WORKING PAPER FOR PDWP

Part-A - Project Profile

1.	**Project Title**	Identification/Establishment of 2 Nos Landfill Sites in Punjab
2.	**Location**	Faisalabad, Gujranwala
3.	**Sponsoring Agency**	LG&CD Department
4.	**Executing Agency**	PMDFC / GWMC / FWMC
5.	**Operation & Maintenance**	LG&CD Department
6.	**Proposed Cost**	**Printed Cost: 4,500.00/- million** (Rs. in Million) Cost Before Pre-PDWP: 4,508.97 Cost After Pre-PDWP: 3,849.24 Difference: -659.73
7.	**ADP 2024-25 (G.Sr.No.1189)**	Revised Allocation: Rs. 35.0 million
8.	**Gestation Period**	36 Months (Till September 2027)

9. Background / Justification of the Project:

The Integrated Solid Waste Management (ISWM) projects in Gujranwala and Faisalabad aim to establish comprehensive waste management systems to address the growing waste management challenges in these cities. The projects involve the development of sanitary landfills including construction and operations.

	Gujranwala: Bhekhrewali Site	Faisalabad: Lakhwana Site
Location	Bhekhrewali, Latitude 32.1562° N, Longitude 74.1883° E	Lakhwana, Latitude 31.3945° N, Longitude 73.0195° E
Project Components	Sanitary Landfill: Capacity of 800 tons per day for residual waste disposal.	Sanitary Landfill: Capacity of 1100 tons per day for residual waste disposal.

Addressing Waste Management Challenges

- Increasing Waste Generation: Rapid urbanization and population growth in Gujranwala and Faisalabad have led to significant increases in municipal solid waste (MSW) generation, necessitating efficient and sustainable waste management solutions.
- Environmental Protection: Uncontrolled waste disposal leads to environmental pollution, affecting soil, water, and air quality. Establishing modern waste management facilities helps mitigate these adverse environmental impacts.
- Public Health: Poor waste management practices pose serious health risks to the population, including waterborne diseases and respiratory problems due to air pollution. The projects aim to

improve sanitation and public health standards.

The primary objective of the Integrated Solid Waste Management (ISWM) projects in Gujranwala and Faisalabad is to establish a comprehensive and sustainable waste management system that enhances waste disposal with the construction of sanitary landfill and its operational management.

10. Scope of the Project

Components		Specifications
1. Sanitary Landfill Civil Works:	**Landfill Cells:** Engineered containment areas with liner systems	Area: 50,000-100,000 square meters per cell
	Leachate Collection System: To collect and treat leachate	HDPE liner, drainage pipes, and storage tanks.
	Gas Collection System: To capture landfill gas.	Gas wells, pipes, and flaring or energy recovery units.
	Liner System: To prevent contamination of soil and groundwater	HDPE or geosynthetic liners.
	Cover System: To minimize odor and prevent rainwater infiltration.	Clay or geosynthetic covers.
2. Equipment and Machinery	**Bulldozers:** For spreading and compacting waste.	Engine power: 200-400 HP.
	Excavators: For digging and cell construction.	Specifications: Bucket capacity: 1-3 cubic meters.
	Compactors: For compacting waste in landfill cells	Weight: 20-40 tons, compaction force: 30-50 tons.
	Leachate Treatment Plant: To treat collected leachate	Capacity: 100-200 cubic meters/day.
3. Other Physical Facilities:	**Site Office**	For administrative activities.
	Weighbridge: For measuring incoming waste	Specifications: Capacity: 50-100 tons.
	Maintenance Workshop	For repairing and maintaining machinery.
	Parking Area	For vehicles and machinery
	Staff Facilities	Restrooms, canteen, and changing rooms.
	Security Systems	CCTV cameras and access control.

11. Sector Issues

Governance issues in the solid waste management (SWM) sector can pose significant challenges to the successful implementation and sustainability of projects like the Integrated Solid Waste Management (ISWM) facilities in Gujranwala and Faisalabad. Addressing these issues is crucial to ensuring that the projects achieve their objectives effectively. Below are the main governance issues relevant to the project and the strategies

to resolve them:

- Multiple government agencies and departments often have overlapping responsibilities and jurisdictions in waste management, leading to coordination problems and inefficiencies.

- Lack of comprehensive policies and regulations specific to waste management can hinder the development and enforcement of effective waste management practices.
- Insufficient funding and budget allocations for waste management infrastructure and operations limit the capacity of local governments to implement and sustain effective waste management systems.
- Limited technical and managerial capacity within local government bodies and waste management organizations can lead to ineffective project implementation and operations.
- Low levels of public awareness and participation in waste management practices can undermine efforts to reduce, reuse, and recycle waste, and to maintain clean and hygienic environments.
- Weak enforcement of waste management regulations and non-compliance by waste generators can lead to illegal dumping, littering, and other environmentally harmful practices.
- Lack of reliable data and information on waste generation, composition, and management practices hampers effective planning and decision-making.

12. Relationship of the project with the sector policy/growth strategy:

The vision of the Government is to make urban centers the engines of national growth, centers of economic activity and knowledge, and focal points for cultural change. Projects to be executed under this program are an integral part of the Development Profile of the province. The overall program for PCP is in line with Pakistan Vision 2025, Govt. of Pakistan, Punjab Growth Strategy 2018 and Punjab Urban Development Sector Plan 2018. The proposed investment program for PCP is based on the Government of Pakistan's (GOP) Vision 2025 which aims at transforming the urban areas into creative eco-friendly sustainable cities through improved city governance, effective urban planning, efficient local mobility infrastructure and better security to make urbanization an important driver of growth. Similarly, the Punjab Growth Strategy 2018 envisions sustained improvement in living standards in cities. It is linked to Sustainable Development Goals (SDG-11 Sustainable cities and communities) which states "to make cities inclusive, safe, resilient and sustainable".

13. Objectives Of The Project:

i. Develop Sanitary Landfills:
   - Construct sanitary landfills with appropriate environmental safeguards to safely dispose of residual waste.
   - Ensure compliance with environmental regulations and minimize adverse impacts on soil, water, and air quality.

ii. Improve Overall Waste Management Efficiency:
   - Optimize waste collection, transportation, and processing systems.
   - Implement modern waste management technologies and best practices to improve operational efficiency.

14. Other major ongoing & potential projects in the sector:

- PICIIP
- PRSWSSP
- DREAMS – I
- PCP

15. Annual Operating Cost

Not Provided

16. Capital Cost Estimate

The summary of the project cost is given below;

(Rs. in Million)

	Description	Cost Before Pre-PDWP	Cost After Pre-PDWP	Diff
1	Establishment of Landfill Site at Gujranwala	1,863.59	1,388.32	-475.27
2	Establishment of Landfill Site at Faisalabad	1,954.87	1,968.06	13.19
	Sub Total	**3,818.46**	**3,356.38**	-462.08
	Detailed Design Cost 2%	**-**	67.128	67.1428
	Contingencies 2%	76.369	67.128	-9.24
	PRA 5%	190.923	167.82	-23.10
	PMU Establishment Cost	423.209	0	-423.21
	Project Implementation Cost	0	95	95.00
	Operation and Maintenance Cost	0	95.787	95.79
	Grand Total	**4,508.97**	**3,849.24**	**-659.73**

Sub Project : 1 (Gujranwala)

	Description	Cost Before PDWP	Cost After PDWP	Difference
1	Landfill Cells and Liner System	1,341.10	953.97	-387.14
2	Leachate Collection and Treatment System	50	65.102	15.10
3	Gas Collection System	80	39.005	-41.00
4	Infrastructure Development			0.00
a)	Administration Building			0.00
	i) Civil Works	33.245	10.439	-22.81
	ii) Plumbing Works	5.418	1.59	-3.83
	iii) Electrical Works	6.637	2.084	-4.55
b)	Maintenance Workshop			0.00
	i) Civil Works	24.778	19.762	-5.02
	ii) Plumbing Works	1.177	0.939	-0.24
	iii) Electrical Works	0.846	0.675	-0.17
c)	Boundary Wall Fencing	24.672	19.056	-5.62
d)	Water Supply	11.383	13.868	2.49
e)	Roads	119.302	83.157	-36.15
f)	External Electrical Works	63.871	63.871	0.00
g)	Drainage System	40.913	75.572	34.66
h)	Land Scaping	7.387	5.7	-1.69
i)	Composting Plant	42.852	23.852	-19.00
j)	Weigh Bridge	10	10	0.00
	Grand Total	**1,863.59**	**1,388.64**	**-474.95**

Sub Project : 2 (Faisalabad)

	Description	Cost Before PDWP	Cost After PDWP	Difference
1	Landfill Cells and Liner System	1,433.81	1,424.47	-9.34
2	Leachate Collection and Treatment System	50	85.862	35.86
3	Gas Collection System	80	38.442	-41.56
4	Infrastructure Development			0.00
a)	Administration Building			0.00
	i) Civil Works	32.661	10.255	-22.41
	ii) Plumbing Works	5.379	1.578	-3.80
	iii) Electrical Works	6.637	2.084	-4.55
b)	Maintenance Workshop			0.00
	i) Civil Works	24.229	19.324	-4.91
	ii) Plumbing Works	1.158	0.923	-0.24
	iii) Electrical Works	0.846	0.675	-0.17
c)	Boundary Wall Fencing	24.672	33.899	9.23
d)	Water Supply	12.361	13.535	1.17
e)	Roads	122.549	104.135	-18.41
f)	External Electrical Works	63.808	63.808	0.00
g)	Drainage System	38.852	105.792	66.94
h)	Land Scaping	7.387	10.15	2.76
i)	Composting Plant	40.529	43.206	2.68
j)	Weigh Bridge	9.987	9.987	0.00
	Grand Total	**1,954.87**	**1,968.13**	**13.25**

Sr. No.	Component	Cost
	PMDFC Project Implementation Charges	95.00

17. Financial Phasing of the Project:

Sr.No	Description	2024-25	2025-26	2026-27	2027-28	Total
1	DBO Contractor Selection including activities such as standarding contractor evaluation & selection, mobilization of resources.	80				80.00
2	Obtaining internal approval, studies & technical investigations					
3	Design Cost, Contractor & other resource mobilization, final design reviews		1,769.4			1769.4
4	Startup of construction phase, land preparation, Execution of the project					
5	Procurement of Civil Materials					
6	Construction phase, Execution of the project			1,600		1600
7	Procurement of Electrical, Mechanical & allied Materials					
8	Commissioning and O & M				400	400
9	Preparation of Operation & Maintenance Manuals					
10	Trainings					
Total		**80**	**1,769.4**	**1,600**	**400**	**3,849.24**

18. Period of Implementation:

Project implementation period 36 Months (Till September 2027)

19. Annual Income after completion:

N/A

20. Manpower Requirement:

a) PMDFC experts and staff

For rendering assistance in implementation of this project, PMDFC has the experts and staff in the required fields.

b) WMC staff

staff of WMCs of Gujranwala and Faisalabad will be deputed for execution of the project in collaboration with PMDFC

c) Contractor's Technical staff, skilled & non skilled labor

The contractors will employ the supervisory technical staff and skilled & non skilled labor for execution of works. The works will be supervised by experienced Engineers and sub engineers and the number of slots for engineers and skilled and non-skilled will depend upon the type and quantity of work and its period of completion. The project will be in DPO mode. The contractor shall poses all the necessary staff to design, build and operate this project.

d) Repair & maintenance of the project

WMCs have their own regular staff which has been deployed for Repair and maintenance of the municipal services infrastructure. Furthermore, PMDFC will monitor the O&M with monitoring dashboard and MIS system. However, it has been observed that the existing staff is not adequate to repair and maintain the services in a manner which can give good service delivery. Hence it is proposed to Fill up the presently vacant slots Recruit additional staff as per need of the infrastructure after obtaining the sanctions from the competent authorities.

21. Economic /Financial Appraisal:

Economic

Benefit/Cost Ratio @ 12.00% discount rate	2.164
EIRR	26.39%
Present worth of Cost	3,998.32
Present worth of Benefits	8,652.1
NPV	4,653.8

Financial

Benefit/Cost Ratio @ 12.00% discount rate	1.246
FIRR	13.75%
Present worth of Cost	4,403.4
Present worth of Benefits	5,486.5
NPV	1,083.0

22. Environmental Appraisal:

Reduction in landfill use, decrease in greenhouse gas emissions, and promotion of recycling and sustainable waste management practices.

PART-B

Pre-PDWP meetings were held on 30.10.2024 under the Chairmanship of Member (LG/UD), P&D Board wherein the said project was discussed in detail. Observation conveyed to AD along with annotated replies furnished by AD is juxtaposed as under:

23. Observations of LG Section P&D Board:

Sr. No.	COMMENTS OF P&D	Reply of LG & CDD	Remarks
1.	Complete layout plan of the entire landfill area including all proposed features in this area should be provided.	Layout Plan attached	Noted
2.	The vehicles entry ramps in the landfill trenches should be shown.	Incorporated	Noted
3.	The section through landfill trenches should be provided showing the clay liner and geo membrane.	Incorporated	Noted
4.	Gas vents should be mentioned in landfill trenches plan	Incorporated	Noted
5.	The space for parking of vehicles seems to be excessive with respect to the machinery & vehicles proposed to be working in the landfill. Number of vehicles proposed to work over here should be mentioned in the plan and the space should be reduced accordingly.	Incorporated & drawing attached	Noted
6.	The section of the parking sheds is missing.	Attached	Noted
7.	The site office space seems to be excessive with respect to the resident supervision staff to be deployed for construction of landfills. The list of staff should be mentioned on the plan and the office space reduced accordingly.	Incorporated & drawing attached	Noted
8.	After completion of the landfills very lean staff will be required. Hence for resident supervision 2 officers / officials can be accommodated in one room for economizing the project.	Incorporated	Noted
9.	Number of toilets should be reduced to minimum at site office.	Incorporated & drawing attached	Noted
10.	There is no need of cafeteria. Only kitchen should be provided in site office.	Incorporated	Noted
11.	Instead of construction of a full-fledged mosque, one room should be allocated for mosque at site office. The ablution space is not needed in presence of the wash basins in toilets.	Incorporated	Noted
12.	Reception space is very large and should be reduced to minimum at site office.	Incorporated	Noted
13.	A 50'x50' leachate collection chamber is not required. The collection pipe can directly be discharged in the leachate well.	Incorporated & drawing attached	Noted
14.	The sub soil water should be shown in the section (Leachate collection well).	Incorporated & drawing attached	Noted
15.	Leachate collection well: If the SSWL is higher than the bed level of the leachate well then the plug should be designed and incorporated in the section.	Incorporated	Noted
16.	In the plan of landfill trenches independent leachate well has been shown for each trench whereas the section of leachate well shows two entry pipes, one for each trench. This	Corrected	Noted

	needs correction.		
17.	Possibility of construction of one leachate well for two trenches should be explored and incorporated in the drawings and cost estimate.	Due to abnormal fluctuations in the flow of leachate, individual well for each trench is preferred.	Noted
18.	Gas vents section: In trench plan 12" dia collection pipe has been shown whereas in this section 18" dia AC collection pipe has been provided. Correction should be made for actual size.	Corrected	Noted
19.	Gas vents section: In trench plan pipes have been shown to collect the leachate whereas in this section drains have been shown for this purpose. Necessary correction is needed.	Corrected	Noted
20.	The drain has been proposed to be covered with RCC slab. How the storm water will enter the drain?	The RCC Slab made perforated.	Noted
21.	The drawings for gate and gate pillars is missing.	Attached	Noted
22.	At page 56-57, In trench plan, the number of trenches have been shown as three whereas 4 Nos trenches have been provided over here.	Corrected	Noted
23.	At page 57, The thickness of clay liner (1.0 meter) is excessive in presence of geo membrane. It should be reduced to 2.0 feet.	Corrected	Noted
24.	At page 57-58, Why both, geotextile and geo membrane are being used when the clay liner is being provided? One of them can serve the purpose.	All the three components are required for desired protection of Sub Soil Water and Environment.	Noted
25.	At page 58, item 5, This item is not applicable over here as the gravel in the landfill drainage does not need compaction.	The Compaction rate has been deducted from Composite rate.	Noted
26.	At page 58, item 6: HDPE pipe is not shown anywhere in the drawings. Then why it has been provided over here.	It is incorporated in the drawings.	Noted
27.	At page 58, item 6: The size of the pipe is not mentioned in the item.	Size Incorporated	Noted
28.	At page 59, Leachate collection and pumping: How all the three items shown on this page are inter-related as the number differs in each item.	Corrected	Noted
29.	At page 59, Leachate collection and pumping: The rate analysis of all these items should be provided.	Incorporated	Noted
30.	At page 60, Gas collection system: The rate analysis for all the four items should be provided. Lump sum rate are not acceptable.	Incorporated	Noted
31.	At page 70, Key plan for road and landfill should be included.	Attached	Noted
32.	At page 72-92, Administrative block building: The cost estimate should be revised under the light of observation No-4.	Revised	Noted
33.	At page 176, The rates for the trees seem to be excessive and should be rationalized.	Rates taken from the market	Noted
34.	At page 176, The rate analysis for grass turfing should be provided.	Grass Turfing rate is taken from MRS	Noted
35.	At page 177-178, Lead for materials: The	Mentioned the lead from Sargodha	Noted

	quarries from where the crushed stone and base & sub base material are to be carried, should be mentioned.		
36.	At page 184, Where these penstocks will be installed, should be shown in drawings. The purpose of installation should be explained.	Removed	Noted
37.	At page 187, The rate analysis or quotations for all non-MRS items should be provided.	Incorporated	Noted
38.	At page 8,9, & 10: This project does not provide for resource recovery. It is included in a separate project captioned as MRF in both landfills.	Corrected	Noted
39.	At page 12: Mention the period for which these landfills will be adequate in case of both cities.	A period of 10 years has been incorporated	Noted
40.	At page 15: Landfill cells are not required to be mentioned over here. Mention the capacity of the landfill in both cities.	Incorporated	Noted
41.	At page 22, Leachate & gas collection: The cost in both cases will not be the same as given in the abstract of cost. It will depend on the area of each landfill which may differ.	Incorporated	Noted
42.	At page 22 & 23, Composting plants: The capacity of the landfill in case of Faisalabad is bigger whereas the cost of composting plant in case of Gujranwala is greater. Reasons may be explained.	Difference is Due to the transportation of Aggregates.	Noted
43.	At page 22 & 23, Weigh bridge: The cost of weigh bridge in both cases differs. Why?	Difference becomes due to transportation of aggregates.	Noted
44.	At page 25, Recurring cost: Mention the O&M cost for both landfills in the table. The break-up of the cost should be included as well.	O&M Cost: 1% of the Capital Cost has taken.	Noted
45.	At page 29, Total investment: The investment indicated over here does not tally with project capital cost.	Corrected	Noted
46.	At page 33, Project implementation period: The project implementation period is not realistic as per proposed funding of Rs 80 million in 2024-25. Also the commencement date is not correct.	Additional funds, if required, shall be requested through supplementary grant. As per attached tentative timelines, expected physical commencement is 15 /02 / 2024	Noted
47.	At page 33, The Result Based Monitoring Indicators should be mentioned.	Incorporated	Noted
48.	At page 34, Project plans:	Attached	Noted
49.	At page 34, Management structure and manpower requirements: The activities to be taken up by PMDFC along with responsibilities should be mentioned in detail over here.	Attached	Noted
50.	At page 34, Management structure and manpower requirements: Similarly the activities and responsibilities of WMCs should also be mentioned to give a clear role of all organizations in survey & geotechnical investigations, detailed design, procurement of works, goods & services, execution, resident supervision, account keeping, landfill operation, maintenance, closure and post closure activities.	Incorporated	Noted

51.	At page 34, Management structure and manpower requirements: After execution, the waste transportation staff and the staff operating these landfills will require training and practical demonstrations at site. Who will impart these training should be mentioned.	Incorporated	Noted
52.	At page 34, Management structure and manpower requirements: The landfills will require monitoring after their operation. Which organization will take up this task should also be mentioned.	Incorporated	Noted
53.	At page 34, Management structure and manpower requirements: The manpower requirements for each activity given above, should be mentioned separately.	Incorporated	Noted
54.	At page 34-37, Table for staff: This table needs revision by separating each activity as mentioned above.	Incorporated	Noted
55.	At page 61, Office operation cost: The office of the project has been proposed to be operated for 36 months whereas the gestation period of the project is given as 24 months at page-33 of the PC-I. The office operation for 36 months should be justified.	Gestation period is corrected as 36 Months.	Noted
56.	At page, 62-66, Staff requirements: The duties and responsibilities of the staff listed on these pages should be described in a separate table to justify the requirement of this staff in the PMU.	Existing staff of PMDFC shall be deployed for the execution of the project. No separate PMU is being proposed through instant proposal	Noted
57.	At page 323, Planning & design (Feasibility Report): As per Planning Commission Guidelines the Feasibility Report of this project should be developed. If it has been prepared it should be submitted to P&D Board.	Feasibility study has been carried out by PMDFC and conceptual design has been established however detailed design will be carried out by DBO with major activities of geotechnical and EIA.	Noted
58.	At page 324, Construction Phase:	Corrected	Noted
59.	At page, 325	As per the execution matrix given in PC 1, Co-monitoring of the facilities will be done by PMDFC and WMC'S for 24 months during construction and operation. After this period, respective WMC shall be responsible for all activities	Noted
60.	At page 327-331, Integrated Timeline: Serial No-4, 5, 7, 15, 17, 19, 20, 23, 24, 32, 34, 38, 40, 42, 59 and 61, are not part of this PC-I and have been included in a separate PC-I. Therefore the Integrated Time line needs correction.	Corrected	Noted
61.	At page 328	Incorporated	Noted
62.	At page 328	Incorporated	Noted
63.	At page 616-617, Financial & economic analysis: The capital investments in year-1 & 2 differs in Economic and Financial analysis.	Capital Investment Cost differ due to Standard Conversion Factor (SCF), Annexure (I) is attached.	Noted
64.	At page 616-617, Financial & economic analysis: The total capital investment in both, economic and financial analysis, does not	Incorporated	Noted

	tally with cost of PC-I.		
65.	The details of economic benefits and financial benefits given in the economic and financial analysis have not been worked out which should be accomplished.	Working of Economic Benefits is attached in Annexure (II).	Noted
Observations of Technical Section P&D Board:			
66.	PMU establishment cost Rs. 423.209 M has been taken in the PC-I in the capital component, which is 9.5% of total cost of scheme, department is to clarify high cost of PMU.	Incorporated	Noted
67.	It is recommended that TPV or resident supervision may be included in estimate since each scheme is more than Rs.1000M.	TPV will be done through consultant	Noted
68.	Weighing Bridge Rs.10.000 Million has been taken in the estimate as a single item, the department may clarify the specification of the Weighing Bridge and make them part of the PC-I.	Detail Working attached	Noted
69.	Composting plant Rs.42.852 Million has been taken in the estimate as a single line item, the department may clarify the specifications of the Composting plant and make them part of the PC-I.	Incorporated & drawing attached	Noted
70.	Department may use MRS Chain link fence provision.	Fence rate already analysed on MRS & Input Material rates.	Noted
71.	Department is to explain water supply provision keeping in view that a land fill site may impact water table	Propper Environmental Protection system has been designed.	Noted
72.	HDPE tank (4500 gallons) is to be justified with per-capita consumption.	Tank Capacity Reduced to 1500 Gallons	Noted
73.	Separate provision of HDPE tank for workshop (200 gallons) is to be elaborated.	Required for Wheel washing area	Noted
74.	Department may consider using tough paver or PCC road instead of carpeted road.	Carpeted road have been proposed due to heavy vehicle movements	Noted
75.	Leachate & Gas Connection Systems have been taken as single item, the department is to provide detailed specifications for both items.	Detail Working attached.	Noted
76.	Landscape charges (Rs. 7.387 M) are to be deleted.	Required for Environmental Safeguard	Noted
77.	In administrative building, steel window frames have been used whereas in tube well chamber, aluminium window have been used, department may clarify these provisions considering environmental conditions.	Steel Windows provided in Tubewell chamber as well	Noted
78.	The department is to explain why the provision of septic tank has been taken in the proposed external works. It is preferable that gravity flow may be used for disposal of sewerage	Septic tank is economically justified due to long distance option for disposal by gravity.	Noted
Observations of LG Section P&D Board			
79.	The project cost of Rs. 54.6 million is wrongly calculated at page 61. Needs to be corrected.	Corrected	Noted
80.	The cost of salaries is not based on Project Pay Scales. PPS needs to be incorporated.	Incorporated	Noted
81.	Administrative Department may justify the	Justified in PC-I.	Noted

	each position mention in PC-I.		
82.	The gestation period of the project is 2 years. The Administrative Department may explain why the calculation of project PMU cost is based on 3 years. The same need to be corrected.	Gestation period is corrected as 36 Months	Noted
83.	Education / experience of Program Officer – Office Management, Office Boy, and Drivers are not mentioned. Additionally, the calculation needs to be rechecked.	Incorporated	Noted
84.	The source of funding of the instant project is ADP. The Administrative Department may justify the need of experience of "Donor Funded Projects / World Bank" in the criteria.	Corrected	Noted
85.	The "Project Director" should have the qualification of MSc in Project Management or PMP certification in addition to education.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
86.	The project posts need to be rationalized.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
87.	It has been observed that not a single person related to solid waste management is proposed in HR. Further, the Administrative Department may justify the need of Deputy Project Director, Senior Project Officer – Institutional Strengthening, Program Officers – GIS, Program Officer - Communication.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
88.	It has observed that the salaries are on higher side. The Administrative Department may rationalized the salaries.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
89.	Another ADP scheme titled "Construction / Establishment of 2 Nos. Material Recovery Facilities in Punjab" with estimated cost of Rs. 500 million is proposed to be establish in same vicinity of the site proposed in Gujranwala and Faisalabad, wherein sperate PMU is proposed. The Administrative Department may explain why the two sperate PMU is proposed when the location of both projects are same. Both projects can be handled through one PMU.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
90.	Detailed Risk Management Plan may be provided in the PC-I. As this project involves DBO mode, the Administrative Department may apprise about the overall project risk percentage of the proposed project.	Incorporated	Noted

91.	The mechanism of Handing and Taking over of MRF sites to respective waste management companies from the contractors after completion of the DBO contract may be made part of PC-I.	MRF is not the Part of This PC-I.	Noted
92.	The duration of the contractor's operation and maintenance (O&M) contract period should be defined in the PC-I.	Incorporated	Noted
93.	A design build operate (DBO) mode is proposed in the instant PC-I. Under this project delivery model a single contractor is appointed to design and build a project and then to operate it for a period of time. Under this mode it is required to establish clear performance metrics and monitoring processes. Include provisions for regular audits and performance reviews in the contract to monitor contractor's performance. The same may be made part of PC-I.	Attached	Noted
94.	At title page it is mentioned that the project will be executed by the LG&CD Department while at page 34 at is mentioned that execution will be done by "The project will be executed by Municipal Committee Daska and supervised by the Consultants appointed by PMDFC in resident" , Again at page 34 point "ii," titled "The Manpower Requirements by Skills during execution and operation of the Project," it is mentioned that PMDFC will execute the project and staff of WMCs of Gujranwala and Faisalabad will be deputed for execution of the project in collaboration with PMDFC. The Administrative Department may explain who will execute the project and roles and responsibilities should be clearly defined.	Corrected	Noted
95.	At page 34 it is mentioned that "Planning & design of the project The project has been designed by the consultants employed by PMDFC and will also carry out the resident supervision of the project". The Administrative Department may justify that on one end PMDFC is executing the project and on other end PMDFC is conducting resident supervision.	PMDFC is not going to hire any supervisor consultant the project shall be executed by PMDFC and WMC's	Noted
96.	The Administrative Department may explain the statement "*Payments will be made by the MC after these contractor claims*" mentioned at page 34.	Corrected as WMCs	Noted
97.	The TORs of Supervisor Consultant may be included in the PC-I along with the cost and months. The Consultancy may be hired in Large Consultancy Mode under PPRA Punjab Rules.	Incorporated	Noted
98.	At page 24: The Administrative Department may justify the provision of contingency allowance of 10% mentioned at Sr. No6 "Contingency and Technical Services".	Contingencies reduced to 2%	Noted

99.	In Supply and Demand Analysis the waste generation capacity of both Gujranwala and Faisalabad cities are not in accordance to the table mention at Sr.10 "Financial Plan Sources of financing, Financial and Economic Analysis".	Corrected	Noted
100.	Name of respective waste management companies should be mentioned in the Operation and Maintenance.	Mentioned	Noted
101.	It has been observed that the Gujranwala Waste Management Company (GWMC) and the Faisalabad Waste Management Company (FWMC) are already operating in Gujranwala and Faisalabad, cities respectively. The proposed project could be executed by GWMC and FWMC instead of PMDFC, as the operation and maintenance (O&M) of the project have already been proposed by GWMC and FWMC. This approach will help enhance the capacity building of both GWMC and FWMC.	According to the given implementation Matrix, The project will be jointly executed by PMDFC and Concerned WMCs.	Noted
102.	The factors on which EIRR and FIRR is calculated should be made part of PC-I	Assumptions/ Factors are enclosed in Anneuxre-III.	Noted
103.	The sensitivity analysis has not been worked out.	Sensitivity Analysis is enclosed in Anneuxre-IV.	Noted
104.	Financial Phasing of the Project is missing.	Financial Phasing is enclosed in Anneuxre-V.	Noted
Observations of Urban Unit:			
105.	Name of the PC-1 "Identification/Establishment", is it Identification or Establishment? It's better to come up with the Establishment of 2Nos of Landfill Site in Punjab or the Establishment of an Integrated Solid Waste Disposal System in Gujranwala and Faisalabad.	The Project title is mentioned same as given in ADP Scheme 2024-25	Noted
106.	0.48Kg/Cap/day waste generation is taken for both cities, but the dynamics of both cities are different, no reference has been provided for this figure, which is on the higher side. You are requested to provide a reference for this figure or carry out a waste generation study as a part of this PC-1. Annual increment of waste generation per year is taken at 2% which is again at the higher side.	Incorporated	Noted
107.	The landfill Site method is not defined properly which method (Area method/ trench method/ Ramp method) they are using to develop this site that helps to calculate the real construction and operational expenses as well as to bind the design, construction, and operational contractors/companies. Secondly, Sanitary Landfill Site Construction & Operation is very expensive although other cost-effective methods are also available like Fukuoka. Requested, to look into this matter and at least do a comparative analysis before selection of any method that should be easy	Study for the comparison is underway.	Noted

	to cost-effective as well as easy to operate and maintain because operations and maintenance are the real challenges.		
108.	It is mentioned that waste generation (1710 tons/day for Gujranwala; 1940 tons/day for Faisalabad) while waste collection efficiency is (60% and 65% for respective cities). Kindly elaborate that per day waste received at respective Sanitary landfill sites with the above-mentioned waste collection efficiency can be 1510 tons/day for Gujranwala and 1640 tons/day for Faisalabad.	Incorporated	Noted
109.	There is no information about the waste scavenging activities in both cities, which is an important design parameter to calculate the actual load coming at the waste disposal/Landfill site after scavenging and waste treatment to determine and design its capacity. Requested to do study as a part of this PC-1 or if information is already available then kindly incorporate in PC-1.	As the project is only designed for landfilling the waste which comes at its door step. All the working has been done by considering this factor.	Noted
110.	The EIA Study of the Faisalabad Landfill Site was carried out in 2017 but no information regarding the EIA Study of the proposed landfill Site is not provided, it is carried out or not? However, in both cases, they should be again carried out because EPA is giving conditional NOC for EIA for three years only for the construction phase. The cost of EIA should be incorporated in PC-1.	EIA reports for both the sites have been prepared and submitted to EPA for NOC. Letters are attached.	Noted
111.	Required Qualifications for various posts are very generic like for the post of Project Director "Engineering" mentioned but do not specify what type of engineering is required. Secondly, for an administrative post along with engineering, a Project Management degree should also be required.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
112.	Senior Project Officer- Infrastructure mentioned experience should be 15 years instead of 20 years. Donor-funded project experience should be but please do not specify the number of years because in this way good candidates with less than 10 years of donor-funded projects can be exempt.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
113.	Don't ask for post-qualification experience, ask for an overall experience like 15, 20, etc. years it will complicate the process of hiring.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
114.	Required Degree against the post of Institutional Strengthening Project Officer is irrelevant or may include other degrees like Management and Development Studies, Institutional Management,	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted

115.	Senior Project Officer (Env. &Social), Specify experience in SWM projects planning/ operations, don't leave it open by seeing the nature of this project.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
116.	Number of vacancies against the position of Program Officer (Env. &Social)minimum 2.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted
117.	Monitoring and Evaluation Plan of this project is missing, it should be a part of PC-1.	Incorporated	Noted
118.	Information on land procurement is missing, is it procured or not, private or Government?	Land is legally transferred to Government documents attached.	Noted
119.	Awareness Programs and National/International Capacity-building programs should be defined in terms of targeted audience and in terms of numbers for different stages like operational etc., in this PC-1. So that budget should be properly justified and allocated.	PMDFC will provide all the necessary technical resources and qualified manpower required for the successful implementation and operation of the Landfill project, which is being executed on a Design-Build-Operate (DBO) basis.	Noted

Recommendations:

The scheme is placed before PDWP for consideration at a total cost of **Rs. 3,849.24 million** with gestation period of 36 Months (Till September 2027).