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OFFICE OF THE PROJECT
DIRECTOR/CONSERVATOR
CONSERVATION, DEVELOPMENT AND
MANAGEMENT OF INDUS DELTA
MANGROVES TO CHECK SEA INTRUSION
KARACHI

No. D.IV(a)/- ²⁴⁰ of 20117-18
Karachi, dated: 17-05-2018

To

The Manager (Enforcement-II)
Sindh Public Procurement Regulatory Authority
Karachi.

SUBJECT: RFP FOR TEMPORAL STUDY IN THE INDUS DELTA UNDER THE CDMIDMCSI PROJECT

With reference to the above tender, please find enclosed following documents for hoisting on the SPPRA official website:

1. Copy of the NIT
2. Hard & Soft of the Terms of Reference (TORs) for the study
3. Notification of the Procurement Committee
4. ~~Notification of the Complaint Redressal Committee~~
Annual procurement plan.

(AGHA TAHIR HUSSAIN DURRANI)
PROJECT DIRECTOR/CONSERVATOR
CONSERVATION, DEVELOPMENT
AND MANAGEMENT OF INDUS DELTA
MANGROVES TO CHECK SEA INTRUSION,
KARACHI

C.C

Chief Conservator of Forests, Mangroves & Rangelands, Karachi

SPPRA INWARD DIARY

NO : 9278

DATED 23-05-2018

REQUEST FOR PROPOSALS (RFP)

Sindh Forest Department request for proposals (RfP) from reputable and qualified consultants/ consulting firms for the **“Temporal Study (1990-2018) to Assess Change in Mangrove Cover in the Indus Delta Based on High Resolution Satellite Images”**. The consultants/firms having expertise in similar work and possessing relevant filed qualifications may submit their proposals. The duration of assignment shall be 04 months.

2. Scope:

- A. Assessment of Indus Delta Mangroves from Korangi Creek to Sir Creek (having GPS Coordinates 24.858279 N-66.871427 E to 23.681850 N-68. 174976 E.
- B. Temporal assessment of mangrove vegetation from 1990 to 2018 preferably using five years interval through the use of satellite imagery of multi-spectral (colour) sensors of very high resolution, high resolution and mid resolution.
- C. Advanced interpretation techniques are required to be applied by the consultants/ Consulting firms to identify mangrove species, their occurrence, extent and composition.
- D. Geo- spatial and statistical analysis is required to be conducted by the consultants/ consulting firms to identify the temporal changes in the mangroves forests during the study period.
- E. Details of associated land uses including creek system, mudflats and other features may also be indentified and made part of the assessment and incorporated in the tables and maps.
- F. Field survey and ground trothing is required to be conducted to validate the results.

3. Detailed TORs shall be supplied to the consultants/ consulting firms from the office of Project Director CDMIDM Karachi, situated at Forest Campus, Jinnah Avenue Model Colony, Malir, Karachi from 25-05-2018 to 11-06-2018 during office hours

4. The consultants/Consulting firms are requested to submit both technical and financial proposals accepted under the “Single Stage two envelope procedure” defined in the rule 46(2) of Sindh Public Procurement Rules 2010, according to which the bid shall comprise a single package containing two separate envelops. Each envelope shall contain separately the Technical and Financial Proposal.

5. Rates must be quoted including Income Tax with 60 days validity

The proposals should be submitted in the Project Director / Conservator, Sindh Forest Department - Karachi. on 11th June 2018 by 1200 hours. Only technical proposal shall be opened first on same day at 1300 Hours by the Committee in the presence of consultants/firms or their authorized representatives.

6. Interested consultants/ consulting firms are requested to submit their technical and financial proposals along with following information (in triplicate).

i) Name, address, Phone, fax and email address along with postal address of the consultants/ consulting firms.

ii) Detailed CVs indicating qualifications, experience and list of completed / developed projects, attested copies of testimonials must be attached with the applications.

iii) Financial statement summary for the past three years.

iv. National Tax Numbers of consultants / consulting firms.

v. List and details of other similar assignments undertaken by consultants/ consulting firms.

vi. Inclusion of unnecessary documents and listing of irrelevant works should be avoided.

7. Last date for submission of application is 15 days after publication of the advertisement.

8. Interested consultants/ consulting firms are advised to address their queries, if any, and send RfPs on following address

Address

Name : Niaz Ali soomro

Designation: Divisional Forest Officer, Coastal Forest Division, Karachi

Address Jinnah Avenue, Model Colony, Malir, Karachi

Phone: 021-34502022



**PROJECT DIRECTOR / CONSERVATOR
CONSERVATION DEVELOPMENT &
MANAGEMENT OF INDUS DELTA
MANGROVE TO CHECK SEA INTRUSION
KARACHI**

Terms of Reference (TORs)

Following targets needs to be achieved under this study:

1. Satellite remote sensing based temporal study would be conducted under this project to assess periodic changes in mangrove forests along the Sindh coast with special emphasis on Karachi, Shah Bandar and Keti Bandar areas. In this regard, very high resolution and latest satellite imagery would be acquired for Shah Bandar and Keti Bandar area. However, the high/mid resolution imagery from 1990s with periodic interval of five years up to 2018 would be acquired for rest of the area.
2. Identification and detection of temporal changes would be conducted from 1990s with periodic interval of five years up to 2018.
3. Hybrid satellite imagery (high resolution and very high resolution) would be used in the study to focus on hotspot and priority areas.
4. Earlier studies conducted by different departments would be used for detection of changes in mangroves and other coastal landforms.
5. The maps and analytical report would be prepared under this project, the reports and maps would be user friendly and understandable to wide readers.
6. Optional study to cover historical perspective on landuse / landcover of coastal belt of Sindh dating back to 1970s would also be conducted if sufficient data is found available.

Work Plan

Satellite Remote sensing technology can be effectively applied in various ways to characterize mangrove ecosystems across the Sindh coastal belt mangrove forests. Some of the proposed applications include monitoring and mapping the areal extent, detecting species, identification of temporal spatial changes, and providing estimates of structure and parameterization of various mangroves ecosystem. The main motivation for the characterization of these ecosystems is to monitor and manage them. Generally all the remote sensing application in mangrove ecosystems can be categorized into

three broad areas. These broad categories would be identified as resource inventory; change detection; and selection and inventory of aquaculture sites.

The study area/extent of this project is situated along Arabian Sea in south of Karachi between latitude $23^{\circ} 15' N$ to $25^{\circ} 30' N$ and longitude from $67^{\circ} 10' E$ to $69^{\circ} 00' E$. Satellite imagery of various multispectral (color) sensors from very high resolution to high resolution and mid resolution would be employed under this project. The temporal and multispectral satellite imagery from 1990s with different resolutions would be acquired. The acquired imagery would be processed through state of the art digital image processing techniques to improve the quality of satellite data. Along with the visual interpretation techniques, the other remote sensing techniques such as unsupervised and supervised classification, and sometimes a combination of both would be used to detect, delineate and monitor mangroves over the Sindh Coast. In addition, some of the advanced remote sensing techniques such as Object-Based Image Analysis (OBIA), principal components analysis (PCA) or Tassel-Cap Transformation, or spectral vegetation indices such as Normalized Difference Vegetation Index (NDVI) would be employed for detailed and more accurate mangrove mapping at a finer level.

Geo-spatial and statistical analysis would be conducted to identify the temporal changes in the mangroves forest during the whole course of study period. Other ancillary GIS data like shapefiles of the streams and rivers in the study area would also be produced and used in the base maps. In addition land cover/ land use (LCLU) map of the coastal belt would also be developed.

In addition, A GPS based field survey of mangrove sites and a participatory mapping exercise would be conducted at the study site. Both datasets would be collected through twice field visits in different seasons. The accessibility to certain parts of the mangrove forest might be very difficult, especially for the GPS mapping, therefore, prior to the field surveys, a potential map of wetlands would be derived from the LCLU maps of the area. Reconnaissance would be conducted with the permission of the local leaders of each of the Communities and the assistance of local guides. Locations of

mangrove patches and stands and other attributes like the mangrove species, adjacent land cover, and condition of mangroves would be recorded. Preliminary mangrove maps would be generated through visual interpretation and based on the initial site visits and the result of the participatory mapping. Followup visit to some areas identified on the preliminary maps would be conducted to ground truth the mangrove maps.

Deliverables of the Project

- ✓ Analytical Report(s)
- ✓ Printouts of A0 Size (Large) Maps
- ✓ Mangroves Statistics in Tabular Form
- ✓ Mangroves GIS Database (vector form)
- ✓ Provision of Temporal Satellite Images
- ✓ Provision of Maps, Statistics and Graphs on Client's demand (Digital and hard copy format)
- ✓ Field Survey Photos (Digital Format)
- ✓ In-situ Mangroves Data
- ✓ Provision of GPS Coordinates collected during Field Survey

Project Timeline

09 Months from date of award of contract



GOVERNMENT OF SINDH
FOREST & WILDLIFE DEPARTMENT

NOTIFICATION

No. F&W(SOII)1(02)/2010-11 In partial modification of this department's Notification of even number dated 16th March, 2018 and as provided vide Rule-8 a "**Consultant Selection Committee**" is hereby constituted for ensuring transparency in carrying out civil works and purchases under development scheme "Conservation, Development and Management of Indus Delta Mangroves to Check Sea Intrusion" (ADP.628). The composition of the Committee and TORs shall be as under:-

- | | |
|---|------------------|
| 1. Project Director/Conservation,
Development & Management of Indus Delta
Mangroves to Check Sea Intrusion, Karachi- | Convener |
| 2. Divisional Forest Officer
Costal Forest Division, Karachi | Member/Secretary |
| 3. Divisional Forests Officer
Range Management Division, Karachi | Member |
| 4. Representative of Finance Department
Government of Sindh, (not below the rank of BPS-18)
Costal Forest Division, Karachi | Member |
| 5. Representative of Planning & Development
Department Gov. of Sindh
(not below the rank of (BS-18) | Member |

TORs

The functions and responsibilities of the consultant committee shall be:

- 1) Approval of Request for proposal before issuance.
- 2) Short listing of consultants, responding to the Request for Expression of Interest, where applicable, in accordance with the criteria mentioned in Request for expressions of interests.
- 3) Evaluation of technical and financial proposals, according to the selection method and evaluation criteria, mentioned in the request for proposals.
- 4) Finalization of recommendations based on evaluation as mentioned at sub-rule (3) above.

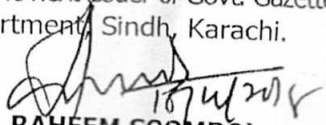
SOHAIL AKBAR SHAH
ADDL. CHIEF SECRETARY TO GOVT. OF SINDH

No.F&W(SOII)1(102)/2010-11

Karachi dated 10th April, 2018

A Copy is forwarded to:

1. Additional Chief Secretary (Dev), Planning & Development Department, Sindh, Karachi.
2. Secretary, Finance Department, Sindh, Karachi.
3. Chief Conservator of Forests, Sindh, Hyderabad.
4. Project Director/Conservator of Forests, Conservation, Development & Management of Indus Delta Mangroves to check sea intrusion, Karachi.
6. Concerned Members
7. Publisher, Sindh Govt. Printing Press Karachi for publication in the next issuer of Govt. Gazette.
8. P.S to Additional Chief Secretary, Forest & Wildlife Department, Sindh, Karachi.
9. Master File.



(ABDUL RAHEEM SOOMRO)
SECTION OFFICER II

FOR ADDL. CHIEF SECRETARY TO GOVT. OF SINDH

**ANNUAL PROCUREMENT PLAN OF PROJECT DIRECTOR
CONSERVATION, DEVELOPMENT & MANAGEMENT
OF INDUS DELTA MANGROVES TO CHECK SEA INTRUSION
(WORKS, GOODS & SERVICES)**

Financial Year: **2017-18**

Sr. No.	Description of Procurement	Quantity (Where Applicable)	Estimated Unit Cost (Where Applicable)	Estimated Total Cost	Funds Allocated	Source of Funds (ADP/Non ADP)	Proposed Procurement Method	Timing of Procurements				Remarks
								1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	
1.	Construction of Jetty	N/A	4,600,000/=	4,600,000/=	4,600,000/=	ADP	Single Stage Two Envelope Method	-	-	-	4,600,000/=	
2.	Purchase of Boat and Landing Crafts	02 Nos.	2,000,000/=	4,000,000/=	4,000,000/=	ADP	Single Stage Two Envelope Method	-	-	-	4,000,000/=	
3.	Hiring of Consultancy for Temporal Study (1990-2018) to Assess Change in Mangrove Cover in the Indus Delta Based on High Resolution Satellite Images	N/A	4,500,000/=	4,500,000/=	4,500,000/=	ADP	Least Cost Selection Method	-	-	-	4,500,000/=	


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