# CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY

WASA
চট্টগ্রামওয়াসা

## MANAGEMENT INFORMATION SYSTEM REPORT

## FOR THE MONTH OF MARCH-2024


**WASA BHABAN**
**DAMPARA**
**CHATTOGRAM, BANGLADESH**

**Phone : 880-31-2851806**
**Fax : 880-31-610465**
**Email : info@ctg-wasa.org.bd**

# Chattogram Water Supply & Sewerage Authority

## Monthly MIS Report

### March 2024

| | | 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 | % | 26 | 31 | 31 | 28 | -10% | |
| C 4* | Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill. | % | 82 | 87 | 87 | 116 | -29% | ! |
| D 9* | Collection period | Day | 273 | 268 | 235 | 200 | -34% | ! |
| F 2* | No. of perma. employee per 1000 connections(excl. non-perma. Empl.) | Nos. | 5.9 | N/A | 6.4 | 7.1 | 17% | |
| D 8* | Operating Ratio | Ratio | 0.64 | 0.72 | 0.66 | 0.57 | -26% | ! |
| A 3.5* | Functioning meter rate of installed meter | % | 90 | N/A | 92 | 100 | -10% | |
| E 19 | Water quality sample | No./month | 240 | 2,160 | 2,400 | 2,880 | -92% | ! |
| E 18* | Leakage occurrence | No./km/mth | 0.28 | 0.29 | 0.35 | 1.81 | 84% | ++ |
| A 6* | Water supply coverage | % | 66 | N/A | 64 | 75 | -13% | |
| B 5* | Average tariff | Tk/m3 | 18.76 | 18.93 | 18.14 | 17.45 | 8% | |
| E 16* | Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.) | Tk/m3 | 22.51 | 19.41 | 18.71 | 19.50 | 1% | |
| **A. Connection data** | | | | | | | | |
| A 1 | Total registered connections | Nos. | 95,876 | N/A | 92,327 | 97,127 | -1% | |
| A 1.1 | Billable (non-disconnected) connection | Nos. | 89,880 | N/A | 86,395 | 91,195 | -1% | |
| A 1.2 | Non-billable (disconnected) connection | Nos. | 5,996 | N/A | 5,932 | 5932 | -1% | |
| A 1.3 | Billed connection | Nos. | 88,323 | N/A | 83,698 | 88,270 | 0% | |
| 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 | 10% | |
| A 3 | Breakdown of billable connection (by meter status) | | | | | | | |
| A 3.1 | Metered | Nos. | 80,736 | N/A | 78,966 | 83,092 | -3% | |
| A 3.2 | Average reading | Nos. | 9,041 | N/A | 7,326 | 8,000 | -13% | |
| 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 | % | 90 | N/A | 92 | 100 | -10% | |
| 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 | % | 66 | N/A | 64 | 75 | -13% | |
| A 7 | Bill sent-out ratio | % | 98 | N/A | 97 | 100 | -2% | |

(xy(2)

| | | Unit | This month | Year to date | Previous year actual | This year target *1 | Evaluation *2 | Remarks *3 ++ Too good ! Very bad |
|---|---|---|---|---|---|---|---|---|
| B) Tariff | | | | | | | | |
| 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 | 18.76 | 18.93 | 18.14 | 17.45 | 8% | |
| C) Billing and Collection | | | | | | | | |
| C 1 | Total billing | Tk | 194,910,390 | 1,748,653,410 | 2,155,873,661 | 2,292,809,481 | 2% | |
| C 1.1* | Private | Tk | 169,775,076 | 1,535,878,444 | 1,888,365,971 | 1,948,888,059 | 5% | |
| C 1.2* | Government | Tk | 25,135,314 | 212,774,966 | 267,507,690 | 343,921,422 | -18% | |
| C 2 | Billed volume (Total Volume Accounted) | ML | 10,389 | 92,394 | 118,868 | 131,400 | -6% | |
| C 3 | Total collection | Tk | 159,805,765 | 1,525,283,019 | 1,878,166,418 | 2,664,792,000 | -24% | |
| C 3.1* | Private | Tk | 152,935,148 | 1,450,962,985 | 1,738,727,636 | 2,345,016,960 | -18% | |
| C 3.2* | Government | Tk | 6,870,617 | 74,320,034 | 139,438,782 | 319,775,040 | -69% | ! |
| C 4* | Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill. | % | 82 | 87 | 87 | 116 | -29% | ! |
| C 4.1* | Private | % | 90 | 94 | 92 | 120 | -25% | ! |
| C 4.2* | Government | % | 27 | 35 | 52 | 93 | -71% | ! |
| D) Financials | | | | | | | | |
| D 1 | Revenue (Total) | Tk | 223,781,449 | 1,774,450,171 | 2,203,110,954 | 3,025,592,000 | -22% | |
| D 1.1 | Water revenue | Tk | 159,805,765 | 1,525,283,019 | 1,878,166,418 | 2,664,792,000 | -24% | |
| D 1.2* | Tubewell license | Tk | 46,021,645 | 92,876,608 | 125,253,767 | 100,000,000 | 24% | |
| D 1.3* | Other operating revenues | Tk | 10,454,039 | 88,790,544 | 99,690,769 | 170,800,000 | -31% | ! |
| D 1.4* | Interest income | Tk | 7,500,000 | 67,500,000 | 100,000,000 | 90,000,000 | 0% | |
| D 2 | Expenses (Total) | Tk | 315,608,150 | 2,586,899,365 | 3,224,457,367 | 3,559,449,000 | 3% | |
| D 2.1* | Personnel cost | Tk | 48,341,150 | 359,459,365 | 442,684,994 | 602,585,000 | 20% | |
| D 2.2 | Electricity cost | Tk | 80,035,000 | 690,371,000 | 762,236,000 | 760,000,000 | -21% | |
| D 2.3 | Chemicals | Tk | 15,000 | 88,785,000 | 111,276,000 | 140,000,000 | 15% | |
| D 2.4* | Depreciation | Tk | 125,000,000 | 1,125,000,000 | 1,471,943,373 | 1,500,000,000 | 0% | |
| D 2.5 | Other operating cost | Tk | 62,217,000 | 323,284,000 | 436,317,000 | 556,864,000 | 23% | |
| D 2.5.1 | Other O & M | Tk | 15,574,000 | 132,525,000 | 148,795,000 | 214,144,000 | 17% | |
| D 2.5.2 | Capital cost from revenues | Tk | 46,643,000 | 190,759,000 | 287,522,000 | 342,720,000 | 26% | ++ |
| D 2.6* | Financial expense | Tk | 0 | 0 | 0 | 0 | #DIV/0! | #DIV/0! |
| D 3 | Net Income ( Loss ) | Tk | (91,826,701) | (812,449,194) | (1,021,346,413) | (533,857,000) | 103% | ++ |
| 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 | 1,714,135,188 | N/A | 1,386,963,271 | 1,386,963,271 | -24% | |
| D 6.1* | Accounts receivable from Government | Tk | 381,550,715 | N/A | 228,472,232 | 228,472,232 | -67% | ! |
| D 6.2* | Accounts receivable from Private | Tk | 1,332,584,473 | N/A | 1,158,491,039 | 1,158,491,039 | -15% | |
| D 7* | Long term loans | Tk | 45,840,000 | 166,302,000 | 303,047,050 | 212,160,000 | 78% | ++ |
| D 8* | Operating Ratio | Ratio | 0.64 | 0.72 | 0.66 | 0.57 | -26% | ! |
| D 9* | Collection period | Day | 273 | 268 | 235 | 200 | -34% | ! |

| | | 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+SRPS) | 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. | 45 | N/A | 48 | 47 | -4% | |
| E 6* | Capacity of DTW - direct distribution | MLD | 33 | N/A | 35 | 48 | -31% | ! |
| E 7* | Capacity of DTW - supply to GWTP | MLD | 0 | N/A | 0 | 0 | #DIV/0! | #DIV/0! |
| E 8* | Capacity of | MLD | 566 | N/A | 569 | 605 | -6% | |
| E 9 | Length of Pipeline | km | 962 | N/A | 962 | 992 | -3% | |
| E 15* | Production (distributable water) | ML | 14,021.73 | 133,307 | 172,320 | 182,500 | -3% | |
| 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 | 22.51 | 19.41 | 18.71 | 19.50 | 1% | |
| E 17* | Non Revenue Water | % | 26 | 31 | 31 | 28 | -10% | |
| E 18* | Leakage occurrence | No./km/mth | 0.28 | 0.29 | 0.35 | 1.81 | 84% | ++ |
| E 19 | Water quality sample | No./month | 240 | 2,160 | 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. | 534 | N/A | 554 | 650 | 18% | |
| 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. | 209 | N/A | 229 | 260 | N/A | ++ |
| F 1.4 | Grade-17-20 | Nos. | 233 | N/A | 235 | 268 | 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. | 5.9 | N/A | 6.4 | 7.1 | 17% | |
| F 3 | Average Monthly Salary | Tk | 19,442 | N/A | 19,364 | 31,195 | 38% | ++ |
| F 4* | % of Overtime to Basic Salary | % | 27 | N/A | 14 | 32 | 16% | |
| **G) Customer Services** | | | | | | | | |
| G 1 | New Service Connection | | | | | | | |
| G 1.1 | Service Connection Application Received | Nos. | 339 | 3,773 | 5,202 | 5,000 | 1% | |
| G 1.2 | Service Connection given | Nos. | 356 | 3,631 | 4,769 | 4,000 | 21% | |
| G 2 | Billing complaints | | | | | | | |
| G 2.1 | Complaints received | Nos. | 200 | 1,755 | 2,300 | 2,700 | 13% | |
| G 2.2 | Complaints acted on | Nos. | 170 | 1,470 | 1,819 | 2,200 | 11% | |
| G 3 | Leakage complaints received and attended | Nos. | 274 | 2,545 | 4,078 | 1,800 | -89% | ! |

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. Howevèr 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.

29.05.2024
SAE

29.05.2024
AE

29/5/2024
XEN
(Richard Nelson Penheiro)
Executive Engineer (A.C)
Design Division
Chattogram WASA, Chattogram.

29/5/2024
SE (P&CK)
মোহাম্মদ আরিফুল ইসলাম
তত্ত্বাবধায়ক প্রকৌশলী
(পরিকল্পনা ও নির্মান সার্কেল)
চট্টগ্রাম ওয়াসা।

29/5/2024
CE
মাকসুদ আলম
প্রধান প্রকৌশলী
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।

DMD (E)