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CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY



**MANAGEMENT INFORMATION SYSTEM REPORT  
FOR THE MONTH OF SEPTEMBER-2023**

**WASA BHABAN  
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**Chattogram Water Supply & Sewerage Authority**  
**Monthly MIS Report**  
**September 2023**

	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
<b>Selected Key Indicators</b>							
E 17* Non Revenue Water	%	31	33	31	28	-17%	
C 4* Revenue collection efficiency(monthly coll.+outstand. Coll.)/month	%	82	91	87	116	-30%	!
D 9* Collection period	Day	233	240	235	200	-20%	
F 2* No. of perma. employee per 1000 connections(excl. non-perma. Em	Nos.	6.3	N/A	6.4	7.1	11%	
D 8* Operating Ratio	Ratio	0.69	0.57	0.66	0.57	0%	
A 3.5* Functioning meter rate of installed meter	%	91	N/A	92	100	-9%	
E 19 Water quality sample	No./month	240	720	2,400	2,880	-92%	!
E 18* Leakage occurrence	No./km/mtr	0.20	0.21	0.35	1.81	89%	++
A 6* Water supply coverage	%	63	N/A	64	75	-16%	
B 5* Average tariff	Tk/m3	19.09	18.92	18.14	17.45	9%	
E 16* Unit production cost (in/c Capt. Cost, Deprec. & Financial Expense.)	Tk/m3	21.84	17.36	18.71	19.50	11%	
<b>A) Connection data</b>							
A 1 Total registered connections	Nos.	93,179	N/A	92,327	97,127	-4%	
A 1.1 Billable (non-disconnected) connection	Nos.	87,204	N/A	86,395	91,195	-4%	
A 1.2 Non-billable (disconnected) connection	Nos.	5,975	N/A	5,932	5,932	-1%	
A 1.3 Billed connection	Nos.	84,997	N/A	83,698	88,270	-4%	
A 2 Breakdown of billable connection (by customer type)							
A 2.1* Domestic	%	93	N/A	93	92	1%	
A 2.2 Non-domestic	%	7	N/A	7	8	11%	
A 3 Breakdown of billable connection (by meter status)							
A 3.1 Metered	Nos.	79,233	N/A	78,966	83,092	-5%	
A 3.2 Average reading	Nos.	7,868	N/A	7,326	8,000	2%	
A 3.3 Non meter	Nos.	103	N/A	103	103	0%	
A 3.4* Meter installation rate	%	100	N/A	100	100	0%	
A 3.5* Functioning meter rate of installed meter	%	91	N/A	92	100	-9%	
A 4 Street Hydrant	Nos.	689	N/A	689	689	0%	
A 5 Religious Institutions	Nos.	368	N/A	368	317	16%	
A 6* Water supply coverage	%	63	N/A	64	75	-16%	
A 7 Bill sent-out ratio	%	97	N/A	97	100	-3%	

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	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
<b>B) Tariff</b>							
B 1 Domestic	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 2 Non-domestic	Tk/m3	37.00	N/A	37.00	38.85	-5%	
B 3 Street Hydrant	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 4 Religious Institutions	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 5* Average tariff	Tk/m3	19.09	18.92	18.14	17.45	9%	
<b>C) Billing and Collection</b>							
C 1 Total billing	Tk	193,684,173	571,034,585	2,155,873,661	2,292,809,481	0%	
C 1.1* Private	Tk	171,145,159	504,737,961	1,888,365,971	1,948,888,059	4%	
C 1.2* Government	Tk	22,539,014	66,296,624	267,507,690	343,921,422	-23%	
C 2 Billed volume (Total Volume Accounted)	ML	10,146	30,175	118,868	131,400	-8%	
C 3 Total collection	Tk	158,669,382	521,843,468	1,878,166,418	2,664,792,000	-22%	
C 3.1* Private	Tk	151,165,430	498,025,047	1,738,727,636	2,345,016,960	-15%	
C 3.2* Government	Tk	7,503,952	23,818,421	139,438,782	319,775,040	-70%	!
C 4* Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	82	91	87	116	-30%	!
C 4.1* Private	%	88	99	92	120	-27%	!
C 4.2* Government	%	33	36	52	93	-64%	!
<b>D) Financial data</b>							
D 1 Revenue (Total)	Tk	177,995,384	580,888,732	2,203,110,954	3,025,592,000	-23%	
D 1.1 Water revenue	Tk	158,669,382	521,843,468	1,878,166,418	2,664,792,000	-22%	
D 1.2* Tubewell license	Tk	2,872,395	10,182,234	125,253,767	100,000,000	-59%	!
D 1.3* Other operating revenues	Tk	8,953,607	26,363,030	99,690,769	170,800,000	-38%	!
D 1.4* Interest income	Tk	7,500,000	22,500,000	100,000,000	90,000,000	0%	
D 2 Expenses (Total)	Tk	323,102,952	779,962,152	3,224,457,367	3,559,449,000	12%	
D 2.1* Personnel cost	Tk	39,960,952	112,481,152	442,684,994	602,585,000	25%	++
D 2.2 Electricity cost	Tk	74,028,000	161,882,000	762,236,000	760,000,000	15%	
D 2.3 Chemicals	Tk	74,000	194,000	111,276,000	140,000,000	99%	++
D 2.4* Depreciation	Tk	125,000,000	375,000,000	1,471,943,373	1,500,000,000	0%	
D 2.5 Other operating cost	Tk	84,040,000	130,405,000	436,317,000	556,864,000	6%	
D 2.5.1 Other O & M	Tk	7,954,000	54,291,000	148,795,000	214,144,000	-1%	
D 2.5.2 Capital cost from revenues	Tk	76,086,000	76,114,000	287,522,000	342,720,000	11%	
D 2.6* Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!
D 3 Net Income ( Loss )	Tk	(145,107,568)	(199,073,420)	(1,021,346,413)	(533,857,000)	49%	++
D 4* Cash at bank	Tk	0	N/A	0	0	N/A	
D 5* Stock & stores	Tk	0	0	0	0	N/A	
D 6 Accounts Receivable	Tk	1,502,691,687	N/A	1,386,963,271	1,386,963,271	-8%	
D 6.1* Accounts receivable from Government	Tk	280,574,305	N/A	228,472,232	228,472,232	-23%	
D 6.2* Accounts receivable from Private	Tk	1,222,117,382	N/A	1,158,491,039	1,158,491,039	-5%	
D 7* Long term loans	Tk	74,622,000	74,622,000	303,047,050	212,160,000	65%	++
D 8* Operating Ratio	Ratio	0.69	0.57	0.66	0.57	0%	
D 9* Collection period	Day	233	240	235	200	-20%	

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		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
E) Water Supply								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP-1+Sk.H.WTP-2+SR)	MLD	466	N/A	466	490	-5%	! #DIV/0!
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	0%	
E 5	Deep Tube Wells in Operation	Nos.	45	N/A	48	47	-4%	
E 6*	Capacity of DTW - direct distribution	MLD	34	N/A	35	48	-29%	
E 7*	Capacity of DTW - supply to GWTP	MLD	0	N/A	0	0	#DIV/0!	
E 8*	Capacity of distributable water production	MLD	568	N/A	569	605	-6%	
E 9	Length of Pipeline	km	962	N/A	962	992	-3%	
E 15*	Production (distributable water)	ML	14,796.23	44,930	172,320	182,500	-2%	
E 15.1*	DTW water to users before boosters	ML	0	0	0	0	N/A	
E 16*	Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	21.84	17.36	18.71	19.50	11%	
E 17*	Non Revenue Water	%	31	33	31	28	-17%	++ !
E 18*	Leakage occurrence	No./km/mtf	0.20	0.21	0.35	1.81	89%	
E 19	Water quality sample	No./month	240	720	2,400	2,880	-92%	
E 20*	Satisfactory sample in chlorine level	%	100	100	100	100	0%	
E 21*	Satisfactory sample in microbiological level	%	100	100	100	100	0%	
F) Personnel								
F 1	No. of permanent employees (Total)	Nos.	552	N/A	554	650	15%	++ ++ ++ ++ ++ #DIV/0! ++ ++ ++ 11% 3% -1%
F 1.1	Grade-3-9	Nos.	56	N/A	54	60	N/A	
F 1.2	Grade-10-11	Nos.	36	N/A	36	62	N/A	
F 1.3	Grade-12-16	Nos.	225	N/A	229	260	N/A	
F 1.4	Grade-17-20	Nos.	235	N/A	235	268	N/A	
F 5	No. of non-permanent employees (Total)	Nos.	0	N/A	0	0	#DIV/0!	
F 5.1	Work charge (6 month contract worker)	Nos.	0	N/A	0	0	N/A	
F 5.2	Master roll (Daily basis casual worker) Outsource in	Nos.	0	N/A	0	300	N/A	
F 5.3	Project staff (hired by project budget)	Nos.	50	N/A	50	50	N/A	
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	6.3	N/A	6.4	7.1	11%	
F 3	Average Monthly Salary	Tk	30,399	N/A	19,364	31,195	3%	
F 4*	% of Overtime to Basic Salary	%	32	N/A	14	32	-1%	
G) Customer Services								
G 1	New Service Connection							++     !
G 1.1	Service Connection Application Received	Nos.	499	1,335	5,202	5,000	7%	
G 1.2	Service Connection given	Nos.	391	1,411	4,769	4,000	41%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	160	530	2,300	2,700	21%	
G 2.2	Complaints acted on	Nos.	140	460	1,819	2,200	16%	
G 3	Leakage complaints received and attended	Nos.	195	594	4,078	1,800	-32%	

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N/A = not applicable (= pointless to calculate, or nonexistent)

Some numbers may show the same value in spite of different values, which is due to rounding.

\*1: "this year target" can be set according to (1) Business Plan, (2) Performance Agreement, (3) discussion with D M D (Engineering), ( same or modified value of previous year)

\*2: Evaluation is made on the basis of variance from the set target. An evaluation result "X %" means that performance of particular indicator is X % better than what is set as the target. If the NRW is 24% and the target is 20%, this performance is considered unfavorable. The evaluation result is shown as -20% ( = 1 - 24 / 20 ).

If the number of water quality sample is recorded as 24 when the target is set at 20, this performance can be considered favorable. The evaluation result is shown as 20% ( = 24 / 20 - 1 ).

\*3: A warning sign " ++ " appears when the evaluation result exceeds 25%, which is considered as the high-end threshold indicating "too good".

A warning sign " ! " appears when the evaluation result is less than - 25%, which is considered as the low-end threshold indicating "very bad".

A2.1: If the total number of billable connections is 45,000 and the number of domestic connections in billable connections is 36,000, this will be 80% ( = 36000 / 45000 ).

A3.4: Meter installation rate = 1 - ( number of non-meter connection / number of billable connection ).

A6\*: Water Supply Coverage = (Billed Connection x 26 Person per Connection + Total Street Hydrant x 80 Person per Street Hydrant) / Total Population in Water Supply Area \*100.

A7: Bill sent-out ratio = Billed connection / Billable connection x 100.

B5: Average water tariff = total billing / total billed volume

C1.1: "Private" includes private customers and users of loose water (sold by bowser)

C1.2: "Government" includes government users, street hydrants and religious institutions

C3.1: Same as C1.1, C3.2: Same as C1.2

C4: Revenue collection efficiency = collection / billing x 100. CWASA's existing accounting system cannot classify accounts receivable by age.

Therefore the revenue collection efficiency can be shown merely as (total collection during a period + total billing during the same period).

C4.1: Same as C4, C4.2: Same as C4

C5: Metered volume to billed volume ratio data currently becomes available twice a year due to capacity limitation of computer section.

D1.2: "License and renewal fee of tubewell" in "other operating revenue"

D1.3: Excludes "License and renewal fee of tubewell"

D1.4: As the interest income is not obtainable until the year end, a proxy value is used here so that the net income can be computed. The proxy value is the previous year's monthly interest.

D2.1: Includes salary & allowances, provident fund, gratuity, festival bonus, overtime and earn leave encashment

D2.4: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column

D2.6: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column.

D4: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.

D5: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.

D6.1: Same as C1.1, D6.2: Same as C1.2

D7: Long term liabilities outstanding as unpaid at the end of month

D8: To see more clearly the CWASA capacity to generate the operating profit before depreciation and interest, the operating ratio is defined as (personnel cost + elec. cost + chemical cost + other O & M) / (total Revenues).

D9: Collection period = (accounts receivable) / (monthly billings/number of days in month)

E6: Production capacity of deep tube wells that supply water directly to users

E7: Production capacity of deep tube wells that supply water to Karulgaht WTP

E15: Distributable water (or system input water) = Water produced at Surface WTP + Water produced at Ground WTP + Water directly distributed from DTW

E15.1: Raw water distributed directly to users from some DTWs on the way to boosters are not included in the distributable water (E15).

E16: Unit production cost = Expenses(Total) / ((Distributable Water Volume + DTW Water directly distributed) \* 1000)

E17: NRW = (unbilled water / water produced x 100) = [ 1 - billed water / (distributable water production + DTW Water directly distributed) ] x 100

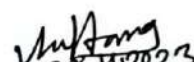
E18: Leakage occurrence = Number of leakage recognized by complaint / length of pipeline at the end of period / number of months covered


E20: This is the rate of satisfactory sample complying with the chlorine standard.

E21: This is the rate of satisfactory sample complying with the microbiological standard.


F2: No. of employee per 1000 connections = (number of permanent staff + non-permanent staff) / (total billable connections/1000)

F4: Only staff workers (Class 3 and Class 4) receive overtime. Thus this ratio is computed based on Class 3 and Class 4 workers' pay.

  
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29/11/2023  
SE (P&C)

  
29/11/2023  
CE

  
DMD (E)

(Richard Nelson Penheiro)  
Executive Engineer (A.C.)  
Design Division  
Chattogram WASA Chattogram.

মাবসুদ আলম  
প্রধান প্রকৌশলী  
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।