178/WRAP/NORTH/24-25

**Consultancy Ref No: _____**

# RFP for Consultancy Services-WWF Pakistan

## Subject:

## "Ecological Assessment of Significant Wetlands in Gilgit-Baltistan to Develop Environmental Management Plans of the Selected Wetlands"

***Hydrologist (Hydrology and Carbon Sink Potential Study)***

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**Application Submission:**

Interested consultants should submit the Proposal on **Application Form Available Online** or can access through following Link:

https://forms.gle/mwtzNpoqjaJ4yrtr8

RFP – Consultancy Services

CONTENT

## 1) INTRODUCTION & BACKGROUND

| | |
|---|---|
| Contract type: | Consultancy and Services |
| Duration of assignment: | 10 Months |
| Type: | Firm/Individual |

WWF-Pakistan with the financial support of FCDO, implementing a project titled, "Scaling up nature-based solutions for improving integrated water resources management and enhanced water security in Pakistan". The project aims to pilot Nature-based Solutions (NbS) at selected locations in Gilgit-Baltistan and Khyber Pakhtunkhwa in partnership with relevant stakeholders. Water management for improving the health of natural ecosystems, better water resource management, and livelihood improvement will be outcomes of the project interventions

## 2) GENERAL CONDITIONS

1) The WWF-PAKISTAN reserves the right to reject or accept any proposal. The WWF-PAKISTAN reserves the right to proceed with the implementation of any Service, in whole or in part, as described in the Proposal.

2) The WWF-PAKISTAN reserves the right to engage in discussions with any BIDDER to clarify responses or discuss certain issues with regards to the proposal or services requested. The WWF-PAKISTAN has no obligation to notify the other BIDDERS of the discussions, clarifications, or other information provided by a BIDDER. Any additional information required for preparation of the BID shall be distributed to all participants at the same time.

3) The WWF-PAKISTAN reserves the right to award the proposal based on experience, qualification, completion date, service cost and other criteria, and not necessarily the lowest cost.

4) Based on the RFP BID the WWF-PAKISTAN is entitled to change/replace or omit any clause/part of the preliminary defined scope of services of the proposal. The WWF-PAKISTAN shall conduct negotiations with WWF to achieve the full compliance to the requirements.

5) The WWF-PAKISTAN reserves the right in the event the successful CONSULTANT fails to comply with the terms and conditions as listed, to cancel this contract and award it to another CONSULTANT without penalty or action against the WWF-PAKISTAN. The RFP does not constitute an agreement or order.

6) The RFP is not a binding agreement between the parties, submission of a proposal or response by a proponent is voluntary.

7) By submitting a bid, the BIDDER is deemed to have acknowledged all of the undertakings, specifications, terms and conditions, **WWF Fraud and Corruption Prevention and Investigation Policy (Annex 2)** contained in the RFP, and to be bound by them if the BID is accepted. All expenses incurred by the Bidder in connection with the preparation of its proposal are to be borne by the RFP participant, and the WWF-PAKISTAN shall not incur any obligation whatsoever toward the Bidder regardless of whether such bid is accepted or rejected.

## 3) PURPOSE

The purpose of the assignment is Hydrological assessment of selected significant wetlands of Gilgit-Baltistan; to estimate the amount of carbon stored within the vegetation, soil, and water column of each wetland to assess their role as carbon sinks; to map the spatial distribution of carbon stocks across the wetlands to identify areas of high carbon sequestration potential and prioritize conservation efforts; and to develop Environmental Management Plans of these wetlands. The survey team will prepare a hydrological and Carbon sink potential assessment using the existing and previous information.

**Geographic Scope of Hydrological and Carbon Sink Potential Study Surveys**

The geographic scope of hydrological studies will be **Rama, Dharlay and Handarap Lakes** and Carbon Sink Potential study will be **Deosai Wetlands Complex, Gashu Lake, Naltar Wetlands Complex, Rama Lake, Dharlay lake and Handarap** lake in GB.

**Detailed ToRs of a Hydrologist are:**

A complete knowledge of the hydrology of the area is necessary for preparation of Environmental management plans of the

wetlands. Studying lakes as carbon sinks and understanding their contribution to the global carbon cycle holds significance. A complete knowledge of the Calculation of Carbon Sink Potential of the lake and hydrology of the area is necessary for development of strategies for the sustainable management of the wetlands. Standard methods/protocols shall be used to assess the carbon sequestration capacity of the lakes. The consultant/hydrologist shall:

**A. Specific information required (Hydrology Study):**

i) Describe the physical features of the wetland including the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; downstream area; general climate, etc;

ii) Provide detailed information if the wetland contains a representative, rare or unique example of a natural or near natural wetland type found within the appropriate geographic region;

iii) Describe the physical features of the catchment area including the surface area, general geology and geomorphological features, general soil types, and climate (including climate type);

iv) Describe in detail the hydrological values of the wetland including the functions and values of the wetland in ground water recharge/replenishment, flood control, sediment and nutrient retention and export, shoreline stabilization, climate change modification and water purification and maintenance of water quality etc;

v) Describe current water use within the wetland area and in the surrounding/catchment area; the ecosystem services the wetland provides to the local people;

vi) Describe factors (past, present or potential) adversely affecting the changes in water use and development projects within the wetland and in the surrounding area;

vii) Provide details about the water quality of the wetland;

viii) Provide detailed information if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity;

ix) Provide detailed information about the current scientific research and facilities at the wetland (e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc);

x) Provide detailed information about the current communications, education and public awareness activities related to or benefiting the site (e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.)

xi) Provide details about the current land use (both wetland itself and surrounding and catchment areas) including information about human population in the area, land and water use at the wetland, e.g., water supply for domestic and industrial use, irrigation, agriculture, livestock grazing, forestry, fishing, aquaculture and hunting etc;

xii) Provide information about conservation measures taken in the area e.g. national protected area status of the wetland, IUCN protected area category, any management plans of the wetlands prepared/approved/implemented, cite the management plan documents, any other conservation measures taken such as restrictions on development, management practices beneficial to wildlife, closures of hunting, etc

**B. General information required (Hydrology Study):**

xiii) Review of the secondary information available on the hydrology of the wetland;

xiv) Develop methodologies and protocols used for the sampling, classification, evaluation, and monitoring of the hydrology of wetlands;

xv) Collect samples from the wetland and its surrounding areas, get tested different chemical parameters regarding water quality of wetland and surrounding areas;

xvi) Evaluate present threats to the water quality of the area;

xvii) Identify impacts on the water quality of wetland and surrounding areas, mitigations and recommendations.

xviii) Provide good quality pictures of activities related to the assignment;

xix) Provide comprehensive reports of each wetland along with recommendations;

**C. Specific information required (Carbon Sink Potential Study):**

i) Provide an overview of the ecological significance and hydrological characteristics of the selected six wetlands;

ii) Highlight the importance of assessing their carbon sink potential in the context of climate change mitigation and ecosystem conservation;

iii) Adopt appropriate methodologies to collect samples and calculate the carbon sink potential of each lake, considering both above and below-ground carbon storage;

iv) Analyze collected samples to furnish detailed insights on sediment characteristics, sediment bulk density (SBD), sediment organic carbon (SOC) concentration, and SOC density within the lakes;

v) Estimate the carbon sequestration rate (CSR) and carbon sequestration potential (CSP) of these lakes;

vi) Establish baseline data on SOC pools for future studies on SOC dynamics to meet the requirements of the Kyoto Protocol.

vii) Utilize remote sensing and GIS technology to map the land use and land cover surrounding the lakes, providing insights into potential influences on carbon sink dynamics;
viii) Employ established carbon accounting methods (e.g., IPCC guidelines) to quantify carbon stocks in aboveground biomass, belowground biomass, and soil organic matter;
ix) Analyze the relationships between carbon stocks and environmental variables such as water depth, hydroperiod, and nutrient availability;
x) Evaluate the influence of climate variables, including temperature and precipitation, on the carbon sink dynamics of the lakes.
xi) Investigate the role of the lakes in supporting biodiversity and how changes in carbon sink dynamics may impact local flora and fauna.
xii) Explore the influence of human activities, such as tourism and fishing, on the lakes' carbon sink potential, and propose sustainable management strategies.
xiii) Assess the resilience of the lakes' ecosystems to climate change and provide recommendations for adaptive management strategies.
xiv) Provide recommendations for sustainable management practices that enhance the carbon sink potential of these lakes.

**D. General information required (Carbon Sink Study):**

i) Review of the secondary information available on estimation of the carbon sequestration potential of the wetland;
ii) Develop methodologies and protocols used for the sample collection, analysis, result interpretation, and estimation of the carbon sequestration potential of wetlands;
iii) Identify impacts on the water quality of wetland and surrounding areas, mitigations and recommendations.
iv) Provide good quality pictures of activities related to the assignment;
v) Provide comprehensive report of each wetland along with recommendations.

## 4) DELIVERABLES

**Following is list of specific tasks (Hydrology Study):**

- Each comprehensive report includes physical features of the wetland including the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level;downstream area; general climate in three lakes in Gilgit Baltistan.
- Supporting documents, Visual documentation, such as a photographs or a video compilation of hydrological features of the wetlands.
- Key recommendations based on the findings.

**Following is list of specific tasks (Carbon Sink Study):**

- Each comprehensive report (6 reports) of each study site includes estimation of carbon sink potential of each wetland, physical features of the wetland, general climate of sites in Gilgit Baltistan.
- Field data collection plan and protocols.
- Analysis of field data and model outputs.
- Maps and visualizations of carbon sequestration potential.
- A draft and final report of the study findings and recommendations.
- Supporting documents, Visual documentation, such as a photograph or a video compilation of hydrological features of the wetlands.
- Key recommendations based on the findings

## 5) PROJECT/ ASSIGNMENT TIMELINE

- The total duration for this assignment is 10 months.

## 6) REQUIREMENTS

The Consultant should possess the following qualifications and expertise: Minimum requirements

- At least a Postgraduate degree in Hydrology, Environmental Engineering/Sciences, Soil Sciences or other related fields from a recognized university, with a solid understanding of carbon sequestration, hydrology and vulnerability assessments.

- Minimum 05 years of experience in related discipline.
- Sound knowledge and understanding of wetland assessment and Environmental Management Plan development.
- Demonstrated experience in conducting assessments related to carbon sink potential in freshwater ecosystems preferably with expertise in alpine wetlands.
- Experience in working with international donors.
- Proven English language proficiency, quality report writing, analytical and presentation skills.
- Experience in doing ecological assessments for conservation and nature-based solutions would be an advantage.

**Conditions:**

- WWF-Pakistan reserves the right to accept any proposal or reject all proposals.
- Only shortlisted consultants will be contacted for further consideration.

## 7) CORRESPONDENCE & SUBMISSION OF PROPOSAL

1. **Application Submission:**
   Interested consultants should submit the Proposal on **Application Form Available Online** or can access through following Link:

   https://forms.gle/mwtzNpoqjaJ4yrtr8

2. If Any **Queries** may send through Email by attention to the Following:

**To:** Faiza khan (fakhan@wwf.org.pk)

**Cc:** Muzzammil Ahmed (mahmed@wwf.org.pk)

The RFP submission deadline mentioned on WWF-Website.

3. Any information and responses to enquiries will be made in writing and distributed by email to allproponents. Enquiries after the foregoing deadline will not receive a response.

## 8) FORMAT OF THE PROPOSAL

The BID submitted by the participant must be structured as per the below provided instructions:

1) **Application Form available at WWF-Website -** General information about the Bidder, covering, qualification and experience, CV.

**2) Experience:**

**a) Description of the complete projects:** the list and general information about the complete projects, description of the role in the project, other accomplishments of the Consultant.

3) **Proposal outlining scope consultancy service-** Description of scope and working process, stages, deliverables, exclusions, conditions;

4) **Provide template of already complete similar type of reports-** the WWF-PAKISTAN may request additionally;
5) **Service Provision Timeline –** Provide Detailed Work Plan as per Deliverable and TORs.

**Financial Proposal-** the prices shall be provided in Pak Rs,the total price shall include all costs related to service provision including applicable taxes.

**Note:**

Templates of all Information is provided on Application form available at WWF-Website. Any Additional Information related to the RFP can be attached along with application Form.

## 9) FINANCIAL PROPOSAL

The proposed prices shall be provided in PKR, the total price shall include all costs related to service provision including all Direct and Indirect taxes. The boarding and lodging (Travel, accommodation and food etc) will be provided by WWF-Pakistan.
The consultant will submit the cost of the assignment in a lump sum, including all applicable taxes according to the Government of Pakistan and the Government of GB.

**The Payment Term**: shall be defined by the contract to be concluded between WWF -Pakistan and the consultant.

## 10) EVALUATION PROCESS

Applicant's proposal shall be evaluated based on Quality and Cost Based Selection (QCBS) method. Under QCBS both technical and financial proposals shall be evaluated as per following criteria against a maximum score of 100 points.

A) Technical Proposal (70%)

- Detailed work plan
- Expression of interest (EOI)
- Consultant's Profile
- Detailed methodology

B) Financial Proposal (30%)

Detailed financial proposal which should be inclusive of all applicable taxes. The financial proposal should follow a breakdown structure i.e., specifying cost(s) to each head and subhead The boarding and lodging (Travel, accommodation and food etc) will be provided by WWF-Pakistan.

- Consultant's registration certificate
- NTN detail(s)

Note: Late/ incomplete submissions will not be accepted. Only three (03) top-ranked Consultants will be included in the comparative process

## 11) DOCUMENTATION AND CONFIDENTIALITY

All documents completed based on requirements of the present RFP shall be the property of the WWF-Pakistan, and shall not without the consent of the WWF-Pakistan be used, reproduced or made available to third parties beyond what is necessary in respect of the fulfilment of the Project. All documents issued and information given to the BIDDER shall be treated as confidential.

## 12) Budget Ceiling

Maximum Budget ceiling for this activity is PKR 3,100,000/- inclusive of all taxes.

**Note:**

- The Total amount 3,100,000 PKR includes all direct or indirect taxes and out of pocket expenses. However, the boarding and lodging expenses (travel. food and accommodation for field surveys) will be provided by WWF-Pakistan.
- The mentioned amount includes the services of the expert/consultant in the field and write up of the reports and submission of all deliverables mentioned in ToRs.
- The mentioned amount covers expenses related to sampling instruments, chemicals, reagents, laboratory instruments, and analysis etc.