Terms of Reference (TOR)
Coastal / Hydro-dynamic Modelling project officer

Project 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 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 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 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 Project is implemented by the Ministry of Water Resources and Irrigation in collaboration with UNDP and is funded by 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 out the various management tasks.

The project seeks to recruit a coastal / hydro-dynamic modelling officer to assist in developing and implementing the climate resilient ICZM plan for the North Coast of Egypt.

Duties and responsibilities:

Under the full supervision of the Project Manager and oversight of the Water Resources and Irrigation and UNDP, the coastal / hydro-dynamic modelling officer will have the following responsibilities:

- Review, update and develop as seen necessary by PMU and project stakeholders, the following products that have already been acquired by the project:
    - Mike 21 model for translating oceanic boundary conditions into hydrodynamic conditions at the North Egyptian coast.
    - database of hydrodynamic conditions in the coastal zone for different climate change scenarios.
    - LITPACK model for simulating sediment transport and coastal

erosion/sedimentation.
    - projections of different scenarios of climate change for relative sea-level rise, temperature, rainfall etc. and also projections of land subsidence in the coastal zone in Egypt.
    - MIKE 21 model for coastal zone flooding.
- Prepare detailed user guides, manuals and on the job training for the above-mentioned products.
- Develop individual and combined risk maps for the impacts of coastal flooding, erosion and sedimentation and sea water intrusion for the entire coastal zone in Northern Egypt.
- Liaise and coordinate with PMU staff the various activities of the development of the ICZM plan in Egypt including, but not limited to:
    - Participation in planning preparation meetings
    - Preparation of data and maps required for plan development
    - Participation in consultation meetings and workshops
    - Preparation of technical reports and material as relevant and required.
- Assist PMU staff in other relevant activities which are related to the various components of the project (e.g. coastal equipment specifications, communication of technical information).
- Collaborate with the PMU staff team to develop eLearning programs, related to project components and activities.
- Perform other related duties to this position as required.
- Ensure implementation of, and compliance with the GCF and UNDP policies.
- Maintenance of work confidentiality at all times.

Competencies:

- Able to work under minimal supervision and be proactive and innovative.
- Take charge of self-development and take initiative.
- Excellent organizational and planning skills are essential.
- Have a strong research and strategic analysis skills.
- The ability to work in a multi-cultural and multi-national environment.
- Effective time management skills, excellent interpersonal skills and ability to work in a team.
- Ability to perform multiple tasks and work under pressure with a wide range of individuals and institutions.
- Good understanding of the local communities' background and respect culture issues and traditions.

Qualifications and Experience:

- Advanced university degree in Civil Engineering/Coastal Engineering or related field
- A minimum of (15) fifteen years of professional experience in Coastal / Hydro-dynamic modelling and / or other relevant disciplines.

- Hands on experience in using MIKE21/3 and LITPACK software and other relevant software is needed.
- Previous work experience with similar projects is required.
- Experience with Integrated Coastal zone and shoreline management projects in Egypt or in countries with similar conditions and comparable complexities would be an advantage.
- Proficiency in English and Arabic is required.

Contract Duration and Renewal:

The assignment will be for 6 months with a probation period. It can be extended according to the project implementation requirements and individual performance.

Type of Employee:

Part or full-time position

Evaluation

The evaluation will be through an interview for shortlisted candidates.

Application:

Please submit your application and a recent CV on a P11 form that can be obtained from (https://www.undp.org/media/document/964196) with any relevant material and at least three references specifying the title of the post "**Coastal / Hydro-dynamic Modelling project officer**". To the below email:

Dr Mohamed Ahmed
mohamed.ahmed@eccadp.com and
egyptgcfproject@gmail.com

Vacancy notice issued on: Nov 12, 2024
Deadline for application: Nov. 19, 2024