RFP: 107/GSK/CENTRAL/24-25

RFP FOR CONSULTANCY SERVICES-WWF PAKISTAN

Subject:

Integrated Hydrological, Hydrogeological, and Climate Change Assessment for Urban and Catchment Water Resilience in Lahore, Pakistan

Submission method:

Sealed Technical and Financial Proposal shall be submitted by mentioning Title on Envelope on below Address

Manager Procurement & Consultancies

WWF-Pakistan Head Office, Inside Ali Institute

Ferozepur Road Lahore

The deadline for submission is **30th May 2025** at **17:00** hours.

Note: Online or through Email submitted Proposals/Bids are not accepted

HIRING OF CONSULTANT

WWF-Pakistan is looking for qualified and experienced consultants for the purpose of following Projects Titles

1. **"INTEGRATED HYDROLOGICAL, HYDROGEOLOGICAL, AND CLIMATE CHANGE ASSESSMENT FOR URBAN AND CATCHMENT WATER RESILIENCE IN LAHORE, PAKISTAN"**
2. The deadline for submission is **30th May 2025** at **17:00** hours.

Interested consultants who meet the eligibility criteria are encouraged to review the detailed Terms of Reference (TORs) available on the WWF-Pakistan website:

https://wwf.org.pk/consultanc
To address any queries, please contact us at **fakhan@wwf.org.pk**.

Sealed Technical and Financial Proposal shall be submitted by mentioning Title on Envelope on below Address

Manager Procurement & Consultancies
WWF-Pakistan Head Office, Inside Ali Institute
Ferozepur Road Lahore

INTRODUCTION AND BACKGROUND

Contract type: Consultancy and Services

Duration of assignment: 120 days spanning from 30 May 2025 to 15 December 2025.

WWF, the world's leading independent conservation organization, and GSK, a global biopharma company, have announced a major multi-million-pound partnership running to 2030. WWF and GSK will work together to accelerate the delivery of GSK's nature commitments with a focus on protecting and restoring freshwater ecosystems, both within GSK's operations and in its supply chain, as well as demonstrating best practices for the pharmaceutical industry. Freshwater is fundamental to human health and the production of medicines and vaccines, yet the world's freshwater resources are increasingly under stress. This poses a threat to the health of local communities and the resilience of businesses relying on freshwater as part of manufacturing processes.

The project titled "Building Water-Sensitive Societies: Collaborative Solutions for Freshwater Resilience and Sustainability" focuses on enhancing freshwater resilience and sustainability across Lahore, Karachi, and Keenjhar Lake, in alignment with global conservation goals. It aims to tackle challenges such as water scarcity, pollution, and the impacts of climate change through the implementation of nature-based solutions, groundwater recharge, and improved water stewardship practices. Key interventions include urban plantations, the construction of flood protection bunds, wastewater treatment systems, and the establishment of early warning mechanisms, all contributing to the development of climate-resilient communities. The project emphasizes multi-stakeholder collaboration by actively engaging the government, civil society, and the business sector to promote sustainable water management. By integrating scientific research, community engagement, and policy advocacy, this initiative seeks to restore freshwater ecosystems, enhance biodiversity, and provide crucial support to vulnerable communities.

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 regard 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 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.

PURPOSE OF CONSULTANCY

The purpose of this consultancy is to perform socio-economic analysis followed by a hydrological, hydrogeological and climate change assessment of Lahore. These assessments are designed to provide a thorough analysis of the existing water conditions in Lahore, covering aspects such as quantity, quality, accessibility, distribution, and key water sources. Additionally, they will examine the socio-economic landscape of the project areas, assess flow patterns, identify Important Water-Related Areas (IWRA), and evaluate climate change impacts, including hydrological and meteorological drought analyses. The study will also address shared water challenges, groundwater conditions, recharge potential, aquifer characteristics, soil composition, and geological features. The findings will be instrumental in identifying water-related risks and exploring opportunities to enhance water stewardship and promote sustainability within the catchment of Lahore.

TASKS

The consultant(s) is expected to perform the following tasks as per the timeline:

1. **<u>Comprehensive Water Accounting for Lahore</u>**

   Prepare a detailed account of Lahore's water resources, including volumetric quantification and mapping of all significant sources, stores, discharges, sinks, and losses. This assessment should include but not be limited to:

   Sources

   - Groundwater
   - Surface water (e.g., River Ravi, canals)
   - Rainwater (where applicable)

   Water Usage and Consumption

   - Domestic
   - Commercial
   - Institutional
   - Industrial (with sub-sectoral detail, especially textile and leather)
   - Agricultural (peri-urban irrigation, if relevant)

   Outputs and Stores

   - Discharges into surface water bodies (e.g., drains, Ravi)
   - Groundwater recharge (via percolation, leakage, return flows)
   - Wastewater discharge into adjoining lands or fields
   - Evaporation losses

   Assess the groundwater aquifer system underlying Lahore, including recharge vs. extraction, seasonality, storage depletion, and long-term sustainability. Include separate groundwater water balance distinct from surface water assessment. This water balance should be spatially visualized (e.g., via GIS maps or schematics) to show abstraction points, discharge sites, canals, sewerage pipelines, and pollution hotspots.

2. **<u>Hydrogeological Characterization of Lahore</u>**

Describe the hydrogeological parameters of Lahore's aquifers and wells, covering:

- Flow direction and gradients
- Seasonal fluctuation
- Abstraction volumes
- Recharge capacity
- Groundwater quality trends and salinity zones

3. Identification of Key Water Risks in Lahore

Evaluate present and emerging water-related risks affecting domestic and industrial sectors, with emphasis on high-water-use industries (textile, leather, food). The risk assessment should consider:

- Climate change projections and groundwater vulnerability
- Population growth and urbanization trends
- Land use/land cover changes and infrastructure expansion
- Abstraction trends across sectors
- Upstream pressures (e.g., pollution from rural catchments or industrial estates)
- Institutional, physical, environmental, and regulatory risks
- Economic implications (e.g., investment gaps, tariff structures)
- Major pollution sources and their links to declining water quality

4. Socio-Economic Assessment of Lahore

Conduct a socio-economic baseline survey across representative Lahore communities (formal/informal).

Assess:

- Water access disparities across income groups and genders.
- Livelihood dependence on water (especially in water-intensive sectors).
- Household water costs, coping mechanisms, and willingness to pay for improved services.
- Health and education impacts linked to water quality and availability.
- Understand institutional and regulatory perceptions through key informant interviews and community feedback.
- Map vulnerable communities using socioeconomic and hydrological overlays (e.g., low-income neighborhoods facing high water stress or contamination).
- Recommend inclusive and nature-based interventions

Survey tools and instruments must be pre-approved by WWF-Pakistan.

5. Institutional and Regulatory Framework Review

Analyze Lahore's institutional landscape governing water and wastewater:

- Roles of WASA, EPA Punjab, P&D Board, PHED, and LDA.
- Laws governing abstraction, wastewater discharge, and pollution control.
- Compliance status with PEQS and Punjab Groundwater Act.
- Identify gaps and weaknesses in policy and implementation, including:
- Institutional overlaps or mandates.
- Lack of enforcement capacity or public engagement.
- Stakeholder criticisms and political economy barriers.
- Link technical findings with broader water governance and climate policy frameworks.

6. Development of Recommendations

Based on the findings of the hydrological, hydrogeological, climate change, and socio-economic assessments, the consultant shall provide a set of evidence-based, actionable recommendations tailored to the urban water resilience context of Lahore. These recommendations must address:

- Groundwater quantity and quality management, including recharge interventions and regulatory controls.
- Surface and wastewater management, with emphasis on pollution control and decentralized treatment options.
- Climate adaptation strategies, particularly for urban flooding, drought risk reduction, and infrastructure resilience.
- Nature-based solutions (NbS) such as wetlands, recharge pits, and green buffers to support infiltration and biodiversity.
- Water demand management across domestic, industrial (especially textile and leather), and institutional users.
- Institutional and policy reforms, identifying gaps and proposing governance improvements.
- Community-based approaches to promote behavioral change and equitable access.

The recommendations should be clearly linked to identified risks and supported by spatial data, where applicable. Each recommendation must include a brief description of its feasibility, expected impact, and potential implementing stakeholders (e.g., WASA, EPA Punjab, LDA, P&D Board).

DELIVERABLES

The consultant shall submit four distinct but interlinked reports covering all aspects of the assignment. Each deliverable must be supported by spatial data (where applicable), primary and secondary evidence, stakeholder inputs, and practical recommendations.

Deliverable 1: Hydrological and Climate Change Assessment Report (Lahore)

- Rainfall trend analysis and IDF curve development
- Seasonal water flow mapping and runoff behavior
- Flood and drought risk mapping
- Assessment of climate change impacts on Lahore's hydrological systems
- Identification of urban water stress hotspots

Deliverable 2: Hydrogeological Assessment and Water Accounting Report (Lahore)

- Groundwater balance: abstraction, recharge, depletion
- Aquifer characteristics, flow direction, and seasonal trends
- Comprehensive water accounting: sources, uses, losses (quantified and mapped)
- Water quality status and pollution source identification
- Mapping of abstraction/discharge points and recharge zones

Deliverable 3: Socio-Economic and Institutional Analysis Report (Lahore)

- Community-level assessment of water access, affordability, and use
- Livelihood dependence and sector-specific water use
- Gender and equity analysis of water-related vulnerabilities
- Stakeholder perceptions of service delivery and governance
- Institutional and regulatory review, including enforcement challenges

Deliverable 4: Recommendations Report

Evidence-based, actionable recommendations across:

- Groundwater and surface water management
- Nature-based solutions and infrastructure options
- Climate adaptation and risk mitigation strategies
- Institutional and governance reforms
- Community engagement and behavior change
- Feasibility assessment, suggested lead agencies, and potential implementation pathways

Deliverable 5: Final Consolidated Report (Lahore)

An integrated, comprehensive report synthesizing the findings, analysis, and recommendations from Deliverables 1–4

- Executive summary outlining key insights and actionable next steps
- Summary maps, infographics, and tables to present data in a user-friendly format
- Structured for sharing with stakeholders, donors, and government agencies

All deliverables should be submitted in both editable (Word/Excel) and final (PDF) formats, and include:

- Maps, charts, and figures
- Tables summarizing findings and data
- Photographic documentation (if relevant)
- Annexes with raw datasets and survey tools

PROJECT/ASSIGNMENT TIMELINE

Duration of assignment: 120 days spanning over 30th May 2025 till 15th December 2025.

REQUIREMENTS

The interested consultant(s) or firm should meet the following non-key and key experts:

Key Experts:

Sr.#	Position	Qualification and experience
1	Team Lead/Water Management Specialist	BSc. Civil Engineering/Agricultural Engineering with Masters in Water Resources Engineering/Engineering Hydrology and 12 years of experience
2	Deputy Team Lead/ Climate Change & water Expert	BSc. Civil Engineering/Agricultural Engineering/Environmental Engineering with Masters in Water Resources Engineering/Engineering Hydrology/Climate Change and 10 years of experience
3	Ground water Expert	BSc. Agricultural Engineering/ Engineering Geology/GeoTech/GeoPhysics with Masters in groundwater management and 10 years of experience of related projects

4	Senior Hydraulic Engineer	BSc Civil Engineering with Masters in Hydraulic Engineering and 10 years of experience
5	Social and Community Specialist	Master's degree or higher in Social Sciences, Environmental Management, Development Studies, Public Policy, Sociology with 10 years of experience

Non-key experts:

Sr. #	**Position**	**Qualification and experience**
1	Junior Engineer (Hydrology/Sedimentation/Hydraulic)	BSc. Civil Engineering/Agricultural Engineering with Masters in Water Resources Engineering/Engineering Hydrology/Hydraulic Engineering with 3-4 years experiences
2	Junior Engineer Environment/Climate Change	BSc. Environmental Engineering/ Climate Change with 3-4 years of experience
3	Junior Engineer Ground Water	BSc. Agricultural Engineering/ Engineering Geology/GeoTech/GeoPhysics with 4 years of experience of related projects
4	Social and Community	Master's degree or higher in Social Sciences, Environmental Management, Development Studies, Public Policy, Sociology with 3-4 years of experience
5	Field Surveyors	Bachelors in social Sciences for the data collection from the communities of the project and DAE civil for the technical data collection.

CORRESPONDENCE & SUBMISSION OF PROPOSAL

1. Interested consultants should submit the technical and financial Proposal to

   To: Faiza khan (fkhan@wwf.org.pk)

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

   Muhammad Imran Azam (miazam@wwf.org.pk)

   Ifrah Kamil (ikamil@wwf.org.pk)

2. The proposal submission deadline is mentioned on WWF-Website.
3. Any information and responses to enquiries will be made in writing and distributed by email to all proponents. Enquiries after the foregoing deadline will not receive a response.

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, experience and 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 of consultancy service- Description of scope and working process, stages, deliverables, exclusions, conditions, methodology
4. Service Provision Timeline – Provide Detailed Work Plan as per Deliverable and TORs.
5. Financial Proposal- the prices shall be provided in Pak Rs, the total price must be exclusive of all types of 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.

FINANCIAL PROPOSAL

The proposed prices shall be quoted in Pakistani Rupees (PKR) and must be inclusive of all applicable taxes. The quoted amount should also cover all associated costs, including but not limited to travel, boarding, lodging, fieldwork, and miscellaneous expenses.

The payment terms and schedule shall be defined in the contract to be executed between WWF-Pakistan and the selected consultant/firm.

Financial Proposal				
Description	**Units**	**Quantity**	**Rate**	**Total Amount**
1. Remuneration: • Field • Office	Man Days [MD] / Man Months [MM]			
2. Air Travel				
3. Road Travel				
4. Boarding/Lodging				
5. Others (Please specify) Training Material, Printing, Photocopies, Colour printing, practical demonstration equipment's e.g candling				
Grand Total Inclusive of All direct or indirect Taxes and Out of Pocket Expenses				

Note:

- If there is not Air, Road Travel/Boarding and Lodging and others then simply Write Not applicable.
- Road travel cost for trainer and trainees will be paid by WWF on actual basis on submission of actual Bills.
- Boarding and lodging cost for trainer and trainees will be paid by WWF on actual basis.

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.

- Technical Proposal 70%
- Financial Proposal 30%

The following criteria shall be used as a basis for evaluation of technical proposals:

- Qualifications (maximum 30 points)
- Experience relevant to the assignment (maximum 30 points)
- Adequacy of the proposed methodology and work plan (maximum 20 points)
- Skills & competencies for the assignment (maximum 10 points)
- Prior experience with WWF-Pakistan (maximum 10 points)

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

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.