

CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY



**MANAGEMENT INFORMATION SYSTEM REPORT  
FOR THE MONTH OF JANUARY-2021**

**WASA BHABAN  
DAMPARA  
CHATTOGRAM, BANGLADESH**

Phone : 880-31-2851806

Fax : 880-31-610465

Email : [info@ctg-wasa.org.bd](mailto:info@ctg-wasa.org.bd)

**Chattogram Water Supply & Sewerage Authority**  
**Monthly MIS Report**  
**January 2021**

	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	%	23	22	28	25	12%	
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/month	%	89	95	83	108	-18%	
D 9*	Collection period	Day	322	314	324	263	-19%	
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Emp)	Nos.	8.6	N/A	9.1	10.0	14%	
D 8*	Operating Ratio	Ratio	0.79	0.69	0.86	0.98	30%	++
A 3.5*	Functioning meter rate of installed meter	%	91	N/A	87	100	-9%	
E 19	Water quality sample	No./month	150	1,050	1,200	150	0%	
E 18*	Leakage occurrence	No./km/mtl	0.47	0.41	0.43	0.50	19%	
A 6*	Water supply coverage	%	58	N/A	57	75	-22%	
B 5*	Average tariff	Tk/m3	13.78	13.90	12.97	12.63	9%	
E 16*	Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	8.86	10.12	10.55	13.44	25%	
<b>A) Connection data</b>								
A 1	Total registered connections	Nos.	80,947	N/A	77,794	82,000	-1%	
A 1.1	Billable (non-disconnected) connection	Nos.	75,267	N/A	72,163	76,000	-1%	
A 1.2	Non-billable (disconnected) connection	Nos.	5,680	N/A	5,631	6000	5%	
A 1.3	Billed connection	Nos.	72,282	N/A	69,370	73,000	-1%	
A 2	Breakdown of billable connection (by customer type)							
A 2.1*	Domestic	%	97	N/A	97	96	1%	
A 2.2	Non-domestic	%	3	N/A	3	4	33%	++
A 3	Breakdown of billable connection (by meter status)							
A 3.1	Metered	Nos.	68,281	N/A	62,294	66,000	3%	
A 3.2	Average reading	Nos.	6,801	N/A	9,603	10,000	32%	++
A 3.3	Non meter	Nos.	185	N/A	266	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	%	91	N/A	87	100	-9%	
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	%	58	N/A	57	75	-22%	
A 7	Bill sent-out ratio	%	96	N/A	96	100	-4%	

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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	12.40	N/A	12.40	13.02	-5%	
B 2	Non-domestic	Tk/m3	30.30	N/A	30.30	31.82	-5%	
B 3	Street Hydrant	Tk/m3	12.40	N/A	12.40	13.02	-5%	
B 4	Religious Institutions	Tk/m3	12.40	N/A	12.40	13.02	-5%	
B 5*	Average tariff	Tk/m3	13.78	13.90	12.97	12.63	9%	
<b>C) Billing and Collection</b>								
C 1	Total billing	Tk	117,324,683	826,647,447	1,199,365,227	1,572,449,000	-10%	
C 1.1*	Private	Tk	102,057,855	714,611,338	1,022,107,233	1,140,313,000	7%	
C 1.2*	Government	Tk	15,266,828	112,036,109	177,257,994	432,136,000	-56%	!
C 2	Billed volume (Total Volume Accounted)	ML	8,516	59,490	92,471	124,480	-18%	
C 3	Total collection	Tk	104,589,706	781,308,417	999,936,576	1,700,275,000	-21%	
C 3.1*	Private	Tk	97,842,817	668,975,433	904,252,954	1,429,446,000	-20%	
C 3.2*	Government	Tk	6,746,889	112,332,984	95,683,622	270,829,000	-29%	!
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	89	95	83	108	-18%	
C 4.1*	Private	%	96	94	88	125	-24%	
C 4.2*	Government	%	44	100	54	63	-29%	!
<b>D) Financial data</b>								
D 1	Revenue (Total)	Tk	122,420,366	926,988,727	1,247,632,906	2,237,451,000	-29%	!
D 1.1	Water revenue	Tk	104,589,706	781,308,417	999,936,576	1,700,275,000	-21%	!
D 1.2*	Tubewell license	Tk	3,104,729	32,214,749	88,080,389	90,000,000	-39%	!
D 1.3*	Other operating revenues	Tk	6,809,264	58,048,894	64,615,941	352,176,000	-72%	!
D 1.4*	Interest income	Tk	7,916,667	55,416,667	95,000,000	95,000,000	0%	
D 2	Expenses (Total)	Tk	97,805,671	772,161,428	1,357,711,024	2,230,253,000	41%	++
D 2.1*	Personnel cost	Tk	30,148,671	238,088,428	421,236,024	512,607,000	20%	
D 2.2	Electricity cost	Tk	44,526,000	308,551,000	493,984,000	703,000,000	25%	
D 2.3	Chemicals	Tk	8,651,000	49,904,000	67,887,000	140,000,000	39%	++
D 2.4*	Depreciation	Tk	0	50,602,000	90,200,000	101,204,000	89%	++
D 2.5	Other operating cost	Tk	14,480,000	125,016,000	284,404,000	773,442,000	72%	++
D 2.5.1	Other O & M	Tk	13,443,000	43,183,000	91,126,000	143,702,000	48%	++
D 2.5.2	Capital cost from revenues	Tk	1,037,000	81,833,000	193,278,000	629,740,000	78%	++
D 2.6*	Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!
D 3	Net Income ( Loss )	Tk	24,614,695	154,827,299	(110,078,118)	7,198,000	3587%	++
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	1,217,819,136	N/A	1,065,256,836	1,065,256,836	-14%	
D 6.1*	Accounts receivable from Government	Tk	278,455,068	N/A	211,109,539	211,109,539	-32%	!
D 6.2*	Accounts receivable from Private	Tk	939,364,068	N/A	854,147,297	854,147,297	-10%	
D 7*	Long term loans	Tk	0	N/A	0	0	#DIV/0!	#DIV/0!
D 8*	Operating Ratio	Ratio	0.79	0.69	0.86	0.98	30%	++
D 9*	Collection period	Day	322	314	324	263	-19%	

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<b>Water Supply</b>								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP+Moduna Gh)	MLD	323	N/A	323	323	0%	
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	-1%	
E 5	Deep Tube Wells in Operation	Nos.	49	N/A	42	44	11%	
E 6*	Capacity of DTW - direct distribution	MLD	38	N/A	38	40	-4%	
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	429	N/A	428	430	0%	
E 9	Length of Pipeline	km	770	N/A	770	920	-16%	
E 15*	Production (distributable water)	ML	11,043.19	76,313	128,662	165,970	-21%	
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	8.86	10.12	10.55	13.44	25%	
E 17*	Non Revenue Water	%	23	22	28	25	12%	
E 18*	Leakage occurrence	No./km/mtf	0.47	0.41	0.43	0.50	19%	
E 19	Water quality sample	No./month	150	1,050	1,200	150	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>Personnel</b>								
F 1	No. of permanent employees (Total)	Nos.	649	N/A	658	730	11%	
F 1.1	Grade-3-9	Nos.	59	N/A	57	70	N/A	++
F 1.2	Grade-10-11	Nos.	54	N/A	55	60	N/A	++
F 1.3	Grade-12-16	Nos.	288	N/A	291	315	N/A	++
F 1.4	Grade-17-20	Nos.	248	N/A	255	285	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)	Nos.	0	N/A	0	0	N/A	++
F 5.3	Project staff (hired by project budget)	Nos.	41	N/A	32	170	N/A	++
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	8.6	N/A	9.1	10.0	14%	
F 3	Average Monthly Salary	Tk	25,505	N/A	17,366	19,960	-28%	!
F 4*	% of Overtime to Basic Salary	%	33	N/A	15	32	-4%	
<b>Customer Services</b>								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	438	3,062	4,305	6,000	-13%	
G 1.2	Service Connection given	Nos.	349	2,597	3,745	5,000	-11%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	190	1,340	2,115	4,500	49%	++
G 2.2	Complaints acted on	Nos.	140	1,050	1,854	3,500	49%	++
G 3	Leakage complaints received and attended	Nos.	363	2,193	3,993	5,000	25%	

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).  
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.

Prepared by:

Submitted by:

Noted by:

*Handwritten signature*  
21.08.2021  
SAE

AE

*Handwritten signature*  
21/8/2021  
(মোঃ জাহাঙ্গীর)  
বিরাম জলসেবা  
বিভাগ, ঢাকা, টাঙ্গাইল

*Handwritten signature*  
22/8/2021  
SE (P&C)

*Handwritten signature*  
জনস্বাস্থ্য পরিঃ (একক)  
বিরাম ওয়াশা. টাঙ্গাইল  
DMD (E)