

NGO Forum for Public Health

Terms of Reference (TOR) for Consultancy Services of Retaining Wall & FSTP up-gradation.

Organizational Profile: NGO Forum for Public Health is a national networking and service delivery organization engaged in different development arena ranging from healthcare, WASH, nutrition to relief, rehabilitation and humanitarian responses related activities keeping governance as core approach.

NGO Forum for Public Health is implementing a project “Maintaining Access to Humanitarian and Inclusion Services for the Rohingyas in Bangladesh” in Cox’s Bazar supported by UNHCR. Under this project the following activities to improve the water supply situation in Teknaf will be implemented.

Background & Rationale:

Teknaf continues to face significant WASH infrastructure challenges due to difficult terrain, limited availability of suitable land, seasonal water stress, drainage constraints, and the need to maintain critical facilities in a highly congested humanitarian setting.

Several treatment plants, faecal sludge treatment plants and related WASH infrastructures have been established in different camps and surrounding areas to support the refugee response. However, some of these infrastructures require technical review, redesign, upgradation planning and site-specific engineering assessment to ensure long-term functionality, safety, resilience and operational efficiency.

In this regard, two specific works have been identified that require consultant-level technical support:

1. Revision of the retaining wall structural design at Shalbagan Treatment Plant

The existing retaining wall design for the Shalbagan Treatment Plant needs to be revised. During field-level planning and implementation review, the requirement for sheet piling emerged. Therefore, the overall retaining wall design needs to be reassessed and adjusted considering the new sheet piling approach, site condition, slope stability, structural safety and constructability.

2. FSTP-3 upgradation planning with constructed wetland design

FSTP-3 requires further upgradation planning to improve treatment efficiency and long-term functionality. Construction of a constructed wetland within the existing FSTP-3 area has been identified as one of the key upgradation components. A proper field-level assessment, technical feasibility review, design, drawing, BOQ and implementation plan are required for this intervention.

Purpose of the Work:

The purpose of this consultancy is to provide technical assessment, design revision, detailed engineering design, drawings, BOQ and implementation guidance for selected WASH infrastructure improvement works in Teknaf.



The consultant will be responsible for carrying out field assessment, reviewing the existing design documents, identifying technical gaps, preparing revised and new designs, and developing complete design packages suitable for implementation.

Scope of Work: The consultancy work involves multiple activities aimed at improving water and sanitation infrastructure across various camps in Teknaf. The scope includes

1. Shalbagan Treatment Plant Retaining Wall Structure Design Revision

The consultant will review the existing retaining wall design of the Shalbagan Treatment Plant and revise it based on the updated site requirement, particularly considering the inclusion of sheet piling.

The scope will include:

- Review of existing retaining wall design, drawings, structural assumptions and site layout.
- Field-level assessment of the proposed retaining wall alignment and surrounding site condition.
- Assessment of the need for sheet piling and its integration with the retaining wall system.
- Review of soil, slope, water pressure, drainage and stability considerations based on available field information.
- Revision of the retaining wall structural design considering the sheet piling approach.
- Preparation of updated structural drawings, sections, reinforcement details and construction details.
- Preparation of BOQ and cost estimate for the revised retaining wall and sheet piling works.
- Identification of construction methodology, technical risks and site-specific precautions.
- Preparation of design note/calculation summary to justify the revised approach.

2. FSTP-3 Upgradation Planning and Constructed Wetland Design

The consultant will conduct a field-level assessment of the existing FSTP-3 and prepare an upgradation plan with particular focus on the design of a constructed wetland.

The scope will include:

- Field assessment of the existing FSTP-3 layout, treatment units, available land, hydraulic flow, operational condition and current limitations.
- Review of existing FSTP-3 design, drawings, operational data and treatment process, where available.
- Identification of technical gaps and upgradation needs.
- Feasibility assessment for construction of a constructed wetland within the existing FSTP-3 premises.
- Assessment of suitable location, required area, flow path, inlet-outlet arrangement, hydraulic loading, media requirement and vegetation selection for the constructed wetland.
- Preparation of conceptual and detailed design of the constructed wetland.
- Preparation of layout plan, sectional drawings, hydraulic details, inlet/outlet structures, filter media layers, planting details and operational considerations.
- Preparation of BOQ and cost estimate for the constructed wetland and associated upgradation works.
- Preparation of an implementation plan considering site constraints, operation continuity and environmental safety.
- Preparation of operation and maintenance guidance for the constructed wetland.



Activity details:

Network improvement work: Nayapara RC

Component	Activities	Unit Coverage /	Preparatory Work
Shalbagan Treatment Plant Retaining Wall Design Revision	Revision of retaining wall structural design considering sheet piling requirement	As per site requirement	Field assessment, review of existing design, revised structural design, drawings, BOQ
FSTP-3 Upgradation Planning	Technical assessment of existing FSTP-3 and preparation of upgradation plan	Existing FSTP-3	Field assessment, process review, gap identification, design planning
Constructed Wetland at FSTP-3	Design of constructed wetland within existing FSTP-3 area	As per hydraulic and site assessment	Feasibility study, layout, design, drawings, BOQ, O&M guidance

Expected Deliverables

The consultant shall submit the following deliverables:

1. Inception Report

The inception report should include:

- Understanding of the assignment.
- Proposed methodology.
- Work plan and timeline.
- Required information and documents.
- Field assessment plan.
- Key technical considerations for both components.

2. Field Assessment Report

The field assessment report should include:

- Existing site condition of Shalbagan Treatment Plant retaining wall area.
- Existing condition of FSTP-3.
- Technical gaps and design considerations.
- Site constraints and construction risks.
- Photographic documentation and field observations.

3. Revised Design Package for Shalbagan Retaining Wall

The design package should include:

- Revised retaining wall design considering sheet piling.
- Structural drawings and details.
- Design calculation summary.
- Construction methodology note.
- BOQ and cost estimate.
- Technical specifications.



4. FSTP-3 Upgradation and Constructed Wetland Design Package

The design package should include:

- FSTP-3 upgradation concept.
- Constructed wetland feasibility assessment.
- Detailed layout plan.
- Plan, section and structural/hydraulic details.
- Inlet and outlet arrangement.
- Media and vegetation specification.
- BOQ and cost estimate.
- Implementation plan.
- O&M guidance.

5. Final Consultancy Report

The final report should include:

- Summary of all assessments.
- Finalized design documents.
- Final BOQ and cost estimate.
- Implementation recommendations.
- Key risks and mitigation measures.
- Soft copies of all drawings, BOQs and reports in editable and PDF formats.

Consultant Qualifications

The consultant or consulting firm should have:

- Proven experience in civil, structural and environmental engineering design.
- Experience in retaining wall design, slope protection, sheet piling or similar structural works.
- Experience in faecal sludge treatment plant design, wastewater treatment, constructed wetland or nature-based treatment systems.
- Experience in humanitarian, refugee camp or complex field settings will be preferred.
- Ability to conduct field assessment and prepare practical, implementable designs.
- Strong capacity to prepare drawings, BOQ, cost estimate and technical specifications.
- Familiarity with Teknaf/Cox's Bazar context will be an added advantage.

Duration of the Assignment:

The consultancy is expected to be completed within **20days** from the date of commencement.

Indicative timeline:

Deliverable	Timeline
Inception report	Within 3 days of contract signing
Field assessment and preliminary findings	Within 10 days
Draft design package	Within 14 days
Review meeting and feedback incorporation	Within 17 days
Final design, BOQ and report submission	Within 20 days

Selection Criteria:

The selection of the consultant will be based on the following criteria:

Criteria	Weight
Relevant experience in similar structural, FSTP, Surface water treatment plants and RCC design works	25%
Technical proposal and methodology	25%



Criteria	Weight
Qualification and experience of key team members	15%
Work plan & Time line	10%
Financial proposal	25%

Submission of Proposals:

Interested consultants/consulting firms should submit the following:

- Technical proposal including understanding of the assignment and methodology.
- Work plan and timeline.
- Financial proposal.
- CVs of key team members.
- Similar work experience or portfolio.
- Legal/organizational documents, if applicable.

Proposals should be submitted by

Payment Instructions:

Payment Milestone	Percentage
Upon signing of contract and submission of inception report	30%
Upon submission of draft design packages and BOQ	40%
Upon submission and acceptance of final report, drawings and BOQ	30%

Contact Information:

For further information or clarifications, please contact:

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Note: This TOR outlines the comprehensive requirements and expectations for the consultancy services aimed at improving the water infrastructure in Teknaf. We look forward to receiving proposals from qualified and experienced consultants who are committed to making a significant impact in the lives of the refugees and host communities.

