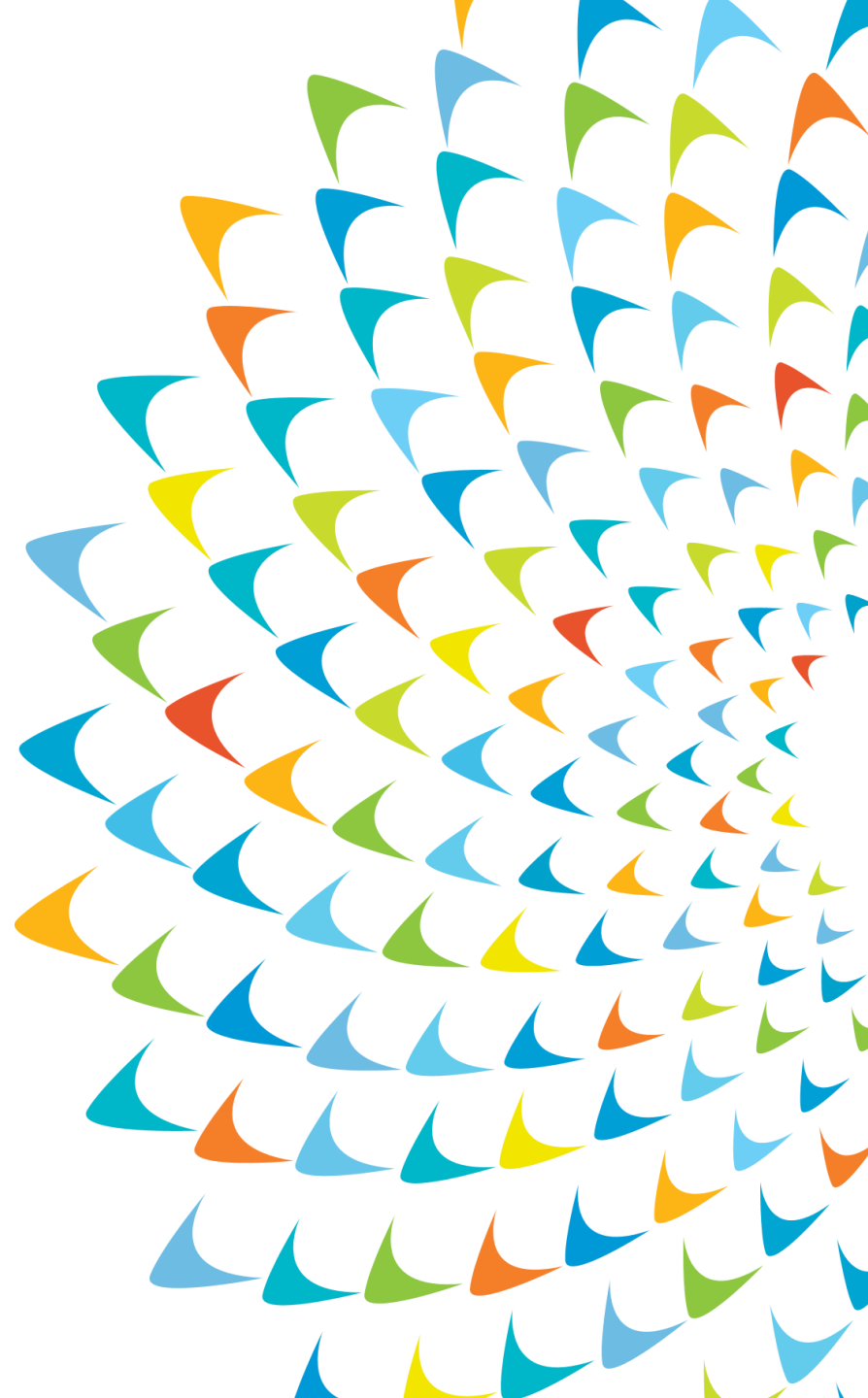




Water Supply & User Charges Innovation – Dhaka 24x7 Water Supply Case Study

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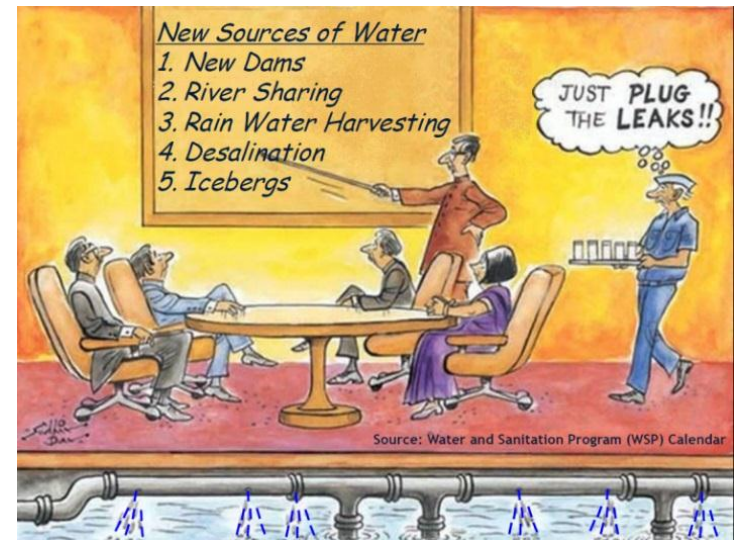




Summary

DWASA (Dhaka Water Supply and Sewerage Authority) – Institutional Transformation

- ✓ Implemented ADB's funded NRW reduction project for the half areas of Dhaka city.
- ✓ Remarkable achievements (NRW@5% in commissioned areas; and profits increased by \$10 million).
- ✓ Succeeded by combination of governance reform and physical investment, visionary leader, and capacity building.





Tuesday, February 2, 2016

THE TIMES OF INDIA

INCLUDES 6 PAGES OF BANGALORE TIMES

TEAM INDIA REST IN-FORM
VIRAT KOHLI FOR T20 SERIES
AGAINST SRI LANKA 19

P.M.'S TOTAL ASSETS
OVER ₹1 CRORE; HAS
JUST ₹4.7K IN HAND 11



UNION MINISTER RAM VILAS
PASWAN BATS FOR QUOTA
IN PVT SECTOR JOBS 12

Learn from Dhaka to reduce water loss

George Promises Action, But Fixes No Deadline

TIMES NEWS NETWORK

Bengaluru: The Bangalore Water Supply and Sewerage Board (BWSSB) which loses 44% of its water to pilferage and leakages, has a lot to learn from Dhaka. For, the Bangladesh capital has reduced losses and achieved exemplary water management by simply replacing old pipes.

Participating in the International Water Loss Summit 2016 being held in the city, Taqsem A Khan, MD and CEO of Dhaka Water Supply and Sewerage Authority (WASA) on Monday said: "We replaced 47% of the old pipelines in the network with the first phase of funding from international agencies. With that, we could reduce the water loss to 29% from 53% between 2003 and 2010 and further to 22% by 2015. We have reduced the loss due to pilferage to 15%. By 2021, we have set a target



NOT UP TO MARK: BWSSB loses 44% of water to pilferage and leakages

to treat all ground water and surface water as environmentally sustainable."

The three-day summit is organized by the International Water Association.

Taqsem said the company would be legalizing/authorizing

TIMES VIEW

It's a strange predicament that the India's IT powerhouse is struggling to reduce water loss due to pilferage and leakage and still persisting with decades-old pipelines. While Dhaka took a step in the right direction over a decade ago by replacing old pipelines, Bengaluru seems to be in mood to look at that move, which is a sure-shot way to reduce leakage. The main problem is knee-jerk reactions and sudden announcements by the authorities and politicians without looking at permanent solutions. Bengaluru minister George, who said the loss would be reduced to 30%, should at scientific systems of water management that will help the city in the decades to come.

and bootstrapping finances.

Here in Bengaluru, the BWSSB loses 44% of water to pilferage and leakages in the system. Besides, the board has yet not been able to cater to the entire city and serve only 95 lakh consumers.

Bengaluru development minister KJ George announced that the BWSSB would reduce its water loss to 30% but fixed no deadline for the board to achieve the target. He rather blamed the city's population and economic growth. "We could not cope with the pace of the city growth and that is why the water board is still to supply water to all and manage water as is being done in many cities that have water scarcity," he said.

MN Thippeswamy, member of the scientific community of IWA, said, "Nothing has been done to create awareness on saving water. Imagine if 58 lakh vehicles in the city are wasting 30 MLD of fresh water in a month on an average! There is no mandate from the municipality that a new layout or building will be permitted only if it has treatment plant and uses grey water for non-potable purposes," he told TOI.



DWASA's turnaround

Background

Dhaka in early 2000s – “water crisis city”

- Growing demand while groundwater table falling
- Aged pipes (piped water supply started from 1874)
- Intermittent and low-pressurized system
- Poor water quality
- Plenty of unidentified leakages and illegal connections
- Limited access of low-income communities
- Inadequate metering and high revenue loss
- High NRW (around 40%)



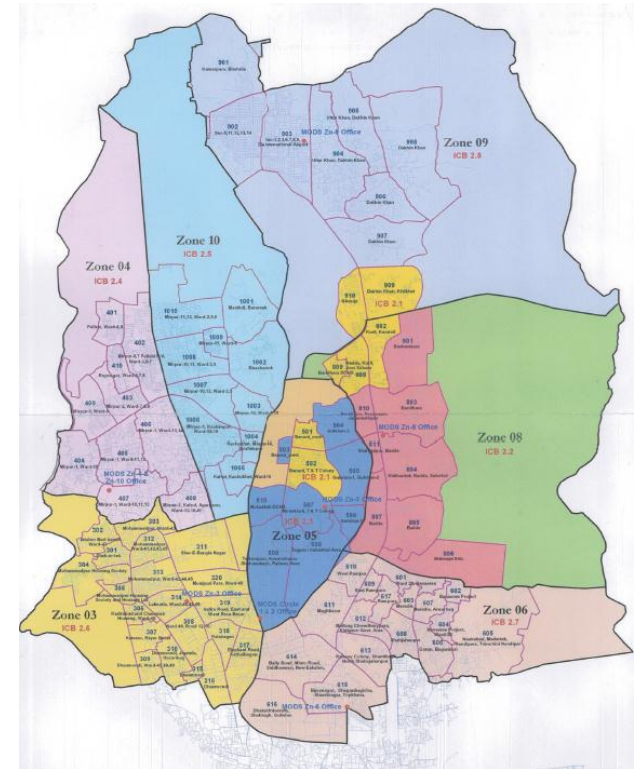


ADB's support*

Dhaka Water Supply Sector Development Program (DWSSDP)

- ADB's financing: \$200 million
 - ✓ Program loan (\$50 million): Institutional reform
 - ✓ Project loan (\$150 million): distribution network improvement (6 zones, 64 DMAs)

* Under multi-donor partnership for the urban water sector in Bangladesh





Turnaround (1/2)

- Combination of policy reform and infrastructure development
 - ✓ **Sector reform**: improving local governance; enhancing financial sustainability; and strengthening DWASA governance.
 - ✓ **System turnaround**: rehabilitating the existing distribution network and household connections with **DMA approach**, performance-based contracts for NRW reduction, and trenchless-technologies.
- Visionary leaders and Turnaround Program (2010 -)
 - ✓ “To be the best water utility in the public sector of Asia”
 - ✓ Change the mindset, build institutional capacity, promote transparency, and improve customer services





Turnaround (2/2)



- Socially inclusive and gender sensitive approach
 - ✓ **Connecting low-income communities**: water as a human right; reduce public health risks; improve the water supply reliability due to reduction of illegal suction pumps; and revenue generation. Collaborated with NGOs and CBOs for raising awareness.
 - ✓ **“DWASA Gender Equity Strategy”**: governance reform to mainstream gender; and training to be more responsive to gender need in their service.
- Effective capacity building program implemented
 - ✓ 5-year corporate business plan; human resource development; and financial management improvements



Reaching out to Slums

30% of Population lives in slums in Dhaka

Case Study: Korail

- Dense and congested slum in Central Dhaka of 50,000 population of mostly poor workers
- Only 14 legal and 65 illegal connections: controlled by Mustangs
- Residents forced to buy water at exorbitant rates
- Temporary service providers developed interests
- Water becomes a reason for social tensions and street squabbles

Myths

- Legally not permitted to have individual water/sewer connections
- Good service delivery and would encourage further encroachment of government lands
- Slum-dwellers can't afford connection costs and tariffs, don't need individual connections, will not pay bills

During Project

- Consultation process with stakeholders lasting more than 2 years.
- 500 CBOs provided connections (by Dec 2014) benefitting population (50,000)
- NGOs support in mobilizing CBOs, preparing applications, getting connections, billing, payments, resolving disputes
- Slum dwellers highly value this service, no illegal connections
- Best at paying bills on time - no defaults
- Increased revenue for DWASA



Achievement (1/2)



- Distribution network improvement
 - ✓ More than 5 million people benefitted from uninterrupted 24/7 and pressurized water supply; and good quality water potable directly from taps.
 - ✓ Improved access of 150,000 people in low-income communities to legalized water supply (DWASA achieved Water Leaders' Award-2013 at the Global Water Summit)
 - ✓ Reduced physical water losses by replacing most of aged distribution pipes (ranges from 2% to 14% in commissioned DMAs. Average is 5%).



Achievements (2/2)

● Financial improvements in DWASA

- ✓ Annual tariff increase of 5% every year since 2007 (GOB approved tariff increase by 17% for domestic users and 13% for commercial users effective from 1 Nov. 2016)
- ✓ Capacity building program for more than 2,200 staff members
- ✓ Net profits of Tk111 million (\cong \$1.4 million) in FY2014 compared with loss of Tk670 million (\cong Δ\$8.6 million) in FY2008.

Subject area	2008	2015
NRW (%)	40.38	22.00
Bills sent out (%)	93.00	99.00
Revenue collection (%)	64.50	97.50
Debt age/Receivable (month)	14.58	5.46
Manpower/ 1,000 connection	16.20	9.16
Operating ratio	0.90	0.66

Achieved full recovery of O&M costs and debt services liability.

(Source: DWASA estimate)



Way forward

- Expand efficiency gains throughout DWASA's service area
- Sustainable management of DMAs
- Prepare future sewerage management project

- Develop surface water sources to reduce the excessive dependence on ground water

ADB's support



Dhaka Water Supply
Network
Improvement Project



Dhaka
Environmentally
Sustainable Water
Supply Project



Thank you.

