

Call for individual Groundwater Expert for the process of developing and implementing the climate resilient ICZM plan for the North Coast of Egypt

1. Background

The Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) aims at supporting the adaptation efforts of Egypt in the North coast and in particular the Nile Delta which is identified by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report as one of the world's three "extremely" vulnerable deltas in the world. The objective of the ECCADP is to reduce coastal flooding risks in Egypt's North Coast due to the combination of projected sea level rise and more frequent and intense extreme storm events. Output 1 focuses on constructing 69 km of sand dune dikes at five vulnerable hotspots within the Nile Delta that were identified during an engineering scoping assessment and technical feasibility study. Output 2 focuses on the development of a climate resilient Integrated Coastal Zone Management (ICZM) plan for the entire North Coast of Egypt, to manage long-term risks including climate change.

The ECCADP will facilitate transformational change in the short-term by reducing coastal flooding threats along vulnerable hotspots in the Delta and in the long-term by integrating additional risks of climate change into coastal management and planning, budgeting and implementation of risk reduction measures. The ECCADP is implemented by the Ministry of Water Resources and Irrigation (MWRI) and is jointly funded by the Government of Egypt (GoE), the Green Climate Fund (GCF) and the United Nations Development Programme (UNDP).

The ECCADP recruited an international consultancy firm to develop and assist in the implementation of a climate resilient ICZM plan for the North Coast of Egypt. The consultancy firm has accomplished a number of outputs (<https://eccadp.com/>) including Numerical model of ground water flow and salt intrusion, and based on these model results, a number of deliverables needed to proceed with the next process of developing and implementing the climate resilient ICZM plan for the North Coast of Egypt.

The project seeks to recruit an individual Ground water Expert to prepare and deliver number of tasks within the process of developing and implementing the climate resilient ICZM plan for the North Coast of Egypt - related tasks - as described below in the duties and responsibilities section based on the data input from the ECCADP.

2. Scope of work:

Based on the groundwater model data inputs from the ECCADP, the Groundwater expert will carry out the following:

- 2.1: Assess impacts of no action on saltwater intrusion (quantity, sea water interface and groundwater water depth) and costs of negative impacts of groundwater levels and salinity and agriculture productivity
2. 2: Propose measures to control seawater intrusion and assess costs and impacts of the proposed measures on reducing groundwater and soil salinity.
2. 3 Develop set of indicators to monitor sea water intrusion based on quantity (maybe groundwater levels) and quality of ground water which can form the basis for the M&E system including baseline and projections with and without the control measures.
- 2.4 Deliver expert opinion on matters related to the ICZM.
- 2.5 Deliver on the job training sessions to the ICZM stakeholders

3. Duration

3.1 ECCADP will contract the Groundwater expert for Nine months within which S/He will be asked to deliver a number of reports, database, and attend a regular of meetings in the process of developing and implementing the climate resilient ICZM plan for the North Coast of Egypt. This contract can be renewed based upon the project requirements and the evaluation of the performance of the work carried out in the preceding period.

3.2 The estimated working days for this task is up to 30 days during the period of July 2024 – March 2025, and the selected expert will submit the deliverables in section (4) based on an agreed time plan which will be formulated based on the technical proposal of the applicant and the ECCADP arrangements.

3.3 The contract duration and number of working days are indicative and will be finalized with the selected candidate upon contract signing.

4. Deliverables:

The deliverables, described below, should be downscaled and aligned with the national administrative borders or boundaries (Provinces (Marakez), Cities, Villages) which are adopted by the national governmental organizations in Egypt including the following:

Deliverable	Terms of Payment	Expected Submission Date
1.Detailed Workplan	10% of the total value of the contract upon approval of the contract	Two weeks after signature of the contract
2. A Report on Assessment impacts of no action on saltwater intrusion (quantity, sea water interface and groundwater water depth) and costs of negative impacts of	30% of the total value of the contract upon the acceptance of the report	three weeks after the acceptance of deliverable no. 1

groundwater levels and salinity and agriculture productivity		
3. A Report on Proposing measures to control seawater intrusion and assess costs and impacts of the proposed measures on reducing groundwater and soil salinity	20% of the total value of the contract upon the acceptance of the report	three weeks after the acceptance of deliverable no. 2
4. A Report on Developing set of indicators to monitor sea water intrusion based on quantity (maybe groundwater levels) and quality of ground water which can form the basis for the M&E system including baseline and projections with and without the control measures.	30% of the total value of the contract upon the acceptance of the report	Four weeks after the acceptance of deliverable no. 3
5. Deliver (2) on-the-job training sessions for the ICZM stakeholders.	10 % of the total value of the contract upon performing the training	three weeks after the acceptance of deliverable no. 4

5 Qualifications and Experience

5.1 University degree in civil engineering or related relevant discipline, preferably at PhD level.

5.2 Experience with Numerical process-based model of groundwater flow and salt intrusion for at least 10 years.

5.3 Experience with analyzing the salt balance and changes in groundwater level and soil salinization under different scenarios for relative sea-level rise and soil subsidence.

5.4 Knowledge of the Egyptian northern coast's aquifers.

5.5 Working experience with governmental stakeholders and international projects.

5.6 Fluency in written and spoken English.

6 Application:

Please submit your technical proposal, recent CV, and a financial offer for achieving the above deliverables to the below email specifying the title of the post: mohamed.ahmed@eccadp.com

Deadline for application is July 1st, 2024.

7 Evaluation / Selection Process

All applicants will be screened against qualifications and the competencies set above.

Candidates fully meeting the requirements will be further evaluated based on the criteria below:

7.1 Technical Criteria CV review: 70 points (minimum pass score = 50 points) :

- 7.1.1 Educational qualification as defined in the ToR (10 points).
- 7.1.2 Experience as defined in the ToR (20 points).
- 7.1.3 Relevant work experience in similar projects (20 points).
- 7.1.4 Experience of the Egyptian northern coasts (20 points).

7.2 Financial Criteria: 30 points.

- 7.2.1 Financial scores will be calculated using the formula [lowest offer / financial offer of the candidate x 30].