

*CHAPTER 02 - ORGANIZATION OVERVIEW*



**2.1 Introduction to DWASA**

Dhaka Water Supply and Sewerage Authority (WASA) is a service oriented autonomous commercial organization in the Public Sector, entrusted with the responsibility of providing water supply, sewerage disposal (wastewater), and storm water drainage service to the urban dwellers of Dhaka City. It covers more than 360 sq. km service area with more than 20 million people with a production capacity of 2650 million liters water per day (MLD). Dhaka WASA was established in the year 1963 as an independent organization and currently which is running under the WASA ACT 1996. The First Water Treatment Plant in Dhaka City Established in 1874 - Chadnighat –WTP.

**2.2 Organizational Profile:**

**2.2.1 Organizational Structure**

Dhaka WASA is under the supervision of - Ministry of Local Government, Rural Development and Co-operatives, Local Government Division of that ministry of the People's Republic of Bangladesh.

The organizational structure of Dhaka WASA was changed according to the WASA Act 1996. As mentioned in the Act, Dhaka WASA Board consists of 13 members, headed by the Chairman. The Board is formed by representatives from different professional organizations and Government officials. According to the organizational structure of 2007, total number of approved posts and present employees are as follows:

**2.2.2 Manpower at a glance**

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Approved Posts | Existing Posts | Vacant Posts |
| First | 309 | 221 | 88 |
| Second | 331 | 260 | 71 |
| Third | 1917 | 1079 | 838 |
| Fourth | 2111 | 1340 | 771 |
| Total | 4668 | 2900 | 1768 |

Though it shows above that there exist some vacant posts, however in near future it would not be required as Dhaka WASA is going to digitize all of its activities and also shifting its focus to surface water source which will significantly reduce manpower.

There is a board to govern over the important matters of DWASA consisting 13 representative members with Chairman as their head. After that the main officials of DWASA are -

Managing Director (CEO), Deputy Managing Director (Admin), Director (Finance), Director (Development), Director (Technical), Chief Engineer (Operation & Maintenance), Commercial Manager, Additional Chief Engineer (Research, Planning & Development), Chief Revenue Officer, Chief Accounts Officer, Superintending engineers (as circle heads) and Executive Engineers (as divisional heads) etc.

Managing director is the CEO and Head Of Procuring Entity (HOPE) of Dhaka WASA, he looks after and takes vital decisions about day to day activities at DWASA.

**2.3 Area of Jurisdiction**

Till June, 1989, the jurisdiction of Dhaka WASA was limited only to Dhaka metropolitan area. Later on, Dhaka WASA had the responsibility for supplying water and operating sewerage system of Narayanganj city in early 1990. At present, mega city Dhaka and Narayanganj are identified as Dhaka WASA service area. For easy operation, maintenance and providing better public service, Dhaka WASA service areas have been divided into 11 geographical zones. Among those, 10 zones are within Dhaka city and one in Narayanganj city. Technical operation, maintenance and collection of revenue bills, and other related activities are managed by the zonal offices. Currently operation of Narayanganj area is being handed over to Narayanganj city-corporation. Also, decision has been taken to include all the extended areas of Dhaka South City-Corporation and Dhaka North City-Corporation into the service area of DWASA.

**2.4 Responsibilities of Dhaka WASA:**

❑ Construction, operation, development and maintenance of necessary infrastructure (deep tube well, water treatment plant) for supplying safe water to residential, industrial and commercial customers.

❑ Construction, development and maintenance of sewage treatment and sewerage system.

**2.5 Mission & Vision:**

**2.5.1 Vision**

To be the 'Best Water Utility' in the Public Sector of South Asia-Ensuring an environment-friendly, sustainable and pro-people water supply management system.

**2.5.2 Mission**

1. To reduce the dependency on ground water.
2. To implement the projects effectively and speedily.
3. To practice a corporate culture in its management and operation.
4. To ensure a high level of transparency and accountability in all its service and activities.
5. To improve the efficiency and reduce operating cost.
6. To constantly seek way to serve our customers.

**2.6 Activities at DWASA:**

All the activities of DWASA are focused to provide clean water to the customers and collect revenue to sustain the water production and distribution network. DWASA also have the responsible for collection of household waste-water through pipe lines and take that waste water to a the sewerage treatment plant and let the harmless treated water to the environment.

There are 10 zones for water supply (distribution network pipeline), There are also 10 revenue zones too. Customer services are mainly the

**2.7 Turn Around Dhaka WASA Program:**

Achievements of DWASA under "Turn Around Program’’:

In 2009, under the Leadership of Hon'ble Prime Minister Sheikh Hasina, the whole Water Supply Policy has been turned into Environment Friendly, Sustainable and pro-people water management system. In achieving this change management policy' DWASA set its vision and mission and declared an action plan called Dhaka WASA Turn-around Program. The achievement of Turn-around Program, so far, are briefly as follows:

Dhaka WASA is currently capable of producing 265 crores litres of water daily as against the daily demand of 250-255 crore liters. The revenue income of DWASA has been increased up to more than 1.5 billion taka from 16 billion taka in year 2020-2021 Implementing mega projects both in water supply and sewerage sector.

The operating cost has been reduced from 0.90 to 0.62. Introducing modern technology in water supply management, named District Metered area (DMA) by which system loss or (NRW) is reduced from 40% to 5%.

Bringing low income Community (LIC) or slum dwellers under safe & legal water supply network

Introduced 100 percent online billing system including payment through SMS as well.

**2.7.1 Strategic Planning for Future:**

# Converting surface Water Supply Source to 70% from existing 22% for sustain-ability.

# Establishing District Metered Area (DMA) for keeping Non Revenue Water (NRW) below 10% and ensuring 24/7 pressurized & portable Water supply.

# 100% legal water supply to Low Income Customer (LIC) area by Dec 2021 for ensuring pro-people water management.

# Establishing 100% Sewerage System for protecting Environment.

**2.7.2 Future Milestone:**

Introduced ' Digital WASA Green WASA' culture to inspire green practice in everyday work.

**2.8 Dhaka WASA at a Glance:**

**Water Supply Infrastructure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Unit | 2017-2018 | 2018-2019 | 2019-2022 | 2020-2021 |
| Deep Tube Well | Nr | 795 | 827 | 887 | 896 |
| Water Treatment Plant | Nr | 4 | 4 | 4 | 5 |
| Water Production/Day | MLD | 2450 | 2500 | 2550 | 2560 |
| Water Line | Km | 3600 | 3720 | 2550 | 2560 |
| Water Connection | Nr | 371766 | 379686 | 390642 | 392400 |
| Overhead Tank | Nr | 38 | 38 | 38 | 38 |
| Street Hydrant | Nr | 1643 | 1643 | 1643 | 1643 |

**Sewerage Infrastructure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Unit | 2017-2018 | 2018-2019 | 2019-2022 | 2020-2021 |
| Sewer Line | Km | 930 | 934 | 934 | 934 |
| Sewer Lift Station | Nr | 26 | 26 | 26 | 26 |
| Sewage Treatment Plant | Nr | 1 | 1 | 1 | 1 |

**Water and Sewerage Billing and Collection (In Million Taka)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2017-2018  (In Lack Taka) | 2018-2019  (In Lack Taka) | 2019-2020  (In Lack Taka) | 2020-2021  (In Lack Taka) |
| Billing | 105285.95 | 1191110.47 | 13062 | 13679.20 |
| Collection | 100055.82 | 117942.50 | 13067 | 12813.06 |
| Bill Receivable (Dues) | 44711.09 | 45881.06 | 4584 | 7661.46 |
| Equivalent Dues Billing (Monthly) | 5.46 | 4.96 | 4.46 | 5.46 |

**Water Tariff**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 01/7/2019  To  31/10/2017 | 01/11/2017  To  31/07/2018 | 01/8/2018  To  30/06/2019 | 01/7/2019  To  30/06/2020 | 01/7/2020  To  30/06/2021 |
| Domestic | 8.49 | 10.00 | 10.50 | 11.02 | 14.46 |
| Commercial | 28.28 | 32.00 | 33.60 | 35.28 | 40.00 |
| Industrial | 28.28 | 32.00 | 33.60 | 35.28 | 40.00 |
| Community | 8.49 | 10.00 | 10.50 | 11.02 | 14.46 |
| Government | 28.28 | 32.00 | 33.60 | 35.28 | 40.00 |

**Development Project**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
| Water Supply | **5** | **5** | **7** | **6** |
| Sewerage | **1** | **1** | **1** | **2** |
| Drainage | **1** | **2** | **2** | **2** |
| Technical Assistance Project | **2** | **2** | **1** | **1** |
| Total | **9** | **10** | **11** | **11** |

Demand and Supply of Water by Dhaka WASA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Population (In million -  approximately) | Water Demand (Million Liter) | Water Supply Capacity  (Million Liter) | Shortage (Million Liter) | No. of Deep Tube  wells |
| 1963 | 0.8s | 150 | 130 | 20 | 30 |
|  |  |  |  |  |  |
| 1970 | 1.46 | 260 | 180 | 80 | 47 |
| 1980 | 3.03 | sso | 300 | 250 | 87 |
| 1990 | 5.56 | 1000 | 510 | 490 | 216 |
| 1996 | 7.ss | 1300 | 810 | 490 | 216 |
| 1997 | 8.0 | 1350 | 870 | 480 | 225 |
| 1998 | 8.s | 1400 | 930 | 470 | 237 |
| 1999 | 9.0 | 1440 | 1070 | 370 | 277 |
| 2000 | g.s | 1500 | 1130 | 370 | 308 |
| 2001 | 10.0 | 1600 | 1220 | 380 | 336 |
| 2002 | 10.50 | 1680 | 1300 | 380 | 379 |
| 2003 | 11.02 | 1760 | 1360 | 400 | 391 |
| 2004 | 11.56 | 1850 | 1400 | 450 | 402 |
| 2005 | 12.15 | 1940 | 1460 | 480 | 418 |
| 2006 | 12.65 | 1900 | 1540 | 460 | 441 |
| 2007 | 13.15 | 1980 | 1660 | 320 | 465 |
| 2008 | 13.65 | 2050 | 1760 | 290 | 490 |
| 2009 | 14.15 | 2120 | 1880 | 240 | 518 |
| 2010 | 14.50 | 2180 | 1990 | 190 | 560 |
| 2011 | 15.00 | 2240 | 2150 | 90 | 599 |
| 2012 | 15.00 | 2240 | 2180 | 60 | 615 |
| 2013 | 15.00 | 2250 | 2420 | - | 644 |
| 2014 | 15.00 | 2250 | 2420 |  | 672 |
| 2015 | 15.80 | 2250-2300 | 2420 | - | 702 |
| 2016 | 16.00 | 2400 | 2450 |  | 795 |
| 2017 | 17.00 | 2450 | 2500 | - | 827 |
| 2018 | 20.00 | 2500 | 2550 |  | 887 |
| 2019 | 20.10 | 2500 | 2600 | - | 886 |
| 2021 | 20.10 | 2520 | 2740 |  | 923 |

**2.9 Why DWASA Should Automate:**

All over the world, organizations have realized the value of automation. This refers to a strategy that allows computers and machines to do tasks to streamline workflow. Some reasons Dhaka WASA Should Automate Business Process:

2.8.1 Reduce Costs

To reduce labor cost, DWASA should turn to automation. Since machines and computers can do complex tasks quickly, DWASA can skip hiring additional staff for simple needs.

### 2.8.2 Save Time

Time equals money. This is why all companies should treat time like gold. Sometimes staff spends countless hours doing simple tasks. This not only decreases their morale, but it also makes them feel overworked. Having a machine perform tasks for employees will allow them to spend their time doing more important jobs.

### 2.8.3 Better Customer Service

In today’s digital age, customers do not tolerate bad customer service. Revenue will start to slip if customers cannot reach service providers easily. To sachieve this, DWASA can turn to automated e-mail services, message chat-bots . This will allow to look after customers effectively without lifting a finger.

### 2.8.4 Enhanced Workflow

By automating business processes, DWASA can execute operational activities efficiently. Since machines will take care of monotonous tasks, your employees can focus on main business processes and ways to generate more revenue. Connecting all automated processes will also shorten workflow by eliminating unnecessary steps. By realigning tasks, you can optimize the flow of your production, service, and flow of information.

### 2.8.5 Satisfied Employees

Nobody likes to do repetitive tasks all through their career. Having an automated workflow will liberate staff from doing so. In turn, it would make them happier and more satisfied since the machine will be doing all the boring tasks. If employees are happy, they will become more productive.

### 2.8.6 Situational Awareness

Automating business process will enable DWASA to access information in just one click. It will also be easier for you to track and monitor processes. If everything is connected, you can access relevant information immediately.

### 2.8.7 Better Quality

Customers expect you to deliver consistent quality products and customer service. Automating your business will ensure that every action is the same. This would result in reliable and high-quality products.

Automation also promotes consistency. This way, all customers will experience the same level of service from your company. With no increase in production cost and time, you can focus more on improving products or services.

### 2.8.8 Improved Insight

Integrating analytics is one of the most effective strategies to get to know your customers. Knowing more about your customers’ behavior will allow you to identify which campaigns yield the best results. Through this, you will know what your customers like and dislike. Data analytics also promotes better decision making.

### 2.8.9 Embrace New Technology

Many people are hesitant about integrating new technology into public sector. However, making way for a work culture that welcomes technological change will be better for public service in the long run. The world is constantly changing, if we do not keep up, our public utilities will suffer.

2.8.10 Reduce System-loss and Unethical Practices

With automation we can achieve real time data gathering. Instant data can be turned into useful information by automated processing, which is easy to be analyzed by DWASA management. Management then can take decision to change processes that causes ineffective and inefficient works to reduce system loss (Any loss of water, electricity, machinery, materials or manpower at Water production facilities and distribution network system).

Feedback from customers, vendors, employees and other stakeholders can be passed easily, frequently and anonymously. Those feedback information can be used to take measures to prevent unethical practices.

2.8.11 Improve Span of control

The span of control is the number of subordinates a supervisor manages within a structural organization. Introducing automated business process concepts has a considerable impact on the span of control. Improved Span of control can reduce cost.