

## \* REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTING SERVICES- FIRMS SELECTION)

Credit No. IDA-6243

Reference No. PK-PMDFC-351370-CS-CQS

**Assignment Title: "HIRING OF CONSULTANTS (FIRM) FOR PREPARATION OF FEASIBILITY STUDIES, DESIGN OF RAIN WATER UNDERGROUND STORAGE FACILITIES IN 11 CITIES OF PUNJAB".**

The Govt of Punjab (hereinafter called "Borrower") has received financing from the International Development Association (IDA) in the form of a "credit" (hereinafter called "Credit") towards the cost of "Punjab Cities Program (PCP)". Punjab Municipal Development Fund Company (PMDFC), an implementing/executing agency of the Client, hereinafter referred to as 'Client' intends to apply a portion of the proceeds of this credit to eligible payments.

The Consulting Services ("the Services") include preparation of feasibility studies and detail design of the evidence based, priority municipal infrastructure sub-projects for provision of rainwater underground storage in 11 selected MCs of Punjab under PCP.

PMDFC now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

### **Mandatory Documents for Eligibility of a Firm**

Description	Requirement
Certificate of Company/Firm Registration/Incorporation under the laws of Pakistan	Mandatory
Valid Income Tax Registration (Status= Active with FBR)	Mandatory
Valid General Sales Tax Registration (Status= Active with PRA)	Mandatory
Submission of undertaking on stamp paper that the firm is not black listed by Provincial or Federal Government institutions, Agencies, Organizations, or autonomous bodies anywhere in Pakistan.	Mandatory
At least 5 years' experience in the in the relevant field since establishment & registration with the relevant professional body	Mandatory

The evaluation criteria are as under:

Credit Marks for Firm Experience	Maximum Marks
<p>a Full marks will be given in case of Experience of four (04) completed projects having minimum consultancy cost of Rs. 15.00 million (PKR) each regarding design of infrastructure projects during last 10 years. (10 marks for every project having minimum consultancy cost of Rs. 15 Million)</p> <p>(Documentary evidences of each activity/assignment indicating cost charged must be provided)</p>	40
<p>b Full marks will be given in case of Experience of two (02) completed design projects having minimum consultancy cost of Rs. 10.00 million each with Public Sector Institutions/Donor Agencies. (15 marks for every project having minimum consultancy cost of Rs. 10 Million)</p> <p>(Documentary evidence of each activity/assignment indicating cost charged must be provided)</p>	30
<p>c Full marks will be given in case of Experience of two (02) completed projects having minimum consultancy cost of Rs. 2.00 million each in conducting design of Rainwater Underground Storage during last 10 years. (15 marks for every project having minimum consultancy cost of Rs. 2.0 Million)</p> <p>(Documentary evidences of each activity/assignment indicating cost charged must be provided)</p>	30

The detailed Terms of Reference (TOR) for the assignment can be found at the following website: <https://pmdfc.punjab.gov.pk/>

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 [Revised November 2017 and August 2018] ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest. A Consultant will be selected in accordance with the **Consultant's Qualification Based Selection Method (CQS)** set out in the Procurement Regulations of the World Bank.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

Expressions of interest must be delivered in a written form to the address below up to **May 23, 2023 by 1700 hours.**

**Punjab Municipal Development Fund Company (PMDFC)**

Attn.: Managing Director, PMDFC/PD, PCP

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IPL-3262

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**PUNJAB CITIES PROGRAM (PCP)**

**TERMS OF REFERENCE  
FOR  
HIRING OF CONSULTANTS (FIRM)  
FOR PREPARATION OF FEASIBILITY STUDIES AND DESIGN OF  
RAINWATER UNDERGROUND STORAGE FACILITIES  
IN  
11 cities of Punjab**

**FEBRUARY 2023**

**Punjab Municipal Development Fund Company**

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## **I. Background**

The Punjab Cities Program (PCP), is a World Bank-funded hybrid Program for Results (PforR) and Investment Project Financing (IPF) operation, with total cost of USD 200 million spanned over 5 years (2018 -2023) supporting 16 cities in Punjab. Its development objective is to strengthen the performance of participating Municipal Committees/Corporations (MCs), focusing on urban management and improvement of municipal infrastructure for satisfactory service delivery.

Under the PforR (Window-1) the Performance Based Grants (PBGs) are being provided to the MCs of the 16 selected cities for investments in municipal infrastructure and services.

The IPF (Window-2) is supporting provincial government agencies i.e., Local Government & Community Development Department (LG&CDD), Punjab Local Government Board (PLGB), Punjab Municipal Development Fund Company (PMDFC) and PFC Unit of Finance Department (FD).

## **II. Objectives of Consultancy Services**

Storm water stagnation on the lower elevation points in densely populated areas in cities of Punjab, particularly in northern part of the province, has been a major environmental hazard and civic problem which disturbs the routine life and creates traffic hazards. The situation becomes worst in the monsoon which normally occurs in the period from July to September every year. , The rain water flows along the roads towards the relatively low-lying areas and creates ponding making these locations as sore points. The inundated areas are ultimately drained through the sewerage and drainage system located in those specific areas. Due to inadequate capacities of the sewerage /drainage system, the stagnation periods are longer and this situation becomes problematic for the public mobility and creates traffic hazards for hours as well damages the valuable properties of general public every year.

The purpose of storm water storage / rain water management is to prevent the ponding and long stagnations by reduction in the peak runoff rate when the capacity of drainage / sewerage system is exceeds by the rain water runoff. This has been experimented in

Lahore by WASA very successfully recently through construction of under- ground storage tanks up to the storage capacities of 1.5 million gallons. This has resulted into the reduction of stagnation time of storm water on roads in peak hours and provided great relief to the general public.

This project has proven a landmark in Urban Flood Management for being the first of its kind in Pakistan.

In the similar way, under Punjab Cities Program such facility if provided to the areas where comparatively more rain fall occur, will bring about a great relief to the public.

The overall objectives of hiring of the Consultancy Services therefore are;

- a) Preparation of Feasibility and Detailed Design of the evidence-based, priority municipal infrastructure sub-projects for provision of Rain Water Storage in selected 11 Program Municipal Units (MU) in Punjab after due deliberations with PMDFC, MCs, WASA Lahore where these have already been constructed and other probable stakeholders. The selection of 11 cities has been made due to much more rainfall intensity in these cities particularly in storm season (July to September) as compared to cities of Southern Punjab.

### **III. Package for the Consultancy Services**

The Consultancy Services will be undertaken for the Municipal Units created under District Councils under PLGA-2022. For this purpose following 11 cities where rain fall intensity is high as compared to Southern part of the Punjab have been proposed and selected:

<b>Northern Punjab</b>	<b>Central Punjab</b>
1- Daska	1- Gojra
2- Hafizabad	2- Jaranwala
3- Jhelum	3- Jhang
4- Kamoke	4- Kamalia
5- Muridke	5- Okara
6- Wazirabad	

### **IV. Terms of Reference**

#### **A. Feasibility and Detailed Design**

The consultants will be required to carry out the activities as given below:

**a. Topographical and site survey**

The survey work shall comprise of topographic and other necessary surveys as detailed below:

- 1) Survey, spot leveling and establishment of proper defined benchmarks connected with Survey of Pakistan's benchmarks
- 2) Plotting the spot levels on a plan for preparation of contour plan of the catchment area wherefrom the rain water flows to the stagnation points.
- 3) Preparation of plans, cross-sections and other related details required for detailed design of drainage arrangements of the stagnation points,
- 4) Prepare plans & L-Sections / profiles of the drainage route showing boundaries of the catchment areas along with existing services both on surface and underground,
- 5) Relocation plans, diversion plans for existing drains and sewer lines as per site.
- 6) Collection of other details required for preparation of feasibility and detail design.

**b. Soil /Geotechnical Investigations**

The Consultant will conduct the following investigations

- 1) Soil / geotechnical investigations (field investigations along with in-situ & lab testing through boreholes and test pits) to arrive at the geotechnical parameters required for the foundation design of all the components of the project.
- 2) Proper investigations regarding depth of water table

**c. Feasibility Studies**

The consultant will conduct the feasibility studies which will include the following parameters but not limited to:

- 1) Collect meteorological data of relevant cities or nearest meteorological rainfall stations. Based on this data, will draw storm flow (flood) hydrology graphs and calculate the quantity of storm water accumulation on the stagnation points based on time of concentration.

- 2) study of existing storm water drainage systems including situation analysis of sewerage and sewage disposal, urban flooding and overall drainage and sewerage regime of the city. Identify the ponding areas/sore points of the city along with the capacity of the existing drainage network to cater for storm water of the most vulnerable part of the city.
- 3) After analysis, prepare and design various proposals based on various alternatives with their technical and economical justifications to drain the stagnation areas and recommend the best and cost effective solution in that specific situation. Recommendations will be given against the best option to be adopted based on these alternatives and their comparative analysis
- 4) Find out the best locations/land for the construction of such rain water storage areas based on such studies as enumerated above
- 5) Prepare the economic and financial analysis along with sensitivity analysis of the sub-projects.
- 6) Work out monthly and yearly Operation and Maintenance cost of the proposed system
- 7) complete environmental and social assessment ,primary and secondary baseline survey and environmental quality analysis (from EPA certified labs as per PEQsS and WHO Guidelines) based upon the physical, biological and socio-economic characteristics of each of the city, adopting the processes and procedures defined in the ESMF of Punjab Cities Program ,including development and obtaining approval of respective environment and social assessment studies and plans as per local legal regime and WB policies.
- 8) Prepare a final report for each city.

The detailed engineering design will be prepared by the consultants after approval of the feasibility studies prepared by the Consultants by PMDFC

#### **d. Detailed Engineering Design**

The consultant will prepare the detailed engineering design which includes the following but not limited to:

- 1) Prepare the hydrological and structural design of the entire storm water drainage and storage system keeping in view the most economical and technically feasible solutions in the study areas based on feasibility studies duly approved by PMDFC

- 2) Submit detailed design of all civil works including drainage system, storage tanks and related electrical and mechanical components in accordance with relevant standards etc. duly supported with documents containing design calculations, citations/reference
- 3) Submit layout plans, detailed structural and working drawings showing each and every minute detail required for execution of the project along with all supporting references, design calculations with supporting documents, back up details.
- 4) Final E&S assessment reports /studies and plans as per ESMF
  - a) IEE b) ESIA c) ESMP d) SMP e) ARAP/RAP etc.
- 5) Obtain approval /NOC of IEE/EIA/ESMPs/ARAP/RAP from the concerned department / forums or any other activities which will be required in due course of time related to E&S activities

**Note: Detail engineering design will be approved by PMDFC before start of drawings, detailed cost estimates and PC-Is.**

#### **e. Engineer Cost Estimate / PC-I**

**The Consultants shall prepare the following but not limited to:**

- 1) detailed cost estimates based upon detailed approved drawings with full breakdown of main calculations, quotations and other details of MRS and non MRS item of work.
- 2) PC-I based on the latest instructions and guidelines of Planning Commission, engineering practices, relevant guidelines & standards and will assist client to get PC-I approved by the relevant forum(s). The consultant shall also be responsible to get it vetted from Technical Scrutiny Committee of LG&CDD and assist PMDFC in presenting before the relevant approval forums (DDC/DDWP/DDSC/PDWP).
- 3) Fully assist PMDFC and Municipal Units to get the detailed cost estimates technically sanctioned by Chief Engineer PLGB.

**Approved PC-I will also contain approved feasibility report as Annexure in line with standard guidelines of Planning Commission of Pakistan and PDWP.**

#### **B. Bidding Documents and Tendering Processes:**

The consultants will be responsible for the following but not limited to:

##### **a. Preparation of Bidding Documents:**

- 1) Preparation of bidding documents (incorporation of approved E&S assessment studies /reports and plans) once the estimate is technically sanctioned and received

to MU and sent to PMDFC. Same will be handed over to the Consultant to prepare bidding documents in line with PPRA bidding documents uploaded on its Web site.

2) Draft bidding documents will be sent to both MUs and PMDFC for review and final comments.

3) MC will approve the bidding documents

**b. Bidding Process:**

The consultants will be the part of the Procurement Committees of Program MUs/Concerned District Councils. Consultants will be responsible to carry out the bid evaluations at each stage and recommend to the Procurement Committee of that particular MUs/District Council for final approval of the Report.

**D. Core Team of Experts**

**a. Feasibility/Design Phase (Lumpsum basis):**

The consultant will be required to provide following Key staff for the assignment.

Sr. No	Description	Nos.	Qualification/Experience	Man Months	Experience
1	Team Leader Intermittent	1	M.Sc. / B.Sc. Engg (Civil/Environmental/PH)	03	M.Sc. with 15 years or B.Sc. with 18 years relevant experience
2.	Sewerage / Drainage Expert	1	M.Sc. / B.Sc. Engg (Civil/Environmental/PH)	04	M.Sc. with 08 years or B.Sc. with 10 years relevant experience
3.	Mechanical Engineer	1	M.Sc. / B.Sc. Engg. (Mechanical)	02	M.Sc. with 05 years or B.Sc. with 08 years relevant experience
4.	Electrical Engineer	1	M.Sc. / B.Sc. Engg. (Electrical)	01	M.Sc. with 05 years or B.Sc. with 08 years relevant experience
5	Hydrologist	1	M.Sc. / B.Sc. (Hydrology/Civil Engineering)	01	M.Sc. with 08 years or B.Sc. with 10 years relevant experience
6	Environmental Expert	1	M.Sc. /B.Sc. (Environmental Engineering/ Sciences)	04	M.Sc./MS/M phil. 10 years relevant experience



	Social Expert	1	MS/BS (Social Sciences)	04	MS Social Sciences 10 years relevant experience
7.	Geo-Technical Expert	1	M.Sc. Geo-Technical	02	10 years of relevant experience
8.	Structural Engineer	1	M.Sc. Structural Engg.	02	10 years of relevant experience
<b>Non-Key Staff:</b>					
1.	Survey Experts	2	M.Sc. / B.Sc. Engg (Civil)	04	M.Sc. with 08 years or B.Sc. with 10 years relevant experience
2.	Quantity Surveyor	2	DAE Civil	08	8 Years relevant experience
3.	CAD Operator	2	DAE Civil	08	8 Years relevant experience in preparation of all kinds of drawings with good knowledge of Auto CAD and 3 D Civil
Note: Other necessary non key staff will be taken up in the financial proposal by the Consultants as per their assessments.					

#### **D. Reporting Requirements:**

Soft Copies of each deliverable will be sent via email and uploaded on designated address/link

#### **E. Ownership:**

All data, models, soft wares, soft & hard files of all design, supporting data and documents etc. which will be used for this study will be handed over to PMDFC in soft form complete in all respect and payments will only be released once the relevant details are submitted for the work till that date of payment.

#### **F. Time Lines:**

The time period for the consultancy services is given below:

- a. Topographic Survey, Geotechnical and Hydrological Studies, Feasibility and Detailed Design (6 Months):**

Description	Timelines till receipt of deliverables	Deliverables	
		Hard	Soft
Inception report	15 days	01	01
Topographic Survey/Soil/Geotechnical investigations and Hydrological studies	45 days	01	01
Feasibility (11 subprojects with 8 subprojects in first 60 days and in last month balance 3 subprojects) including all deliverables (design proposal, Economic/Financial Analysis, O&M, E&S assessment, survey and screening etc). North region will be completed first.	90 days	01	01
Design including E&S instruments complete in all respect	105 days	01	01
Drawings and Detailed Cost Estimates	120 days	01	01
PC-Is (Draft & Final Report)	150 days	01	01
Bidding Documents	180 days (6 months)	One hard and One Soft copy	

**c. Other Deliverables**

Sr. No.	Deliverables	Soft Through Email or Google Drive
1	Weekly Report	01
2	Fortnightly Progress Report on standard approved format	01
3	Monthly Progress Reports on standard approved format	01
4	Final Report on standard approved format	01
5	Revised PC-I (as and when required)	01