



REGULAR MONITORING REPORT (RMR)

MEC Region	: LARKANA
ADP #	: 2455 (2025-26)
Estimated Cost	: 1681.978 M
Sub Sector	: Water Supply & Drainage
Admin Department	: Public Health Engineering & Rural Development Department
Executing Agency	: Executive Engineer PHED Division-I Larkana

PROGRESS ASSESSMENT

Physical Progress %	: 80%
Financial Progress %	: 71%
Earned Value	: 1345.58
SPI	: 1.409
CPI	: 1.118





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REGULAR MONITORING REPORT (RMR)


INFRASTRUCTURE SECTOR

Sub-Sector: Water Supply & Drainage

Type of Scheme: Independent

PART - A: PROJECT PROFILE

1. Scheme / Unit Information

a.	ADP / UID No.	2455 (2025-26)/ PHEWS-PP-22-1082				
b.	Name of the Project / QRC	Water Supply Scheme (Ultra Filtration Plant) at Ratodero (Revised)				
c.	Visit Location of the Project	UC/Town	Ratodero Town	District	Larkana	
d.	GPS Location Coordinates	Lat (N):	27.76388148	Long (E):	68.30872033	
e.	Administrative Department	Public Health Engineering & Rural Development Department, Govt of Sindh				
f.	Executing Agency	Executive Engineer, PHED Division-I, Larkana.				
g.	Consultant / Design Engineer	N/A				
h.	Contractor (s)	M/s Mohammad Iqbal Shaikh & Co.				
i.	Date of A.A. Issued	09-06-2022	Completion Month/Year as per PC-I		June-2027	
j.	Revision of PC-I Status	Approved, 1 st revise.	Date of Revision (if any)		03-03-2025	
k.	Project Objectives (as per PC-I)	Supply drinking water to the inhabitants of town.				

2. Monitoring Visit History

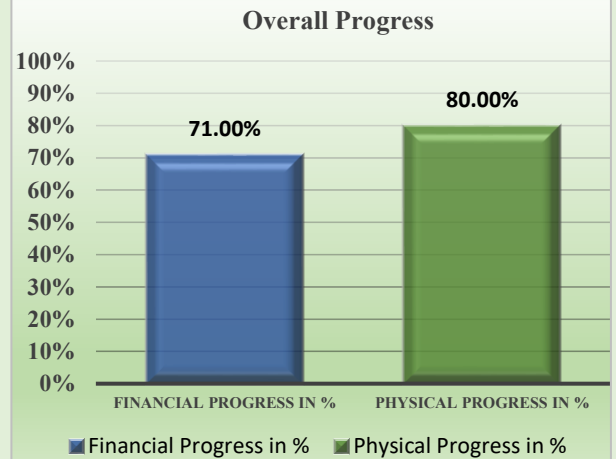
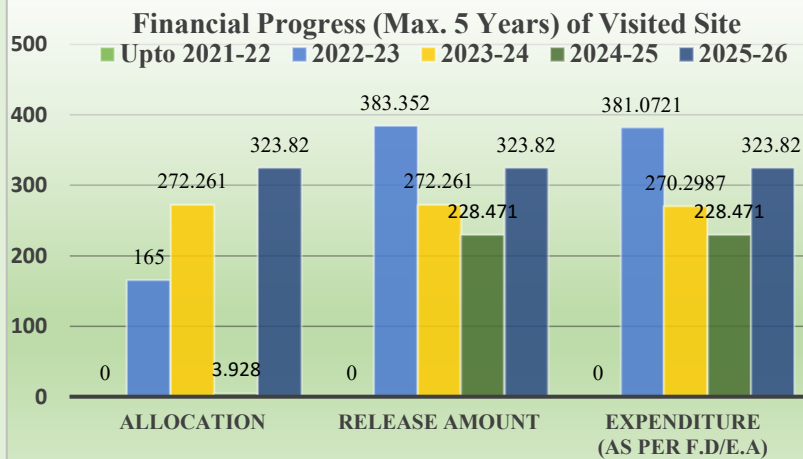
	a.	Last Visit Date (if any)	22-01-2025		Last Visit's Assessment Status		Satisfactory
	b.	Planned Visit Date	04-11-2025		Current Visit Date		04-11-2025
	c.	Reason for Delay (if any)	N/A				
	d.	A.D/E.A Officer(s) on Site	Name	Ghulam Muhammad Qureshi	Designation	Assistant Engineer	
	e.	MEC Team During the Visit	Name	Jahangir Khan Chandio	Designation	Monitoring & Evaluation Officer	
	f.	Any local Community member interviewed/engaged for visit	Name	Abdul Hafeez Soomro	Occupation	Government Employee	

3. Financial Progress (FP). (Amounts in PKR, million)

a.	Funding Agency Share (%)	GoS Share	100%	GoP Share	0%	FPA Share	N/A
b.	Approved Cost of the Project (M)	Capital	657.261	Revenue	N/A	Total	657.261
c.	Revised Cost of the Project (if any)	Capital	1681.978	Revenue	N/A	Total	1681.978
d.	Unit Cost of the Project (if applicable)	Capital	N/A	Revenue	N/A	Total	N/A
e.	Financial Progress (Up to 5 Years) of Scheme	2021-22	2022-23	2023-24	2024 -25	2025 -26	TOTAL

	i.	Allocation	N/A	165.00	272.261	3.928	323.820	765.009
	ii.	Releases (as per F.D. Data)	N/A	383.352	272.261	228.471	323.820	1207.904
	iii.	Expenditure (as per F.D/E.A Data)	N/A	381.0721	270.2987	228.471	323.820	1203.6618
f.	Overall Financial Progress in %		71%		FP variance vs PP		9%	

4. Financial/Physical Progress Graph.(Amounts in PKR, million)



PART - B: PROJECT ANALYSIS

1. Quantitative Breakdown (Provided by EA and verified by MEO)

S#	Domain	Activity / Material	Name of the Test	Required	Achieved	GAP (if any)	Unit	Standard	Remarks
a.	Building & Road	Earth Work	Excavation				Cft		N/A
			Back Fill				Cft		N/A
b.	Building, Road & Hydraulic Structures	Soil	Compaction FDT	95%			%	AASHTO	N/A
			Sieve Analysis					ASTM C- 136	N/A
			Sp. Gravity	2.6 > 2.7				ASTM C-128	N/A
			Water Absorption	3%			%	BS 812-2	N/A
c.	Building & Road	Cement Concrete	Slump Test	80 > 150			Mm	ASTM C 143	N/A
			Temperature	75 > 95			°F	ACI 305	N/A
			Water-Cement Ratio	0.45 (Max)					N/A
d.	Building	Steel Rebar Gr-40	Tensile Test	40000			Psi	ASTM A-615	N/A
		Steel Rebar Gr-60	Tensile Test	60000			Psi	ASTM A-615	N/A
e.	Reinforced CC	NDT	Schmidt Hammer Test	30 > 50	35	0	N/mm2	ASTM C-39	
		DT	Core Cutter Test	25000			Psi	ASTM C-40	N/A
		DT	Cube Compressive Strength	25000			Psi	ASTM C-41	N/A

f.	Discrepancy in Dimension in / Quality of material against design parameters/Structure	No discrepancy observed in material quality or dimensions.
g.	Discrepancy/deficiency in quality test against approved PC-I / PEC standards	No

2. Project Progress/Component-wise breakdown								
S#	Major Unit/Component as per PC-I	Physical/Financial Progress						
		Quantity as Per PC-I	Quantity as Per T.S	Total Cost	Payment as per MB	PP (%)	FP (%)	Variance Between PP & FP
a.	Storage Tanks	6 Nos	6 Nos	318.762	94.958	70%	30%	40%
b.	UF Plant	2 No	2 No	383.152	360.545	94%	94%	0%
c.	P.Machinery 80 HP	4 Set	4 Set	32.698	27.044	100%	82%	18%
d.	P.Machinery 25 HP	6 Sets	6 Sets	6.618	6.939	100%	100%	0%
e.	Diesel Generator 200 KVA	2 No	2 No	25.908	20.987	100%	81%	19%
f.	Diesel Generator 300 KVA	1 No	1 No	27.117	27.278	100%	100%	0%
g.	Repair of Existing D/Generator 300 KVA	1 Job	1 Job	1.000	1.000	100%	100%	0%
h.	P.E Rising Main 20" Dia (500 mm)	26900 Rft	26900 Rft	366.211	366.211	100%	100%	0%
i.	P.E Distribution 12" Dia (315 mm)	3000 Rft	3000 Rft	113.572	113.572	100%	100%	0%
j.	10" Dia (250 mm)	4500 Rft	4500 Rft					
k.	8" Dia (200 mm)	7950 Rft	7950 Rft					
l.	6" Dia (160 mm)	30500 Rft	30500 Rft					
m.	4" Dia (110 mm)	52800 Rft	52800 Rft					
n.	3" Dia (90 mm)	68600 Rft	68600 Rft					
o.	Pump House For P.M (18 x 12)	2 Nos	2 Nos	5.711	5.981	100%	100%	0%
p.	For Store (20 x 12)	1 No	1 No			100%	100%	0%
q.	For Gen (20 x 12)	1 No	1 No			100%	100%	0%
r.	Repair of Civil Structure	1 Job	1 Job	2.500	5.906	100%	100%	0%
s.	Compound Wall	4200 Rft	4200 Rft	36.546	32.314	90%	88%	0%
t.	Land Acquisition	16 Acres	16 Acres	30.000	30.000	100%	100%	0%
u.	Power Connection	2 Jobs	2 Jobs	57.059	N/A	90%	100%	10%
v.	House Connections	13000 Jobs	13000 Jobs	99.861	9.480	40%	9%	31%
w.	Restoration of Road Cutting	546500 Sft	546500 Sft	64.098	30.474	60%	47%	13%

PART - C: QUALITY MANAGEMENT	
Note: Addition of other relevant checks/tests may be included by initiating MEO in the following tables as per the type of structure/scheme.	

1. General Check						
Domain	Activity / Material	Name of the Test	Readings Actual at Site (YES/NO)	Found in # of Places	Standard	Remarks (+ / -)
Buildings / Roads / Bridges / Underpasses / Irrigation Banks	Observed Defects	Honey Combing	YES	04	IS	-
		Visible Cracks	NO	0	IS	+
		Misalignment	NO	0	IS	+
		Salinity	NO	0	IS	+
		Seepage	NO	0	IS	+
		Uneven Plaster	NO	0	IS	+
		Uneven Tiling	NO	0	IS	+
		Tor Steel used	NO	0	IS	+
		Termite Found	NO	0	IS	+
		Low Quality Paint	NO	0	IS	+
		Dumped Rusted Steel	NO	Quantity in Tons	IS	+
				0		

2. Sub-Sector Specific Compliance						
Note: Only fill in the relevant portion as per the Sub Sector and delete the unnecessary / irrelevant portion.						

Stage-Wise Observed Checklist for <u>Irrigation/PHED Schemes/Dams</u> (Only Fill in the Relevant Items Based on the Visit Made)			
Item #	Items	As per approved design	Remarks
1	Excavation for water supply pipes	Yes	Carried out at site.
3	Pipe Laying	Yes	Executed at site.
4	Backfilling	Yes	Carried out at site.
5	Internal and External Drains	N/A	N/A
6	CC Pavers	Yes	Laid at site.
7	Clear Water Tank	Yes	Work was in progress.
8	Collection tanks	N/A	N/A
9	Storage tanks	Yes	Constructed at site.
10	Pump House	Yes	Constructed at site.
11	Pump House machinery available (i.e. pumping machines, chlorination and other items)	Yes	Installed at site.
12	Oxidation ponds/Sewage treatment plants	N/A	N/A
13	Electrification works for pumps found	Yes	Carried out at site.
14	Back Supply (Generator/Solar) Found	Yes	Installed at site.
15	Brick Lining Layout	Yes	Carried out in storage tanks.
16	Channel Lining	N/A	N/A
17	Stone pitching (Profile/Measurement/Interlocking/Grouting)	N/A	N/A

18	Small Dams (Measurement)	N/A	N/A
19	Head Works/Regulators (Measurements/Specifications)	N/A	N/A
20	Inspection and Testing Reports Provided by E/A	Yes	Water Sample Test was provided by E/A.

PART - D: DOCUMENTS			
1. Project Approval Documents (Provided by E/A)			
Item #	Items	Availability (Yes/No)	Observation
a.	PC-I / PC-II (If framed)	Yes	Copy of PC-I was provided by E/A.
b.	Administrative Approval (AA)	Yes	Copy of AA was provided by E/A.
c.	Bid Evaluation Report (BER)	Yes	Copy of AA was provided by E/A.
d.	Work Order Issued to contractor(s)	Yes	Copy of work orders were provided by E/A.
e.	Technical Sanction (TS)	Yes	Copy of TS was provided by E/A.
f.	Construction / Architecture Drawings	Yes	Construction drawings were provided by E/A.
g.	SEPA EIA/EA/NOC	N/A	N/A
h.	Any Other Document (_____)	N/A	N/A

2. Project Implementation Documents (Provided by E/A)			
Item #	Items	Check (Yes/No)	Observation
a.	Implementation Schedule / Annual Work Plan (As per RBM)	Yes	Provided by E/A.
b.	Measurement Book (MB)	Yes	Copies were provided by E/A.
c.	Soil investigation report	No	Soil testing was not carried out.
d.	HSE Audit (whether activities have been carried out through HSE audit or not)	No	HSE audit was not carried out.





PART - E: MONITORING ANALYSIS/ASSESSMENTS			
1. Earned Value Analysis			
S#	Items	Result	Remarks
a.	Planned Value or BCWS	1681.978	Budgeted Cost of Work Scheduled
b.	Earned Value or BCWP	1345.58	Budgeted Cost of Work Performed
c.	Actual Cost of Work Performed (ACWP)	1203.661	Current Financial Progress
d.	Schedule Performance Index (SPI)	1.409	SPI = 1.0: The project is exactly on schedule. SPI > 1.0: The project is ahead of schedule, completing more work than planned. SPI < 1.0: The project is behind schedule, completing less work than planned.

e.	Cost Performance Index (CPI)	1.118	CPI > 1.0: The project is under budget and performing efficiently. CPI = 1.0: The project is exactly on budget. CPI < 1.0: The project is over budget, spending more than planned.
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2. Field Officers Analysis			
	a.	MONITORING & EVALUATION OFFICER (MEO)	
		<u>OBSERVATIONS</u>	
	i. Physical		<p>a) This scheme has been divided in to 02 phases i-e Phase-I which cost 657.231 M, completed in June-2025 and Phase-II costing 1024.717 M which was revised in June -25 with total cost of 1681.978 M.</p> <p>b) Source of the intake water was Warah Branch.</p> <p>c) Civil work was carried out at 02 sites which were Raw water site and water works site.</p> <p>d) 01 Pump house of 30'x16', 01 collecting sump of 10'x30' were constructed at raw water site.</p> <p>e) 01 Ultrafiltration plant room of 51'x30'.6'', 01 supplying pump room, 03 storage tanks of 320'x220' were constructed and 03 other storage tanks of same dimensions were near completion at water works site.</p> <p>f) Brick lining was done in profiling of walls of storage tanks with the height of 14'.</p> <p>g) RCC roof of the 02 existing clear water tanks of 40' dia, were replaced and pump rooms were constructed above these.</p> <p>h) 01 new clear water tank of 51'.6''x92'.6'' dia was also being constructed up to roof level at site.</p> <p>i) The curing period of RCC clear water tank was not completed and it needed proper curing.</p> <p>j) 06 electric motors of 25 BHP were installed at raw water sites, all were functional.</p> <p>k) 02 Motors of 80 BHP were installed in supplying pump room of water works site.</p> <p>l) 01 turbine motor of 80 BHP was installed in pump room of existing clear water tank.</p> <p>m) New Generator of 200 KVA Perkins was installed outside the Ultrafiltration plant and an old generator was also repaired and was functional.</p> <p>n) 01 Ultrafiltration plant of 1.10 MGD (KSB company) was installed inside the filtration room with 69 membranes fixed in it.</p> <p>o) Ultrafiltration plant was functional and running on electricity.</p> <p>p) 60 MM thick paver blocks were also fixed in external development of Both raw water and water works site.</p> <p>q) Rising main of 20' dia was laid from raw water site to water works site.</p> <p>r) The distribution of various dia were laid from water works site to Ratodero city where house connections were made.</p> <p>s) The distribution lines were randomly verified in Jakhra Muhalla and an adjoining muhalla, where drinking water was being supplied to households.</p>
	ii. Financial		71% of the total cost has been paid in the MB, whereas the physical progress of civil works at site was ahead of the corresponding financial payments.
	iii. Earned Value Analysis		The project demonstrates commendable performance in both schedule and cost aspects. An SPI of 1.409 indicates progress ahead of plan, while a CPI of 1.118 reflects effective cost control and resource utilization. Overall, the project is advancing efficiently, showing positive trends in time and budget management.
	iv. PC-I / T.S Compliance		Work was executed in compliance with the PC-I and TS.
	v. Institutional Support / Project Management		Cement bags were properly stored at the site and covered with waterproof sheets, ensuring protection from moisture and maintaining material quality.

		vi. Good practices	Plantation along the pathways at both the Raw Water and Water Works sites reflects a commendable environmental initiative, promoting sustainability, supporting climate resilience, and maintaining overall site cleanliness.
		vii. Specific	No major defect was observed in the executed work during the visit on site. Reflected at PART - F along with Site Pictures
	<u>RECOMMENDATIONS</u> (to mitigate the above observations/risks)		
	i. Proper curing of the newly constructed RCC clear water tank should be ensured to achieve the required structural strength and durability. ii. The remaining three storage tanks at the water works site, which are near completion, should be completed at the earliest to ensure full operational capacity. iii. The quality of brick lining, RCC roofing, and paver block work should be verified through regular inspections to maintain construction standards and longevity. iv. A regular maintenance schedule should be implemented for all electrical and mechanical equipment including motors, generators, and filtration units. v. The distribution network should be rechecked for leakages, pressure levels, and uniform water supply to all connected households. vi. Electric connection of the express feeder should be energized at the earliest, as payment has already been made and material has been installed. Only the grid connection is pending, which will facilitate uninterrupted power supply to the water supply system and ensure continuous provision of drinking water to the inhabitants. vii. Plantation and landscaping around both raw water and water works sites should be maintained and expanded for environmental and aesthetic improvement.		
	b.	REGIONAL MEO	
		i. Observations	Not visited in person. The scheme has been visited by Jahangir Chandio, MEO, Regional Office Larkana & reported after field visit & due verification of record provided by the EA.
		ii. Recommendations	a) The scheme may be completed on priority basis & made operational after completing all the components of the scheme. b) A maintenance back-up of the Ultrafiltration plant may be designed & kept for smooth functionality of the mega scheme like this after completion of the scheme. c) The payments may be made as per work done at site & no excessive or over-payments be made to the Contractor. d) The pace of the work may be expedited.
	c.	SECTOR MEO	
		i. Desk Review Points	a) SPI = 1.409 → project is ahead of schedule b) CPI = 1.118 → project is under budget / efficient c) No major structural or material defects observed d) Work largely compliant with PC-I and TS e) Functional pumping machinery, UF plant, storage tanks, distribution lines f) Only minor observations, e.g., curing not completed, some components near completion
		ii. Recommendations	I. The Executing Agency must ensure completion of curing for newly constructed RCC clear water tanks to avoid structural weakening or seepage risks. II. The remaining three storage tanks near completion should be finalized urgently to achieve full system storage capacity. III. Mandatory soil investigation testing and HSE audits should be carried out and documented, as these are essential for compliance with PEC and departmental QA standards. IV. The EA should strengthen routine quality assurance , particularly related to RCC testing, compaction verification, and paver block installation. V. Progress on energization of the express feeder connection should be expedited to ensure uninterrupted operation of the UF plant and pumping system. VI. A maintenance and O&M plan for UF plant membranes, generators, motors, and

			<p>VII. control panels should be prepared before commissioning.</p> <p>VIII. The distribution network should be periodically tested for leak detection, pressure balancing, and water quality monitoring to ensure sustained service delivery.</p> <p>IX. Plantation and on-site environmental measures should be maintained and expanded as part of long-term site improvement.</p> <p>IX. Earthing of Electrical equipment shall be carried out.</p>
d.	FINAL ASSESSMENT OF THE PROJECT / SCHEME / UNIT		
	MEO	RMEO	SMEO
	SATISFACTORY	Satisfactory	Satisfactory Project Class – A

PART - F: PICTORIAL OBSERVATIONS			
Note: MEO to add only relevant pictures / corroborating major project deficiencies / deviation, etc, and performance indicators/achievements.			
S#	Specific Observations (Note: No specific observation was recorded, however, photographs of various components executed at the site are attached below for reference.	Pictures	
1.	Pump room and collecting sump constructed at Raw water site		
2.	Machinery installed and pavers fixed at Raw water site		

3.	Ultrafiltration plant room constructed at Water works site		
4.	AEN briefing about the scheme and aw water is treated through the ultrafiltration plant and subsequently collected in the clear water sump for further distribution to the inhabitants.		
5.	Membranes installed in Ultrafiltration plant and brick lining done on walls of storage tank filled with raw water.		

	<p>Compound wall constructed, pavers laid on path ways and plantation done at water works site. Generator and store room were also constructed.</p>	 <p>4 November 2025 10:47:45 GMT+05:00 27.76394522N 68.30872572E</p>	 <p>4 November 2025 10:48:52 GMT+05:00 27.76387522N 68.30909385E</p>
	<p>Roof slab of existing clear water tank was replaced and pump room constructed over that. Perkins made Generator installed at water works site.</p>	 <p>4 November 2025 10:50:20 GMT+05:00 27.76389924N 68.30909444E</p>	 <p>4 November 2025 11:06:48 GMT+05:00 27.76383577N 68.30863128E</p>
	<p>Clear water tank constructed up to roof level and pavers laid on the main pathway on the water works site with plantation on both sides.</p>	 <p>4 November 2025 11:08:23 GMT+05:00 27.76371003N 68.30873117E</p>	 <p>4 November 2025 11:13:02 GMT+05:00 27.76378572N 68.30906811E</p>

House connections done and distribution pipe verified through a pit.



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