









# Terms of Reference (TOR) for delivering a Monitoring and Maintenance (M&M) Manual for nature-based and hard protection in the Nile Delta in 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 IPCC in its Fourth Assessment Report as one of the world's three "extreme" vulnerable.

The objective of the project 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 nature-based protection at five vulnerable hotspots within the Nile Delta in Behira, Kafr Elsheikh, Dakahelia, Damietta and Port said. Those hotspots were identified based upon an engineering scoping assessment and technical feasibility study. **Output 2** focuses on the development of an Integrated Coastal Zone Management (ICZM) plan for the entire North Coast, to manage long-term climate change risks and provide Egypt with adaptability to impending flood risks.

The project facilitates 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 Project is implemented by the Ministry of Water Resources and Irrigation in collaboration with UNDP and is funded from the Green Climate Fund (GCF). The project is managed by a Project Management Unit (PMU) which is led by the executive project manager and includes staff assisting the manager in carrying the various management tasks.

The project seeks to recruit an individual consultant to develop a comprehensive Monitoring and Maintenance (M&M) Manual that provides clear and concise guidance for the successful operation and maintenance of the implemented nature-based protection measures by the project and hard protection that has been implemented by the Shore Protection Authority.

#### 2. Scope of Work:

It is anticipated that the scope of work includes but not limited to the following:

- **Gather Information:** In this task the consultant will collect data and information from relevant sources, such as:
  - Project design documents, environmental impact assessments
  - Construction and implementation reports and contracts
  - Monitoring data and results
  - Field visit to inspect conditions of the constructed nature based and hard protection systems, in particular, after extreme weather events if applicable within the consultancy contract duration.
  - o Interviews with relevant stakeholders (e.g., Shore Protection Authority engineers)







### مشروع تعزيز التكيف مع تغير الناخ في منطقتي الساحل الشمالي ودلتا النيل في مصر ENHANCING CLIMATE CHANGE ADAPTATION IN THE NORTH COAST AND NILE DETA REGIONS IN EGYPT PROJECT (ECCADP)



- Other sources that may be of relevance.
- **Manual Content:** In this task the consultant in consultation with stakeholders will develop a structure for the manual content. A proposed structure is given below for guidance:
  - Introduction
  - Site Description
  - Inspection Procedures
  - M&M Procedures
    - Regular Inspections
    - Maintenance Activities
    - Cost Estimates
    - Emergency Response
  - Monitoring and Evaluation
  - o Budgeting and Resource Planning
  - Training and Capacity Building
  - Stakeholder Engagement
  - o Appendices:
- Manual Development: In this task the consultant will develop the manual based upon the above data and information that have been collected in the above two tasks. Manual needs generally to be:
  - o User-friendly and easy to understand
  - Clear and concise language (English and Arabic)
  - o High-quality images and diagrams
  - Suitable for use by a range of stakeholders with varying technical expertise
- Capacity building and training: In this task the consultant give training to staff from
  relevant organisations on the use of the manual in day-to-day work and in the long term with
  real life examples. It is proposed that the training will be in the form of a workshop that can
  last for 3-5 days. The consultant is free to accept this format or suggest any other suitable
  format for this activity.

#### 3. Deliverables

 Draft inspection report (in Arabic and English) describing the current condition of the nature-based protection systems in the five hotspots with an assessment of their performance since the completion of the construction.











- Draft M&M Manual (in English and Arabic), one for nature-based protection and one for hard protection.
- Final inspection report of the nature-based protection systems in the five hotspots.
- Final M&M Manual (in English and Arabic) and one for nature-based protection and one for hard protection
- A presentation summarizing key findings and recommendations.
- A capacity building and training workshop for relevant stakeholders. It is anticipated that the workshop duration can be in the range of 3-5 days with all necessary presentations and training materials.

#### 4. Timeline

It is anticipated that the consultant will undertake this assignment in 6 months. This duration includes one month for the review of the draft version of the manuals. Within the duration of the assignment, it is estimated that the scope of the work and deliverables can be completed within 35 working days.

## 5. Qualifications of the Consultant

- A relevant degree in coastal and/or marine sciences or another relevant field.
- A minimum of 10 years of relevant experience in coastal and marine projects.
- Expertise in the application of nature-based solutions and coastal protection in Egypt.
- Experience in developing M&M manuals for coastal projects
- Strong communication and writing skills
- Ability to work effectively with multidisciplinary teams.

## 6. Reporting Requirements

- Regular progress reports to the project management unit. Frequency to be agreed at contacting phase.
- The draft inspection report and M&M Manuals for review and feedback
- Final version of the inspection report and M&M Manuals

#### 7. Budget

The consultant is required to develop a detailed budget for the consultancy services.

#### 8. Evaluation Criteria:

- Technical Expertise (20%):
  - o Relevant qualifications and experience in coastal and marine sciences
  - o Expertise in nature-based solutions and coastal protection







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Demonstrated understanding of the project context

## Methodology (20%):

- o Proposed approach to data collection, analysis, and manual development
- o Clarity and completeness of the proposed methodology
- o Training including activities and expected outcomes

## • Timeline (10%):

- o Realism and feasibility of the proposed timeline
- o Reasonableness and justification of the proposed budget
- Value for money demonstrated by the proposed approach

## • Communication & Coordination (20%):

- o Clarity and effectiveness of communication with the project team
- o Demonstrated ability to work collaboratively with stakeholders
- **Financial offer (30%):** including breakdown of cost for work activities. Taxes and other expenses have to be clearly defined in the offer.

## 9. Application:

Please submit your technical and financial proposals to the below

emails: Dr Mohamed Ahmed: mohamed.ahmed@eccadp.com

Shore Protection authority: spa@mwri.gov.eg

Mr Ahmed Sayed: ahmed.elsayed.finan@gmail.com

- Notice issued on April 14, 2025
- Deadline for application is May 3, 2025