

TERMS OF REFERENCE

Local Expert in Land and Water Management

Technical Support to the Implementation of the SWAMED Pilot Demonstration in Al Beheira Governorate, Egypt (WP5 & WP4)

SWAMED Project – co-funded by the European Union under the Interreg NEXT MED Programme

Contract title	Local Expert in Land and Water Management – Technical support services for the SWAMED pilot demonstration in Al Beheira Governorate (WP5 and WP4)
Programme	Interreg NEXT MED Programme 2021–2027
Project	SWAMED – Sustainable Water management for smart agriculture in the MEDiterranean regions
Contracting Authority	The British University in Egypt – BUE, Partner PP02
Type of contract	Service contract – individual consultant or service provider (natural or legal person)
Procurement procedure	Single tender procedure, in accordance with the procurement rules applicable to the Contracting Authority under the Interreg NEXT MED Programme, the Grant Contract, and applicable national legislation
Duty station	Al Beheira Governorate pilot area, Egypt (physical presence required). The expert must be based in Al Beheira or Alexandria Governorate.
Publication date	19 July 2026
Deadline for submission	14 August 2026, 23:59 (Cairo time, GMT+2/+3 as applicable)
Contract start date	18 August 2026
Contract end date	30 December 2027

1. Background

SWAMED is a project co-funded by the European Union under the Interreg NEXT MED Programme 2021–2027. The project develops, deploys, and evaluates an integrated smart water monitoring and management system for irrigated agriculture in four Mediterranean pilot sites – Greece, Türkiye, Tunisia, and Egypt. The system combines water quality, flow, and leakage sensors, soil sensors, field weather stations, drone-based crop and soil-humidity observation, satellite earth-observation services, remote actuators for smart irrigation (sprinkler and drip systems), and a cloud-based Decision Support System (DSS) with artificial intelligence components, delivered as a web interface and mobile application.

The Egyptian pilot demonstration is implemented in Al Beheira Governorate under the responsibility of the Egyptian project partner (PP2 – BUE). The main local crops targeted are potatoes, artichokes, strawberries, and oranges. The issues addressed by the pilot, as identified in the approved Application Form, are: canal water leakage and the failure of water to reach all users, and the national policy objective of shifting from prevalent

flood irrigation to modern technologies (sprinkler and drip irrigation) as part of the transition to sustainable water practices.

The pilot is implemented mainly under Work Package 5 (Project Implementation), with preparatory technical activities under Work Package 4 (Pilot Demonstrations preliminary activities) and continuous interaction with the multi-stakeholder, training, and data-collection activities of Work Package 3. The activities of direct relevance to this assignment are:

- A4.2.1 – Report on deployment, set-up, and test of the technological assets: preparation of the Egypt chapter, including detailed descriptions, maps, technical features, troubleshooting instructions, and maintenance requirements for the Egyptian pilot site.
- A5.2.2 – Pilot implementation in Egypt, Al Beheira Governorate): use of the system by farmers and water management authorities; support to users; monitoring through the DSS with weekly evaluation of data; monthly farm visits and interaction with water management entities; on-demand assistance to farmers and water management entities.
- A5.3.1 – Pilot data collection and data package preparation: data collection through the DSS, monthly field visits, interviews, and questionnaires addressed to farmers and water management entities; preparation of data packages feeding; pilot evaluation reports.
- A5.3.2 / A5.3.3 – Pilots' intermediate and final evaluation reports: Egypt inputs to the evaluation reports, including WEFE framework application, Social and Environmental Life Cycle Assessment data, cost/benefit analysis for farmers, communities, and water management institutions, best practices, lessons learnt, and policy and governance relevance; contribution to the white paper and to the Egypt policy brief.

To ensure effective, continuous, field-based technical support to these activities, the Contracting Authority intends to contract a local expert in land and water management, based in Al Beheira or Alexandria, with a mandatory physical presence in the pilot area of two to three days per week. This is not a remote or online assignment.

2. Objectives of the Assignment

2.1 Overall objective

To ensure the successful, technically sound, and audit-ready implementation of the SWAMED pilot demonstration in Al Beheira Governorate by providing continuous, on-site expertise in land and water management in support of WP5 and WP4 activities.

2.2 Scope of Work and Tasks

- Provide field-level technical support to the deployment, operation, and maintenance oversight of the SWAMED monitoring and smart-irrigation system at the Egyptian pilot site (WP4/WP5).
- Support farmers and water management entities in Al Beheira in the effective daily use of the Decision Support System and associated technologies, including the transition from flood irrigation to sprinkler/drip irrigation practices (WP5).
- Support the selection of representative water and soil samples for analysis to generate the data required for the Decision Support System (DSS).
- Provide technical recommendations on land management and improvement measures, as well as identify the appropriate parameters and practices for sustainable water management. Carry out systematic field

data collection, weekly DSS data review, monthly farm visits, interviews, and questionnaires, and prepare the Egyptian data packages required for the intermediate and final pilot evaluation reports (A5.3.1).

- Contribute Egypt-specific technical content to project deliverables: the deployment/set-up/test report (Egypt chapter), the intermediate and final pilot evaluation reports, the white paper, the Egypt policy brief, and the exploitation and scale-up plan (A4.2.1, A5.3.2, A5.3.3, O5.4).

3. Deliverables and Indicative Timeline

All deliverables shall be submitted in English, in editable electronic format, and shall comply with EU and Interreg NEXT MED visibility requirements. Field-level materials for farmers may be produced in Arabic. Deliverable acceptance is subject to formal approval by the Contracting Authority. The indicative timeline below is based on the contract period 18 August 2026 – 30 December 2027; exact dates will be aligned with the project calendar at inception.

No.	Deliverable	Indicative due date
D1	Inception Report: work plan, presence schedule (2–3 days/week), field visit calendar, data collection plan, risk register Support the selection of representative water and soil samples for analysis to generate the data required for the Decision Support System (DSS).	Within 1 month of contract signature
D2	Technical field report on system set-up, testing, and operational status at the Al Beheira pilot, incl. inputs to the Egypt deployment/set-up/test documentation (maps, technical features, troubleshooting, maintenance)	Within 2 months of contract signature
D3	First consolidated pilot monitoring report and Egyptian data package (DSS data review, farm visit records, interviews/questionnaires, field logbook extract)	Within 6 months of contract signature
D4	Egypt technical inputs to the intermediate pilot evaluation report, incl. cost/benefit elements, best practices, lessons learnt, and inputs to the white paper draft and Egypt policy brief	Within 8 months of contract signature
D5	Second consolidated pilot monitoring report and updated Egyptian data package covering the full contract period	Within 12 months of contract signature
D6	Final assignment report: Egypt inputs to the final pilot evaluation reporting (WEFE/LCA data, sustainability and resilience elements, policy and governance relevance), inputs to the exploitation and scale-up plan (O5.4), and handover note	By 15 December 2027

5. Duration, Location, and Presence Requirements

5.1 Duration

The contract shall run from 18 August 2026 until 30 December 2027 (approximately 16.5 months). The end date is fixed; no extension is foreseen beyond the eligibility constraints of the SWAMED Grant Contract.

5.2 Location and mandatory physical presence

- The expert (or, for a legal person, the designated key expert) must be resident or professionally based in Al Beheira Governorate or Alexandria Governorate for the entire contract duration. Proof of residence or professional establishment shall be provided with the offer.
- This is a physical, field-based assignment. Remote or online-only delivery is not accepted.
- The expert commits to a physical presence in the Al Beheira pilot area of a minimum of two (2) and typically three (3) working days per week, documented through the field logbook and monthly activity reports. The weekly schedule shall be agreed in the Inception Report and may be adjusted with the prior written approval of the Contracting Authority.
- Travel within the pilot area and between Alexandria/Al Beheira and the pilot sites is considered included in the contract price.

5.3 Level of effort

The assignment is output-based. The indicative level of effort corresponding to the presence requirement is in the order of 8–12 working days per month on site, plus reporting and coordination time. The contract price is a global price for the services and deliverables described in these Terms of Reference; no per-diem or fee-per-day adjustment applies unless explicitly provided for in the contract.

6. Reporting, Supervision, and Coordination

- The expert reports to the SWAMED project coordinator of the Contracting Authority, who is responsible for deliverable acceptance.
- Working language: English for all deliverables and project coordination; Arabic for field work with farmers and local water management entities.
- All data collected under this assignment are the property of the SWAMED project and shall be handled in accordance with the project's data management rules and applicable data protection legislation, including informed consent for interviews, questionnaires, and photographs.

7. Expert Profile – Requirements

The requirements below apply to the individual expert or, in the case of a service provider (legal person), to the designated key expert who will personally perform the assignment. Substitution of the key expert during implementation requires the prior written approval of the Contracting Authority and an equivalent or superior profile.

7.1 Qualifications and skills (mandatory)

- University degree (minimum Ph.D.) in agricultural engineering, irrigation and hydraulics engineering, water resources management, land and soil sciences, agronomy, or a closely related field.
- Fluency in Arabic and good working proficiency in English (reporting language).
- Proficiency in standard office software and demonstrated ability to work with digital data collection tools; familiarity with GIS, remote sensing products, or farm-management/decision-support applications is an asset.
- Publication in cited journals in the same scope of the TOR

7.2 General professional experience (mandatory)

- Minimum (20) years of professional experience in land and water management, irrigation management, or agricultural water use, of which a substantial part in field-based roles.
- Demonstrated experience working (15 years) directly with farmers, water user associations, and/or irrigation authorities in Egypt.

7.3 Specific professional experience (mandatory)

- Proven experience (15 years) in on-farm irrigation systems, including modern irrigation technologies (drip and sprinkler) and the conversion from surface/flood irrigation.
- Proven experience (10 years) in Water-Energy-Food-Environment (WEFE) nexus approaches and/or Life Cycle Assessment data requirements.
- Demonstrated knowledge of the agro-ecological and water-management context of Al Beheira Governorate / the western Nile Delta, including canal irrigation systems and the pilot-relevant crops (potatoes, artichokes, strawberries, oranges) or comparable horticultural systems.

7.4 Assets

- Prior experience in EU-funded or other internationally funded projects (e.g. Interreg/ENI CBC MED, Horizon, PRIMA, FAO, World Bank), including familiarity with EU reporting and visibility rules.
- Experience with decision support systems, precision agriculture, IoT sensors, drones, or satellite-based irrigation advisory services.
- Experience in socioeconomic or cost/benefit data collection and in gender-sensitive approaches to stakeholder engagement.

8. Procurement Procedure and Contract Conditions

- The contract will be awarded through a single tender procedure, applied in accordance with the procurement rules binding on the Contracting Authority under the SWAMED Grant Contract, the Interreg

NEXT MED Programme rules, and applicable national legislation, and within the threshold authorising this procedure.

- The candidate must not be in any of the exclusion situations applicable to EU-funded contracts (bankruptcy, conviction for professional misconduct, fraud or corruption, non-payment of taxes or social security contributions, conflict of interest) and shall sign a declaration of honour to this effect.
- The candidate must be free of any conflict of interest in relation to the SWAMED project, its partners, and its evaluation and control bodies, and shall disclose any circumstance that could give rise to one.
- The contract is a global-price service contract. Payments are conditional upon the formal acceptance of the corresponding deliverables by the Contracting Authority.
- Taxes, social contributions, and insurance, within the assignment area are the responsibility of the contractor.
- The contractor shall comply with EU visibility and communication rules applicable to Interreg NEXT MED.

9. Payment Schedule

Payments shall be made in four instalments against accepted deliverables, upon submission of a correct invoice, as follows:

Instalment	Share	Condition for payment
1st	20%	Upon acceptance of D1 (Inception Report) – indicatively September 2026
2nd	20%	Upon acceptance of D2 (technical field report on set-up/testing)
3rd	40%	Upon acceptance of D3 (first pilot monitoring report and data package) ; D4 (Egypt inputs to the intermediate pilot evaluation report) and D5 (second pilot monitoring report and data package)
4th (final)	20%	Upon acceptance of D6 (final assignment report incl. evaluation and exploitation inputs)

The Contracting Authority may withhold payment, in whole or in part, in the event of non-performance, incomplete deliverables, or failure to meet the physical presence requirement as evidenced by the field logbook and monthly reports.

10. Evaluation of the Offer and Award

The Contracting Authority will assess the offer against the Expert Profile – Requirements of these Terms of Reference and may negotiate technical and financial aspects with the candidate before award, in line with the single tender procedure. The Contracting Authority reserves the right not to award the contract.

Although the single tender procedure involves a single invited candidate and therefore no comparative ranking, the offer shall be formally assessed before award. The assessment will be carried out by an evaluation committee of the Contracting Authority, free of any conflict of interest.

Verification, on the basis of the CV, supporting documents, and references, that the expert (or designated key expert) meets all mandatory requirements of Sections 7. Each mandatory requirement is assessed individually.

The technical offer is scored against the grid below.

Technical evaluation criterion	points
Minimum (20) years of professional experience in land and water management, irrigation management, or agricultural water use, of which a substantial part in field-based roles.	20
Demonstrated experience working (15 years) directly with farmers, water user associations, and/or irrigation authorities in Egypt.	20
Proven experience (15 years) in on-farm irrigation systems, including modern irrigation technologies (drip and sprinkler) and the conversion from surface/flood irrigation.	10
Proven experience (10 years) in Water-Energy-Food-Environment (WEFE) nexus approaches and/or Life Cycle Assessment data requirements.	10
Demonstrated knowledge of the agro-ecological and water-management context of Al Beheira Governorate / the western Nile Delta, including canal irrigation systems and the pilot-relevant crops (potatoes, artichokes, strawberries, oranges) or comparable horticultural systems.	10
University degree (minimum Ph.D.) in agricultural engineering, irrigation and hydraulics engineering, water resources management, land and soil sciences, agronomy, or a closely related field. Fluency in Arabic and good working proficiency in English (reporting language). Publication in cited journals in the same scope of the TOR	10
4. Additional assets: EU-funded project experience, familiarity with DSS/precision-agriculture technologies, socioeconomic and gender-sensitive data collection, WEFE/LCA knowledge	10
Total	90

Financial evaluation and negotiation

- Verification that the financial offer does not exceed the maximum available budget for this contract.
- Assessment of price reasonableness and value for money, the required level of effort, and prevailing market rates for comparable expertise in Egypt;
- The Contracting Authority may negotiate technical and financial aspects of the offer with the candidate. Any agreed modifications shall be recorded in the negotiation note and reflected in the contract; they may not alter the subject of the contract or the mandatory requirements of these Terms of Reference.

11. Content of the Offer and Submission

The applicant shall submit, only by email, by 14 August 2026, 23:59 (Cairo time), to saleh.ahmed@bue.edu.eg:

- A technical offer: understanding of the assignment, proposed methodology and work plan (max. 5 pages), and a proposed weekly presence schedule.
- The detailed CV of the expert (Europass or equivalent format), with references for the mandatory experience requirements of Section 7.
- Proof of residence or professional establishment in Al Beheira or Alexandria Governorate.
- A financial offer: global price for the full assignment. Evaluation will be mainly on the technical offer, basis of the best price-quality ratio, weighted 90% technical and 10% financial.
- A signed declaration of honour on exclusion criteria and absence of conflict of interest.

- For legal persons: valid commercial registration and tax card, and the designation of the key expert.

12. Ethics, Data Protection, and Visibility

- All interactions with farmers and stakeholders shall respect informed consent, voluntary participation, and gender-sensitive engagement practices, consistent with the project's multi-stakeholder approach.
- Personal data collected through interviews and questionnaires shall be processed lawfully, minimized, stored securely, and used exclusively for SWAMED purposes.
- All documents, presentations, and field materials produced under the contract shall carry the EU emblem and Interreg NEXT MED visibility elements in accordance with the programme visual identity rules.
- Intellectual property rights in the deliverables vest in the Contracting Authority/SWAMED partnership in accordance with the Grant Contract.