CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY

MANAGEMENT INFORMATION SYSTEM REPORT
DECEMBER-2022

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Chattogram Water Supply & Sewerage Authority
Monthly MIS Report
December 2022

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
Selected Key Indicators								
E 17*	**Non Revenue Water**	%	**35**	**32**	**30**	**23**	**-40%**	!
C 4*	**Revenue collection efficiency(monthly coll.+outstand. Coll.)/month**	%	**86**	**85**	**93**	**99**	**-14%**	
D 9*	**Collection period**	Day	**207**	**225**	**282**	**263**	**14%**	
F 2*	**No. of perma. employee per 1000 connections(excl. non-perma. Em**	Nos.	**7.0**	**N/A**	**7.3**	**8.5**	**18%**	
D 8*	**Operating Ratio**	Ratio	**0.55**	**0.63**	**0.79**	**0.72**	**13%**	
A 3.5*	**Functioning meter rate of installed meter**	%	**93**	**N/A**	**95**	**100**	**-7%**	
E 19	**Water quality sample**	No./month	**200**	**1,200**	**2,400**	**2,400**	**-92%**	!
E 18*	**Leakage occurrence**	No./km/mth	**0.44**	**0.35**	**0.38**	**5.04**	**93%**	++
A 6*	**Water supply coverage**	%	**62**	**N/A**	**62**	**75**	**-18%**	
B 5*	**Average tariff**	Tk/m3	**19.34**	**17.04**	**14.28**	**15.28**	**27%**	++
E 16*	**Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)**	Tk/m3	**30.90**	**16.40**	**12.31**	**20.53**	**20%**	
A) Connection data								
A 1	Total registered connections	Nos.	88,529	N/A	86,788	91,700	-3%	
A 1.1	Billable (non-disconnected) connection	Nos.	82,688	N/A	81,005	85,700	-4%	
A 1.2	Non-billable (disconnected) connection	Nos.	5,841	N/A	5,783	6000	3%	
A 1.3	Billed connection	Nos.	80,898	N/A	78,980	84,000	-4%	
A 2	Breakdown of billable connection (by customer type)							
A 2.1*	Domestic	%	93	N/A	93	93	0%	
A 2.2	Non-domestic	%	7	N/A	7	7	1%	
A 3	Breakdown of billable connection (by meter status)							
A 3.1	Metered	Nos.	76,477	N/A	77,176	81,700	-6%	
A 3.2	Average reading	Nos.	6,106	N/A	3,723	4,000	-53%	!
A 3.3	Non meter	Nos.	105	N/A	106	106	1%	
A 3.4*	Meter installation rate	%	100	N/A	100	100	0%	
A 3.5*	Functioning meter rate of installed meter	%	93	N/A	95	100	-7%	
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	%	62	N/A	62	75	-18%	
A 7	Bill sent-out ratio	%	98	N/A	98	98	0%	

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B) Tariff								
B 1	Domestic	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 2	Non-domestic	Tk/m3	37.00	N/A	31.82	33.41	11%	
B 3	Street Hydrant	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 4	Religious Institutions	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 5*	Average tariff	Tk/m3	19.34	17.04	14.28	15.28	27%	++
C) Billing and Collection								
C 1	Total billing	Tk	190,779,346	1,031,378,940	1,646,498,206	1,931,900,000	7%	
C 1.1*	Private	Tk	167,731,783	901,359,360	1,417,237,972	1,552,430,000	16%	
C 1.2*	Government	Tk	23,047,563	130,019,580	229,260,234	379,470,000	-31%	!
C 2	Billed volume (Total Volume Accounted)	ML	9,867	60,530	115,273	126,470	-4%	
C 3	Total collection	Tk	163,355,024	880,131,557	1,532,296,451	1,916,900,000	-8%	
C 3.1*	Private	Tk	154,627,391	807,785,861	1,385,932,394	1,712,297,000	-6%	
C 3.2*	Government	Tk	8,727,633	72,345,696	146,364,057	204,603,000	-29%	!
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	86	85	93	99	-14%	
C 4.1*	Private	%	92	90	98	110	-16%	
C 4.2*	Government	%	38	56	64	54	-30%	!
D) Financial data								
D 1	Revenue (Total)	Tk	184,187,296	1,011,847,285	1,828,840,771	2,296,850,000	-12%	
D 1.1	Water revenue	Tk	163,355,024	880,131,557	1,532,296,451	1,916,900,000	-8%	
D 1.2*	Tubewell license	Tk	3,863,442	27,439,396	114,045,305	100,000,000	-45%	!
D 1.3*	Other operating revenues	Tk	8,635,497	54,276,332	82,499,015	179,950,000	-40%	!
D 1.4*	Interest income	Tk	8,333,333	50,000,000	100,000,000	100,000,000	0%	
D 2	Expenses (Total)	Tk	471,100,056	1,464,985,390	2,032,959,163	3,372,762,373	13%	
D 2.1*	Personnel cost	Tk	35,141,213	217,715,704	426,879,163	575,536,000	24%	
D 2.2	Electricity cost	Tk	58,574,000	361,876,000	652,415,000	773,000,000	6%	
D 2.3	Chemicals	Tk	3,627,000	35,119,000	141,233,000	140,000,000	50%	++
D 2.4*	Depreciation	Tk	367,985,843	735,971,687	246,857,000	1,471,943,373	0%	
D 2.5	Other operating cost	Tk	5,772,000	114,303,000	565,575,000	412,283,000	45%	++
D 2.5.1	Other O & M	Tk	4,056,000	21,977,000	220,317,000	173,693,000	75%	++
D 2.5.2	Capital cost from revenues	Tk	1,716,000	92,326,000	345,258,000	238,590,000	23%	
D 2.6*	Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!
D 3	Net Income (Loss)	Tk	(286,912,760)	(453,138,105)	(204,118,392)	(1,075,912,373)	-16%	
D 4*	Cash at bank	Tk	0	N/A	0	0	N/A	
D 5*	Stock & stores	Tk	0	0	0	140,034	N/A	
D 6	Accounts Receivable	Tk	1,274,172,872	N/A	1,271,740,973	1,271,740,973	0%	
D 6.1*	Accounts receivable from Government	Tk	231,357,218	N/A	210,605,008	210,605,008	-10%	
D 6.2*	Accounts receivable from Private	Tk	1,042,815,654	N/A	1,061,135,965	1,061,135,965	2%	
D 7*	Long term loans	Tk	75,761,763	151,523,525	0	303,047,050	75%	++
D 8*	Operating Ratio	Ratio	0.55	0.63	0.79	0.72	13%	
D 9*	Collection period	Day	207	225	282	263	14%	

		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%	
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	0%	
E 5	Deep Tube Wells in Operation	Nos.	42	N/A	47	47	-11%	
E 6*	Capacity of DTW - direct distribution	MLD	36	N/A	48	48	-25%	
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	569	N/A	581	605	-6%	
E 9	Length of Pipeline	km	962	N/A	962	992	-3%	
E 15*	Production (distributable water)	ML	15,248.15	89,338	165,187	164,250	9%	
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	30.90	16.40	12.31	20.53	20%	
E 17*	Non Revenue Water	%	35	32	30	23	-40%	!
E 18*	Leakage occurrence	No./km/mth	0.44	0.35	0.38	5.04	93%	++
E 19	Water quality sample	No./month	200	1,200	2,400	2,400	-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.	576	N/A	591	732	21%	
F 1.1	Grade-3-9	Nos.	54	N/A	59	60	N/A	++
F 1.2	Grade-10-11	Nos.	36	N/A	37	62	N/A	++
F 1.3	Grade-12-16	Nos.	248	N/A	254	300	N/A	++
F 1.4	Grade-17-20	Nos.	238	N/A	241	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	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.	7.0	N/A	7.3	8.5	18%	
F 3	Average Monthly Salary	Tk	29,031	N/A	18,802	19,960	-45%	!
F 4*	% of Overtime to Basic Salary	%	34	N/A	1	32	-7%	
G) Customer Services								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	554	3,438	5,296	6,000	15%	
G 1.2	Service Connection given	Nos.	496	3,102	4,934	5,000	24%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	170	1,200	2,510	4,500	47%	++
G 2.2	Complaints acted on	Nos.	130	929	2,050	3,500	47%	++
G 3	Leakage complaints received and attended	Nos.	423	2,047	4,422	5,000	18%	

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)/((Dstributable 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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25.02.2023
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