

Water is Life Phase III

Terms of Reference

Water Irrigation Systems Technical Consultant

CARE Egypt Foundation (CEF):

CARE Egypt Foundation (CEF) is a non-governmental organization registered with the Central Administration of Associations and Federations at the Ministry of Social Solidarity under registration number 2018/833. The Foundation's headquarters is located at 25 Asmaa Fahmy Street, 5th Floor, Plot No. 1, Square Y, Nasr City First Police Station, Cairo, Egypt. The Foundation is subject to the provisions of the Law on Regulating the Exercise of Civil Work No. 149 of 2019.

CARE Egypt Foundation builds on and benefits from the legacy and expertise of CARE International in Egypt, which extends back to 1954. The Foundation assumes responsibility for designing, implementing, and managing development programs and projects aimed at improving living conditions and enhancing the quality of life for the most vulnerable groups, through addressing the root causes of poverty and fostering sustainable development within local communities.

Agriculture and Natural Resources Program

The Agriculture and Natural Resources program aims to increase equitable and sustainable accessibility to natural resources and services in rural communities in addition to supporting smallholder farmers economically with a special emphasis on empowering women.

The agriculture and natural resources program is collaborating with a variety of stakeholders such as CSOs, Ministry of Agriculture, and Ministry of irrigation along with creating partnerships with the private sector to evoke the change in the agriculture sector in Egypt.

Water is Life Phase III

Water is Life Phase III seeks to improve water use efficiency and agricultural productivity among smallholder farmers in Beheira Governorate through the installation of modern irrigation systems and the promotion of climate-smart agricultural practices.

Building on previous phases, the initiative will support the conversion of traditional irrigation systems into efficient drip irrigation systems, improve farmers' technical capacities, reduce water losses, and enhance the sustainability of agricultural production.

The initiative will target approximately 30 feddans of agricultural land and work closely with farmers, local stakeholders, and technical experts to ensure the successful installation, operation, and maintenance of irrigation systems.

Objective of the Assignment:

The objective of this consultancy is to provide technical expertise throughout the planning, procurement, installation, commissioning, operation, and post-installation monitoring phases of drip irrigation systems under Water is Life Phase III.

The Consultant will ensure that irrigation systems are technically sound, procured according to quality standards, properly installed, effectively utilized by farmers, and capable of achieving improved water use efficiency and agricultural productivity.

Scope of Work and Deliverables:

The Consultant shall undertake the following tasks:

1. Technical Assessment and System Design

The Consultant shall:

- Conduct field assessments of targeted farms.
- Assess water sources, soil conditions, topography, and crop requirements.
- Calculate irrigation water requirements.
- Develop irrigation system designs and layouts.
- Prepare hydraulic calculations and technical specifications.
- Identify technical risks and mitigation measures.

Deliverables

- Inception Report.
- Baseline Technical Assessment Report.
- Irrigation System Design Report.
- Hydraulic Calculations.
- Technical Drawings and Layout Plans.

2. Tender Preparation

The Consultant shall:

- Prepare technical tender documents.
- Develop Bills of Quantities (BOQs).
- Define technical specifications and quality standards.
- Develop technical evaluation criteria and scoring methodology.
- Support technical clarification requests during procurement.

Deliverables

- Technical Tender Package.
- Technical Specifications.
- BOQ.
- Technical Evaluation Matrix.
- Cost Estimation Framework.

3. Technical Evaluation of Bids

The Consultant shall:

- Review submitted bids.
- Evaluate technical compliance.
- Conduct technical scoring.
- Participate in evaluation committee meetings when requested.
- Provide recommendations for contract award.

Deliverables

- Technical Evaluation Report.
- Technical Compliance Matrix.
- Comparative Bid Analysis Report.

- Recommendation for Award Report.

4. Quality Assurance and Material Inspection

The Consultant shall:

- Review supplier technical submissions.
- Inspect supplied materials.
- Verify compliance with approved specifications.
- Review certifications and warranties.
- Identify non-compliance issues and recommend corrective actions.

Deliverables

- Material Inspection Reports.
- Material Acceptance Certificates.
- Quality Assurance Reports.

5. Installation Supervision and Commissioning

The Consultant shall:

- Supervise installation activities.
- Verify compliance with approved designs.
- Monitor installation quality.
- Conduct testing and commissioning.
- Participate in final acceptance and handover.

Deliverables

- Biweekly Installation Supervision Reports.
- Installation Verification Reports.
- Pressure Testing Reports.
- Commissioning Report.

- Final Technical Acceptance Report.

6. Farmer Capacity Building and Training

The Consultant shall:

- Develop training materials and manuals.
- Deliver theoretical and practical training sessions.
- Train farmers on operation and maintenance of drip irrigation systems.
- Conduct field demonstrations and hands-on exercises.

Training topics shall include:

- Introduction to drip irrigation systems.
- System operation.
- Irrigation scheduling.
- Maintenance and troubleshooting.
- Water management practices.
- Fertigation techniques.

Deliverables

- Training Plan.
- Training Materials.
- Attendance Sheets.
- Farmer Training Reports.
- Knowledge Assessment Results.

7. On-the-Job Coaching and First Season Follow-Up

The Consultant shall:

- Conduct regular field visits during the first cultivation season.
- Provide technical coaching and troubleshooting support.

- Monitor adoption of irrigation practices.
- Monitor system performance and maintenance practices.

Deliverables

- Monthly Follow-Up Reports.
- Coaching Reports.
- System Performance Reports.

8. Water Productivity Monitoring

The Consultant shall:

- Measure irrigation water use and efficiency.
- Assess water savings achieved.
- Monitor crop performance and irrigation effectiveness.
- Document lessons learned and recommendations.

Deliverables

- Mid-Season Water Productivity Report.
- End-of-Season Water Productivity Report.
- Water Savings Analysis Report.

9. Final Reporting

The Consultant shall prepare a comprehensive Final Assignment Report including:

- Summary of activities implemented.
- Tendering process support.
- Installation supervision findings.
- Training results.
- Farmer adoption results.
- Water productivity findings.

- Lessons learned.
- Recommendations for future phases.

Deliverables

- Final Consultant Report.
- Final Presentation to CARE Egypt Foundation and project stakeholders.

Consultant's Qualifications:

The Consultant shall possess:

Education

- Master degree or higher in Agricultural Engineering, Irrigation Engineering, Water Resources Engineering, or a related field.

Professional Experience

- Minimum 10 years of professional experience in irrigation and Water management systems.
- Demonstrated experience in drip irrigation system design and implementation.
- Proven experience in technical tender preparation and BOQ development.
- Experience in technical evaluation of bids and contractor selection.
- Experience supervising irrigation installation projects.
- Experience in farmer training and capacity building.
- Previous experience with donor-funded projects is highly desirable.

Skills

- Excellent technical writing and reporting skills.
- Strong facilitation and training skills.
- Fluency in Arabic.
- Good command of English.

Consultancy Level of Effort

The following working days is foreseen for this assignment including preparation, field work, supervision, monitoring, training, reporting, and final documentation.

Specific Tasks, Outputs and Time Frame

Tasks	Outputs	No. Days/ Time Frame
Inception and planning	Inception Report and Workplan	1-2 Days
Technical assessment and design	Assessment Report, Drawings and Design Package	3-5 Days
Tender preparation	Tender Package, BOQ and Evaluation Matrix	1-2 Days
Technical bid evaluation	Evaluation Report and Recommendation	1-2 Days
Material inspection and QA	Inspection and Acceptance Reports	2-4 Days
Installation supervision	Supervision and Commissioning Reports	10-15 Days
Farmer training	Training Reports and Materials	7-10 Days
First season follow-up	Monthly Monitoring Reports	7-10 Days
Final reporting	Final Consultant Report and Presentation	3-5 Days

Execution of Assignment:

Consultancy start and end date: **From second week of July 2026 to End of March 2027**

Coordination and Reporting:

The Consultant will report directly to the Project Manager of Water is Life Phase III.

The Consultant shall coordinate closely with:

- CARE Egypt Foundation.
- Implementing NGO.
- Procurement Department.
- Finance Department.
- Technical Committee.
- Irrigation Contractors.
- Beneficiary Farmers.

Conditions of Implementation:

Interested applicants should submit the following documents in their offers:

1. Technical Proposal.
 - i. A brief statement in understanding of the assignment, and general approach to it.
 - ii. A brief description of the methodology proposed to be use in the assignment, including techniques and tools,
 - iii. A capabilities statement of the consultant organization and/or brief description of relevant (similar) consultancies that would qualify for this assignment. This statement should be included as a separate annex, in addition to the five-page proposal.
 - iv. Consultant CV
 - v. It should indicate a complete list of deliverables and a proposed time-frame.
2. Financial Proposal:

The financial proposal should include a breakdown of the cost elements to assist in determining the rationale of the given rates.

CARE will withhold applicable taxes and deposit the funds with the applicable for tax authorities under this agreement

Consultant Professional Service Fees

Deliverables / Description	Quantity	Unit of measurement	Unit price	Total
Inception Report and Workplan	1-2 Days			
Assessment Report, Drawings and Design Package	3-5 Days			
Tender Package, BOQ and Evaluation Matrix	1-2 Days			
Evaluation Report and Recommendation	1-2 Days			
Inspection and Acceptance Reports	2-4 Days			
Supervision and Commissioning Reports	10-15 Days			
Training Reports and Materials	7-10 Days			
Monthly Monitoring Reports	7-10 Days			
Final Consultant Report and Presentation	3-5 Days			

Consultant Administrative Costs

Description	Unit Cost in EGP	Number Days	Amount

Administrative Costs: Such costs could include transportation, air tickets, lodging, per diem, departure taxes, training logistics, enumerators, interpreters, etc. Note that per diem and lodging rates will be per CARE Egypt Foundation policy. No reimbursable expense in excess of _____ [Amount] (currency____) shall be incurred without CARE's prior written approval. If Vendor travel reimbursement shall be made under this Agreement, then Vendor shall follow CARE's travel policies and be subject to CARE per diem rates

Deadline for sending the technical and financial proposal is _____, Financial proposal should include Taxes and other expenses (if any), to be sent to CARE Egypt Foundation – Att. Procurement Officer Name to (Procurement Officer Email), with subject (pls. insert the TOR name/project) using the above mention tables.

* Any proposals received after the deadline mentioned, will not be considered. Please accept our apology for not giving any exceptions or accepting any justification for late receive.

Please feel free to contact us via email for any further details or inquiry via email prior (pls. insert a date)

Proposals will be assessed against weighted criteria that include understanding of the task; proposed methodology; previous experience and value for money as follows:

Technicality 70% :

Financial 30%

CEF keeps all rights to accept or refuse any offer received without giving reasons.

Technical and financial offer will be discussed upon selection.

Payment Schedule:

All payments (done within 30-45 working days from invoice submission and linked with deliverables and timeline.

CARE Egypt foundation will withhold applicable taxes and deposit the funds with the applicable for tax authorities under this agreement. Thus the financial proposal should include all taxes