

Annual Report

2018-2019



Dhaka Water Supply and Sewerage Authority

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Dhaka WASA

Dhaka Water Supply and Sewerage Authority (DWASA)

Established in 1963

Responsibilities

- ❑ To supply potable water to the city dwellers
- ❑ Provide sewerage facilities to ensure a healthy and clean environment for the city.
- ❑ Provide storm water drainage facilities to remove the water congestion from the city.

Vision

To be the '**best water utility**' in the public sector of South Asia - ensuring environment-friendly, sustainable and pro-people water management system.

Mission

- Constantly seek ways to better serve our customers.
- Reduce the dependency from ground water to surface water.
- Implement the projects effectively and speedily.
- Practice a corporate culture in management and operation.
- Ensure a high level of transparency and accountability in all of its service and activities.
- Improve the efficiency and reduce operating cost.

Strategic Planning

- # Converting surface Water Supply Source to 70% from existing 22% for sustainability.
- # Establishing DMA for keeping NRW below 10% and ensuring 24/7 pressurized & portable Water supply.
- # 100% legal water supply to LIC area by Dec 2020 for ensuring pro-people water management.
- # Establishing 100% Sewerage System for protecting Environment.
- # 100% digitization of DWASA activities.

Achievements of DWASA under "Turn Around Programme"

- 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**- for capacity building. The achievement of Turn-around Program, so far, are briefly as follows:
- Dhaka WASA is currently capable of producing **255 crores litres** of water against the daily demand of 245-250 crore litres.
- The revenue income of DWASA has been increased upto more than **13 billion** taka from 3 billion taka.
- Implementing mega projects both in water supply and sewerage sector.
- The operating cost has been reduced from 0.90 to 0.67.
- 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.

Milestone

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

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MESSAGE

It's my pleasure to know that Dhaka Water Supply and Sewerage Authority (DWASA) is going to publish the Annual Report for 2018-2019 to showcase the activities and development of the organization.

Dhaka WASA, a service oriented autonomous commercial organization in public sector is working to ensure better water supply for the citizens of Dhaka city. Upholding the aspiration of Bangabandhu to build 'Shonar Bangla', Dhaka WASA is now dreaming to be the best water utility in the public sector of South Asia by establishing environment friendly, sustainable and pro-people water management system. In accordance with the 'Vision 2021' adopted by the Honorable Prime Minister for reconstructing Bangladesh as a middle income country, Dhaka WASA initiated 'Turn Around Dhaka WASA' program in 2009 consequently achieved capability to produce more water than its demand in last 8(Eight) years. Dhaka WASA is currently emphasizing on lessening dependency on ground water by working on the implementation of Padma (Jashaldia) Water Treatment Plant which will be able to go on full swing in operation by the year 2019, Gandharbpur Water Treatment Plant by the 2022 and Saidabad Water Treatment Plant Phase-III by the year 2023. As part of Sustainable Development Goal (SDG), our organization is also working for getting Dhaka city under sustainable sanitation services. Accordingly, Dashekandi Sewage Treatment Plant project is under implementation and four more will come up in near future.

To be in line with the digital Bangladesh program and to make services for the citizens more user friendly and less time consuming, Dhaka WASA introduced District Metered Area (DMA)-an innovative technology and ensured pressurized 24x7 water supply to Dhaka city dwellers. This is also a tool for measuring & reducing Non Revenue Water (NRW). Dhaka WASA has also introduced real time online billing system, online water connection service, online recruitment process, e-filing, e-procurement and so on. Additionally, operation and maintenance activities are being performed with automated SCADA system. Moreover, introduction of Water ATM and water supply services to Low Income Communities (LIC) turned Dhaka WASA into a pro-people service provider.

In this regard, it can be said that Dhaka WASA is playing a pioneering role to materialize the dream of Digital Bangladesh of the present government led by Hon'ble Prime Minister Sheikh Hasina. We hope that we would contribute the nation-building process by upgrading Dhaka WASA into more customer friendly and sustainable organization.

I wish a grand success of Dhaka WASA.

ENGR. TAQSEM A KHAN

Managing Director & CEO
Dhaka WASA

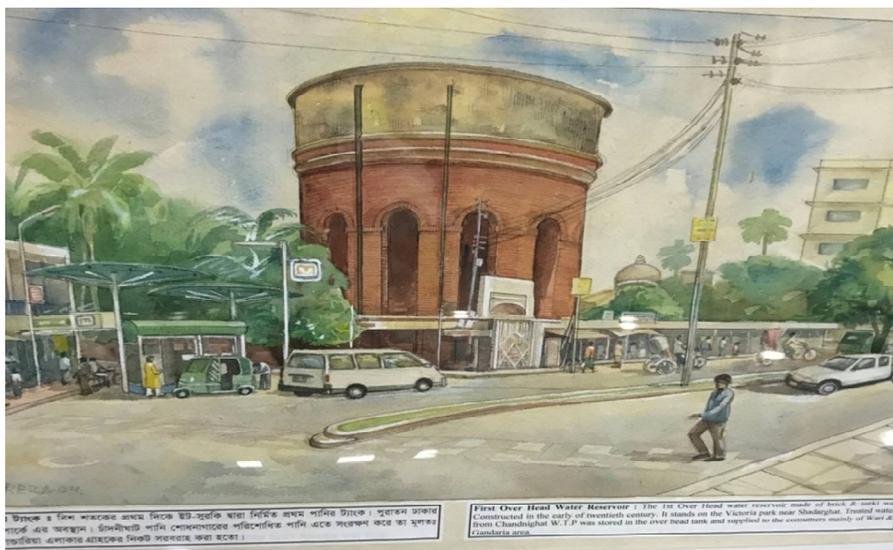
Introducing Dhaka WASA

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 2550 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



The first overhead water reservoir made of brick and surki constructed in the early of 20th century

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.

Organizational Structure

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:

Class	Approved Posts	Existing Posts	Vacant Posts
First	309	263	46
Second	330	268	62
Third	1917	1244	673
Fourth	2111	1351	760
Total	4667	3126	1541

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

Dhaka WASA at a Glance

Water Supply

Item	Unit	2015-2016	2016-2017	2017-2018	2018-19
Deep Tube well	Nr	760	795	827	887
Water Treatment Plant	Nr	4	4	4	4
Water Production/day	MLD	2430	2450	2500	2550
Water Line	Km	3500	3600	3720	3750
Water Connection	Nr	3,61,938	3,71,766	3,79,686	390642
Overhead Tank	Nr	38	38	38	38
Street Hydrant	Nr	1643	1643	1643	1643

Sewerage

Item	Unit	2015-2016	2016-2017	2017-2018	2018-19
Sewer Line	Km	930	930	934	934
Sewer Lift Station	Nr	26	26	26	26
Sewage Treatment Plant	Nr	1	1	1	1

Drainage

Item	Unit	2015-2016	2016-2017	2017-2018	2018-19
Storm Sewer Line	Km	350	350	370	380
Open Canal	Km	74	74	78	80
Box Culvert	Km	10.5	10.5	10.5	10.5
Permanent Pumping Station		4	4	4	
1. Kalyanpur		20m ³ /s	20m ³ /s	20m ³ /s	20
2. Dholaikhal		22 m ³ /s	22 m ³ /s	22 m ³ /s	22
3. Rampura		25 m ³ /s	25 m ³ /s	25 m ³ /s	25
4. Kamalapur		15 m ³ /s	15 m ³ /s	15 m ³ /s	15

Revenue Income-Expenditure (In million Taka)

	2015-2016	2016-2017	2017-2018	2018-19
Revenue Income	9,713	11,554	13,024	1443.96
Revenue Expenditure	9,524	11,328	12,742	1404.09
Profit/Loss (+/-)	189.00	226	282	39.87

Water and Sewerage Billing and Collection (In million Taka)

	2015-2016	2016-2017 (In lack taka)	2017-2018 (In lack taka)	2018-19
Billing	8841	105285.95	1191110.47	13062
Collection	8574	100055.82	117942.50	13067
Bill Receivable (Dues)	4035	44711.09	45881.06	4584
Equivalent dues Billing (monthly)	5.51	5.46	4.96	4.46

Water Tarrif

(in Taka)

Category	01/7/2015 to 30/06/2016	01/7/2016 to 31/10/2016	01/11/2016 to 31/07/2017	01/8/2017 to 30/06/2018	01/7/2018 to 30/06/2019
Domestic	8.09	8.49	10.00	10.50	11.02
Commercial	26.94	28.28	32.00	33.60	35.28
Industrial	26.94	28.28	32.00	33.60	35.28
Community	8.09	8.49	10.00	10.50	11.02
Government	26.94	28.28	32.00	33.60	35.28

Development Projects

	2015-2016	2016-2017	2017-2018	2018-19
Water Supply	5	5	5	7
Sewerage	3	1	1	1
Drainage	1	1	2	2
Technical Assistance Project	0	2	2	1
Total	9	9	10	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	0.85	150	130	20	30
1970	1.46	260	180	80	47
1980	3.03	550	300	250	87
1990	5.56	1000	510	490	216
1996	7.55	1300	810	490	216
1997	8.0	1350	870	480	225
1998	8.5	1400	930	470	237
1999	9.0	1440	1070	370	277
2000	9.5	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	519
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

Dhaka WASA Board

Chairman



Prof: Dr. Habibur Rahman
WASA Bhaban
98 Kazi Nazrul Islam Avenue
Karwan Bazar, Dhaka.
Mobile No: 01712108007

Dhaka WASA Board Members

Picture	Name & Designation	Address & Contract	Representative
	Roxana Quader Additional Secretary Member of Dhaka WASA Board	Office: Additional Secretary Ministry of Local Govt. Rural Development & Co-operatives E-mail- roxanaquader@gmail. Com Mobile No: 01710894497	Ministry of LGRD and Co- operatives
	Begam Selina Akter Additional Secretary Member of Dhaka WASA Board	Office: Finance Division Ministry of Finance Mobile No: 01726947893 E-mail- sahidulfinance@gmail.com salinaakhter62@gmail.com	Ministry of Finance
	Mr. Kamrul Islam FCA Member of Dhaka WASA Board	Representing Dhaka Chamber of Commerce & Industry Apartment # A5 "RESIDENSIA" House-13 Aftabuddin Ahmed Road (Road # 10) Block-B Bashundhara R/A, Dhaka-1229 Phone: 01819219523 E-mail- ikamrul@yahoo.com	Dhaka Chamber of Commerce and Industry (DCCI)
	Mr. Md. Mahamud Hossain FCA Vice President (F&A) The Institute of chartered Accountants of Bangladesh (ICAB) & Member of Dhaka WASA Board	World Bank Group Dhaka Office 1 st Floor, Plot-E 32, Sher-e-Bangla Nagar, Agargaon, Dhaka-1207 Cell: 01713245858 E-mail- mmhosain@yahoo.com	The Institute of Chartered Accountants of Bangladesh
	Eng. Waliullah Sikder Chairman Engineers Institution Bangladesh (IEB) Dhaka Centre & Member of Dhaka WASA Board	Cell: 01715103213 E-mail- mwsikder81@yahoo.com	Institute of Engineers
	Adv. Kazi Md. Nazibullah Hiru Advocate, Bangladesh Bar Council & Member of Dhaka WASA Board	14 Razardayyali, Kotuwali, Dhaka Cell: 01711530110	Bangladesh Bar Council
	Saban Mahmud Secretary, Bangladesh Federal Journalism Union & Member of Dhaka WASA Board	Cell: 01552541076 E-mail- shaban_mbd@yahoo.com	Bangladesh Federal Journalism Union

Picture	Name & Designation	Address & Contract	Representative
	Dr. Mustafa Jalal Mohiuddin, President of Bangladesh Medical Association (BMA), & Member of Dhaka WASA Board	Cell: 01711521026 E-mail- bma.org.bd@gmail.com	Bangladesh Medical Association (BMA)
	Engr. A K M A Hamid President, Central Executive Committee, Institute of Diploma Engineers & Member of Dhaka WASA Board	Houes No-23 Block-H, Road No-1, Section-2, Mirpur, Dhaka-1216 Cell: 01711541553 E-mail- presidentideb@gmail.com	Institute of Diploma Engineers
	Hasibur Rahman Manik Conucillor-for Wards-26 (DSCC) Dhaka South City Corporation & Member of Dhaka WASA Board	27/A/8 (6 th Floor) Dhakeyshori Road, Posta, Lalbagh, Dhaka-1211 Cell: 01711263993 E-mail- hr.manik100@gmail.com	Conucillor-for Dhaka South City Corporation
	Aleya Sarwar Daisy Conucillor-for Wards-31,33,34 (DNCC) Dhaka North City Corporation & Member of Dhaka WASA Board	J/8, Kazi Nozrul Islam Road, Mohammadpur, Dhaka Cell: 01976001200 E-mail- daisy.sarwar@gmail.com	Conucillor-for Dhaka North City Corporation
	Engr. Taqsem A Khan Managing Director, Dhaka WASA & Member of Dhaka WASA Board	Office: Managing Director WASA Bhaban 98 Kazi Nazrul Islam Avenue Karwan Bazar, Dhaka. Phone: 8189626, Ext- 201, Residence: Road No-55, House No-12 Gulshan- 2, Dhaka. Phone: 93373312, 01741- 111002	Managing Director & Chief Executive of Dhaka WASA

Activities of Dhaka WASA Board

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02	6 gvP 2019	Autj vP mPxs bs-04 t m@q' vev' cwb tkvabvli t@R-2 h_uh_ fite cvlPj bv I iyvteyY Gi jtj' Plant Director c' I Terms of Reference (TOR) Ges Justification Abtgv' b c@ö	unxvšl-4 t m@q' vev' cwb tkvabvli t@R-2 h_uh_ fite cvlPj bv I iyvteyY Gi jtj' Plant Director c' I Terms of Reference (TOR) Ges Justification Abtgv' b c@ö Kiv ntjv	unxvšl ev' evqb c@ö qvab	
3	6 gvP 2019	Autj vP mP bs-5 t P@v vfvEK 4(Pvi) Rb Kg@Z@ (vcb v' I f'v-U'v) Ges 4(Pvi) Rb mnKvix Kg@Z@ (vcb v' I f'v-U'v) vbtqurli Abtgv' b c@ö	unxvšl-5 t XvKv I qmvi evl@ Kgv@v b P@v tZ Asfv@i m@ctj 4(Pvi) Rb Kg@Z@ (vcb v' I f'v-U'v) Ges 4(Pvi) Rb mnKvix Kg@Z@ (vcb v' I f'v-U'v) P@v vfvEK vbtqurli Abtgv' b c@ö Kiv ntjv	unxvšlev' evqb	

4	6 gvP 2019	Autj vP mP bs-6 t m ^o ubg ^o Xikv I qumi cUv (hkjw q) cub tkvabllvi I ey-vi cwrus toktb 12(eufiv) tglml qU ygzv mubdajvi cvl qvi cUu ^o tctbi Kuh@g m <u>u</u> u ^o Xikv I qum teW ^o	unxvsl-6 t m ^o ubg ^o Xikv I qumi cUv (hkjw q) cub tkvabllvi I ey-vi cwrus toktb 12(eufiv) tglml qU ygzv mubdajvi cvl qvi cUu ^o tctbi Kuh@g m <u>u</u> u ^o Xikv I qum teW ^o AemZ ntjv	unxvsl ev ^o euqZ	
5	6 gvP 2019	Autj vP mP bs-07 t uc.nc. Aib Gi mt ^o Xikv I qumi iuR ^o ^Rub cui Pj bvi P <u>u</u> iktl eZ ^o Xikv I qumi Rbej Oviv iuR ^o ^Rub mgy cui Puj Z nIqq GKUd Extra Incentive cO ^o bi Abjgv ^o b cU ^o	unxvsl-7 t uel qU Xikv I qum teW ^o AemZ ntjv	--	
6	6 gvP 2019	Autj vP mP bs-8 t 2017-2018 unme eQ ^o ii Lmov ibixyv cU ^o te ^o b Dc ^o tcb I Xikv I qum teW ^o AemZ Kiy cU ^o	unxvsl-8 t 2017-2018 unme eQ ^o ii Lmov ibixyv cU ^o te ^o b Xikv I qum teW ^o c ^o ucZ ntjv cieZ ^o u ^o fuv ue ^o ni Z Autj vPv I unxvsl M <u>o</u> vi ubg ^o Dc ^o tcb Kiv ^o tnK	unxvsl ev ^o euqZ	
7	6 gvP 2019	Autj vP mP bs-9 t Xikv I qumi 2018-19 A ^o erm ^o ii mstkuaZ eufRU Ges 2019-20 A ^o erm ^o ii mstkuaZ eufRU Dc ^o tcb I Xikv I qum teW ^o AemZ Kiy cU ^o	unxvsl-9 t Xikv I qumi 2018-19 A ^o erm ^o ii mstkuaZ eufRU Ges 2019-20 A ^o erm ^o ii mstkuaZ eufRU Dc ^o ucZ ntjv cieZ ^o u ^o fuv ue ^o ni Z Autj vPv I unxvsl M <u>o</u> vi ubg ^o Dc ^o tcb Kiv ^o tnK	unxvsl ev ^o euqZ	

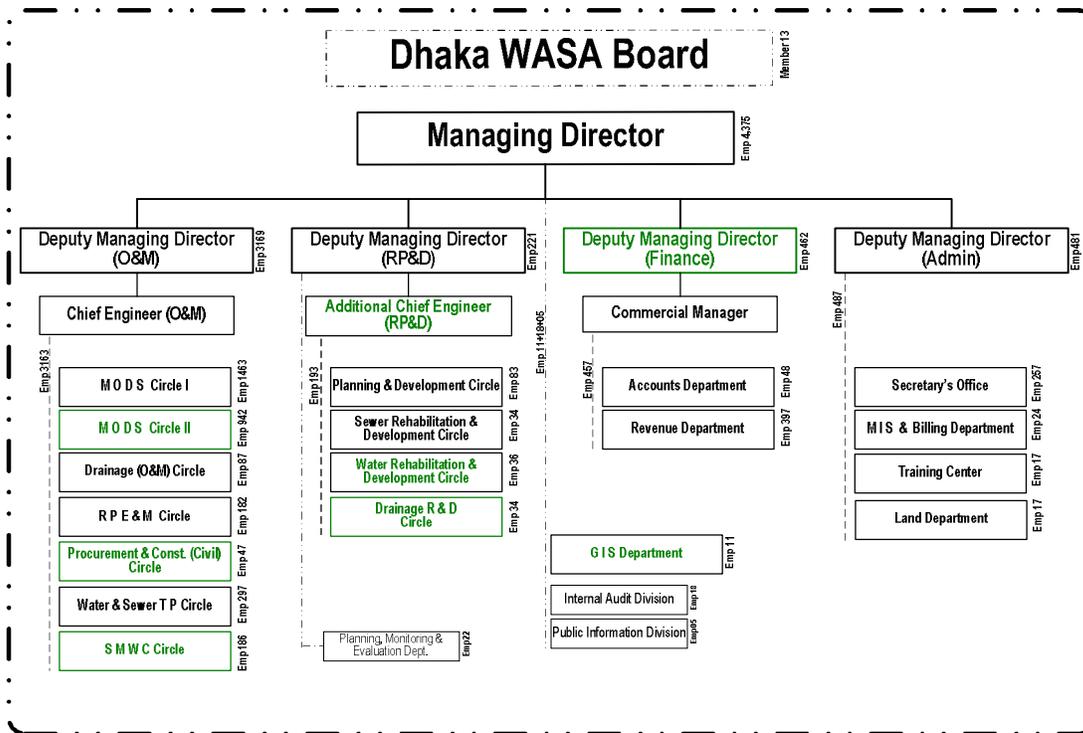
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01	27 gvP 2019	Autj vP mP-03 t Aucm mnuqK Rbve t ^o gt tLk b ugv Gi uel ^o q u ^o fuv ggvj bs-1/2017 g ^o tg cO ^o kwi ^o gIK ^o cti Awcj Ate ^o b	unxvsl-3 t Aucm mnuqK Rbve t ^o gt tLk b ugv KZK u ^o fuv ggvj bs-1/2017 g ^o tg cO ^o kwi ^o gIK ^o cti Awcj Ate ^o b u ^o fuv ggvj Kiv ^o ntjv	unxvsl ev ^o euqZ	
2	27 gvP 2019	Autj vP mP-04 t Gucl Rbve t ^o gt D ^o g ugv uel ^o q u ^o fuv ggvj bs-13/2014 g ^o tg cO ^o kwi ^o gIK ^o cti Awcj Ate ^o b	unxvsl-4 t cieZ ^o u ^o fuv ue ^o ni Z Dc ^o tcb Kiv ^o tnK	unxvsl ev ^o euqZ	
3	27 gvP 2019	Autj vP mP-5 t 2017-2018 unme eQ ^o ii ibixyv cU ^o te ^o b Dc ^o tcb Xikv I qum teW ^o c ^o ucZ Abjgv ^o b cU ^o	unxvsl-5 t (K) Xikv I qumi 2017-2018 unme eQ ^o ii ibixyv cU ^o te ^o b Abjgv ^o b Kiv ^o ntjv (L) 2017-18 A ^o erm ^o ii ibixyv cU ^o te ^o b u ^o fuv ggvj KZK cO ^o ch ^o eyY mgn ^o m ^o gvaib Kivi Rb ^o cui K ^o ibv cO ^o cti j ^o ty ^o u ^o fuv ggvj m ^o u ^o k ^o Kug ^o M ^o b Kiv ^o ntjv (1) t ^o gt t ^o gt bu ^o A ^o u ^o Zvi - A ^o u ^o eqK (2) Rbve g ^o gvj g ^o gvj t ^o gt m ^o G ^o u ^o mG- m ^o m ^o (3) Rbve K ^o ig ^o B ^o m ^o u ^o g ^o G ^o u ^o mG - m ^o m ^o	unxvsl ev ^o euqZ	
4	27 gvP 2019	Autj vP mP-6 t Xikv I qumi 2018-2019 Bs A ^o erm ^o ii mstkuaZ Ges 2019-2020 Bs A ^o erm ^o ii cO ^o ij Z iuR ^o ^eufRU Abjgv ^o b cU ^o	unxvsl-6 t Xikv I qumi 2018-19 A ^o erm ^o ii mstkuaZ Ges 2019-20 A ^o erm ^o ii cO ^o ij Z iuR ^o ^eufRU Abjgv ^o b Kiv ^o ntjv	unxvsl ev ^o euqZ	

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01	6 tg 2019	Autj vP mPr bs-3 t XvKv I qumvi XvKv I qvUvi mcvB tBUl qK© BgcötgU cÖ± Gi Avl Ziq Consultancy service for capacity Bulding for sustainability (CBS) Under DWSNIP Dhaka WASA, Contract No-DWSNIP/CBS/03.3-KvRi Dct`ón cööv vbtqfMi Rb` `icT gj`vqb KvgU KZP mgywikKZ. Ges Gvllve KZP Abgvi Z Aw_ö cÖe` vbxq mi Kvi vefvM tçÖYi Abgvi b cÖ½	unxvšl:3 t XvKv I qumvi ÖXvKv I qvUvi mcvB tBUl qK© BgcötgU cÖ±0 Gi "Consultancy Services for Capacity Building for Sustainability (CBS)" under DWSNIP, Dhaka WASA, Contract No-DWSNIP/CBS/03.3-KvRi Dct`ón cööv vbtqfMi Rb` cÖe gj`vqb KvgU KZP mgywikKZ. Ges Gvllve KZP Abgvi Z Joint Venture of NJS Consultants Co., Ltd. (Lead Firm) and AQUA Consultant & Associates Ltd. (JV Partner) In Association with Maxwell Stamp Limited. Gi Aw_ö cÖe Provisional sum, contingencies, IT & VAT mn meöjU 38,47,16,979/- (Avllk tkvU mZ Pj b j y` tlv mRvi bqkZ Ebwk) UvKvi Aw_ö cÖe Abgvi tbi j`y` cöRvbxq e`v MÖYi Rb` vbxq mi Kvi vefvM tçÖYi Abgvi b cÖb Kiv ntjv	unxvšl ev évqb	
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3	6 tg 2019	Autj vP mPr-05t Gvcl Rbe tgv D¾j yqv i veltq vefvMq ggvjv bs-13/2014 gva`tg cÖe kvifglKædi Awcj Ate`b	unxvšl:5t Gvcl Rbe tgv D¾j yqv i veltq vefvMq ggvjv bs-13/2014 gva`tg cÖe kvifglKædi Awcj Ate`b vbgÄy Kiv ntjv	unxvšl ev évqb	

Organogram of Dhaka WASA



Activities of Dhaka WASA

Dhaka WASA, as a service oriented autonomous commercial organization in public sector, is functioning through 4 wings that include Administration, Finance, Operation & Maintenance, and Research, Planning & Development. For better operation, maintenance, and customer care, the total service area of Dhaka WASA is divided into 11 geographic zones, which includes 10 in Dhaka City and 1 in Narayangang town.

Water Production

During the period 2017-2018, Dhaka WASA has achieved the capacity of daily production of 2550 million liter water per day (MLD) by using 887 deep tubewells and 4 Water Treatment Plants including Saidabad Water Treatment Plant Phase- I & II. The surplus water production capacity is a milestone in the history of Dhaka WASA.

Water Supply System

Mostly, water supply system of Dhaka WASA is dependent on ground water. Around 78 per cent water comes from underground sources and the rest 22 per cent from surface water. Ground water is abstracted by using a total of 887 deep tubewells. Surface water is supplied by treating water of the river Shitalakshya and Buriganga through 4 Water Treatment Plants.

Dhaka WASA supplies water to the mega city of Dhaka city and Narayanganj area. At present over 20 million people live in Dhaka and Narayanganj and this will increase many times by the year 2020.

It is notable that ground water level is declining by 2-3 meters per year due to continuous abstraction of water. For this reason Dhaka WASA, with the support & cordial cooperation of the present government, has pointed out the importance of reducing dependency on ground water by supplying water from surface water body as an alternative and sustainable source of water. For that purpose Dhaka WASA is moving towards environment-friendly, sustainable and pro-people water supply management system. Several water treatment plants projects have already been taken with a view to increasing dependency on surface water up to 70 percent.

To fulfill this target, saidabad Water Treatment Plant, Phase-III is under implementation, which will supply a total of 450 million liters water per day in the city. Furthermore, two additional large Water Treatment Plants at Gandharbapur and Padma (Josholdia WTP) Water Treatment Plant, (Phase-I) have been taken. In Gandharbapur, it is planned to treat water from the river Meghna, which will produce 500 million liter of water per day. The Padma Water Treatment Plant is beeing built at Josholdia near the bank of th great river Padma from where 450-million-liter treated water will be supplied for Dhaka city dwellers

Dhaka WASA has 410 (including 42 mobile generators) diesel-driven generators which help maintaining the abstraction of ground water during the interruption of power supplies. Particularly during the summer season water demand as well as the electricity rise to its peak. At that period water supply system in Dhaka city is kept under normal condition by abstracting water with the help of these generators. Dhaka WASA has taken initiatives for purchasing two hundred new generators which is under process. Moreover, if there is any water crisis anywhere in the city, Dhaka WASA instantly supplies water by using 43 water carriers and 44 trolleys.

Sewerage System

An effective sewerage system is a must for a healthy city. The sewerage system of Dhaka city was initiated in 1923. For a better and well-planned sewerage system in Dhaka city, a sewerage Master Plan has been undertaken and at least four sewage treatment plants will be constructed around the capital city. One of them is Dasherbandhi Sewage Treatment Plant, which is already under implementation and the rest are (in Uttara, Mirpur, Rayerbazar) will be implemented one by one in the future.

Summary of the existing Sewerage System is as follows:

- Number of Sewage Treatment Plant - 1
- Number of Sewage Lift Station - 26
- Sewer Line - 934 km
- Number of Sewer Connection - 88,980

Drainage System

Once there were sufficient canals in Dhaka city for drainage of water, among them Paribag, Dhanmondi, Begunbari, Dholaikhal, Debdolai, Segunbagicha and Arambagh canals are significant. These canals were used for water navigation, and plenty of wetland and low land in the city were used as reservoirs for rain water. During the rainy season the canals allowed the rain

water make its way to the surrounding rivers. The canals prevented water logging in the city areas.



Development of Kallyanpur Manin Khal

The Drainage problems of the city have become severe due to the consider of the environmental impact of the filling in of wetlands, and by implementing different projects which have narrowed and in some cases stopped the free flow of canals in some places by various developers.

Though Dhaka WASA was established 55 year ago, the drainage activity had only come within its jurisdiction 30 years ago. Drainage activity of Dhaka city was commenced in 1946 under the jurisdiction of Department of Public Health Engineering (DPHE). In March, 1989, after delivering the drainage activity to Dhaka WASA by a government gazette, a significant success was achieved in this field. Water logging has been a severe problem for a long time in Dhaka city. In the last 28 years, a combination of good management and the development of the drainage system of Dhaka city have improved.

It's a matter of great regret that disposal of different types of solid waste such as green coconut husks, empty plastic bottles, polyethylene bags and other solid wastes in to the surface drains and open canals result in obstacles to the free flow of rainwater through drainage lines. DWASA is trying to reduce this problem by cleaning canals on regular basis as well as raising the awareness

among people. To increase public awareness advertisement publicity has been continuing through newspapers regularly.

Summary of the existing Drainage facilities are as follows:

Storm water drainage line (dia 450 mm to 3000 mm)	370 km
Box culvert	10.5 km
Open Channel (Khal)	78 km
Storm water pumping station	4
Kalyanpur	20 m ³ /s
Dholiaikhal	22 m ³ /s
Rampura	25 m ³ /s
Kamalapur	15 m ³ /s
Area under drainage facility	140 Sq. km

Removal of Water Congestion

Every year Dhaka WASA runs cleaning activities of its drainage lines, box culverts and canals, which prevent much of the water congestion and flooding problems associated with the rainy season.

It should be mentioned that, all the surface drains of Dhaka city and most of the internal drains are under the jurisdiction of Dhaka City Corporation (DCC), and most of the time those are filled with solid wastes. As a result, temporary water congestion occurs during heavy rainfall.

Nowadays city dwellers experience water congestion in some roads of the capital after heavy rain. It requires several hours to drain out congested rainwater, but that doesn't mean it is water-logging. There is no water-logging in Dhaka city rather water congestion is prevalent.

A new horizon in Water Supply in South Asia Region:

District Metered Area (DMA) Approach and Non-Revenue Water (NRW) Reduction in DWASA:

Dhaka WASA has already started establishing DMA concept which is new and Innovative in the South Asia Region. Dhaka WASA has been providing dedicated service for safe water to the city dwellers.

The first water treatment plant was established by Nawab Khaza Abdul Ghani in Chandni ghat named “Dhaka Water Works” in the year 1874. Which is also the 1st water treatment plant in South Asia. From then the piped water supply was started in Dhaka city.

Almost 144 years ago these pipe lines was constructed and became leaky causing 40-45% of non-revenue water. Due to this leakage the water demand of city dwellers cannot be fulfilled and on the other hand Dhaka water supply & sewerage authority (DWASA) are not getting the revenue also. For example if the water production is 3.0 crore liter (which can fulfill the water demand of 200,000 people) per day but due to leakage 1.35 crore liter (which fulfill the water of 90,000 people) water is unaccounted for and only 1.65 crore liter (which fulfill the demand of 1,10,000 people) can be supplied to the households. So, producing 3.0 crore liter water for 2,00,000 people per day only 110,000 peoples are served. Due to this unaccounted-for water it become difficult to supply water to the people causing water crisis and this become serious especially in hot season.

The situation has become challenging to meet the rapidly increasing water demand in parallel to the rapid urbanization & development of Mega City, Dhaka. With course of time Dhaka WASA water supply system was moving towards unsustainable and unmanageable state due to inadequate system water pressure, use of suction pump, plenty of unidentified leakages and illegal connections, poor water quality, high system loss 40% -45%.

So, it is clear that water supply system cannot be improved unless and until the Non-Revenue Water (NRW) can be reduced.

For this purpose, a pilot project was initiated in 2007 under a TA project by Asian Development Bank (ADB) in Manikdi area of the city where NRW was 45%. Under the project 7 km water line was rehabilitated and 500 nos. of house connection was shifted from old water line to new one. After commissioning it was observed that the NRW became 12%. The consultant found similar circumstances across the system and concluded the network needs rehabilitation to prevent significance loss of water.

To cope up the challenge to ensure safe water for the city dwellers with customer’s satisfaction in terms of water quantity, quality, system pressure; technically sustainable,

economically viable approach introduced through DWSSDP in 2011. Dhaka WASA implemented the DWSSDP with financial assistance full for from ADB & GoB.

The project aims to ensure sustainable, more reliable and improved water supply services through strengthening distribution networks and capacity building for better operation & management of the network by introducing of District Metering Areas (DMAs) to ensure 24/7 pressurized water supply in the network at 1-bar or more, to reduce the water loss to 15% or less, and Improve Water Quality. District Metered Area (DMA) is a technical term to define a hydraulically isolated small area from big network system with its own water supply system and distribution network for a community which can be isolated from remaining network without affecting supply system of other areas but with facilitating surplus water to adjacent water deficit areas. Dhaka WASA started establishing DMAs in 7- Zones, with a target of about 145 DMAs. So far established 54 DMAs and remaining 91 DMAs are in progressing. The amazing achievement of established DMAs is becoming a great focus to the customer and Dhaka WASA management.

What is DMA:

- DMA is a hydraulically isolated area.
- Interconnectivity with adjacent DMAs with provision of export or import facilities through DMA chamber.
- Conjunctive use of ground water & Surface Water.
- Controlling and monitoring water balance.
- Maintain pressurized system for 24/7 water supply
- Minimum NRW.

Criteria for selection of the DMA boundaries are:

- Selection of area for establishment a DMA
- At least one or more DTW with in the DMA
- Surveyed and Model designed for selected DMA
- Rehabilitate the existing whole network by HDPE pipe.
- Upgrade the pumping station.
- All illegal house connection must legalized.

Under Dhaka Water Supply sector Development Project (DWSSDP) a total of 47 nos. of DMA was established in 6 MODS Zone of D'WASA. In the project total 2456 km of water line was rehabilitated and 1,06,662 numbers of house connection was shifted. The average NRW became 5% and 5.4 million people are getting benefit from the project.

Achievements of DMA establishment are:

- Pressurized water supply for 24/7.
- All illegal house connections are legalized.
- Average Water loss (NRW) became 5%.
- Assured portable water.
- No further use of suction pump.
- Reduced electricity cost of consumers & D'WASA.
- Decreased health cost.
- Increased of DWASA Revenue.
- Water Supply provided in LIC/Slum Area.
- Easy operation & maintenance.

The achievement not only benefited to Dhaka WASA only, it is now becoming an icon in the South Asia Region. Thus, the high-level delegation from India and Srilanka team visited the DMAs to share knowledge and experience to introduce the innovative concept to their water supply system. Both the teams highly appreciated the lessons they learned from the experience of DWASA and they planned to replicate the DWASA's successful experience in their countries.

The ADB mission in September 2015 noted that Dhaka is the first City in South Asia to have achieved such high level of performance in NRW reduction and 24/7 water supply and has become a role Model for other cities in the South Asia. Dhaka WASA expressed that next challenge would be to sustain DMA Management in order to keep low NRW.

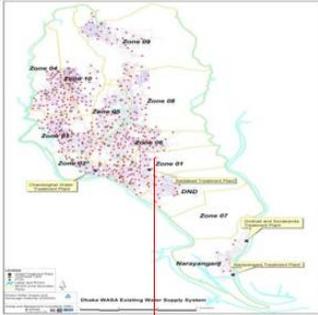
- **Pressure balancing in the water supply distribution network-** A properly designed water supply network demands a hydraulically balanced system to have reasonably uniform pressure over the entire command area of the network. This will ensure even distribution of flow to all the consumers. Present water supply distribution network lacks in this aspect. With several areas having very low pressure in the pipeline, while certain areas experience high water pressure. Consequently, flow available to the consumers is not uniform. Installation of electronically controlled pressure control devices (pressure reducing valves/pressure sustaining valves etc.) at strategic locations will improve upon the pressure distribution in the network and in turn will improve functional efficiency of the system.
- **Providing continuous (24/7) water supply-** Wherever water supply is not continuous, consumers tend to hoard water an apprehension of delay in next supply. During next time of supply, they discard the old water hoard fresh water once again. Consequently, in case of intermittent supply, water loss is much higher. DWASA has planned to undertake the project of converting present practice of intermittent water supply system to continuous pressurized 24/7 water supply system for the entire city.

- **Use of energy efficiency pumping machineries-** this will ensure reduced power consumption at different locations; in turn will reduce the recurring operational cost.
- **Water quality monitoring-**DWASA's long term goal is to monitor and network water quality in real-time, so as to detect contamination early and control its spread to minimize impact to customers. There is a need to move away from depending on customers to act as sensors for water quality issues like discolored water, bad smell, presence of sediments, taste etc. Furthermore, in today's volatile social-political climate, we need to be even more vigilant to deter and prevent acts of sabotage that may threaten the quality of the water supply. As a part of water quality management, DWASA plans to enhance chlorination system, regular water quality monitoring, implementation water safety plans, water quality safeguard etc.

Another technical innovative approach introduced is the Trench Less Technology, which brings the tremendous quick pipe installation progress with minimum disturbance to the city dwellers & traffic and reduced cost for road cutting, damage & restoration. It added a dimension & technical viability of pipe installation in busy city like Dhaka. When all Zones of Dhaka WASA will come under DMA system it will be a great achievement in terms of technical sustainability, customer's satisfaction, economically viable water supply system. In the course of time sustainable DMA Management capacity of Dhaka WASA will be enhanced to run the system smoothly.

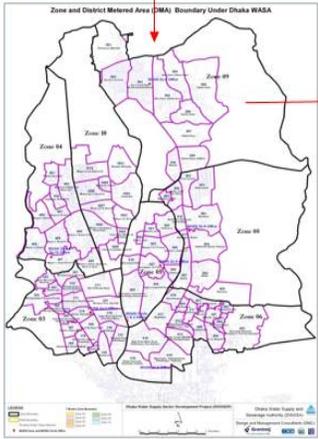
The DMA approach not only facilitates Unaccounted for Water (UFW), but also helps in maintaining assets for longer duration and enables better pressure management, better water quality and continuous water supply. DMA Managers, Deputy Managers and Licensed plumbers has already deployed for individual DMAs for installations of fresh connections, carrying out necessary repairs also will be responsible for any illegal connections in the area to keep the DMA sustainable.

DMA Concept



Water Sources:

- Groundwater
- Surface-water
- Inter-DMA



water loss and house connection in DMA

Physical Water Loss of DMAs

Report as on: 30-Jun-16

Contract	DMA	End of Defect Liability period	Physical Water Loss at 10 m pressure (%)	House Connection	Population Served (About)
ICB 02.1	501	12-Aug-15	8.81%	454	23,154
	502	8-Mar-16	5.59%	1016	51,816
	802	2-Nov-16	5.45%	2080	106,080
	808	17-Aug-16	4.88%	2547	129,897
	809	12-Aug-15	7.46%	578	29,478
	909	18-Dec-15	11.29%	3460	176,460
	910	26-Nov-15	5.41%	1962	100,062
ICB 02.2	801	27-Dec-16	3.47%	2086	106,286
	803	25-Jul-16	14.06%	3973	202,623
	804	24-Oct-16	3.92%	6700	341,700
	805	28-Nov-16	2.72%	4832	246,432
	806	13-May-16	9.10%	787	40,137
	807	19-Jan-17	4.00%	3623	184,773
	810	3-Dec-15	9.24%	603	30,753
	811	23-Feb-15	2.27%	578	29,478
	ICB 02.3	503	22-Feb-17	N/A	172
504		24-Jun-15	3.23%	707	36,057
505		2-Dec-15	3.39%	1140	58,140
506		24-Jun-15	4.93%	334	17,034
507		27-Jan-17	3.92%	2458	125,358
508		9-Aug-16	2.93%	1994	101,694
509		19-Jun-17	2.56%	4553	232,203
510		28-Dec-16	3.43%	592	30,192
ICB 02.4		401	17-Jan-17	3.31%	3217
	402	12-Apr-17	3.82%	3739	190,689
	403	3-Mar-17	2.35%	2305	117,555
	404	6-Jun-17	5.30%	5369	273,819
	405	29-Jun-17	4.05%	4445	226,695
	407	28-Jun-17	3.52%	3465	176,715
	410	7-Nov-16	4.11%	1630	83,130

ICB 02.5	1002	9-Mar-17	3.78%	2361	120,411
	1003	28-Dec-16	2.05%	196	9,996
	1004	2-Sep-16	1.59%	529	26,979
	1006	30-Jun-17	3.36%	6277	320,127
	1007	14-Mar-17	1.58%	2930	149,430
	1008	30-Jun-17	2.15%	6223	317,373
ICB 02.6	302	13-Feb-17	3.66%	1563	79,713
	308	20-Apr-17	2.53%	871	44,421
	309	30-Jun-17	5.56%	1658	84,558
	310	30-Jun-17	2.97%	2371	120,921
	314	14-Jun-17	3.05%	1378	70,278
	315	8-Dec-16	4.56%	288	14,688
	316	30-Mar-17	2.81%	601	30,651
	317	30-Jun-17	7.05%	3115	158,865
	318	30-Mar-17	4.80%	1259	64,209
	319	16-Jun-17	4.62%	2476	126,276
Note: PMU implemented DMA 617 under NCB Contract (893) and hands				1167	59,517
				106,662	5,439,762



The Hon'ble Prime Minister Sheikh Hasina receives the ADB-published book-"The Dhaka Water Services Turnaround" from the Managing Director & CEO of Dhaka WASA Engr. Taqsem A Khan.

Water Quality Analyses and Monitoring in Dhaka WASA Central Laboratory

The Dhaka Water Supply and Sewerage Authority (DWASA) provides safe and quality assured water to the city dwellers. The supply of potable water by Dhaka WASA coming from ground and surface water sources is tested regularly in the laboratory of Microbiology and Chemical Division (DWASA Central Laboratory). The standard of supplied water of DWASA meets the requirement of Bangladesh standards (ECR-1997) and World Health Organization (WHO) Guide Line Values (2011). There is a chlorination system at the sources to kill/and or inactivate waterborne pathogens including removal of some pollutions in the water. In case of surface water treatment, chlorination is used at pre-treatment stages and also at the delivery points to ensure that it reaches to the customer's point in a safe condition.

Many physico-chemical and bacteriological water quality parameters (about 45 parameters) are conducted in DWASA Central Laboratory to assured drinkability of supplied water. Bacteriological parameters such as Total coliforms, Fecal coliform, Total plate count are analyzed regularly to trace out the microbial contamination in supplied water. Different types of physico-chemical water quality parameters such as pH, Turbidity, TDS, Conductivity, Residual Chlorine, Ammonia, Nitrate, Phosphate, Sulphate, Fluoride, Chloride, Hardness, BOD, COD, TOC, Aluminium and also some important types of heavy metals like Arsenic, Chromium, Cadmium, Lead, Zinc, Copper, Iron, Manganese are analyzed regularly using UV-Visible Spectrophotometer, Atomic Absorption Spectrophotometer and TOC analyzer etc. These water quality parameters are tested for deep tube well water as well as for surface water and many others are also analyzed according to the requirements. In addition, the river water that is in the water treatment plant is tested at monthly basis.



* Water quality is analyzing in laboratory room using different lab equipment.

To examine the quality of the supplied water, samples are taken regularly at the sources and from the distribution mains, as well as from consumer reservoirs and then these water samples are tested in the DWASA Central Laboratory. If there is anomaly, necessary steps are taken as soon as possible by the concerned divisions to rectify the situation. Normally the source and distribution mains are free of contamination but in many cases the presence of harmful bacteria is observed in the underground and rooftop reservoirs of the consumers.

According to Annual Performance Agreement (APA) we are achieving the water quality testing and evaluation target since 2017. In order to increase public awareness for hygienically cleaning and disinfecting the underground and rooftop reservoirs, advertisements are broadcasted through mass media.

Description of different tests of water samples in the fiscal year 2018-2019

Physico-Chemical and Bacteriological Analysis

SL. No.	Source of Samples	No. Of Samples	No. Of Physico-Chemical Tests	No. Of Bacteriological Tests	No. Of Residual Chlorine Tests	No. Of Analytical Tests
1	Deep Tube Wells (Monitoring)	1382	5906	579	829	-
2	Distribution line and Underground reservoir at different holding of the consumers (Monitoring)	702	2745	372	359	-
3	Distribution line and Underground reservoir in response to the complaints by consumer at different holding	1340	5039	1384	670	-
4	Dhaka, Sonakanda and Godnail Water Works	118	1470	54	40	-
5	Bangabhaban and WASA bhaban	446	1577	444	257	-
6	Deep Aquifers/Replaced Tube Wells	226	1643	226	-	-
7	Bottle Plant (Shanti)	72	636	108	12	-
8	Honorable PM's Office Related Pump	54	420	52	28	-
9	Water Sample/Chemical Tests with Fees (Personal)	20	109	15	-	-
Analytical Analysis						
10	Analysis of Alum Sulphate	36	-	-	-	144
11	Percent of Chlorine In Bleaching Powder	23	-	-	-	67
12	Dosing Test (Jar Test) of Poly Electrolytes	01	-	-	-	14
13	Other Analytical Tests	04	-	-	-	12
14	Total No. of Samples	4,424				
	TOTAL PARAMETER TESTS	25,211				

NB: It is to be noted that 90 percent of the test results are satisfactory. Prompt action has been taken where test results are unsatisfactory.

DWASA foreign, local and in-house training courses

1 July 2017 to 30 June 2018

A total of 80 courses both home and abroad were conducted during 1 July 2017 to 30 June 2018. Among them nineteen foreign, thirteen local and forty eight in-house training courses were facilitated to the officials and staff of Dhaka WASA. The foreign courses attended by 26 officers from Dhaka WASA included M Sc in Project Management, University of RMIT, Australia, Masters of Engineering (Civil and Environmental Engineering), The University of Adelaide, Australia, Masters of Engineering (Civil and Environmental Engineering), The University of Western Ontario, Canada, Masters of Engineering (Environmental Systems Engineering), The University of Regina, Canada, Global Infrastructure Cooperation Conference (GICC) 2017, Seoul, South Korea, International Cooperation in Water Industry, Seoul, South Korea, Inspection and performance test, Turkey, Inspection and performance test of submersible pump motor, Italy, Sewage and Urban Drainage Management, Japan, Integrated Urban Water Management, Tokyo and Yokohama, Japan, Inspection and performance test, Japan, Urban Water And Sanitation Services, Singapore and Cambodia, Knowledge Sharing Program and Book Launching of "The Dhaka Water Services Turnaround", Manila, Philippines, Sustainable Urban Water and Sanitation Integrated Process, Sweden, Resilient Decision for Water Utilities and Water Related Project: The Decision Tree Framework, South Korea, The 2018 Global Water Summit, Paris, France, Sustainable Urban Water and Sanitation Integrated Process, Cambodia, Knowledge Sharing Program of Dhaka WASA the the officials of Rajasthan Government, India, Factory Inspection, China.

The local training courses were Conduct and Discipline Course (2 courses), Fundamental Financial Management Course (3 courses), Training Workshop on NIS, Rain Water Harvesting System, 51th Senior Security Course, Financial Management Course, Staff Development Course, Database Application Development Using Oracle with Database Administration, Feasibility Study for Investment Project, Financial Management for Non Financial Personnel. The local training programs were performed in RPATC, WaterAid, NSI Training Institute, BCC and BIM. Numbers of participants for the local training courses were 18.

The rest of the in-house training programs are Annual Performance Agreement: WASA Perspective (2 courses), AutoCAD 3D, Basic Human Resource Management (4 courses), Basic Training on O&M of DMA (2 courses), Basic Training on O&M of DMA for APLM, Financial Management for Non Financial Executives (2 courses), Internal Audit (2 courses), Leadership Development for 21st Century (2 courses), Manner, Etiquette and Office Protocol (3 courses), Mastering Microsoft Office for Excellence, Occupational Health and Safety (6 courses), Office Management,

Online Store Inventory Management Software, Operation and Maintenance of DMA (2 courses), Operation and Maintenance of Scanner and Printer, Orientation Course (3 courses), Preparation of IT Return (3 courses), Public Procurement Management (Goods, Works and Services) (2 courses), Revenue Billing Collection and Customer Care (3 courses), Smart Data Analysis with MS Excel (3 courses), Staff Development Course (2 courses), Workshop on VFD. 1002 officers and staffs of DWASA participated in in-house training programs.

Development of Library

There are more than 700 books in the library of DWASA. Some initiatives have been taken to make this library ultra-modern, befitting the spirit of the age and attractiveness to readers by:



- Divide the library room into separate corners according to the class of the readers.
- The decoration of library room is continuing by providing separate tables to the newspaper readers, literature-novel readers and professional book/report/journal etc. readers.
- A computer corner including internet facility will be made in the Library .
- A photocopier machine will be provided in the library to avail the facility of photocopying necessary information, report etc. according to the need.
- A catalogue book will be provided to the librarian's drawer.
- A software program will be developed by the Computer Center of DWASA to organize all activities of the library of DWASA.

Service of Medical Center

There is a medical center on the 10th floor of DWASA to provide primary medical aid to the officers/staffs of DWASA and their family members.



During the office period, necessary treatment and general medicine are provided from this medical center. Two doctors are enrolled in medical services. A significant amount of patients were treated during the mentioned fiscal year.

WASA Mineral Water 'Shanti'

The bottled water produced from the Bottled Water Supply Plant, established by DWASA's own fund, has received acceptance from the people as best in quality.



It is mentionable that the bottled water “**Shanti**” of DWASA contributed greatly in meeting the scarcity of pure drinking water after the cyclone had affected the southern part of the country and it was highly appreciated.

Annual Report for The Financial Year 2018-19

Research, Planning & Development

Dhaka WASA as an authority has achieved tremendous success and has become a role model as the utility provider for the South-East Asia. It is committed for environment friendly, sustainable development and pro-people in water and sanitation management. At present, Dhaka WASA is capable to supply water to the city dwellers hundred percent against their demand. And also, at the same time DWASA is committed to achieve and to access the adequate and equitable sanitation and hygiene for all by the year 2030.

To ensure safe, sufficient, affordable and reliable water and sanitation related targets mentioned in the SDGs and Vision 2021, DWASA has stepped for dynamic initiatives named '*Turn Around Program*' and also undertaken three Master Plans namely:

i) Water Master Plan; ii) Sewerage Master Plan; iii) Drainage Master Plan

In 2018-19 Financial Year, on the basis of the above-mentioned Master Plans and *Turn Around DWASA* Program, it has implemented ten development projects and one *Technical Assistance (TA) Project*. Those projects were included in the Annual Development Program (ADP) in the said year. Among the said projects: seven were investment projects in water supply and four projects were for sewerage and drainage system. Planning, Monitoring and Evaluation Division has been engaged exclusively to monitor and to evaluate those projects' performance which are as follows:

A. Development Projects of Dhaka WASA

1. Investment projects in Water Supply

I) Name	: Well Field Construction Project at Tetulzhora- Bhakurta Area of Savar Upazilla (Part-I) (Revised-III).
• Duration	: July' 2012 to June' 2019
• Estimate Cost	: 57300.00 Lakh Taka
• Allocation	: 7825.00 Lakh Taka
• Release	: 7803.77 Lakh Taka
• Expenditure	: 7681.02Lakh Taka
• Physical Progress	: 100 %
• Financial Progress	: 98.16 %

**II) Name : Padma(Jashaldia)Water Treatment Plant (Phase I)
(Revised-II).**

- Duration : January' 2013 to June' 2019 (2nd Revised)
- Estimate Cost : 367049.42Lakh Taka
- Allocation : 146045.00 Lakh Taka
- Release : 146045.00 Lakh Taka
- Expenditure : 145174.10 Lakh Taka
- Physical Progress : 100 %
- Financial Progress : 99.40%

**III) Name : Dhaka Environmentally Sustainable Water Supply
Projects.**

- Duration : October' 2013 to December' 2019
- Estimate Cost : 524806.00 Lakh Taka
- Allocation : 41102.00 Lakh Taka
- Release : 41199.57 Lakh Taka
- Expenditure : 41077.83 Lakh Taka
- Physical Progress : 100.00 %
- Financial Progress : 99.94 %

IV) Name : Interim Water Supply Project (Revised-I).

- Duration : March' 2015 to June' 2019
- Estimate Cost : 61200.00 Lakh Taka
- Allocation : 16492.00 Lakh Taka
- Release : 16492.00 Lakh Taka
- Expenditure : 17492.00 Lakh Taka
- Physical Progress : 100.00 %
- Financial Progress : 106.06 %

V) Name : Saidabad Water Treatment Plant Project Phase -III

- Duration : July' 2015 to June' 2020
- Estimate Cost : 459736.05 Lakh Taka
- Allocation : 120.00 Lakh Taka
- Release : 120.00 Lakh Taka
- Expenditure : 120.00 Lakh Taka
- Physical Progress : 100.00 %
- Financial Progress : 100.00%

VI) Name : Dhaka Water Supply Network Improvement Project

- Duration : April' 2016 to December' 2021
- Estimate Cost : 318230.00 Lakh Taka
- Allocation : 20745.00 Lakh Taka
- Release : 12627.53 Lakh Taka
- Expenditure : 11751.71 Lakh Taka
- Physical Progress : 10.51%
- Financial Progress : 56.65%

VII) Name : Development of Dhaka WASA Activities in LIC Localities including Capacity Building and Financial Modeling under the framework of Saidabad Phase- III Project

- Duration : May' 2016 to June' 2020
- Estimate Cost : 6000.00Lakh Taka
- Allocation : 1150.00 Lakh Taka
- Release : 1150.00 Lakh Taka
- Expenditure : 930.33 Lakh Taka
- Physical Progress : 100.00 %
- Financial Progress : 80.90%

2. Investment Projects on Sewerage and Drainage System

I) Name : Daherkandi Sewage Treatment Plant Project.

- Duration : July' 2015 to December' 2019
- Estimate Cost : 331777.00 Lakh Taka
- Allocation : 31500.00 Lakh Taka
- Release : 31469.62 Lakh Taka
- Expenditure : 31469.62 Lakh Taka
- Physical Progress : 100.00 %
- Financial Progress :

II) Name : Preparatory Activities of Dhaka Sanitation Improvement Project (PADSIP)

- Duration : October' 2017 to December' 2019
- Estimate Cost : 4187.50 Lakh Taka
- Allocation : 1800.00 Lakh Taka
- Release : 1963.32 Lakh Taka
- Expenditure : 1794.77 Lakh Taka
- Physical Progress : 110.00%
- Financial Progress : 99.71 %

III) Name : Land Acquisition and Excavation/Re-excavation of Hazaribag, Baisteki, Kurmitola, Manda & Begun Bari Khal

- Duration : April' 2018 to December' 2019
- Estimate Cost : 60716.00 Lakh Taka
- Allocation : 650.00 Lakh Taka
- Release : 650.00 Lakh Taka
- Expenditure : 650.00 Lakh Taka
- Physical Progress : 100.00%
- Financial Progress : 100.00 %

IV) Name : Expansion of Drainage Network and Development of canal in Dhaka City

- Duration : July' 2018 to December' 2020
- Estimate Cost : 55050.00 Lakh Taka
- Allocation : 2500.00 Lakh Taka
- Release : 2500.00 Lakh Taka
- Expenditure : 2500.00 Lakh Taka
- Physical Progress : 100.00%

B. Financial Progress of those projects

In FY 2018-19, total taka 2626.20 crore was allocated against those said projects in the Revised Annual Development Program (RADP). Taka 809.61 crore was allocated from the own fund of the Government of Bangladesh (GOB) and tk. 1889.68 crore was sanctioned from the development partners' fund as the Project Aid. In this said year, tk. 2626.20 crore has been released and tk. 2606.41 crore was incurred as expenditure. As a whole, the **financial progress was 96.56%** in that time.

C. Physical Progression of the said projects

Sl. no.	Name of the component		Progress
1.	Construction & rehabilitation of deep tube wells	:	183 no.
2.	Construction & rehabilitation of water lines	:	214.03 km.

In this time, the **physical progression was 93.19%** as a whole.

To achieve and to access the adequate and equitable water, sanitation and hygiene for all by the year 2030, which corresponds to the target of the SDG, Dhaka WASA has stepped to implement the following proposed projects:

Newly Approved Projects in the said FY 2018-19:

- 'Land Acquisition and Excavation/Re-excavation of Hazaribag, Baisteki, Kurmitola, Manda & Begun Bari Khal';
- 'Expansion of Drainage Network and Development of canal in Dhaka City'.

These two projects will carry over the period.

A. Proposed Project in the FY 2018-19:

1. Water Supply

I) **Name** : **Construction and Strengthening of main Distribution line for Padma (Jashaldia) Water Treatment Plant Project (Phase-I)**

- Duration : July' 2019 to June' 2021
- Estimate Cost : 63291.00 Lakh Taka

II) **Name** : **Well Field Construction Project at Singair Upazilla (Part-II)**

- Duration : July' 2020 to Dec' 2024
- Estimate Cost : 99521.50 Lakh Taka

2. Sewerage System

I) **Name** : **Land Acquisition for Construction of Sewage Treatment Plant at Uttara**

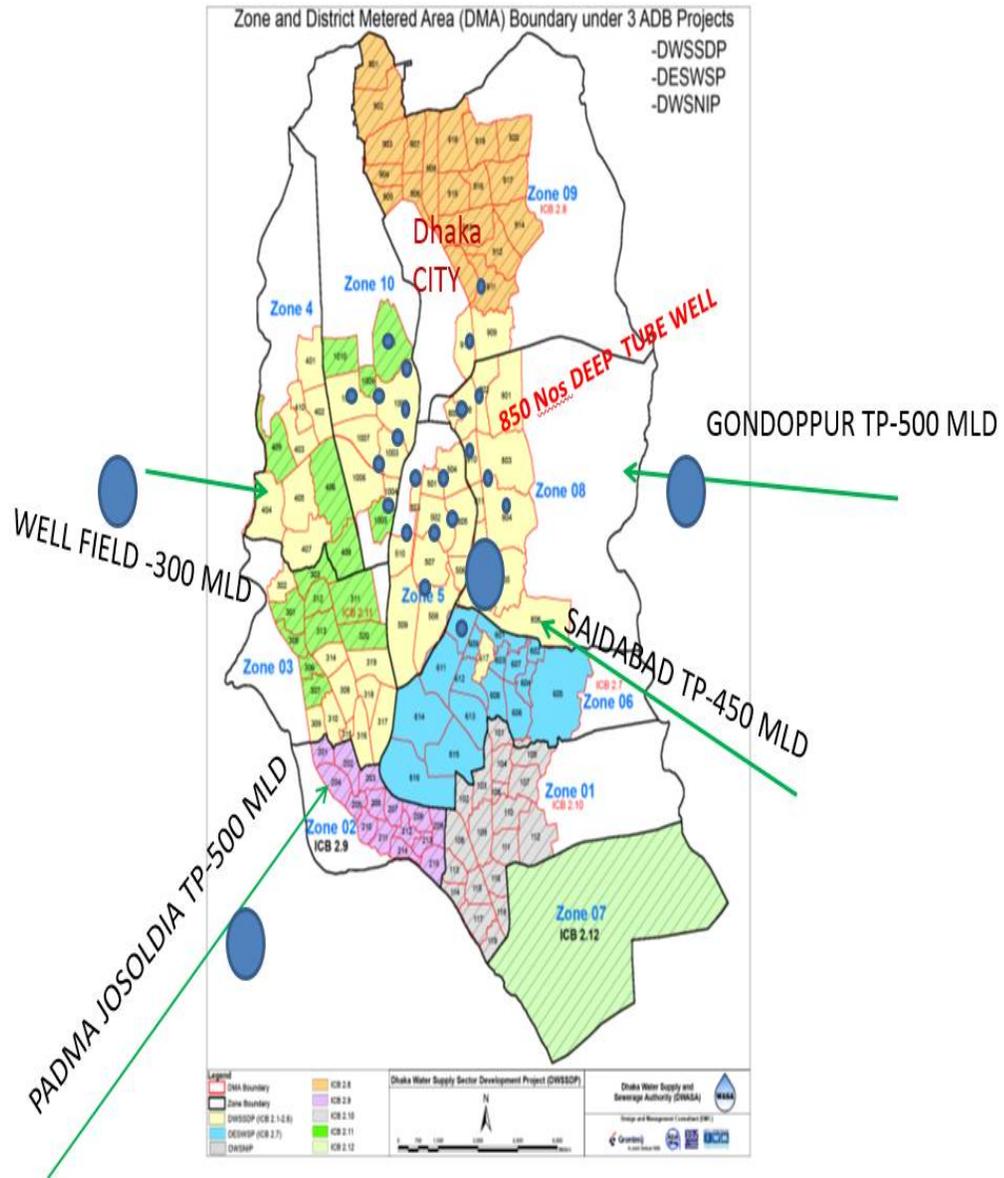
- Duration : July'2019 to June'2021
- Estimate Cost : 139800.00 Lakh Taka

3. Drainage System

I) **Name** : **Preservation of Regulating Pond Adjacent to Kalyanpur Pumping Station (Phase-II)**

- Duration : July' 2019 to June' 2021
- Estimate Cost : 45607.00 Lakh Taka

FUTURE Source Considering DMA DESIGN



Low Income Community Program (LIC)

Reporting Period: July'18 to June'2019

INTRODUCTION:

Dhaka Water Supply and Sewerage Authority (DWASA) is an autonomous, service oriented commercial organization. Dhaka Water Supply & Sewerage Authority (DWASA) was established on 1963 as an independent organization with the mandate of Water Supply and Sewage disposal to the city dwellers of Dhaka. Its activities have been reorganized by 'WASA Act, 1996' and according to this act, DWASA is now operating water supply and sewerage services for Dhaka city dwellers as an autonomous body with corporate culture in its management & operation.



Water Points handover ceremony to Kalshi CBOs

Dhaka city is the most densely populated city in the world. Currently there are 20.628 million population living in this mega city. This is undoubtedly tough task to ensure safe water supply and sewerage services for this massive population. Dhaka WASA is implementing these risky jobs successfully crossing various obscurity. Even prior to couple of years, it was noticed in mass media that Dhaka city dwellers has been in procession with empty pitchers on

water crisis solution. But within few bygone years, massive visual changes have been brought in view. Like previous time, Dhaka city people don't show protest for water. This has happened because Dhaka WASA is firmly committed to its prompt responsibilities. At present, Dhaka WASA has achieved success of producing leftover water than daily requirement of Dhaka city dwellers. As a result, Dhaka WASA is now one of the successful organizations in south Asia region.

In fact, Dhaka WASA does the water supply for the city dwellers of Dhaka. One of the remarkable parts of Dhaka city population is of low-income community which mostly familiar by slum dwellers. As per slum census in 2014 by BBS, there are around 3399 number of slums in Dhaka city and number of slum dwellers are around 643735. In most of slums of Dhaka city, there are water supply of Dhaka WASA. But this water is supplied through most of illegal water connections. Goons in the slum areas are involved in illegal water connection systems by leaking legal mains. And these goons are selling this water at high cost to



MoU signing ceremony among Dhaka WASA and Partner NGOs

community. This type of supplied water is contaminated. Because these illegal connections are made of very inferior materials. Thus, there are innumerable wholes and leakage in connection pipes. Entrance of filthy things and dirty water of drains in the WASA lines creates the water contaminated. Due to the use of dirty/contaminated water, people suffer from various diseases and becomes deprived of getting safe water facility. On the other, though influential water vendors are making money by Dhaka WASA water, they are not paying water bills to WASA. As a consequence, Dhaka WASA is being deprived of getting huge amount of revenue.

Introduce with CPR Division of Dhaka WASA:

For providing legal water services among the Low-Income Community (LIC) of Dhaka City DWASA creates a new division named Community Program and Consumer Relation (CPCR) Division. CPCR division started from 30 November 2010. This division specially works for providing safe legal water services for LIC (slum) people of Dhaka City. Dhaka WASA CPCR division takes leading role for providing legal water services to the LIC people.



Team Meeting of CPCR Division

CPCR division provides legal water services to the LIC people through supporting some local NGOs and Community Based Organizations (CBOs). Banani, Korail slum and Mohakhali, Sattala slum are model for providing legal water services of Dhaka WASA. Dhaka WASA, CPCR division provided legal water connections to Korail and Sattala, Jheelper, Kalshi and Bouniabadh slums funded by UNICEF Bangladesh. Some local NGOs implemented the legal water connections to Kalapani, Beguntilla, Kurmitola camp, Balurmath, Rajur bosti, Muktojodha Complex, Thirtynas camp, MCC Camp, Rahamat camp, Rabeda camp, Baganbari, Ersadnagar, Vangadewal, Godown bost, Beder bosti, Satelite, Sattola bosti, Duaripara Slum {Block Ka, Block Kha & Punorbashon/ Rehabilitation area}, Shahinpukur Slum, Kollyanpur Pora bosti (Ka Block), Jamai Bazar Unit-1, Korail, Bou Bazar, Mosharr of Bazar–Khamarbari, Rajur Bosti, KalshiBalurmath, Kormitulla Bosti, Baganbari Bosti, West Vashantek Bosti, Nagra Madbar Bosti, Sattar Mollah Bosti, Wapda Bosti, Jasim Mollah Bosti, Ilias Mollah Bosti, Kabir Mollah Bosti, Duaripara Bosti, Abuler Bosti, Jahangirer Bosti, Showkhin Road Bosti, Lalashorai Jamiderbari Bosti, Lalashorai Maddapara Bosti, Lalashorai Tekpara Bosti, Korail Bosti, Settelite Bosti, Settelite Mondirpara Bosti, T&T Bosti, Godawon Bosti, Sattala Pora Bosti, Sattala Staff Mohalla Bosti, Sattala Chowdhury Para, Sattala Boundary Bosti, Beder Bosti, Earshad Nagar Bosti, Vangadewal Bosti funded by AFD Project. A local NGO named Dustha Shastha Kendra (DSK) working in Lalashorai Tekpara, Lalashorai Modhopara, Zamidar Bari, Nirob road, Rajur Bosti, KalshiBalurmath, Kormitulla Bosti, Baganbari Bosti, West Vashantek Bosti, Nagra Madbar Bosti, Sattar Mollah Bosti, Wapda Bosti, Jasim Mollah Bosti, Ilias Mollah Bosti, Kabir Mollah Bosti, Duaripara Bosti, Abuler Bosti, Jahangirer Bosti, Showkhin Road Bosti, Lalashorai Jamiderbari Bosti, Lalashorai Maddapara Bosti, Lalashorai Tekpara Bosti, Korail Bosti, Settelite Bosti, Settelite Mondirpara Bosti, T&T Bosti, Godawon Bosti, Sattala Pora Bosti, Sattala Staff Mohalla Bosti, Sattala Chowdhury Para, Sattala Boundary Bosti, Beder Bosti, Earshad Nagar

Bosti, Vangadewal Bosti, Hazaribagh -Bou Bazar Beribadh Bosti, Kamrangirchar-Kamrangir Char Beribadh, Jurain-DIT Plot,14 no Outfall Dholpur-City Polli, Moddho Bosti, Pora Bosti, Ainaler Bosti, Nobur Bosti, Adorsho Bosti, 96 Ghor, 38 Ghor Bash potti, Mannner Bosti, Telegu colony, Maniknagar-Maniknagar Rishipara, Jurain-Namapara, Guntighar Postogola-Cotton Mill bosti, IG Gate Bosti, Golapbagh-Golapbag, Jatrabari-Jatrabari maser arotbosti, City Corporation Cleaner Colony, 76 ghor (Mirhazirbagh), Kanpur city colony Doyagonj, Wari-Robidash para, Pathakunja-Goribullar Bosti, Saydabad-Saydabad WASA Colony, Komlapur-Komlapur railway B.Barack & Balurmath colony, Nobin Bag Boro Bari-Nobin Bag Boro Bari, Khilgaon-Khilgaon Jhilpar Bosti, Vuiyara Para Shesh Matha, Shahjahanpur railway Colony funded by Water Aid Bangladesh. Now slum dwellers are managing and maintaining of all water connections of Korail and Sattala, Jheelper, Kalshi and Bouniabadh slums by the leading of CBOs. By own initiatives of Korail and Sattala CBOs slum dwellers are taking legal water connections from Dhaka WASA.

Dhaka WASA, CPCR Division updates and preserves new water connections, total amount of bill, total bill paid, total arrear bill of LIC and also prepares monthly and yearly reports on above issues. Legal safe water services towards LIC people of Dhaka city by CPCR division are now continuing more strongly.

Revenue Zone of Dhaka WASA:

There are total 13 Revenue Zone in Dhaka WASA (In Dhaka City-12 and In Narayangonj-01). At present Dhaka WASA opened a new Revenue Zone-13 for improving the livelihood of LIC people. This new Revenue Zone name is LIC Revenue Zone-13 under the Chief Revenue Officer of Dhaka WASA.



Journey of LIC Revenue Zone-13:

LIC Revenue Zone-13 started from February 2017 under Billing Performance Improvement Project (BPIP). Objective of the LIC Revenue Zone-13 for increasing revenue from LIC area and proving sustainable services towards LIC people. A consortium of DSK, BASA, NDBUS and NSF implementing the LIC Revenue Zone-13. A MoU signed among Dhaka WASA and four NGOs where specified the all parties' roles and responsibilities same as the DWASA's other revenue Zone. All types of activities are implementing of LIC Revenue Zone-13 at Head Office of DSK, situated at Adabor, Dhaka. All activities of LIC Revenue Zone-13 are implementing under the supervision of the Chief Revenue Officer (CRO) of Dhaka WASA. Revenue Zone-13 only works for LIC people that's why Community Program and Consumer Relation (CPCR) Division monitors the Revenue Zone-13 directly. CPCR division also monitor the billing process and other activities related LIC areas of this Revenue Zone.

Information of the water connections (July'18 to June'19) are permitted by CPCR division and taken by CBOs are given below:

- Total number of connections: **1333**
- Total number of families using the water connections: **6978**
- Total number of consumers using the water connections: **25431**
- There has been work in a total of **435** slums till June 2019

Billing information of LIC Revenue Zone-13:

Month	No of A/C	No of Bill	Target (A)	Billing (B)	Revenue Collection (C)	Remaining (D) =B-C	Percentage (E)=C/A *100(On Target)	Percentage (F)=C/B*100 (On Billing)
Jul-18	3310	3306	3333333.33	1341024.00	1332500.00	72594.00	39.98	99.36
Aug-18	3310	3307	3333333.33	1547935.00	1105152.00	442783.00	33.15	71.40
Sep-18	3307	3306	3333333.33	1557011.00	1146438.00	410573.00	34.39	73.63
Oct-18	3307	3307	3333333.33	1559544.00	1142050.00	417494.00	34.26	73.23
Nov-18	3283	3280	2500000.00	1562546.00	1241105.00	321441.00	49.64	79.43
Dec-18	4729	3283	2500000.00	1512693.00	1219144.00	293549.00	48.77	80.59
Jan-19	5635	4839	2500000.00	2641074.00	1352539.00	1288535.00	54.10	51.21
Feb-19	5762	5760	2500000.00	2842537.00	1775367.00	1067170.00	71.01	62.46
Mar-19	5862	5564	2500000.00	2532855.00	2164877.00	367978.00	86.60	85.47
Apr-19	5877	5856	2500000.00	2978134.00	2010340.00	967794.00	80.41	67.50
May-19	5882	5872	2500000.00	2958163.00	1994789.00	963374.00	79.79	67.43
Jun-19	5694	5724	2500000.00	2811815.00	1949699.00	862116.00	77.99	69.34
Total=			33333333.32	25845331.00	18434000.00	7475401.00	57.50	73.42

Information of the water connections (till June'19) are permitted by CPCRD division and taken by CBOs are given below:

- Total number of connections: **5694**
- Total number of families using the water connections: **142317**
- Total number of consumers using the water connections: **624564**
- There has been work in a total of **435** slums from 2009 to June 2019

SL	Slum	Connection	House hold	Population
1	435	5694	142317	624564

Procedure for providing water connections to Low Income Community (slum):

To provide legal water supply for low income communities (slums), Dhaka WASA's Community Program and Consumer Relation (CPCR) Division, together with the help of various local NGOs established a community-based organization (CBO). CBO supports Dhaka WASA's CPCR division in many different tasks, including the need, management and maintenance of water supply, reading collection and submission, pending bill collection in the slums. On behalf of the consumers of the slums, CBO via NGOs, has applied Dhaka WASA for legal water supply connection. After that Dhaka WASA's community program and consumer relation (CPCR) Division has checked the feasibility of water connection of specific areas and recommended for providing water connections through follow the necessary process. Process are as below:

- Support in the establishment of community-based organization (CBO);
- Apply Dhaka WASA's CPCR division for water supply line via CBO (using online system);
- Submit the slum location map, type of structure of the water line, CBO committee's list and granter certificate along with the application form;
- Send necessary documents to specific WASA Zone office after inspection by CPCR division;
- Dhaka WASA Zone Office followed some official procedure (security money, demand note, meter purchase,) and gave permission for water connection;
- Construct meter box and reservoir either from own expense of slum people or that of fund of donor agency;
- Most importantly, depending on Dhaka WASA's CPCR division and zone office's certification, the water connection is provided to slum areas.

Types of water supply line in low income community (slum):

Dhaka WASA's CPCR division provides legal water connections to slum regions via the help of various NGOs. The types of water supply system are given below:

- **Water point-stand post;**
- **Water point-reservoir (including stand post);**
- **ATM Booth;**
- **The Bhasantek model 'Home to Home' connections;**

Water point-stand post: A connection is drawn directly from WASA main and water is supplied via networking inside the slum. A water pipe is drawn from the meter to the tube well and a platform is created. The cost of this water connection (water point-stand post) is relatively low.

Water-point reservoir (including stand post): A connection is drawn directly from WASA main and reservoir is created via the networking inside the slum. Water is stored in the reservoir, which is also connected by pipe to tube well to supply water, and a platform is created. When there is shortage of water during dry seasons, the slum residents can use water from the

reservoir. The cost of this water point-reservoir is relatively high and, if the reservoir is not routinely cleaned, the water might become polluted.

ATM Booth: To address clean water crisis in some pockets in Dhaka, WASA introduced a fresh water booth in Fakirapool area in few cases for floating people on August 6, 2016. This water is pure and safe anyone can drink it without boiling or further purification. The ATM Water system runs 'use and pay' basis. The system is very simple and easy to operate – user just put a coin and gets water. One has to first collect a card from the booth's operator with a refundable deposit of Tk 200. The booth is open seven days a week. Customers can collect water from 6am to 10pm every day, with a small break at 2pm.

The Vhasantek model 'house to house' model: A part from the above-mentioned water connections, an international organization named 'Sobar Jonno Pani (SJP)' has established a different water connection 'house to house' model for the low-income communities of Mirpur Bhasantek slum. In case of Sobar Jonno Pani (SJP), the models that have been designated by Dhaka WASA for water supply to the slums are not used. Wastage of water due to this model is relatively low. There is also less problem in obtaining water during dry season. But it costs the consumer more since the service charge is added to the water bill.

The activities of the Community Program and Consumer Relation (CPCR) division in case of collecting arrear water bills in low income communities:

Dhaka WASA's Community Program and Consumer Relation (CPCR) division has major contribution in collecting arrear bills from the slums. CPCR division updates the individual consumers information. Based on the collected information, the officers of Dhaka WASA's CPCR division, with the help of CBO, visit individual consumers and remind and encourage them to clear their arrear bills. As a result of this, Dhaka WASA's CPCR division is able to collect a large sum of money from bill-pending consumers to help increase the revenue of the government. Besides, based on monthly reports, Consumers are also routinely reminded to clear their pending bills via telephone. Even after this if any consumer does not clear their bill, and if the amount pending is large, then Dhaka WASA gives them a warning notice and, depending on the circumstances, a legal notice may also be sent.



Visited water connection hardware activities by UNICEF representative

The hitches in regularly collecting water bills in slum areas:

- The slum residents do not have holding numbers, that's why it is sometimes impossible to find the correct house to give the reminder of clearing arrear bills;
- Inactive CBO (community-based organization);
- Consumers not receiving water bills routinely and the inactivity of CBO in distributing water bills;
- CBOs becoming inactive after the completion of NGOs' projects;
- Sudden change in the ownership of a house or water connections;

- Sudden change in the consumer’s mobile number;
- Lack of man power compared to Dhaka WASA’s needs;
- Not disconnecting the water connection when the consumer does not clear their bill, due to humanity.
- The number of illegal connections being greater than the number of legal connections;
- The influence of illegal water connections suppliers, politicians and the forcefulness of gangs etc.

The partner organizations with whom CPR is working:

The local and international partner organizations or NGOs which have worked with Dhaka WASA’s CPR division have been listed below:

Development Partners/INGOs	Local Partners/ Implementing
1. UNICEF Bangladesh 2. World Bank, 3. UNDP, 4. Asian Development Bank (ADB), 5. Water Aid Bangladesh, 6. Water Sanitation for Urban Poor (WSUP) Bangladesh 7. World Vision, 8. French Development Agency (AFD) 9. Vitens-Evides Int.	1. Dustha Sastha Kendro (DSK) 2. Bangladesh Association for Social Advancement (BASA), 3. PSTC, 4. Nagor Daridra Bostibashir Unnayan Sangsha (NDBUS) 5. Nagorik Sheba Foundation (NSF) 6. Initiative for Peoples Development (IPD) 7. NGO forum, 8. Society for People's Action in Change & Equity (SPACE), 9. Central Gonounnayan Sangstha (CGS) 10. Sajida Foundation

Dhaka WASA’s CPR division is currently working with Dustha Sastha Kendro (DSK), Bangladesh Association for Social Advancement (BASA), Nagorik Sheba Foundation (NSF) and Initiative for Peoples Development (IPD). Dhaka WASA 120 nos. water connections provided for Jheelpar slum through 4 implementing NGOs (DSK, BASA, NDBUS, NSF) under the UNICEF LIC project. In 5 October 2016, 115 water connections provided among the consumers of Khalshi slum through 5 implementing NGOs (DSK, BASA, NDBUS, NSF and IPD). In under the same project Dhaka WASA provided 381 nos. water connections for large slum Korail. 304 nos. water connections for Sattala slum. Established 55 water points in T&T slum. Dhaka WASA UNICEF project has provided 201 nos. water connections for Bauniabadh slum. There has been an unimaginable improvement in the living standard of the residents of Korail, Sattola, Jheelpar, Khalshi, T&T and Bauniyabad slums due to Dhaka WASA UNICEF project (health habit, clean water, improved environment, income raise, women rights, improvement in skill to communicate with stakeholder, improvement in skill and awareness of CBO, etc.)

Information of Closed projects of LIC in Dhaka city (July'18 to June'19):

SL#	Project name & Slum name	Duration	Implementing NGOs	Donor
01.	<p>LIC Project (Phase-1) Under the Framework Saidabad Phase-III DWASA. (Name of slum: Kalapani, Beguntila, Kurmitola camp, Balurmath, Rajur bosti, Muktojodha Complex, Thirtynas camp, MCC Camp, Rahamat camp, Rabeda camp, Baganbari, Ersadnagar, Vangadewal, Godown bost, Beder bosti, Satelite, Sattola bosti).</p> <ul style="list-style-type: none"> Total Water connections:1,941 nos. 	<p>Phase-1 duration: Nov'2017 to Sep'2018</p>	<p>DSK, BASA, SPACE, NDBUS, NSF, IPD, CGS, Water & Life</p>	<p>EU and AFD</p>

Information of Ongoing projects of LIC in Dhaka city (July'18 to June'19):

SL#	Project name & Slum name	Duration	Implementing NGOs	Donor
01.	<p>LIC Project (Phase-2) Under the Framework Saidabad Phase-III DWASA. (Name of slum: Duaripara Slum {Block Ka, Block Kha & Punorbashon/ Rehabilitation area}, Shahinpukur Slum, Kollyanpur Pora bosti (Ka Block), Jamai Bazar Unit-1, Korail, Bou Bazar, Mosharr of Bazar–Khamarbari).</p> <ul style="list-style-type: none"> Total Water connections: 1,665 nos. 	<p>Phase-2 duration: June'2019 to April'2020</p> <p>Total Project duration: June'2017 to May'2020</p>	<p>Yet not selected NGOs</p>	<p>EU and AFD</p>
02.	<p>Water Operation Partnership (WOP-2) LIC Project. (Name of slum: Lalashorai Tekpara, Lalashorai Modhopara, Zamidar Bari, Nirob road).</p> <ul style="list-style-type: none"> Total Water connections: 101 nos. (depend on population coverage). 	<p>2017 to 2022</p>	<p>DSK</p>	<p>EKN</p>
03.	<p>WASH4 URBAN POOR Project (Dhaka North City Corporation area). (Name of slum: Rajur Bosti, KalshiBalurmath, Kormitulla Bosti, Baganbari Bosti, West Vashantek Bosti, Nagra Madbar Bosti, Sattar Mollah Bosti, Wapda Bosti, Jasim Mollah Bosti, Ilias Mollah Bosti, Kabir Mollah Bosti, Duaripara Bosti, Abuler Bosti, Jahangirer Bosti, Showkhin Road Bosti, Lalashorai Jamiderbari Bosti, Lalashorai Maddapara Bosti, Lalashorai Tekpara Bosti, Korail Bosti,</p>	<p>January 2018 to December 2022</p>	<p>DSK</p>	<p>WaterAid Bangladesh</p>

	<p>Settelite Bosti, Settelite Mondirpara Bosti, T&T Bosti, Godawon Bosti, Sattala Pora Bosti, Sattala Staff Mohalla Bosti, Sattala Chowdhury Para, Sattala Boundary Bosti, Beder Bosti, Earshad Nagar Bosti, Vangadewal Bosti),</p> <ul style="list-style-type: none"> • Total Water connection: 1,000 nos. • Total Sanitation facilities: 350 nos. 			
04,	<p>WASH4 URBAN POOR Project (Dhaka South City Corporation area).</p> <p>(Name of slum: Hazaribagh -Bou Bazar Beribadh Bosti, Kamrangirchar-Kamrangir Char Beribadh, Jurain-DIT Plot, 14 no Outfall Dholpur-City Polli, Moddho Bosti, Pora Bosti, Ainaler Bosti, Nobur Bosti, Adorsho Bosti, 96 Ghor, 38 Ghor Bash potti, Mannner Bosti, Telegu colony, Maniknagar-Maniknagar Rishipara, Jurain-Namapara, Guntighar Postogola-Cotton Mill bosti, IG Gate Bosti, Golapbagh-Golapbag, Jatrabari-Jatrabari maser arotbosti, City Corporation Cleaner Colony, 76 ghor (Mirhazirbagh), Kanpur city colony Doyagonj, Wari-Robidash para, Pathakunja-Goribullar Bosti, Saydabad-Saydabad WASA Colony, Komlapur-Komlapur railway B.Barack & Balurmath colony, Nobin Bag Boro Bari-Nobin Bag Boro Bari, Khilgaon-Khilgaon Jhilpar Bosti, Vuiyara Para Shesh Matha, Shahjahanpur railway Colony).</p> <ul style="list-style-type: none"> • Total Water connection: 250 nos. • Total Sanitation facilities: 75 nos. 	May'2018 to Dec'2022	Sajeda Foundation	WaterAid Bangladesh

Public toilet:

Dhaka city is the most densely populated city in the world. Everyday a large number of people come to this mega city for different purpose. On the other hand, there is a large number of floating people in this city. Floating people are increasing day by day for slum eviction. This vast population are suffering from sewerage management because of limited number of public Toilet. For this reason, floating people are practicing open defecation and by this way the environment of the city is polluting badly.

The purpose of constructing public Toilet is to fulfill the demand of this increasing floating people and give them a hygienic toilet service by repairing old Toilet and establishing new Toilet.

Dhaka WASA, DNCC, DSCC and Water Aid Bangladesh has taken an activity to repair and construct new Toilet and also its maintenance activities in Dhaka City. These Public Toilets are manipulating by some local NGOs.

In an approval of local government Division Water Aid Bangladesh has started an activity of constructing, re-constructing and repairing of Public Toilet with the help of Dhaka South City Corporation (DSCC) and Dhaka North City Corporation (DNCC) and DWASA on 26/08/2014.

Water aid Bangladesh has taken water connection permission from DWASA for conducting and managing These public Toilet properly.

Financing model:

There are different types of financing model followed by Dhaka WASA in implementation of WASH program. Community Program and Consumer Relation (CPCR) division of DWASA generally receives from finance from different development agencies like World Bank, UNICEF, ADB, EU which are not generated from Government body and these agencies follows financing model in Public Private Partnership (PPP) approach. Thus, DWASA receives fund in PPP model and disseminate fund for WASH program by selection of NGOs.

On the other hand, DWASA also started working in govt. financing model for the same program; currently DWASA is going to implement Saidabad Water Treatment Plant (Phase-III) including LIC WASH program. CPCR division of DWASA has also replicated coordination financing model through Water Operator Partnership (WOP) funded by Vitens & Evides and DWASA.

Challenges and way forward:

DWASA has to show all out integrity in its performance although there are some challenges. DWASA needs to address these challenges. The major challenge is the lapse in procuring necessary fund in time. DWASA from its own source cannot manage the fund required for the program. Implementation of the program largely depends on donors' timely assistance. Successful mobilization of the community to participate in the program and own the built facilities is another challenge which needs to be addressed carefully with due importance. Resistance to building legal water connections by the illegal water vendors may stand in the way of smooth execution. Eviction of the slum after the water connection is constructed and

destroy water connections due to frequently fire in the slum. It is expected that DWASA would play appropriate role in combating the challenges.

Lessons Learnt:

The LIC activities carried out so far have yielded some lessons that may catalyze the future program. The lessons learnt are cited below:

- Motivational work among the slum dwellers can play an important role in changing the KAP (knowledge, attitude and practice) of the slum people. They now well understand the need and benefit of safe water (provided by DWASA). This understanding drives them to take legal connections (the illegal connections supply polluted water because of faulty construction and leakages).
- In the backdrop of legal connections, the illegal vendors now find opposition from the CBOs and the slum communities to continue their illegal business.
- The good quality water from the legal connections attracts the users to have legal connections.
- Motivational work readies the users to pay water bills.
- Total NRW of DWASA is being gradually diminished and revenue is being increased.
- Donors are coming with financial assistance to extend the LIC services.

Concluding Remarks:

Under '**Turn around Dhaka WASA**' program where mandate is no one will out of legal water coverage and slum dwellers are not out of this plan. Dhaka WASA's Community Program and Consumer Relation (CPCR) division is working restlessly to ensure the water supply rights of low income communities. Dhaka WASA's aim is to provide legal water supply for 100% of low income communities within 2018. Of course, there are challenges in implementation of the ambitious program in a relatively short period. However, DWASA will try to assemble all the requisites of the program fighting all the hindrances in the way of its mission. Every officer and employee of Dhaka WASA also believes that someday there will not be a single person with water problems left in Dhaka city. Assistance to all the stakeholders involved in the program would be ensured from DWASA.

It may be necessary to extend the time frame of Road Map implementation on practical grounds. Availability of necessary fund is the most crucial issue where DWASA has to play appropriate role. If home and foreign development organizations continue with their support, then, without a doubt, Dhaka WASA will be able to successfully reach the goal.

The list of Public Toilet in DNCC & DSCC area, Dhaka City by Water Aid Bangladesh is given below:

List Of Public Toilet in Dhaka City (DNCC & DSCC) under LIC Revenue Zone-13				
SL #	DWASA billing A/C number	Name of Public Toilet	Location/Address	City Cooperation
1	1315756589	Gulshan-2 Public Toilet	Gulshan 2 Gol Chaccor, DNCC Ward-19	DNCC
2	1305815856	Agargaon Public Toilet	Adjacent to Agargaon pass port office, DNCC Ward -28	DNCC
3	1301812422	Dhaka Zoo Road Public Toilet	Adjacent to the National Zoo main Gate, ZOO road, DNCC Ward 08	DNCC
4	1309311673	Farmgate Anonda Cinema Hall Public Toilet	Near Farmget Anondho chenema hall, DNCC Ward-26	DNCC
5	1309309783	Farmgate Indira road Public Toilet	Farmget Indira road, DNCC Ward - 27	DNCC
6	1315353876	Hazi Maron Ali road Public Toilet	Hazi Maron Ali road , Nabisco, DNCC Ward-24, Tejgaon.	DNCC
7	1315353867	Tejgaon T & T gate Public Toilet	Tejgaon T & T gate , Satrasta, DNCC Ward - 24	DNCC
8	1315744697	Tejgaon Truck Stand Public Toilet	Near Tejgaon Truck Stand mosjid , Ward-24	DNCC
9	1309309775	Shaymoli Park Public Toilet	Infront of ASA University, Shamoli Park . Ward-32	DNCC
10	1315394400	Mohakhali WASA pump Public Toilet	Near Mohakhali WASA pump, DNCC Ward-20	DNCC
11	1309310951	Mohammadpur (Bosila road) Public Toilet	Mohammadpur (Bosila road)	DNCC
12	1306016498	Muktangon Park Public Toilet	GPO, Muktanggin park, Ramna, Dhaka	DSCC
13	1306548097	Panthakunjo Park Public Toilet	Inside of Panthakunjo Park, Dhaka	DNCC
14	1306545422	Osmani Uddan Public Toilet-1	Piryeamin market attached. Dhaka	DSCC
15	1306041580	Osmani Uddan Public Toilet-2	Osmani uddan, Dhaka	DSCC
16	1305764591	Gabtolli Public Toilet	Gabtolli Bus stand, Dhaka	DNCC

Information regarding Vacutag:

Dhaka WASA has no Fecal Sludge Management (FSM) system. But made an agreement with a private organization named **Gulshan Clean and Care**, Dhaka WASA is working to establish Fecal Sludge Management (FSM) in the slums of North and South City Corporation using 02 vacutags provided from UNICEF Bangladesh. For this initiative increasing the revenue of Dhaka WASA and manage the Fecal Sludge of Dhaka city. Detail information of 2 Vacutags as below:

Security money from two Vacutags (in Cash):

SI #	Vacutag	Security money
1	1st Vacutag	1,00000.00
2	2 nd Vacutag	1,00000.00
Total:		2,00000.00

Security money from two Vacutags (in Cheque):

SI #	Vacutag	Security money
1	1st Vacutag	5,00000.00
2	2 nd Vacutag	5,00000.00
Total:		10,00000.00

Information of vecutag money (July'18 to June'19)

SL	Month	Vacutag No-1	Vacutag No-2	Monthly Collecion From two Vacutag
1	July'18	15,000/=	15,000/=	30,000/=
2	August'18	15,000/=	15,000/=	30,000/=
3	September'18	15,000/=	15,000/=	30,000/=
4	October'18	15,000/=	15,000/=	30,000/=
5	November'18	15,000/=	15,000/=	30,000/=
6	December'18	15,000/=	15,000/=	30,000/=
7	January'19	15,000/=	15,000/=	30,000/=
8	February'19	15,000/=	15,000/=	30,000/=
9	March'19	15,000/=	15,000/=	30,000/=
10	April'19	15,000/=	15,000/=	30,000/=
11	May'19	15,000/=	15,000/=	30,000/=
12	June'19	15,000/=	15,000/=	30,000/=
Grand Total				360000/=

Total Security money and ledge money from Vacutag

Vacutag No	Security Money	Ledge money	Comment
2	2,00000	10,80,000	Till June-19

Slum Census Information implemented by Bangladesh Bureau of Statistics (BBS) on 2014

Area	Types of Slum (no of HHs)					Total slum	Total HHs	Total Population
	<10	10-24	25-49	50-99	100+			
DNCC	255	769	264	157	199	1644	135061	496669
DSCC	527	851	254	85	38	1755	40015	147066
Total:	782	1620	518	242	237	3399	175076	643735

Slum Census Information implemented by WaterAid Bangladesh (PEHUP Project) on 2016

Area	Total slum	Total HHs	Total Population
DNCC	360	195185	882190
DSCC	343	29281	117687
Total:	703	224466	999877

Pre-conditions of Dhaka WASA for providing water connection to low income communities:

- Does the consumer have a previous water connection; if so, then is there any arrear bill of that connection;
- Finding out how many old water connections are in selected slum;
- Status of old water connections;
- Assist to implementing NGOs for developing an active CBO in selected slum;

Charged by Dhaka WASA for LIC people

Demand Note charge for LIC people-

- 1) Application Form- **500.00** /=
- 2) Security money- **5000.00**/=
- 3) Water Meter- **4700.00**/= (It will change with market price)
- 4) Connection Charge- **2000.00**/=

!!

Total - 12,200.00 Tk (Twelve Thousand and Two Hundred)

Online bank for paying water bill (32 nos.):

Agronin Bank, Basik Bank, First Security Islami Bank, IFIC Bank, Mercantile Bank, Janata Bank, Mutual Trust bank, National Credit and Commerce Bank, One Bank, Standard Bank, Premier Bank, Basic Bank Ltd, Pubali Bank, Brac Bank Ltd, Social Islami Bank, Dhaka Bank Ltd, South East Bank Ltd, Dutch Bangla Bank Ltd, Trust Bank, Jamuna Bank Ltd, United Commercial Bank, Midland Bank Ltd, Bank Asia Ltd, Modhumoti Bank Ltd, Shajalal Islami Bank, National Bank Ltd, A B Bank, NRBC Bank Ltd, Al-Arafa Islami Bank, Prime Bank Ltd, NRBC Bank.

The difficulties and challenges that Dhaka WASA's CPCR division encounters when providing water connection to Low Income Community (LIC):

- The influence of illegal water line suppliers, local leaders, who also pose difficulties in completing the work;
- Lack of Donor organizations to provide funding;
- Eviction of the slum after the water connection is constructed;
- Destroy water connection due to frequently fire in the slum;
- Lack of experience of NGO workers in working in slum areas;

CONCLUSION:

There is a mandate 'Turn around Dhaka WASA' program that is no one will be left out of legal water coverage and slum dwellers are not out of this plan. Dhaka WASA's Community Program and Consumer Relation (CPCR) division is working restlessly to ensure the water supply rights of low-income communities. Dhaka WASA's aim is to provide legal water supply for 100% of low-income communities within 2019. Dhaka WASA's CPCR division has gone a long way in providing legal water supply to low income people. As the days are passing, the work of Dhaka WASA's CPCR division is becoming more advanced and modernized. Every officer and employee of Dhaka WASA also believes that someday there will not be a single person with water problems left in Dhaka city, and for which Dhaka WASA has undertaken a wide-ranging work project. In light of this, currently Dhaka WASA, with the help of French Development Agency (AFD) and European Union, establishing about three thousand seven hundred seventy-seven (3,777) water connections in Dhaka city slums. If home and foreign development organizations continue with their support, then, without a doubt, Dhaka WASA will be able to successfully achieve the goal.

E-Governance in Dhaka WASA

Computerization / Automation of Dhaka WASA

In the line with the 'Digital Bangladesh - Vision 2021' initiated by the present government, Dhaka WASA took initiatives to introduce e-governance and practice in all its activities. E-governance first introduced in DWASA in 1991 through computerization of the billing system for Revenue Zone 5. Later on all zones came under this system gradually. Side by side of billing, action was taken to computerize all other activities step by step, which was started with the introduction of payroll.

Present Status

Apart from billing system other activities were automated. These are: payroll, which includes income tax, provident fund and pension, electricity and gas bill checking, certificate cases at DWASA magistrate court, renewal and demand note for new connection of private deep tube wells, were implemented over two decades.

Considering the decision of the government to make the country fully digitized, DWASA Computer Centre took immediate initiatives to automate all its activities. As a result, most of the activities were automated during last three years. Main automated activities are: Accounting, Store Inventory, Personal Information Management System, Library Management, Office Management including file Tracking and GatePass, Residence Management, Vehicle Management, Law Management, Land Management, Training Management, Medical Management, Audit Management, Pension Management etc.

Real Time On-Line Billing / e-billing

Main activity of computerization has been the implementation of real time on-line billing / e-billing. The first time in the country any public sector organization started such an activity. The activity first started at Narayanganj revenue zone in January'2010 as pilot project and gradually rolled out to all 12 revenue zones (7 lease-outs and 5 non-lease-out) within 6 months. Under this system, following activities are implemented :

- Preparation of bills from 12 revenue zones through on-line VPN connection with DWASA central server.
- Maintain centralized database.
- Instant update of database during payment of bills.
- Consumers can pay bills at any branch of the DWASA listed banks. They can also pay bills online through SMS.
- Step is also taken so that consumer can pay bills through mobile banking / internet banking, ATM Card, Debit Card etc.
- Information regarding bill preparation and payment is sent to the consumer through SMS.

Benefit of Consumer

- Receive bills in time through SMS and on the website (www.dwasa.org.bd) including the option of printing out hardcopy of generated bills individually by each consumer.
- Payment of bills electronically and more easily with minimum time and efforts.
- Payment of bills in any branch of the country of designated 28 private banks having e-payment system.
- Lodge complaints regarding any kind of billing activity.
- Since system is on 24 x 7, consumer may get into the system round the clock.

Benefit of DWASA

- Management especially revenue and accounts division can get all kinds of billing information instantly & correctly, and also be able to monitor the system more easily.
- Reconciliation gets easy.
- Workload of all section of revenue employees is reduced to a great extent.
- Tremendous increase of revenue (both billing & collection and also surcharge).
- The image of DWASA to the consumers substantially increases due to tremendous reduction of harassment by ensuring transparency.

Apart from billing system, automation of other activities like Accounting, Electricity & Gas bill checking, Personal Management Information System etc. have been completed and running in full swing.

Following activities are also automated and operation is on going during this period.

- Land Management
- Vehicle Management
- Law Management
- Residence Management
- Fuel (Generator) Management
- Office Management
- New Connection Permission System
- Medical Software
- Store Management System

Apart from these, development of two other softwares were introduced. Out of these two, Audit Management software started its function while trial run of Pension Management and store inventory has been completed.

Besides, monthly MIS Report is published regularly for last one decade.

e-Tendering / e-GP

DWASA has already started e-tendering through CPTU since January, 2015.

e-Nothi

DWASA has already started to use e-Nothi system through a2i. Management has decided to implement 100% by June 2018

e-Recruitment

Dhaka WASA has introduced e-Recruitment system to make digital WASA as well as paperless management.

e-application

Dhaka WASA has already introduced online application systems on water, sewer connection for better service to valuable consumers.

Internet Connection

Internet was first started in DWASA about a decade ago and broadband connection with 1 mbps was established. Internet connection to all Class-I & Class-2 officers and other concerned staffs have already been provided. DWASA now starts regular correspondence like notice and minutes of meeting etc. electronically through e-mail, for which concerned officers and staff are provided official e-mail address.

Website

DWASA website was first started about 12 years ago. Various information including list of board members & DWASA officials, different official forms, citizen charter, annual & quarterly report, yearly audit report, MIS information, advertisement of all floated tenders & all appointments are included in the website. All information relating to consumer billing are updated electronically in website on-real time basis. Website is regularly updated as and when required.

Establishment of Network

Fiber Optic Network is established at DWASA HQ. Local Area Network (LAN) is established at all revenue zones and training institute. Wide Area Network (WAN) between revenue zones & HQ is established. Step is completed to establish WAN with all MODS Zones & other field offices like SOC, Store Division etc. It is planned to establish WAN with Local Government Division (LGD).

Geographical Information System (GIS)

Actual GIS activity started from April'2011. Following functions were implemented:

DMA and Water Network: A district metered area (DMA) is defined as a discrete area of a water distribution network. It is usually created by closing boundary valves so that it remains flexible to changing demands. However, a DMA can also be created by permanently disconnecting pipes to neighboring areas. Dhaka WASA has already planning to build about 144 DMA using GIS tools.

Water, Sewer and Drainage Networking Mapping: Many have characterized Geographic Information Systems (GIS) as one of the most powerful of all information technologies because it focuses on integrating knowledge from multiple sources and creates a crosscutting environment for collaboration. GIS is a system for the management, analysis, and display of geographic knowledge, which is represented using a series of information sets. In the present study, GIS will be used to organize the data for usage in water distribution networks design, and analysis. In addition, GIS is used as a tool for number of created applications for network management; such as identifying valves to be closed in case of pipe break, service area for treatment plants, and network skeletonization. Finally, GIS is used to provide graphical display of results obtained from both hydraulic simulation, and optimization models; linking tabular data with geographic locations, and graphical drawing.

Deep tubewell mapping: Deep tubewell is the only source of underground water which distributed to city dwellers. The Deep tubewell position with information has been built in GIS. Using these data, can help to provide comments before installation of new Deep Tubewells both DWASA and private owned.

Land Mapping: To proper management of WASA land, Land has been converted to digital using GIS tools.

Surface Water Transmission line Mapping: Dhaka WASA has four water treatment plant. Under those surface water treatment plants, all transmission line has been converted in digital format using GIS tools.

Base line Mapping: Baseline thematic mapping involves the compilation of varied data sources, ranging from satellite imagery to detailed information to planimetric data from the 1:250,000 National Topographic database. Base map sheets overlain by various combinations of thematic data are produced with an aim toward resource management applications. Baseline thematic mapping incorporates not only interpretations of ground cover data but topographic information such as elevation contours and planimetry to provide an optimal tool for resource management. This information may be portrayed in traditional map format, or as an image-map, which is an excellent means of presenting spatial data to resource managers and many other users. Dhaka WASA has built road, water body, house position, bridge, culvert and also other utilities network.

House Connection mapping: Dhaka WASA has been determined to be with Digital Bangladesh and progressing to step by step development to achieve the Goal. In this stage, DWASA has taken initiative to make Smart Metering. GIS mapping for House connection can be the first step to turn smart metering.

Valve Meter: Valve point are using to proper maintenance for water service area. So it's very important to know the location and related information of Valve. Mapping of Valve position has been built in GIS including information to provide good operation and maintenance.

LIC Mapping: As a part of the plan to bring all slum areas in Dhaka and Narayanganj city under water distribution service, prepare GIS database for LICs – and already implemented to Kuril at Zone 5 and Jhilpara at Zone 4 covering about 20,000 and 2554 households respectively.

Piloting Zonal Mapping: Completed a few maps as a pilot work viz. (1) water pipe line (2) service connection (3) building structure (4) mouza (5) zonal boundaries (6) water bodies etc. Billing information is being joined with these maps; as a result of which is possible to find out connection status, non-metered household, connection type etc. for better understanding of physical features of service areas.

A few works have been done:

- Scan and digitize of about 1200 system maps on Water, Sewer and Drainage line.
- Upload of all types of maps to DWASA website.

Plans are underway to:

- Integrate whole billing system with GIS.
- **ERP:** Enterprise Resource Planning (ERP) solutions can definitely bring efficiency at DWASA in operations and all internal processes. Based on findings and recommendations, all low and medium complex solutions from an integrated ERP platform can be considered for deployment at WASA over the horizon of one year

The four major applications that will be created for the WASA include two secure applications:

- WASA/ Agency: Map Change Request app and the Water Isolation Trace app, and new connection and map updation app.
- Public-facing apps: the Water Restriction and the Outage Viewer app.
- Public-facing apps: Water alerts app/ Complaint app (no water/ muddy water/sewer over flow/missing of man hole cap, with geotagged photos and GPS coordinates
- Public-facing apps: Water bill payment app (viewing and generating the water bills and payment, with water meter reading).

Computer Repairs and Maintenance

DWASA possesses a good number of computer and other computer equipments like printer, scanner, UPS etc. Repairs & maintenance of these equipments are done internally, resulting savings of huge amount of public money.

Call Centre

DWASA introduces a Call Centre through outsourcing. City dwellers can get any kind of information and also lodge complain calling this centre through 16162.

Future Plan

Apart from the plans stated above, it is planned to automate some other activities like all activities of Bottle Plants, School Management, Scholarship Management etc. and also the activities of maintenance works of Civil Maintenance Division.

It is planned to establish an IP PABX system and also video conferencing soon.

Conclusion

After completion of all on-going and planned activities, the following advantage would be ensured:

- Paperless Office Management will be started.
- The motto of the government to make the country "Digital" will be established in DWASA.
- DWASA enters into modern IT technology.
- Govt. goal for making all public offices 'Paperless' will be achieved for DWASA.
- Above all DWASA will be one of the pioneer public sector organizations to move into modern IT and implement government's vision.

Dhaka Water Supply and Sewerage Authority
Auditor's report and financial statements as at and for the year ended 30 June 2019

Hoda Vasi Chowdhury & Co
Chartered Accountants

Independent Auditors' Report
To the Board of Dhaka Water Supply and Sewerage Authority

We have audited the accompanying Financial Statements of Dhaka Water Supply and Sewerage Authority ('the DWASA/Authority') which comprise of the Statement of Financial Position as at 30 June 2018, and the Statement of Profit & Loss and other Comprehensive Income, Statement of Changes in Equity and Statement of Cash Flows for the year then ended together with the notes thereto.

Management's responsibility for the financial statements

The management of the company is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRS) and other applicable laws and regulations. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error, selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (ISA). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

Basis for Qualified Opinion

1. The correctness of the net book balance of Fixed Assets as of 30 June 2018 amounting to **BDT 77,762,832,426** could not be verified and confirmed by us due to the absence of any records maintained for the initial recognition of cost, existence, subsequent revaluation of value, charge of depreciation and adjustments relating to the retirement of the individual items of fixed assets;
2. In the absence of adequate records for "Materials & Supplies" as to the valuation, movement, obsolescence, etc of each category of items, and in the absence of any reconciliation of the balances as per books of Central Store with that of the Accounts Department and periodical physical verification of the inventory not being carried out, the aggregate balance of such stock on 30 June 2018 of **BDT 2,505,840,938** reported in the financial statements could not be verified;
3. (a) The correctness of the amount of revenue booked by the Accounts Department (**BDT 11,836,353,842**) and reported in the financial statements could not be ascertained due to the unreconciled difference of such revenue with the corresponding amount shown in the books of the Revenue Department being the source document of such transactions, the quantum of which could not be ascertained, arising due to adjustments to the rates were given by the Revenue Department with retrospective effect but not regularly reported to the Accounts Department.

(b) Further, in the absence of any reconciliation of the difference of **BDT 1,887,364,049** between the books of the Revenue Department (**BDT 4,588,106,000**) and that of the Accounts Department (**BDT 6,475,470,049**) in respect of the aggregate balance of rates receivables, the correctness of

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Chattogram Office : Delwar Bhaban (4th Floor), 104 Agrabad Commercial Area, Chattogram-4100, Bangladesh



**Hoda Vasi
Chowdhury & Co**

the balance of **BDT 6,475,470,049** appearing in the accompanying statement of financial position could not be verified by us;

4. Correctness and adequacy of the liability of DWASA in respect of its employees' pension fund reported at **BDT 5,727,377,304** and the charges therefore during the year of **BDT 2,321,119,010** in the accompanying financial statements could not be confirmed in the absence of any actuarial valuation carried out in this respect during the year;
5. The aggregate balance of grants and other funds of **BDT 62,430,018,992**, a part thereof being **BDT 17,496,205,438** relating to 36 projects carried forward from 30 June 2010 or prior thereto, and the corresponding assets reported in the accompanying financial statements could not be verified by us as the relevant information was not made available to us; and

Qualified Opinion

In our opinion, except for the effects of the matters described in the Basis for Qualified Opinion paragraph, the financial statements present fairly, in all material respects, the financial position of Dhaka Water Supply and Sewerage Authority as at 30 June 2018 and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with the applicable laws and regulations.

Dhaka, 11 APR 2019


Chartered Accountants



Dhaka Water Supply and Sewerage Authority
Statement of Financial Position
As at 30 June 2019

	<i>Note</i>	As at 30 June 2019 Taka	As at 30 June 2018 Taka
ASSETS			
Non-current assets			
Property, plant and equipment	4	64,940,513,884	61,995,061,944
Intangible assets	5	108,829,110	1,361,600
Capital work-in-progress	6	29,389,760,614	21,612,925,338
Receivables from ICB Islamic Bank Limited	7	21,026,785	21,039,015
Total non-current assets		94,460,130,393	83,630,387,897
Current assets			
Materials and supplies	8	3,066,827,154	2,505,840,938
Rates receivable	9	6,827,739,017	6,475,470,049
Advances, deposits and prepayments	10	2,167,934,979	2,341,710,461
Investment	11	3,164,215,665	1,891,831,393
Other receivables	12	56,110	56,110
Advance income tax		182,969,832	171,864,404
Cash and cash equivalents	13	3,256,235,820	2,751,856,386
Total current assets		18,665,978,576	16,138,629,741
Total assets		113,126,108,969	99,769,017,638
EQUITY AND LIABILITIES			
Capital and reserve			
Capital fund		47,393,000	47,393,000
Revaluation surplus		23,362,510,432	23,362,510,432
Accumulated loss		(1,492,016,926)	(1,890,785,733)
Total equity		21,917,886,506	21,519,117,699
Non-current liabilities			
Grants and other funds	14	71,784,095,295	62,430,018,992
Deferred tax liability on revaluation surplus		7,787,503,478	7,787,503,478
Loans and borrowings (Annexure-H)	16	407,206,912	729,377,952
Total non-current liabilities		79,978,805,685	70,946,900,422
Current liabilities			
Loans and borrowings (Annexure-H)		2,019,500,000	-
Liabilities for expenses	17	7,489,039,661	5,923,470,888
Liabilities for other finance	18	1,459,363,167	1,193,839,673
Provision for audit fee		747,500	690,000
Provision for government commission		5,000,000	5,000,000
Provision for taxation	19	255,766,450	179,998,956
Total current liabilities		11,229,416,778	7,302,999,517
Total liabilities		91,208,222,463	78,249,899,939
Total equity and liabilities		113,126,108,969	99,769,017,638

These statements should be read in conjunction with the annexed notes

Chairman
DWASA Board

Member
DWASA Board

Managing Director

Deputy Managing Director
(Finance)

*Auditors' Report to the Shareholders
See annexed report of date*

Dhaka,

Chartered Accountants

Dhaka Water Supply and Sewerage Authority

Statement of Comprehensive Income

For the year ended 30 June 2019

	<i>Note</i>	2019 Taka	2018 Taka
Revenue			
Water		9,728,919,526	8,782,872,184
Sewer		3,333,517,690	3,053,481,658
		13,062,437,216	11,836,353,842
Other income	20	1,377,150,818	1,187,203,814
Total income		14,439,588,034	13,023,557,656
Operating expenses			
Salary and wages	21	6,204,802,154	4,837,748,405
Repairs and maintenance expenses	22	5,092,474,454	4,929,602,331
Administrative expenses	23	783,128,186	1,328,817,257
Depreciation	4	1,655,760,483	1,533,543,913
Amortization	5	10,185,582	922,667
Provision for bad and doubtful debts	9.1	18,540,472	17,914,872
		13,764,891,331	12,648,549,445
Operating profit		674,696,703	375,008,211
Interest expense	24	142,954,960	-
Profit before tax		531,741,743	375,008,211
Income tax expense		132,972,936	93,752,053
Profit for the year		398,768,807	281,256,158

These statements should be read in conjunction with the annexed notes

Chairman
DWASA Board

Member
DWASA Board

Managing Director

Deputy Managing Director
(Finance)

*Auditors' Report to the Shareholders
See annexed report of date*

Dhaka,

Chartered Accountants

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Citizen Charter (24.09.2019)

http://dwaso.org.bd/wp-content/uploads/2019/10/Citizen-Charter_DWASA.pdf

WASA Link - 16162