**UNIVERSITY OF SINDH CAMPUS THATTA**
**Centre for Coastal and Deltaic Studies**

**Terms of Reference (ToR) for "Consultant Expert" (Mangrove)**

**Marine Research Project of PMDC Thatta**

# ESTABLISHMENT OF OCEANOGRAPHIC SURVEY UNIT: CLIMATE CHANGE, FRESHWATER SCARCITY AND POLLUTION IMPACT ASSESSMENT ON GEO-MORPHOLOGY, MANGROVE, FISHERIES AND WILDLIFE OCCURRING IN COASTAL AND MARINE WATERS OF DISTRICT THATTA

## Introduction

University of Sindh Campus Thatta was established in 2012, since then, each year more than 100 trained students are getting higher degrees in MBA, Computer Science, English and Coastal Zone Management. Presently more than 500 students are enrolled in the University of Sindh Campus Thatta. Very recently the Centre for Coastal and Deltaic Studies has started the MS/ M.Phil degree Program in Coastal and Marine Science. In addition large number of academic and social activities such as Seminars International reputed workshops and trainings in collaboration with the different I/NGOs and Government departments have been organized.

Centre for Coastal and Deltaic Studies (CCDS) established on 8th December 2015, at University of Sindh Campus Thatta. The aim of the Centre is to promote scientific education and research studies related to marine, coastal and deltaic regions with specific focus on natural disasters, climate change effects, sea level rise, seawater intrusions and their impact on natural ecosystems, marine ecology and biodiversity, infrastructure and threats to vulnerable coastal communities. The CCDS successfully completed following research studies.

Petroleum Marine Research Development Committee (PMDC) Thatta is a government constitutional committee headed by Regional Member of National Assembly (MNA) as a Chairman along with regional MPAs as members while Deputy Commissioner of the district is the Secretary of the Committee. The different federal and provincial ministries and department who are working in the district are the members. The overall objective of the committee is to confirm the development in the region through the submitted amount by the different Oil and Gas companies who are working and exploring the oil and gas from the vicinity of the district. The PMDC Thatta awarded above titled Marine Research Project to the Centre for Coastal and Deltaic Studies (CCDS). The main goal of the PMDC Thatta is protection, conservation and development of marine fauna and flora existing in coastal creeks of Thatta district.

Centre for coastal and Deltaic Studies, University of Sindh Campus Thatta requires a short term consultancy to conduct pilot experimental studies on plantation and cultivation of mangrove at ecologically suitable mudflats, formulation of recommendations on sustainable development, restoration, and rehabilitation with conservation aspects, trainings and demonstration to coastal communities on the conservation and ownership of mangrove for the future.

**Objectives and responsibilities**

The consultant shall responsible to develop the structure and methodology of following proposed interventions in coordination and cooperation with the project experts, agriculture and forest sectors of government and non government organizations.

Section - A

i. Desk review of previous studies/ data on mangrove of Sindh coast.
ii. To write/ develop a complete structural guidance training manual in English and Sindhi language. The manual contents should be:
    a. Previous studies, works and conductance of different organizations.
    b. Methodologies of mangrove conservation and plantation.
    c. A complete life cycle of mangrove species growing in Sind coastal ecology.
    d. Recommendations for future planning, development and conservation aspects.

Section - B

iii. To identify the sustainable mudflat places for mangrove plantation.
iv. To conduct pilot experiments on cultivation of mangrove at climate resilient mudflats.
v. To conduct pilot experiments on climate resilient agriculture crops.

**Project Outcomes**

i. Empowering vulnerable coastal communities through livelihood models and technology transfer.
ii. Increasing the mangrove nursery development.
iii. Improve the economy of the country.
iv. Improving the conservation and protection mechanism of marine and coastal biodiversity.
v. Combating challenges of climate change, disasters of cyclones, rains, floods and droughts.

**Specific Task of Consultant Expert**

- ✓ To complete the task with due diligence, efficiently and in accordance with ToRs.
- ✓ Provide all a administrative support needed in order to ensure the timely and satisfactory performance of the agreed service.
- ✓ All reports shall be written in the English language, however the training manual shall be in local language and describe in detail the services rendered under the agreement during the period of time covered in such report. All reports shall be delivered by the consultant in the form of both hard and soft copies.
- ✓ To, link with concerned government department for development of MoU draft for joint ventures.
- ✓ Guide and support Research fellows and Research Associates about research methodologies and analysis.

**Finance, price and payment**

In full consideration for the complete and satisfactory performance of the services under the ToRs, the project shall pay amount in the following installments to the consultant. The tax will be deducted at source as per rules. The above price includes all the expenses related to the task, and no additional travel, boarding and lodging expenses will be paid to consultant expert. The amount will be paid from PMDC funds of the project. The consultant is bound to submit original vouchers and non consumable materials if purchased from the project funds to the University of Sindh.

The total consultancy cost Rs. 500,000/- (Rupees five lac only including all taxes with time limit of 5 months after awarding and acceptance of contract.

- 50 % payment will be made at the start of assignment after signing of contract.
- 50% will be paid after completion of the task.
- The payment will be made through cross Cheque.

**Warranties**

Consultant expert hereby warrants its power to enter into an agreement and have obtained all necessary approvals to do so. The consultant expert hereby warrants and conveyed that task titles to the project and that any services provided will be free from encumbrance. The consultant must present accurate and genius data. Any misleading information in this regard will entail consequences.

**Confidentiality**

Both the parties agree to maintain confidence and do not disclose, reproduce, and/or copy any materials, documentation or specification which is provided to the other hereunder. Both the parties shall take all reasonable steps to ensure that its employees, agents, sub-consultant are bound by the same obligation.

**Copy Rights**

The study's data, methodology, content and report etc, shall be the property of the project.

The interested candidates or firm if agree with the above terms and conditions may submit a concept proposal including summary of work, background of study, methodology, activity chart and details of budget expenditure within 7 days after receiving the ToRs. The proposal should reach the Office of Project Director Marine Research Laboratory and Oceanographic Survey Unit, at Office of Registrar, University of Sindh Jamshoro. The soft copy can be send via email mukhtiar.mahar@usindh.edu.pk to the Project Director.