

CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY



**MANAGEMENT INFORMATION SYSTEM REPORT  
MARCH-2022**

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2022

**Chattogram Water Supply & Sewerage Authority**  
**Monthly MIS Report**  
**March 2022**

	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	%	32	29	25	20	-46%	!
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/month	%	98	88	100	90	9%	
D 9*	Collection period	Day	310	301	314	263	-14%	
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Em	Nos.	7.5	N/A	8.3	9.4	20%	
D 8*	Operating Ratio	Ratio	0.55	0.67	0.69	0.72	7%	
A 3.5*	Functioning meter rate of installed meter	%	96	N/A	96	100	-4%	
E 19	Water quality sample	No./month	200	1,800	1,800	200	0%	
E 18*	Leakage occurrence	No./km/mth	0.42	0.41	0.43	0.50	18%	
A 6*	Water supply coverage	%	61	N/A	60	75	-19%	
B 5*	Average tariff	Tk/m3	14.04	14.18	13.73	14.73	-5%	
E 16*	Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	16.84	10.08	11.92	13.56	26%	++
<b>A) Connection data</b>								
A 1	Total registered connections	Nos.	85,548	N/A	82,576	84,000	2%	
A 1.1	Billable (non-disconnected) connection	Nos.	79,761	N/A	76,849	78,000	2%	
A 1.2	Non-billable (disconnected) connection	Nos.	5,787	N/A	5,727	6000	4%	
A 1.3	Billed connection	Nos.	77,422	N/A	73,970	75,000	3%	
A 2	Breakdown of billable connection (by customer type)							
A 2.1*	Domestic	%	93	N/A	97	96	-3%	
A 2.2	Non-domestic	%	7	N/A	3	4	-74%	!
A 3	Breakdown of billable connection (by meter status)							
A 3.1	Metered	Nos.	76,250	N/A	74,039	74,000	3%	
A 3.2	Average reading	Nos.	3,405	N/A	2,702	4,000	15%	
A 3.3	Non meter	Nos.	106	N/A	108	0	#DIV/0!	#DIV/0!
A 3.4*	Meter installation rate	%	100	N/A	100	100	0%	
A 3.5*	Functioning meter rate of installed meter	%	96	N/A	96	100	-4%	
A 4	Street Hydrant	Nos.	689	N/A	689	689	0%	
A 5	Religious Institutions	Nos.	368	N/A	368	368	0%	
A 6*	Water supply coverage	%	61	N/A	60	75	-19%	
A 7	Bill sent-out ratio	%	97	N/A	96	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	13.02	N/A	12.40	13.02	0%		
B 2 Non-domestic	Tk/m3	31.82	N/A	30.30	31.82	0%		
B 3 Street Hydrant	Tk/m3	13.02	N/A	12.40	13.02	0%		
B 4 Religious Institutions	Tk/m3	13.02	N/A	12.40	13.02	0%		
B 5* Average tariff	Tk/m3	14.04	14.18	13.73	14.73	-5%		
<b>C) Billing and Collection</b>								
C 1 Total billing	Tk	133,710,703	1,219,576,252	1,423,705,665	1,806,119,000	-10%		
C 1.1* Private	Tk	115,672,696	1,049,293,943	1,229,454,669	1,310,119,000	7%		
C 1.2* Government	Tk	18,038,007	170,282,309	194,250,996	496,000,000	-54%	!	
C 2 Billed volume (Total Volume Accounted)	ML	9,525	85,989	103,690	122,640	-7%		
C 3 Total collection	Tk	130,447,151	1,076,960,654	1,417,998,870	1,623,619,000	-12%		
C 3.1* Private	Tk	119,373,704	980,977,544	1,245,465,366	1,365,119,000	-4%		
C 3.2* Government	Tk	11,073,447	95,983,110	172,533,504	258,500,000	-50%	!	
C 4* Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	98	88	100	90	9%		
C 4.1* Private	%	103	93	101	104	-1%		
C 4.2* Government	%	61	56	89	52	18%		
<b>D) Financial data</b>								
D 1 Revenue (Total)	Tk	201,723,286	1,309,271,968	1,736,502,206	2,149,619,000	-19%		
D 1.1 Water revenue	Tk	130,447,151	1,076,960,654	1,417,998,870	1,623,619,000	-12%		
D 1.2* Tubewell license	Tk	53,433,965	96,085,046	126,672,332	90,000,000	42%	++	
D 1.3* Other operating revenues	Tk	9,508,837	61,226,268	96,831,004	336,000,000	-76%	!	
D 1.4* Interest income	Tk	8,333,333	75,000,000	95,000,000	100,000,000	0%		
D 2 Expenses (Total)	Tk	237,641,329	1,223,334,810	1,653,696,147	2,078,403,000	22%		
D 2.1* Personnel cost	Tk	31,855,079	300,303,060	422,685,147	528,784,000	24%		
D 2.2 Electricity cost	Tk	50,239,000	467,492,000	564,704,000	703,000,000	11%		
D 2.3 Chemicals	Tk	16,089,000	46,492,000	91,434,000	140,000,000	56%	++	
D 2.4* Depreciation	Tk	46,980,250	140,940,750	101,204,000	187,921,000	64%	++	
D 2.5 Other operating cost	Tk	92,478,000	268,107,000	473,669,000	518,698,000	31%	++	
D 2.5.1 Other O & M	Tk	12,767,000	67,643,000	111,358,000	185,908,000	51%	++	
D 2.5.2 Capital cost from revenues	Tk	79,711,000	200,464,000	362,311,000	332,790,000	20%		
D 2.6* Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!	
D 3 Net Income ( Loss )	Tk	(35,918,043)	85,937,158	82,806,059	71,216,000	61%	++	
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	1,338,973,163	N/A	1,223,432,356	1,223,432,356	-9%		
D 6.1* Accounts receivable from Government	Tk	288,282,891	N/A	252,100,239	252,100,239	-14%		
D 6.2* Accounts receivable from Private	Tk	1,050,690,272	N/A	971,332,117	971,332,117	-8%		
D 7* Long term loans	Tk	0	N/A	0	0	#DIV/0!	#DIV/0!	
D 8* Operating Ratio	Ratio	0.55	0.67	0.69	0.72	7%		
D 9* Collection period	Day	310	301	314	263	-14%		

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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>E) Water Supply</b>								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP-1+Sk.H.WTP-2+)	MLD	466	N/A	323	323	44%	++
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	-1%	
E 5	Deep Tube Wells in Operation	Nos.	50	N/A	60	44	14%	
E 6*	Capacity of DTW - direct distribution	MLD	51	N/A	59	40	28%	++
E 7*	Capacity of DTW - supply to GWTP	MLD	0	N/A	0	0	#DIV/0!	#DIV/0!
E 8*	Capacity of distributable water production	MLD	585	N/A	449	430	36%	++
E 9	Length of Pipeline	km	962	N/A	770	1,037	-7%	
E 15*	Production (distributable water)	ML	14,108.09	121,419	138,687	153,300	6%	
E 15.1*	DTW water to users before boosters	ML	0	0	0	0	N/A	
E 16*	Unit production cost (Incl. Capt. Cost, Deprec. & Financial Expense.)	Tk/m3	16.84	10.08	11.92	13.56	26%	++
E 17*	Non Revenue Water	%	32	29	25	20	-46%	!
E 18*	Leakage occurrence	No./km/mtf	0.42	0.41	0.43	0.50	18%	
E 19	Water quality sample	No./month	200	1,800	1,800	200	0%	
E 20*	Satisfactory sample in chlorine level	%	100	100	100	100	0%	
E 21*	Satisfactory sample in microbiological level	%	100	100	100	100	0%	
<b>F) Personnel</b>								
F 1	No. of permanent employees (Total)	Nos.	602	N/A	635	732	18%	
F 1.1	Grade-3-9	Nos.	51	N/A	57	60	N/A	++
F 1.2	Grade-10-11	Nos.	52	N/A	52	62	N/A	++
F 1.3	Grade-12-16	Nos.	258	N/A	280	300	N/A	++
F 1.4	Grade-17-20	Nos.	241	N/A	246	310	N/A	++
F 5	No. of non-permanent employees (Total)	Nos.	0	N/A	0	0	#DIV/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	200	N/A	++
F 5.3	Project staff (hired by project budget)	Nos.	50	N/A	41	50	N/A	++
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	7.5	N/A	8.3	9.4	20%	
F 3	Average Monthly Salary	Tk	18,332	N/A	18,807	19,960	8%	
F 4*	% of Overtime to Basic Salary	%	28	N/A	10	32	13%	
<b>G) Customer Services</b>								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	614	4,009	5,137	6,000	-11%	
G 1.2	Service Connection given	Nos.	561	3,653	4,394	5,000	-3%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	230	1,890	1,798	4,500	44%	++
G 2.2	Complaints acted on	Nos.	180	1,530	1,469	3,500	42%	++
G 3	Leakage complaints received and attended	Nos.	403	3,559	3,978	5,000	5%	

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Notes:

- 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).
- \*3: A warning sign " ++ " appears when the evaluation result exceeds 25%, which is considered as the high-end threshold indicating "too good". The evaluation result is shown as 20% (= 24 / 20 - 1). 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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26/05/2022  
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