting the diversification of livelihoods through off-farm vocational training, income generation (Local Contracting Societies), and entrepreneurial training. • Bangladesh has developed very good disaster reduction strategies over the decades to reduce loss of lives. Under CRALEP, climate information services for drought forecasting and flood warnings will be improved (i.e., quality of data, models and dissemination). More robust information and additional lead time will support anticipatory action on the part of communities. Project will support alternate income generation activities to strengthen food security and income resilience of target households.		
Project Scope	**Moderate**	**Moderate**
Project Relevance	***Moderate***	***Moderate***

Risk: Although no immediate risk is envisaged regarding the project's relevance, it is essential to highlight its alignment with IFAD's priorities and the country COSOP, particularly in strengthening climate change adaptation and mitigation capacities of vulnerable communities. The project targets regions with some of the highest poverty levels in Bangladesh, namely the Haor and Barind areas, which face severe climate vulnerabilities and socio-economic challenges. • Haor Region: o The Haor region experiences 5-7 months of natural inundation annually, with frequent floods and wave action that erode villages, threaten livelihoods, and make road communication difficult during the dry season. Access to safe drinking water and sanitation is also poor. These conditions necessitate focused interventions for climate adaptation and infrastructure development to improve living conditions and resilience. • Barind Region: o The High Barind region is characterized by prolonged droughts, heat waves, depleting groundwater levels, poor soil quality, low agricultural productivity, and inadequate market access. These climate vulnerabilities require targeted strategies to enhance water resource management, agricultural productivity, and market connectivity. • Youth and Women: o With high youth unemployment and a significant proportion of youth being inactive, particularly young girls due to early marriage and lack of job skills, the project aims to provide vocational training and employment opportunities. Additionally, despite progress, women's economic participation remains low, with only 38.6% of the rural female labor force engaged in employment compared to 80.3% for men. The project focuses on enhancing women's economic capabilities and opportunities, especially in agriculture where 60% of employed women are engaged. This three-fold targeting strategy ensures the project meets the beneficiaries' needs by addressing the specific vulnerabilities of the Haor and Barind regions, as well as improving employment opportunities for youth and women. Given this comprehensive approach, the project remains highly relevant and aligned with both national priorities and IFAD's strategic goals.	Moderate	Moderate
Mitigations: Stakeholder Engagement: • Strengthen continuous engagement with local communities, government agencies, and non-governmental organizations to ensure that the project remains aligned with their evolving needs and priorities. Regular Monitoring and Evaluation: • Implement a robust monitoring and evaluation system to track progress and impact, allowing for timely adjustments to project activities based on feedback and changing circumstances. Flexibility in Project Design: • Design the project with built-in flexibility to adapt to unforeseen changes in the local context, such as shifts in government policy or emerging socio-economic challenges. Capacity Building: • Provide ongoing training and capacity-building programs for local communities and project staff to enhance their ability to implement and sustain project activities effectively. Climate-Resilient Infrastructure: • Invest in climate-resilient infrastructure and technologies that can withstand extreme weather events and environmental challenges specific to the Haor and Barind regions. Gender and Youth Focus: • Develop targeted initiatives to address the specific needs of women and youth, promote their empowerment through vocational training, entrepreneurship support, and access to financial services, ensuring their active participation and benefit from the project.		
Technical Soundness	***Moderate***	***Moderate***

Risk: While there is a low risk associated with ensuring climate proofing of all infrastructure design and implementation, this assessment is supported by the substantial experience and lessons learned from previous and ongoing projects within the country portfolio. Projects such as PROVATI, HILIP-CALIP, and others have provided valuable insights and best practices in creating employment opportunities, providing vocational training to women and young people, and reducing poverty and climate vulnerabilities. These projects have demonstrated effective strategies for integrating climate resilience into infrastructure development, which will be leveraged to ensure the technical soundness of this project. The accumulated knowledge from these initiatives mitigates the risk and enhances the project's capacity to implement robust and climate-resilient infrastructure solutions.	Moderate	Moderate
Mitigations: All designs will be as per climate resilient design techniques. The project will have expert Civil engineers to review all designs. IFAD will prior review design of infrastructure, especially for Haor. LGED Engineers will be given refresher training on designing of climate resilient infrastructure. (On-going IFAD funded project has developed such training course)		
Institutional Capacity for Implementation and Sustainability	**Moderate**	**Moderate**
Implementation Arrangements	***Moderate***	***Moderate***
Risk: 1. 1. Organization and staffing • There may be delays in recruiting and filling vacant positions with suitably experienced and qualified personnel. Root causes may include weak capacity in the job market, interference in the recruitment process and underpayment on projects compared to market price. • Complex implementation arrangement with multiple governmental implementing agencies (IAs) and support/oversight by Technical Assistance (TA) teams in some instances. 2. Low capacity of LGED to manage and implement vocational training projects. 3. Low capacity of communities or inadequate resources to engage in management and maintenance of project-supported assets.	Moderate	Moderate

Mitigations: Mitigations: 1. Organization and staffing • Core staff of the PCU—Project Director, Finance Manager/FM Specialist, FM Specialist, M&E Specialist should be engaged within two (2) months of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance. Other technical experts (engineers, climate change and hydrology, GESI, etc.) will be recruited on a priority basis. • Project design should avoid ambiguous implementation arrangements and must have clear organigram, flow of funds and responsibility/authority matrix. 2. LGED has successfully managed vocational training under the IFAD-funded HILIP-CALIP project in Haor area. Similarly, it has been managing a large vocational training program under IFAD funded PROVATI3 project. Actual training will be provided by NGOs (partner organizations of PKSF) and GOB training providers. IFAD will periodically review progress of vocational training program during implementation. 3. Sustained maintenance of project structures will build on IFAD HILIP-CALIP experience. Examples of mechanisms include a. Maintenance of Killa: Handed over to the communities (nearest villages) who will be the users of the sites. Basic maintenance (grass cutting) needed. b. Maintenance of markets: As per exiting law and regulations, LGED hands over the markets after construction to the Upazila Parishad, which lease out the market through competitive bidding. 25% of the lease value is, by law and present regulations, given to the 11-member Market Management Committee (MMC) [also established as per law], headed by respective Union Parishad Chairman, for maintenance of the markets. This is a well-established rule of the Upazila Parishad. Note that the leaseholder collects a small toll from shops as per existing GoB rules. c. Maintenance of Ghats: 1) Small ghats are maintained by Upazila Parishad (Subdistrict Council) from lease values of the ghats, which are also leased out similar to the markets. 2) Large ghats are maintained by Zila Parishad (District Council) from lease value of ghast. Note: Lessees of the markets and ghats collect small tolls as per government's established rate.		
Monitoring and Evaluation Arrangements	***Moderate***	***Moderate***
Risk: • Challenges in data collection and analysis is related with poor coordination between implementation agencies at national and sub-national levels that could affect quality of M&E and log frame reporting. • The use of differing concepts for indicator development among implementing agencies can lead to issues in reporting and comparability of results. • Field data collection can be impacted by climatic issues and the seasonality of certain data. • The lack of capacity and training among some interviewers, coupled with contextual differences between intervention areas and beneficiaries, can lead to issues with data collection instruments and criteria. • There is a possibility that individuals may receive multiple benefits from the project, posing a risk of duplicating the count of beneficiaries when calculating the outreach.	Moderate	Moderate

Mitigations: • M&E system will be embedded in the project management information system (MIS) to allow real-time reporting and coordination between various levels of implementation. The project budget will allocate resources to qualified M&E consultants at the PMU level and the district level. • The project will include internal training sessions and sessions with implementing partners in the M&E plan, to familiarize them with the logical framework, the methodology for indicator development, and the project's needs for results reporting. • Operational planning for data collection processes will take seasonality into account, coordinating efforts among beneficiaries, implementing partners, and the PMU. Additionally, the planning will include contingency measures to address potential issues. • The Computer-Assisted Personal Interviewing (CAPI) methodology will be used as a tool for standardization and quality control of the collected data, it will be supervised by PMU. • The Monitoring Information System (MIS) includes the creation of a unique beneficiary code to ensure that individuals or households are not counted more than once.		
Project Financial Management	**Substantial**	**Substantial**
Project Organization and Staffing	***Substantial***	***Substantial***
Risk: • There may be delays in recruiting and filling vacant positions with suitably experienced and qualified personnel. Root causes may include weak capacity in the job market, interference in the recruitment process and underpayment on projects compared to market price. • Finance function may not be given the required level of attention and authority because LGED is a core technical engineering and infrastructure organisation. • Complex implementation arrangement with multiple governmental implementing agencies (IAs) and support/oversight by Technical Assistance (TA) teams in some instances. Additionally, there will be private sector/NGO partners and some implementation by the LCS.	Substantial	Substantial
Mitigations: • Institution of a well-structured finance unit within the PMU that includes competent and qualified staff who can carry out project financial management as per the fund requirements. • All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer. • Key to ensure appropriate designation is used for FM staff and that qualification and experience and proposed pay are commensurate with job role and competitive. Finance Manager should have the necessary delegation of authority to submit interim and annual financial reports, WAs and other required documentation to IFAD.		
Project Budgeting	***Substantial***	***Substantial***
Risk: • There are delays in the submission of AWPB. This is often due to delays in sitting and approval by the project steering committees and difficulties in consolidating budgets from the lower levels of implementation. • Weak budget monitoring at management level with no cross-functional review of implementation progress. Qualitative explanations are not provided along with budget variance analysis submitted with quarterly IFRs.	Substantial	Substantial

Mitigations: • AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in booking of the expenditure. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of GoB and submitted to IFAD for NO latest by 2 months before the commencement of the fiscal year. • The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.		
Project Funds Flow/Disbursement Arrangements	***High***	***High***
Risk: • Prolonged process to obtain or amend development project proforma/proposal (DPP) and revised DPP (RDPPP) approvals for projects implemented through Government agencies. Variations between DPP and project cost tables also generates confusion and hampers implementation. • Sub-optimal disbursement because of delays in the start-up of projects arising from delays in opening bank accounts and fulfilment of the other disbursement conditions. • Weak capacity at lower levels of implementation such as at the community organizations (LCS) and other sub-national and private partner organizations (POs). Oversight and monitoring of these organizations by the project management is often ineffective.	High	High
Mitigations: • The cost tables, DPP and PIM will have sufficient details on key activities to be implemented and sources of finances for these costs. • Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance. • Counterpart Fund requirements shall be clearly established through timely preparation and approval of AWPB (latest by 15 April of each financial year- before the start of preparation of the government budget and Annual Development Programme process. • IFAD Disbursements will be based on validated 6 months cash forecast, and expenses will be justified based on quarterly interim financial report.		
Project Internal Controls	***High***	***High***
Risk: • Instances of non-compliance with applicable internal controls have been reported by the Auditor General of Bangladesh (FAPAD) Pakistan in recent audit reports, as well as in supervision & implementation support missions. • Absence of internal audit function at project management and lower levels of implementation may pose internal control risks. • Contracts and MoUs with implementing partners may not include key clauses on internal controls and reporting requirements. • Inadequate supporting documentation to justify expenditure especially around asset management, travel expenses, and vehicle fuelling and maintenance, raising the risk of ineligible expenditure. • Weak segregation of duties may arise if approval and authorisation duties are concentrated in one role/office.	High	High

Mitigations: • The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. • There will be two Internal Audit Consultants specifically for the IFAD funded projects. The terms of reference should be submitted to IFAD for NO. This should include requirements to: o tailor the already developed internal audit charter and manual to LGED/project requirements, o develop the annual audit workplan, o conduct of internal audit activities and o include the reporting and monitoring mechanisms. o Collaborate with FAPAD and follow up on recommended actions of internal/external audit and missions. • The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project. • A few internal control measures will be implemented to mitigate risks of internal controls failure such as o monthly bank reconciliation. o budgetary controls over each transaction. o budget vs actual analysis and reporting to PSC. o maintenance of Fixed Asset Registers and verification of assets randomly/periodically. o complete documentation of activities especially at the beneficiary level and random/periodic inspection to test credibility of reporting by implementing partners. Details will be provided in the PIM. • Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.		
Project Accounting and Financial Reporting	***Substantial***	***Substantial***
Risk: • Accounting software may not be adequately sophisticated or customized to meet project reporting requirements. This may result in difficulties to automatically generate required reports from the system, consolidate reports across multiple financing instruments, implementing layers and levels and report on multiple currencies. • Weak monitoring of physical and financial progress may result in difficulty to track implementation progress and gaps and to take prompt remedial actions. • Project financial procedures in the PIM may lack enough details to provide guidance to the project staff and may not be updated as at when required. • Important project supporting documents and files may be lost in the absence of proper archiving and filing systems. Physical copies may be lost forever when there is no electronic backup and filing.	Substantial	Substantial
Mitigations: • PMU shall submit to IFAD; Quarterly Interim Financial Reports within 30-day of period end, annual unaudited financial statements within 4-month of year end and annual audited Financial Statements within 6-month of year end. Reports shall be compliant with IPSAS cash standards. • An appropriate Accounting Software (TOMPRO) will be procured, installed and the finance team trained in its use. Financial reports should be auto generated from the procured accounting software. Integration of the service providers, expenditures in the PMU accounting software. Relevant procedures to be identified in the PIM. The finalization and approval of the PIM Designated Accounts for the project will be opened within eight (8) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance. • Electronic filing and archiving will be required and documented in the PIM. The manual filing and archiving system will also be defined.		
Project External Audit	***Substantial***	***Substantial***

Risk: • Persistent gaps with reference to external auditing of projects include weak-follow up with audit office resulting in backlog of audit findings, non-resolution of audit findings —which could potentially create ineligible expenditure for the project. • Audit may not be required of key sub-recipients of IFAD Financing; hence, Partner Organizations may not submit annual audit reports to the PMUs. This may weaken the levels of assurance over project funds.	Substantial	Substantial
Mitigations: • PMU will be guided by IFAD to: Engage with FAPAD for timely completion of audit. o Send scanned copies of the final audit report as soon the report is ready to ensure on-time submission to IFAD and to avoid delays resulting from mail services. Then the hard copy can follow to IFAD ICO in Dhaka. o Settle Audit observations within four (4) months after the Audit Report has been shared with project executing agency to ensure early resolution. o Ensure follow up meetings with the Auditors to settle any unsettled audit findings from previous years. o Ensure that NGOs and private organizations engage reputable and acceptable Chartered Accountant Firms.		
Project Procurement	**Moderate**	**Moderate**
A.1 Legal, Regulatory and Policy Framework	***Moderate***	***Moderate***
Risk: Public procurement is regulated by the Public Procurement Act 2006 with supplemental Public Procurement Rules 2008, e-GP Guideline and Delegation of Financial Power (DOFP). The PPA 2006 has been amended several times, by the Public Procurement (1st and 2nd Amendment) Act 2009, the Public Procurement (Amendment) Act 2010 and the Public Procurement (Amendment) Act 2016. Overall, there is a well-functioning procurement system across the country but weaknesses have still been observed. For example, the sanction/debarment process lacks independent review (decision by the head of the procuring agencies is final) except by way of appeal to the judiciary and sustainable public procurement has not yet found its way into the public procurement legislation and practices.	Moderate	Moderate
Mitigations: Allow only enterprises that have prescribed characteristics to compete for contracts e.g.,% reserved for women enterprises, SMEs, start-ups; design specifications to suit particular group or address particular issue. e.g., use of gas burnt bricks in construction instead of coal or wood burnt bricks. Also, scale up procurement training for the auditors with appropriate course content.		
A.2 Institutional Framework and Management Capacity	***Substantial***	***Substantial***
Risk: Bangladesh has a nodal procurement policy agency, the Central Procurement Technical Unit (CPTU). CPTU was established in 2002 under the Implementation Monitoring and Evaluation Division (IMED) of the Ministry of Planning (MOP) to carry out procurement reform activities and regulate and monitor the country's public procurement functions. It is planned to be converted into an independent government agency to be known as the 'Bangladesh Public Procurement Authority (BPPA)' to facilitate enhanced autonomy in executing its functions. It will be done through a separate act, Bangladesh Public Procurement Authority Act. CPTU is constrained by its capacity in terms of legal structure, autonomy in decision making, limited staffing, and inadequate analytical and research capability. It largely depends on external experts and outsourced firms which is inadequate to regulate and monitor public procurement for a high number of organizations.	Substantial	Substantial

Mitigations: While waiting for the formation of proposed Bangladesh Public Procurement Authority (BPPA), develop inhouse institutional and technical capacity (with a set of qualified, experienced and adequate number of trained officials).		
A.3 Public Procurement Operations and Market Practices.	***Substantial***	***Substantial***
Risk: Public procurement in Bangladesh is now well established but remains mostly compliance based. The legal and regulatory framework is in place, there is an established regulator (CPTU) and a well performing e-GP system which is growing rapidly. Moreover, there is an extensive capacity development program. However, the emphasis has been given mainly on building this system and ensuring compliance with the essential requirements of the framework. There is scope to elevate the current system into a performance or output based system based on strategic vision and value for money consideration. Some of the main weaknesses are represented by 70% of contracts not completed on time and absence of strategic procurement planning and analysis resulting in higher procurement cost and lower procurement performance (e.g. too many small procurement packages for recurring items).	Substantial	Substantial
Mitigations: Ensure contracts are completed on time; Introduce strategic procurement planning and analysis and expedite decision making process specially for high value contracts.		
A.4 Accountability, Integrity and Transparency of the Public Procurement System	***Substantial***	***Substantial***
Risk: A reasonably transparent process is followed in formulation of procurement legislation with consultation with large procuring agencies. Even if the Public Financial Management (PFM) system is governed by a set of legislative instruments with OCAG as the supreme audit organization, the audit system is mostly external. Financial auditing are carried out regularly. There is presence of ethical standard in audits and public procurement (code of ethics) and national integrity strategy. Instead, the procurement complaint system is lengthy and takes 2-3 months' time to exhaust the entire process.	Substantial	Substantial
Mitigations: Bidders should be included in public consultation for legislation change. Specialized procurement audits/procurement performance audit should be carried out, especially in large agencies based on periodic risk assessment.		
B.1 Assessment of Project Complexity	***Moderate***	***Moderate***
Risk: The project is in the design stage but several similar projects have been executed and are being advanced by the IA.	Moderate	Moderate
Mitigations: It is advisable to appoint a dedicated Procurement Specialist to serve as the focal point, overseeing updates of the Procurement Plan in OPEN, managing contract status in the CMT, maintaining procurement file records, and facilitating coordination with field Executive Engineers and project management personnel.		
B.2 Assesment of Implementing Agency Capacity	***Moderate***	***Moderate***

Risk: IA does not have certified procurement personnel and requires comprehensive procurement capacity training within 3 months of engagement. Current Processes are partially compliant. Performance varies depending on weaknesses in procurement and contract management, as highlighted by audit observations. Foreseen mitigation measures are sufficient to address 3P deficiencies.	Moderate	Moderate
Mitigations: i) A dedicated Procurement Specialist will be hired and engaged in procurement co-ordination along with PMU regular staff; ii) A comprehensive training on procurement aspects will be organised; iii) In the initial 18-month PP, big ticket items are planned which will speed up the implementation. Many of the critical activities related to consultancy services will need to be completed prior to entry into force.		
Project Procurement Overall	***Moderate***	***Moderate***
Risk: Bangladesh's public procurement system plays a vital role in the country's governance, economic development, and public service delivery. Governed primarily by the Public Procurement Act, 2006 and its subsequent amendments, the system aims to ensure transparency, fairness, competition, and efficiency in the procurement process.Bangladesh's procurement system allows for various methods, including open competitive bidding, limited competitive bidding, request for quotations, and direct procurement under certain circumstances. The choice of method depends on factors such as the nature and value of the procurement. In recent years, Bangladesh has made significant strides in digitizing its procurement process through the implementation of e-GP (Electronic Government Procurement). In line with the procurement risk assessment, procurement under CRALEP will follow IFAD Procurement Guidelines and IFAD Procurement Handbook. Government of Bangladesh recognises precedence of international obligations like IFIs Financing Agreements to use IFI procurement guidelines and document templates. Government of Bangladesh has implemented large numbers of externally aided projects in different sectors.	Moderate	Moderate
Mitigations: IFAD will field an annual Supervision Mission to the project and the Procurement Specialist in the mission among other issues will (i) review the procurement contracting and implementation processes and timeliness and appropriateness of procurement actions; (ii) assess contract administration and management procedures and review the completeness and updated nature of contract data in the Contract Monitoring Tool; (iii) determine whether adequate systems are in place for procurement planning, implementation and monitoring, and whether procurement documentation and records (including securities) are maintained as per required standards and can be relied upon. In addition to the annual Supervision Mission, IFAD Bangladesh Country Office will also organise a Startup workshop within 2 months from entry into force. Additional specific adhoc support missions will also be fielded by IFAD.		
Environment, Social and Climate Impact	**Substantial**	**Moderate**
Biodiversity Conservation	***Moderate***	***Moderate***
Risk: • Degradation or disturbances to the local ecosystem as a result of construction or other physical works that may be temporary or permanent in nature, including (a) soil disturbance, (b) structural changes in local ecosystems, and (c) indirect effects of local economic activities. • Income-generation activities are not expected to increase pressure on protected or critical ecosystems.	Moderate	Moderate

Mitigations: • Project upazilas do not include Protected Areas in Bangladesh, and selected areas are not critical for migratory species of birds. This is included in exclusion criteria for infrastructure activities. • Improved accessibility is expected to reduce pressure on overall ecosystem through improved ability to use roads as opposed to water transport. Complementing or minimizing hard interventions, where feasible, through Nature-based Solutions is also proposed; bamboo and vetiver nurseries will on public land within communities. • Project will adopt sustainable sourcing practices and adhere to GoB's environmental guidelines.		
Resource Efficiency and Pollution Prevention	***Moderate***	***Moderate***
Risk: • The primary risk is increased pollution, through construction works or work sites, with impacts on water or soil.	Moderate	Moderate
Mitigations: • Several measures such as construction in the correct season, spraying water to reduce dust, and limiting hours of operation to reduce / limit noise pollution will be put in place. • Procurement contracts will also include clauses relating to safe handling of fuel, and proper management of borrow pits, temporary construction areas, and waste collection.		
Cultural Heritage	***Low***	***Low***
Risk: ● Disturbance of sites of cultural, archaeological, socio-cultural, religious, or heritage value, including mosques, madrasas, churches, temples, graveyards, monuments, traditional meeting places. ● Involvement of intangible cultural heritage through vocational training and livelihood interventions related to handicrafts (for e.g., crafts produced from vetiver grass).	Low	Low
Mitigations: • Participatory design to identify and avoid project intervention in areas of cultural value. Chance finds procedure included for infrastructure works. • Engagement of partners that have previous experience in vocational training and livelihood interventions in similar settings.		
Indigenous People	***Low***	***Low***
Risk: • Ethnic Minorities constitute between 0.04% to 6.5% of the population in the targeted districts (average of 1.88%), since they are more dispersed in the plains of Bangladesh. The risk that the project may cause adverse physical, social, or economic impacts on Ethnic Minorities or threats to or loss of resources of historical or cultural importance to them.	Low	Low
Mitigations: • There are no constrains for Ethnic Minorities to participate in project interventions, and past projects by the implementing partner have equally targeted Ethnic Minorities when they are present. • Project interventions are expected to result in increased incomes, increased access to market and improved skills for all beneficiaries including Ethnic Minorities. • An Ethnic Minority Implementation Framework has been prepared to ensure informed consultation and participation, and an Ethnic Minority Plan will be prepared by the PMU during implementation		

Labour and Working Conditions	***Moderate***	***Moderate***
Risk: • Occupational Health and Safety (OHS) risks associated with construction of physical infrastructure for workers and for local people. These risks include personal injuries related to the use of machinery (typically small in nature) and the execution of groundworks, and exposure to high or extreme temperatures / other weather events (lightning, storms). • Risks in labor and working conditions related to temporary small-scale construction activities. The project may result in exploitative labor practices (e.g., forced or child labor), gender-based violence, discriminatory practices, and unsafe or unhealthy working conditions for people employed to work specifically in relation to the project, including third parties and primary suppliers. • Indirect risk associated with vocational training and entrepreneurship outcomes is that the entities that trainees end up working with may not follow IFAD or GOB regulations related to labour, OHS, and gender norms. (The project does not engage in placement activities beyond potentially facilitating job fairs).	Moderate	Moderate
Mitigations: • Integration of OHS requirements (document operating procedures with safety considerations, use of personal protective equipment, etc.) into procurement, regular inspection of OHS practices during project implementation, remedial action if non-compliance observed. Clear stipulations on labour and working conditions (code of conduct) will be integrated into the contracts and monitored. • For residential stay associated with vocational training, OHS training (including gender sensitivity, prevention of sexual violence, exploitation and harassment) will be specified in procurement contracts. The selection process of trainees will start with community level awareness, screening and counselling. Family members are also invited to assess the safety of facilities, if they desire. • PROVATI3 project has instituted safe construction practices for LCS members, including mandatory use of safety gear and accident / life insurance. In addition, LCS members are supported to find more structural employment following their LCS work through the family-based income generating program based on Gender Action Learning System (GALS) methodology. • The project will introduce training curriculum that will raise awareness on labour, OHS and gender-related rights and regulations pertaining to the sectors they are trained in, and will also conduct a study of past trainees to identify problem areas as a part of its objective to better understand post-training outcomes and drop-out rates.		
Community health, safety and security	***Moderate***	***Moderate***
Risk: • Risk of increase in vector- or water-borne diseases through the creation of temporary breeding habitats and influx of project workers. • Poor design or maintenance of water and sanitation facilities could raise disease risks by mixing wastewater with freshwater. • There is low risk of adverse effects on the physical, mental, nutritional, or social health and safety of an individual, group, or population. But there might be the harmful employment of youth and harmful interactions between project workers and local communities, including gender-based violence and sexual harassment. • Risks associated with waste streams (organic, inorganic) of the upgraded market facilities or with toilet blocks. • Indirect risks associated with using boric acid to treat bamboo (to extend its lifespan when submerged, from only one or two years to 10-12 years).	Moderate	Moderate

Mitigations: • Integration of age-related requirements into procurement, monitoring of adherence by contractors. • Integration of Code of Conduct requirements into procurement, training of contractors, regular inspection during project implementation, publicizing grievance redress mechanism. (Grievance system has been institutionalized in PROVATI3 project and CRALEP will draw on their lessons / experiences.) • Introduction of compositing facilities for organic waste (crops, animal products) in the markets, (b) constructing internal pathways and drains / proper drainage, including for rainwater flow in markets, and (c) septic tanks for toilet blocks (village, boat landing station, markets) will reduce risks associated with waste streams. • Introduction of appropriate safety protocols and awareness-raising measures for the use of boric acid (a chemical that is commonly used for household purposes), in collaboration with Bangladesh Forest Research Institute.		
Physical and Economic Resettlement	***Low***	***Low***
Risk: • There are no risks associated with physical or economic displacement due to project activities. • The project will not involve the acquisition of land or resettlement and project activities are not expected to adversely affect land tenure arrangements.	Low	Low
Mitigations: • The selection and design criteria for infrastructure (roads, markets, killas, toilets, tubewells and handpumps, boat landing stations) is such that rehabilitation and upgrade will only occur on public (khas land) and land that is already in use for the same purpose. • No resettlement or land acquisition is involved. This is included in exclusion criteria.		
Financial intermediaries and direct investments	***Low***	***Low***
Risk: N/A	Low	Low
Mitigations: N/A		
Climate change	***Substantial***	***Substantial***
Risk: Vulnerability of target populations and ecosystems to climate variability and hazards Risks: • Hoar and High Barind are both identified climate hotspots. Droughts and floods are key climate risks contributing to high levels of poverty / risk of population falling back into poverty, loss of livelihood assets and agricultural production, and food and nutrition insecurity through Monga (hungry season) that recurs. • Baseline water and sanitation access is worsened by falling groundwater levels (High Barind) exacerbated by droughts, and by flooding / excessive siltation or riverbank erosion (Hoar) – particularly for women and children. • Finally, infrastructure investments that are not climate-proofed require regular upgrades or reconstruction in Hoar when floods occur and damage / wash away small infrastructure. Greenhouse Gas Emissions (Low/ Low) Risks: • Project activities are not expected to increase GHG emissions. There may be small procurement of concrete for specific types of infrastructure upgrade (water and sanitation, markets), but this not expected to substantially increase GHG emissions.	Substantial	Substantial

Mitigations: Vulnerability of target populations and ecosystems to climate variability and hazards Mitigations: • The project explicitly takes climate risks into account and has several entry points (climate-proofed infrastructure, NbS, alternative livelihoods) to reduce climate vulnerabilities of peoples and communities in Hoar and High Barind. • Through CRELiC, project will invest in capacity development of LGED staff in properly considering climate risks, impacts and solutions. • Targeted Adaptation Assessment, identifying priority adaptation actions, has been developed. GHG Mitigations: • Nature-based Solutions are incorporated into design, and could contribute to modest GHG emissions reductions in two ways o In the long-term, it may reduce physical damage from climate change or other disasters to the infrastructure – mitigating the need for regular reconstruction (assuming that reconstruction requires use of new concrete and other building materials). o New bamboo and vetiver nurseries may contribute to modest carbon sequestration. • Project will invest in research on alternative materials such as plastic, particularly for upgrade of roads, that could (in the long-term, if scaled) mainstream a low-carbon, circular economy approach in LGED activities.		
Stakeholders	**Moderate**	**Moderate**
Stakeholder Engagement/Coordination	***Low***	***Low***
Risk: • There is a low risk that key stakeholders (e.g., NGOs and government training institutions) invited to participate in the project will show little interest in or commitment to the project's objectives and activities. Limited stakeholder engagement and coordination may affect the sustainability or exit strategy, particularly if the community or market users do not engage in post-implementation servicing and maintenance. • Gender inequality and lack of female participation in the project, and unintended exclusion from project activities.	Low	Low

Mitigations: • Engagement of target project participants has been conducted through established procedures for participatory design of project activities and will continue through the measures described in the targeting strategy. Engagement with other stakeholders, including the general public, will be primarily implemented through the project's overall communication function. • During the design stage, post field visits, the project engaged in a 2-day design workshop where IFAD design team engaged with LGED staff (national, upazila) as well as other partners / partner institutions (CRELiC, BMD, IWFM, academic researchers, etc.) to (i) understand lessons from HILIP-CALIP and PROVATI3 (as well as other donor funded projects), (ii) validate design of each project activity / sub-component, (iii) get inputs on implementation process and exclusion criteria. This was instrumental in ensuring proper coordination with other complementary ongoing projects funded by IFAD and other international actors. This coordination will continue during implementation, ensured by PDT and PMU staff, to avoid overlapping and duplication. During implementation, at the community and household level, the project will also implement a Participatory Rural Appraisal (PRA) process to define activities that meet the needs and aspirations of the beneficiaries. At this stage, LGED and partners will also commence the process of counselling / engaging communities and market users (via the Market Management Committee-MMC) on expectations related to implementation or post-implementation. o IWFM has shown strong interest in participating in improvement of flash flood forecasting model. It has been a partner in the previous HILIP-CALIP project. o BMD has shown strong interest in developing accurate drought forecasting model and dissemination system. It is the only public institution for this purpose. BMD was a partner of the previous HILIP-CALIP project. o BWDB has strong interest in flash flood forecasting and dissemination. It was a partner of HIIP-CALIP and is a partner for PROVATII3 project (DDM component). • The project will also establish continuous communication, awareness-raising, and coordination with the various partners at all levels (district, upazila, national. It will foster visibility activities to publicize and clarify doubts about the results of the project's activities, both for the target groups and the partners involved in implementation. Several measures will be put in place to ensure women are adequately consulted, and benefit from project activities. These include targeting and monitoring measures such as: o At least 80% of LCS members will be women. o At least 30% of vocational trainees will be women. o IFAD will periodically monitor the progress. Previous IFAD funded projects implemented by LGED has successfully included women in LCS and vocational training.		
Stakeholder Grievances	***Moderate***	***Moderate***
Risk: • The risk that the CRALEP project has ineffective grievance/complaint redress processes (including regarding allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), leading to unaddressed or delayed response to stakeholder grievances that may jeopardize project implementation and the achievement of the project's development objectives. An ineffective GRM can result in increased dissatisfaction among stakeholders, potentially leading to conflicts, community opposition, and delays in project activities. Furthermore, it can undermine trust in the project, discourage stakeholder engagement, and create an environment where fraud and corruption can flourish unchecked.	Moderate	Moderate

Mitigations: • A Grievance Redress Mechanism (GRM) has been proposed that operates at various levels, including local level, and that involves a broad set of stakeholders to ensure a balanced review of issues raised. The GRM includes measures to ensure that people are aware of its existence and have easy ways to access it (to submit complaints or other feedback). The project will raise awareness among stakeholders about the complaints and grievance mechanisms available. GRM processes will be disseminated to project villages including through the Market Management Committees, Labour Contracting Societies and subproject stakeholders, project NGO staff – in particular, facilitators. • The project will also include this information as part of IFAD missions and the training of technical assistance teams that will work directly with beneficiaries.		

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex 11: Country Level Policy Engagement

Mission Dates:	19 to 30 May 2024
Document Date:	10/01/2025
Project No.	2000004265
Report No.	6939-BD

Asia and the Pacific Division
Programme Management Department

Annex 11: Country Level Policy Engagement

The COSOP has identified the policy and regulatory environment in two key areas: (i) climate change adaptation, food safety, food system pathway transformation and microentrepreneur networks; and (ii) access to financial, technology, and market services. The main strategy is to support the development of policies based on the needs arising from the implementation of projects by strengthening existing research and policy advocacy units or supporting the development of such units in a limited number of institutions, such as the Local Government Engineering Department (for rural infrastructure, small irrigation works and physical environment/climate change issues), the Bangladesh Water Development Board and the Institute of Water and Flood Management (for water and flood management issues).

Accordingly, the CRALEP project will be supporting CReLIC within LGED to act as knowledge system manager, adviser on climate change issues to other LGED units/projects, train provider on climate change, and reviewer of various development projects from climate change perspectives.

Similarly, the Bangladesh Water Development Board (BWDB), with the support from the project, will develop dissemination system for FFEWS. The system will be adopted as the national process of disseminating flash floods early warning and become a mandate for BWDB.

In addition, the Bangladesh Meteorological Department (BMD) will develop drought outlook and community-level dissemination system, which will become a mandated work of BMD. The system will be nationally disseminated.

The improved FFEWS model to be developed by IWFM will be nationally disseminated.

Component 4.3 will be pilot testing various infrastructure improvements, if successful, will be further scaled-up and nationally disseminated. Such initiatives may need national policy engagement and advocacy by the PMU.

The findings of various impact studies will be disseminated through seminars, websites, and social media.

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Climate Resilience and Livelihood Enhancement Project

Project Design Report

Annex: Gender Action Plan

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SECAP Attachment 7: Gender Action Plan

Introduction

1. The Climate Resilience and Livelihood Enhancement Project (CRALEP) aims to significantly reduce poverty and climate vulnerability in the Haor and High Barind regions of Bangladesh. The project will build climate-resilient infrastructure, provide climate preparedness information, support nature-based solutions, and create local employment through skill development. This Gender Action Plan is developed in line with IFAD policy on gender equality and women's empowerment[1] and the relevant Government of Bangladesh's (GoB) policies including Gender Equality Strategy & Action Plan by Local Government Engineering Department (LGED) (2022-2030)[2], and Mujib Climate Prosperity Plan (2022-2041)[3] to ensure that the project promotes gender equality and women empowerment.

2. CRALEP Gender Action Plan responds to IFAD COSOP 2023 - 2028 which prioritizes women's participation in all projects will be strengthened with a view to ensuring that women play a leadership role in various forums, increasing the number of women business owners and the level of self-employment and wage employment among women, encouraging internet use among women and expanding their access to non-financial services. The action plan aligns to SDG 5 and the Bangladesh UN Sustainable Development Cooperation Framework (UNSDCF) 2022-2025 which pursues an inclusive, gender focused and human rights-based approach to development that leaves no one behind. The UNSDCF emphasizes that all people, in particular the most vulnerable and marginalized, must benefit from and contribute to, in a gender-responsive manner, a cleaner and more resilient environment, an enriched natural resource base, low-carbon development, and become prosperous and more resilient to climate change and its fallouts.

Gender Equality and Women's Empowerment in Bangladesh

3. The population of Bangladesh stands at 165,158,616, of which 49.48% are males; 50.51% are females and 0.008% are transgenders with a density of 1,119[4]. The largest share of the population belongs to 15-to-19-year-olds and the lowest belongs to 95 years old and above. The youth population (age 15–24) has increased from 18.16% in 2011 to 19.11% in 2022[5].

4. The country's commitment towards gender equality and women's empowerment is articulated in key policy documents, such as, the National Women Development Policy 2011, Vision 2041, the Eighth Five-Year Plan (EFYP), and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009. The EFYP 2020-25 and the Mujib Climate Prosperity Plan Decade 2030 emphasize the need for gender-responsive climate actions. Notably the LGED has developed a Gender Strategy and Action Plan (2022 - 2030[6]).

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[1] https://www.ifad.org/en/-/document/ifad-policy-on-gender-equality-and-women-s-empowerment-new
[2] https://crelic-lged.gov.bd/wp-content/uploads/2023/02/Book-3_Combined_GESAP-Eng_TOR_f.pdf
[3] https://mujibplan.com/.
[4] Bangladesh Bureau of Statistics, Population and Housing Census 2022
[5] Population and Housing Census 2022
[6] Local Government Engineering Department (LGED): Gender Equality Strategy & Action Plan 2022-2030

5. Bangladesh has made significant progress in social sector. Gender parity has been achieved in primary and secondary education enrolment, though the drop-out rates remain higher for girls than boys. The country has achieved a higher female literacy rate (71.2%) vis-a-vis other neighbours such as India (65.8 per cent), Nepal (59.7 per cent), and Pakistan (46.5 %)[7]. According to the 2023 Global Gender Gap Report by the World Economic Forum, Bangladesh had a score of 72.2%, placing it 59th in the global ranking. UNDP's Human Development Index for 2023-2024 ranked Bangladesh at 129th - the same position held in 2022 in the category of "medium human development".

6. Despite commitments and progress towards gender equality and women's empowerment, Bangladesh still faces significant challenges in achieving GEWE, particularly in the context of climate change. Bangladesh is vulnerable to climate induced natural hazards such as rainfall, rising sea levels, and tropical cyclones. It is widely recognized that the impacts of climate change are not gender neutral as women and girls are disproportionately affected due to social norms, systemic gender inequalities, and reproductive obligations. Vulnerability to environment and climate varies according to geographic locations and socio-economics inequalities. Women, especially those in rural areas, are disproportionately affected by climate-related disasters such as floods, cyclones, and droughts. These events exacerbate existing gender inequalities, limiting women's access to resources, decision-making processes, and economic opportunities. Women often bear the brunt of climate impacts due to their roles in agriculture, water management, and household responsibilities. Women and girls depend on forestry, crop agriculture, water resources and access to energy for livelihoods and household work. Yet, these are some of the most critical sectors affected by climate change.

7. Women in Bangladesh face economic disparities. According to the Bangladesh Bureau of Statistics, the female labor force participation rate is 38.6%, compared to 80.3% for men. Women are primarily engaged in low-wage, informal sectors with limited access to resources and decision-making roles[8]. The 8FYP recognizes that the female labor force participation is not commensurate with aspirations for UMIC Bangladesh. While all legal and regulatory policies are in place to eliminate all kinds of gender discrimination and prevent violence against women, the 8FYP acknowledges reports about continued violation of these laws including early marriages, spousal abuse, and wage and employment discrimination against female employees in the work place. Traditional gender roles, which are particularly prevalent in rural areas of Bangladesh, lead to lower access to formal employment for women (Ahmed and Sen, 2018). Aside from care work, women mainly engage in agriculture- and livestock-related activities (United Nations Women and BCAS, 2014). The 8FYP commits to make stronger efforts to enhance female labor participation rate and implement all legal provisions to eliminate gender discrimination and violence against women.

Gendered impacts of climate change in Bangladesh

8. Barind and Haor are both climate hotspots, two of the six identified in the Bangladesh Delta Plan 2100. While the overall trends in both regions, more days in a year with extreme heat, heatwaves, intense rainfall, more frequent spells of

[7] UNDP: Human Development Report 2023/2024 (https://www.undp.org/bangladesh/publications/human-development-report-2023-24)

[8] The World Bank: Bangladesh Country Gender Assessment 2021 (https://openknowledge.worldbank.org/server/api/core/bitstreams/25f68522-859f-59df-b98f-8295e07dd215/content)

heavy rainfall, and increasing frequency and intensity of extreme events (floods, cyclones), they are dissimilar in the primary climatic challenge owing to topography and agroecology. Barind is prone to droughts, which is exacerbated by groundwater depletion, declining trend in annual rainfall and associated fall in surface / groundwater recharge, and shrinkage of surface water bodies (Bari et al., 2019)[9]. The intensity and frequency of droughts has also increased in northwest and southwest areas of Bangladesh since 1980s (Kamruzzaman et al., 2022[10]). Haor is prone to floods and flashfloods, with severe flash floods that damage Boro rice (often the only crop in a year) every 3-4 years.

9. Livelihood impacts: Since women are more dependent on natural resources for livelihoods and are responsible for household food / dietary security, they find it challenging to maintain their homestead gardens, find fish for household consumption in ponds and other water bodies, or ensure that their livestock are well-fed and watered in situations of freshwater paucity (CCC, 2009[11]; Hossen et al., 2021[12]). Women borrowers who set up small agri-business or non-farm enterprises may face asset loss or be forced to prematurely sell their assets to cope with extreme climate events: Hossen et al. (2021) describe a female micro-credit borrower who had invested in two goats to sell during Eid-ul-Adha (a period of high demand); when one goat died due to (heatwave linked) diarrhea, another was sold off at a low price to keep up with loan repayments; this resulted in her pursuing a different source of livelihood (paid housework) to service the loan.

10. Conflicts, risks to women and girls: Islam et al. (2022)[13] in their cross-sectional survey of two Haors in Sunamganj district found that enhanced sedimentation due to climate change and other anthropogenic factors results in loss and damage to home and livelihoods which then triggers outmigration of men to nearby districts. Women and girls in such households reported feelings of insecurity – needing to finish chores before sundown, or instances of sexual harassment in quarries where they separate sand and stone for wage income.

11. Increased workload: Islam et al. (2022) also found that the stunted or lack of aquatic plant growth in Haor meant that women spend more time looking for firewood, which increases their workload. In Barind, seasonal droughts and falling groundwater tables (owing to irrigated agriculture since 1960s) implies

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[9] Bari, M.N., Roknuzzaman, M., and Islam, M.T. (2019). Effect of Climate Change on Water Resources in Barind Tract of Rajshahi District. Proceedings of the 5th International Conference on Engineering Research, Innovation and Education ICERIE 2019, 25-27 January, Sylhet, Bangladesh.

[10] Kamruzzaman, M., Almazroui, M., Salam, M.A. et al. (2022). Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). *Sci Rep 12*, 20694 (2022). https://doi.org/10.1038/s41598-022-24146-0

[11] CCC (2009). Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, Department of Environment (DoE), Ministry of Environment and Forests (MoEF), Dhaka. https://core.ac.uk/download/pdf/48024281.pdf

[12] Hossen, M.A., Benson, D., Hossain, S.Z., Sultana, Z., Rahman, M.M. (2021). Gendered Perspectives on Climate Change Adaptation: A Quest for Social Sustainability in Badlagaree Village, Bangladesh. *Water*, 13(14):1922. https://doi.org/10.3390/w13141922

[13] Islam, M. N., Atiqul Haq, S. M., Ahmed, K. J., & Best, J. (2022). How do vulnerable people in Bangladesh experience environmental stress from sedimentation in the haor wetlands? An exploratory study. *Water Resources Research*, 58, e2021WR030241. https://doi.org/10.1029/2021WR030241

that people – particularly women and girls since it is seen as a feminized task (Sultana, 2009[14]) – have to collect water for basic purposes from long distances. This also applies to care of livestock, including fodder and watering (CCC, 2009). Sultana (2009), in her study of arsenic contamination in Bangladesh, also illustrates how mobility restrictions associated social norms — enforced by both elderly women and men — may force entire households to rely on unsafe water sources, with some variation by household wealth[15].

12. Health impacts: Freshwater scarcity[16], owing to droughts, is associated with increased disease risks associated with hampered sanitary hygiene in Bangladesh (Dey et al., 2011). While morbidity (diarrhea, typhoid, dysentery, etc.) is not gender-disaggregated in Dey et al. (2011), there's evidence of increased vulnerability of women from other studies (CCC, 2009; Abedin et al., 2013[17]; Ferdous and Mallick, 2015; Hossen et al., 2021). This is particularly worsened in situations of food insecurity and poor baseline access to sanitation (or when floods destroy sanitary facilities) when women and girls may choose to forgo meals in a day or refrain from using toilets resulting in urinary tract infections. Women in households may forgo food owing to belief that males are breadwinners of the family and engage in more onerous tasks.

Gendered vulnerabilities to climate change in Haor Area

13. Climate impacts are not gender-neutral and affect women and girls differently from men and boys, due to societal norms, systemic gender inequalities, and gender roles. Restriction on girls' mobility from puberty has limited their economic and social empowerment. This restricted mobility puts women at a higher risk during emergencies such as climate disasters. Because of the unfavorable topographical location, haor inhabitants are identified one of the most vulnerable people in Bangladesh. They are vulnerable to frequent natural disasters, poor or inadequate infrastructure, food insecurity, remoteness, landlessness, ecological degradation, unsafe drinking water and sanitation, deforestation, inadequate livelihood opportunities, and overall poor service provision. The Haors are mostly dry in the winter months (November to April) and are intensely cultivated with paddy rice and other crops. With the onset of the annual monsoons, the haors transform into large, often turbulent waterbodies.

14. The situation became worse in the Haor regions during and after the prolonged flood in 2022. Between May and June 2022, two consecutive waves of flood in haor region of north-eastern Bangladesh directly and indirectly affected 7.2 million people - 3.6 million of them were women and girls (table 1). Given their circumstances and restricted access to social protection and coping mechanisms, vulnerable groups like women, children, and people with disabilities were disproportionately affected by the floods.

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[14] Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. *Gender, Place & Culture*, 16(4): 427–444. https://doi.org/10.1080/09663690903003942

[15] Women also exercised agency by leveraging restrictive social norms to reduce their workload (households install a tubewell) or use the daily necessity to socialize.

[16] When tubewells cannot supply adequate quantity of water, and other surface water bodies dry up or have poor quality / unhygienic water.

[17] Abedin, M.A., Habiba, U., Shaw, R. (2013). Gender and Climate Change: Impacts and Coping Mechanisms of Women and Special Vulnerable Groups. In: Shaw, R., Mallick, F., Islam, A. (eds) Climate Change Adaptation Actions in Bangladesh. Disaster Risk Reduction. Springer, Tokyo. https://doi.org/10.1007/978-4-431-54249-0_10

Table 1: Total 2022 flood affected population by sex, age and disability:

Group	Population
Women	3.64 million
Men	3.61 million
Elderly (60+)	0.55 million
Persons with disability	0.107 million
Children (0-19)	3.5 million
Pregnant and lactating women	0.22 million

Source: NAWG, UN Women[18]

Table 2: Affected male and female population by sex and age group

Group	Population
Adult male	1,828, 469
Boys	1,782,379
Adult female	1,847,589
Girls	1,800,582
Total	**7.2 million**

Source: United Nations19

Table 3: Food insecurity in the project Divisions

Division	Severe insecurity	Moderate or severe insecurity
Sylhet (Sunamgonj, Habigonj Districts)	1.37	27.42
Mymensing (Kishorgonj, Netrokona District)	0.57	28.10
Chattaogram (Brahmanbaria)	1.11	19.04
Rajshahi (Rajshahi, Naogaon, Nawabgonj)	0.55	24.42

Source: BBS December 2023, Food Security Statistics 2023, Statistics and Information Division, Ministry of Planning. Government of the People's Republic of Bangladesh.

15. The table 3 show the divisional variation in severe, moderate or severe food insecurity at household level, where Sylhet division had the highest severe food insecurity and Rajshahi has the lowest rate among others. Stunting is high and food diversity is very low in haor.

16. Frequent pre-monsoon floods (March–April) negatively affect the harvesting and storing boro rice, causing loss of food, income, and employment, resulting in increased poverty, food insecurity, malnutrition, short-term outmigration, and more precarious livelihoods. Prolonged flooding causes loss of crops and property, resulting in a disproportionate burden on women and girls in terms of food security, and they remain at higher risks of food insecurity and malnutrition. Poverty and food insecurity problems in the haor region are severe compared to other parts of Bangladesh. The seasonal migration of males is high to cope with lean periods.

17. Women and girls in Haor communities face multiple forms of gender inequity and discrimination, compounded by the conservative context. Despite experiencing

[18] https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/kin_and_preliminary_analysis_situation_update_26_june_2022_final.pdf?_gl=1*dg3gxe*_ga*OTI2MTM4OTQ4LjE2NjY3OTA0Nzc.*_ga_E60ZNX2F68*MTY2OTc4MzM0MS41LjEuMTY2OTc4NDMyOS4zMi4wLjA.

[19] https://bangladesh.un.org/sites/default/files/2022-06/situation_overview_2_flash_flood_draft_draft_22_june_2022.pdf

higher rates of malnutrition and maternal mortality compared to other regions in Bangladesh, they encounter restricted mobility, limited economic opportunities, and reduced participation in social networks. Access to essential healthcare and education services is further hindered by transportation challenges during flood seasons, often preventing adolescent girls from continuing their secondary education due to safety concerns. More than 3,000 primary and secondary schools in Sylhet and Sunamganj districts were affected in 2022 and remained closed for about a month, resulting in learning loss for over 1.5 million learners[20]. School closures affect children's mental health, nutrition, and abuse risk in addition to learning. These conditions heighten the vulnerability of young girls to unintended pregnancies, early marriages, and gender-based violence, particularly in the aftermath of floods, where the stress of displacement and breakdown of social structures increases the risk.

18. In Bangladesh, at least 50% of women have faced physical or sexual violence from their male counterparts during their lifetimes[21]. Emergency flood shelters, designed without addressing gender needs, for example, privacy or security, increase women and girls' risk of GBV and health hazards (mostly related to disrupted sanitation facilities). Flood shelters were also overcrowded and lacked gender-sensitive and disability-inclusive design features. Even after the flood waters subsided, there was still a problem with the lack of clean drinking water due to damaged and non-operational tube wells. Menstruating women and new mothers suffered the most due to inaccessible toilets. Due to their restricted mobility, women and girls have limited access to information on early warning for disasters, which increases risks for women and other marginalized groups.

Gendered vulnerabilities to climate change in Barind Tract

19. Barind is typically characterized by seasonal drought, and future risks include rising temperature, reduced groundwater levels, and reduced wetlands. Increased food insecurity and malnutrition increase the vulnerability of women and girls to gender-based food distribution within the household. Poverty, food insecurity, dropping out of school, and rupture of social networks due to temporary and permanent migration all increase the potential for the trafficking of women and girls. Youth employment is high in this region. Lack of job opportunities due to lack of agricultural activities, illness due to extreme heat, etc, have been reported.

20. The Santal, Oraon, Munda, Mahali, Murari, and Pahan indigenous communities inhabited the project areas. These communities, predominantly comprised of landless people who rely on agricultural day labor, are facing increasing hardships due to the mechanization of agricultural work. Previously, they were able to secure work for six months annually; the advent of mechanization has diminished their labor demand, exacerbating their lean periods. Compounding their challenges, more farmers are moving away from rice to mango orchards, wheat, and horticulture, a venture requiring the use of pesticides and chemicals that the indigenous people are reluctant to engage with due to the associated health risks. Consequently, both men and women of these communities find themselves bearing the brunt of this evolving landscape. Indigenous children

[20] Ministry of Disaster Management and Relief, 2023, Disaster Needs Assessment, Government of the People's Republic of Bangladesh.

[21] UN Bangladesh, 2023. What works to prevent violence against women? Press Release. Retrieved from: https://bangladesh.un.org/en/232033-what-works-prevent-violence-against-women

typically receive education up to primary levels, with some extending their studies to class 8 or 9 before dropping out to return to traditional livelihoods.

21. The water and sanitation situation in the area is generally poor, primarily due to the low groundwater levels. Shallow tube wells are no longer functional, leaving only deep tube wells available for drinking water and irrigation. Indigenous communities rely on ponds and other surface water sources for domestic water, including drinking, cooking, dishwashing, bathing, cleaning, and managing livestock. This reliance on surface water poses challenges, as it may not always be clean or readily accessible, highlighting the pressing need for improved water and sanitation infrastructure to ensure the health and well-being of the community.

GESI in Project Design

22. While CRALEP is not flagged as a gender-transformative project according to IFAD's criteria, the project will mainstream gender concerns within its implementation. This will be done in line with the IFAD Policy on Gender Equality and Women's Empowerment and its strategic objectives.This will be achieved through a twin track approach of mainstreaming gender across all components, and implementation of gender specific methodologies through Gender Action Learning System (GALS). Three strategic pathways for gender equality and women's empowerment will be pursued: i) Promote economic empowerment to enable rural women and men to have equal opportunities to participate in and benefit from profitable economic activities; ii) Enable women and men to have an equal voice; and, iii) Achieve a more equitable balance of workloads and the sharing of economic and social benefits between women and men. CRALEP is youth sensitive project at design, social inclusion specialist will be recruited at PMU for the smooth implementation of the interventions and to support M&E responsibilities.

Project Components	Gender and social inclusion responsive intervention
Component 1: Climate proofed village road connectivity and market improvement.	
Village road connectivity in Haor & Barind areas	• Poor women, men, persons with disability, indigenous and other vulnerable groups will be employed as LCS members for the construction and maintenance of the infrastructure where feasible. • Road selection criteria will incorporate effective measures to connect to school, health facility, union, market considering poverty and vulnerability. • Collaboration with local entities to update on the status household with PwD in the targeted area. Reasonable action will be taken to prioritize in the selection process. Need basis shorter connection will be reasonably consider for the HH with PwD. • Road safety features including speed bumps, walkways an adequate lighting where feasible. • Certain % of women and indigenous women will be LCS members; availability of water and separate sanitation facilities and labor shed for the women laborers in the construction sites; no head carry for the women laborers, instead of that carry the materials with a trolley; equal wage for equal value of work. • Financial literacy training for the LCS members. • Project will ensure the appropriate measure for the protection from sexual exploitation, abuse and harassment of the women LCS member including a reporting line of incidents. All LCS member are aware about the reporting/ grievance mechanism. These clauses will be included in the bidding documents. • LCS members will be part of the Gender Action Learning (GALS) program, *access to financial institutions after the IGA training.* • Local consultation includes women and youth focused groups, will be arranged with the community to collect their opinions and to let them know about the construction; types of roads are built. Women and youth participation to ensure at the community consultation and to create equal access to information and active participation in decision making process.

Rural market improvement in Barind area	• Poor women, men, persons with disability, indigenous and other vulnerable groups who are the sellers and buyers will be consulted to know their problems with the existing markets infrastructures and services and recommendation. • Separate section for women or allocation of specific number of shops at suitable points/ location for women entrepreneurs. • Accessibility for PWD in the market and in the shed area. • All access areas are safe for women with light. • Separate space for women for prayer and breast feeding. • Shop allotees are oriented about tax, tariff, trade license and all legal requirements. • Separate toilet and water for women at safe and suitable location. • Ensures adequate supply of water, soap and cleanliness, bins for disposal of waste and hooks/ hanging in toilets. • Toilets have access for PWD women and men. • Toilets to have provision for changing/cleaning children. • Information about the MMC including members and contact are visible at the Market publicly. • Information related to emergency services are visible in the market area for the safety of the people including women and girls.
Market Management Committees	• Feasible support to form and update the MMC periodically according to the law. • Promote women and youth representation and voice within MMCs.
Boat landing ghats in Haor	• Ramp and safe walkways for PwD and Women. • Shed/waiting area to protect from rain/sun with separate provision for women. • Water and safe sanitation facilities for women and PWDs. • Cleanliness, running water, soap, bins for disposal of waste and hooks/ hanging for hanging purse/ bags in toilets. • Separate place for breastfeeding for women in waiting
Component 2. Village services for resilient communities in Haor	
Village internal services (walk ways, water and sanitation,)	• Poor women, men, persons with disability, indigenous and other vulnerable groups will be employed as LCS members for the construction and maintenance of the infrastructure where feasible. • Road selection criteria will incorporate effective measures to connect to school, health facility, union, market considering poverty and vulnerability. • Collaboration with local entities to update on the status household with PwD in the targeted area.

	Reasonable action will be taken to prioritize in the selection process. Need basis shorter connection will be reasonably consider for the HH with PwD. • Road safety features including speed bumps, walkways an adequate lighting where feasible. • Certain % of women and indigenous women will be LCS members; availability of water and separate sanitation facilities and labor shed for the women laborers in the construction sites; no head carry for the women laborers, instead of that carry the materials with a trolley; equal wage for equal value of work. • Financial literacy training for the LCS members. • Project will ensure the appropriate measure for the protection from sexual exploitation, abuse and harassment of the women LCS member including a reporting line of incidents. All LCS member are aware about the reporting/ grievance mechanism. These clauses will be included in the bidding documents. • LCS members will be part of the Gender Action Learning (GALS) program, *access to financial institutions after the IGA training.* • Local consultation includes women and youth focused groups, will be arranged with the community to collect their opinions and to let them know about the construction; types of roads are built. Women and youth participation to ensure at the community consultation and to create equal access to information and active participation in decision making process.
Sanitation, safe water	• Water and toilet block will have separate provision for men and women. • Awareness program on hygiene, sanitation, climate adoptive practices and menstrual hygiene.
Killa for temporary storage of harvests and shelter	• Ensures safe access with light for women to animal refuge for feeding and cleaning. • Adequate water storage and supply for animals and for cleaning. • Animal waste cleaning facilities ensured.
Low-cost nature-based village protection system in Shallow Haor (VPS)	• Community people including women and youth will produce vetiver grass and involve in the maintenance of nature-based protection system. • Feasible measures will be taken to include women participation and their income generation.

Component 3: Livelihood diversification and resilience	
Vocational training for young men and women	• Poor disadvantaged and vulnerable young men and women will receive the training and job placement provision will be included. • A particular need assessment to conduct to measure the priority of potential women, girl, PwD participants, to identify the the low participation rate in different trades and dropout rate during the training. The overall purpose of the assessment to offer a comprehensive vocational training program tailored to market demand and to attract more female and ethnic minorities. • Safety of the female participants will be regularly checked and periodical assessment will be conducted (in relation to new batches). • Participant will know how to report on protection from sexual exploitation, abuse and harassment. • Partnership development with local industries to facilitate job placement for trained women and girl, PwD and ethnic minority community. • Follow up on the job placement will be structured and incident report mechanism will be established in relation to torture and abuse.
Micro entrepreneurship training for women and poor	• Poor and disadvantaged men and women will receive microenterprise development project to diversify their livelihoods in the disaster-prone areas. • Prioritization to women and youth.
LCS in Haor and Barind Tract (Sustainable Livelihoods for LCS members)	• Poor men and women will work as LCS members. They will offer a form of wages for the poor who will also be provided technical skill relating to construction and maintenance. • The LCS will also be the entry point for implementation of Gender Action Learning system (GALS). GALS will not only help highlighting gender issues but will also support better planning at household level for better use of resource and improved livelhoods.

<u>Gender Action Plan Template (To be update according to AWPB)</u>

Activities		Performance Indicators	Performance Targets	Responsibility	Deadline	Budget
Gender-related objective	**Outcome 1**:					
	Activity[SOx]					

	Output 1.1:					
	Activity[SOx]					
	Output 1.2:					
	Activity[SOx]					
	Output 1.3:					
	Activity[SOx]					
Gender-related objective	**Outcome 2**:					
	Output 2.1:					
	Activity[SOx]					
	Output 2.2:					
	Activity[SOx]					
	Gender actions related to **project management**					
	Activity					

Notes:

1. Gender action plan to be prepared based on the project components and activities according to the AWPB and to achieve gender related objective under the components. This will be updated accordance each AWPB.
2. Gender-related Objectives: indicate what the gender action plan intends to achieve in the project (e.g. Expand women's access to and control over fundamental assets, such as capital, land, knowledge and technologies? Strengthen their agency and thus their decision-making role in community affairs and representation in local institutions? Improve well-being and ease women's workload? Ensure a more gender-equitable participation in and benefit from planned activities?)
3. Activities: implemented under each project component to achieve gender equality and poverty targeting goals. These activities will have to be included in the AWPB and should therefore be described also in terms of who will benefit from them (beneficiaries), financial implications (budget) indicator, target and deadline.
4. SO1 Addresses strategic objective 1 of IFAD's Gender Policy (Promote economic empowerment); SO2 Addresses strategic objective 2 of IFAD's Gender Policy (equal voice and influence in rural institutions and organizations) SO3 Addresses strategic objective 3 of IFAD's Gender Policy
5. Budget: Link to AWPB.
6. Monitoring: the gender action plan will be regularly monitored to assess progress of its implementation. The project coordinator is accountable for the timely and effective implementation of the action plan. The Gender and M&E specialists in the project will support the coordinator in this endeavor.