Delhi Government Performance: 2015-2022

June 2022
Dialogue & Development Commission of Delhi

- Education
- Healthcare
- Water
- Electricity
- Transport
- Environment
- Governance
- Social Security
- Jobs & Economy
- Women and Child Development
Establishing a Basic Right

2015

- Half of Delhi’s unauthorized colonies did not have access to piped water
- Many large water treatment plant projects were pending clearance
- Leakages in the supply were extremely high, which was a result of the nexus with the tanker mafia resulting in declining revenues for the Delhi Jal Board
- Consumers were being harassed by DJB through inflated and irregular bills

2022

- Improved Access to water - Piped water coverage went up to 89% from 54% in unauthorized colonies
- Comprehensive Plan for future needs – ensuring that Delhi’s increasing water needs are met through water conservation
- DJB approves “One Zone, One Operator” policy to ensure 24x7 access to water
- 6-step Roadmap to reduce Yamuna pollution by 90% by 2023
More than 1600 unauthorized colonies have been connected to Water pipelines, and 706 to sewer pipelines post 2015

Total number of unauthorized colonies connected to Sewer & Water pipelines, # of colonies

<table>
<thead>
<tr>
<th>Sewer Lines</th>
<th>Water Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>716</td>
</tr>
</tbody>
</table>

Total amount of works in UCs in 2002-14: Rs 1,186 Crores

Work done 2002-14

Work completed or ongoing 2015 onwards: Rs 9,338 Crores

Total amount of works in UCs 2015 onwards: ~450% increase
More than ₹ 600 crore utilized annually by Delhi Govt. to provide 20 KL free water per month

- **19.67 Lakh** consumers availed the subsidy on water in 2021-22
- Led to **increase in water conservation** as consumers reduced consumption to avail benefit of the scheme
- Led to **increase in number of functional water meters**, as scheme applicable only to domestic consumers

<table>
<thead>
<tr>
<th>Metered and unmetered connections # in lakhs</th>
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<tbody>
<tr>
<td>8.57</td>
</tr>
<tr>
<td>22.13</td>
</tr>
</tbody>
</table>

**Increase in Functional Water Meters**

- 158% increase

SOURCE: Outcome Budget, 2021-22
Despite water subsidies, DJB revenues have reversed their declining trend

Total Revenue Collection of DJB,
₹ Thousand crore

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
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<tbody>
<tr>
<td>2012-13</td>
<td>1.52</td>
</tr>
<tr>
<td>2013-14</td>
<td>1.44</td>
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<tr>
<td>2014-15</td>
<td>1.22</td>
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<tr>
<td>2015-16</td>
<td>1.62</td>
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<tr>
<td>2016-17</td>
<td>1.78</td>
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<tr>
<td>2017-18</td>
<td>1.71</td>
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<tr>
<td>2018-19</td>
<td>1.82</td>
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<tr>
<td>2019-20</td>
<td>1.64</td>
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<tr>
<td>2020-21</td>
<td>1.77</td>
</tr>
<tr>
<td>2021-22</td>
<td>1.53</td>
</tr>
</tbody>
</table>

19% decrease
59% increase

SOURCE: Delhi Jal Board
ENSURING 24x7 WATER SUPPLY
DJB takes steps towards ensuring 24x7 water supply in Delhi

- Operation, management & maintenance of water & sewage lines handed over to private operators by DJB
- Water Supply & Procurement will remain the responsibility of DJB
- These private firms have been appointed for 10 years
- All work entrusted to private organizations will remain under the supervision of DJB and no board employee will be laid off
- The zones will be determined based on the hydraulics of the regions with fixed deliverables. The city will be divided into 3 zones
- This is a precursor to 24x7 supply of water in the capital

SOURCE: Delhi Jal Board, Times of India
Delhi Government installed flowmeters to check on water losses and improve efficiency

- To gather real-time data on loss of water in the distribution network, DJB installed flowmeters in 2017
- Distribution losses happen at the stage of the water reaching the household because the pipes at this point are often neglected and un repaired
- The flow meters, though planned at the on primary & secondary underground reservoir stages, provide concrete indicators of where the most water losses occur
- Estimated loss of 45%-50% due to theft, leakage and distribution losses will be checked

# Flowmeters installed

<table>
<thead>
<tr>
<th>Year</th>
<th>Flowmeters Installed</th>
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</thead>
<tbody>
<tr>
<td>2015</td>
<td>350</td>
</tr>
<tr>
<td>2022</td>
<td>3236</td>
</tr>
</tbody>
</table>

9× increase

SOURCE: Delhi Jal Board, Indian Express
Detect leakage and minimize non-revenue water in Delhi through real time monitoring of water flow

- 98% of the primary supply system and 97% of the secondary supply system have been covered
- A SCADA data center has been set up at DJB HQ in Varunalay, Jhandewalan, from where water audit will be conducted on a real time basis

SOURCE: Delhi Jal Board, Times of India
Delhi Government simplified the process to get new water & sewer connections

- DJB in **November 2019** waived the development and infrastructure charges **for new water and sewer connections**
- **Consumers have to pay just in the range Rs. 1,000-4,000** now to get new water connections based on the classification of the colonies for property tax as per MCD
- Under the in localities where sewer lines have been laid, citizens can apply to get sewer connections for free through the *“Mukhya Mantri Muft Sewer Connection Yojana”*
- Earlier, a person having a **plot of 200 square meters** would have to pay nearly **Rs 1.14 lakh** to get new water and sewer connections. Similarly, for a **300-square-metre plot**, an applicant would have to **pay nearly Rs 1.24 lakh**
- This has helped in **formalizing the illegal network** which was off revenue net due to high development and infrastructure charges

SOURCE: Delhi Jal Board, *India Today*
NEW INITIATIVES
The Delhi Jal Board (DJB) will shut its existing zonal revenue offices and replaced them with "Sahayta Kendras" or help centres and also launching a new phone application "DJB4You", for streamlining the grievance redressal system.

- All existing Zonal Revenue Offices will be closed and only processing work will take place in revenue offices without any public interaction.
- The 70 zonal revenue officers will operate in 11 pools, each headed by joint directors. Eleven joint director offices will be set up and the pool of officers will work on monitoring, inspections, audits etc.
- The primary mode of communication between the 2.4 million consumers and the DJB will be the mobile app DJB4You, the 1916 helpline, the doorstep delivery service and the new shayata kendras.

SOURCE: Delhi Jal Board, Hindustan Times
DJB launched financial assistance scheme for promoting Rooftop Rainwater Harvesting system in August 2021

1. The aim of the campaign is to **encourage people to build rainwater harvesting systems in their buildings**

2. **Financial assistance up to Rs 50,000 and a discount of 10 per cent on water bills** to encourage people to install rooftop rainwater harvesting systems

3. The Delhi Jal Board (DJB) had earlier issued guidelines **mandating owners of existing and new properties measuring 100 square metres and above to install RWH structures**

4. **DJB will also adopt the Inline Rainwater Harvesting (RWH) system**, which is a cost effective model and is being implemented in the tribal-dominated Dungarpur district of Rajasthan.

SOURCE: Delhi Jal Board, Hindustan Times
DJB Pilot to purify drain water yielded positive results

- DJB deployed the city's first “drain water purification system” in Shahdara link drain near Akshardham in November 2019
- Electrocoagulation technique has been used to purify sewage water
- The mobile equipment has the capability to recycle drain water and produce three different purification levels of output: drinking water level purification, ground water recharge level purification and for horticulture use
- Akshardham unit produces water clean up to biochemical oxygen demand (BOD) level 10
Plans to increase STP treatment capacity and DSTP treatment capacity by 326 MGD by June’23

- Delhi will be able to treat around 95 percent of the wastewater by the end of the year, which will help reduce the pollution load in the Yamuna River.
- Currently, there are 35 major STPs in Delhi with the capacity to treat 577 MGD of wastewater.
- Delhi Jal Board intends to augment the treatment capacity of 18 major STPs by 234 MGD by June 2023.
- Plans are also in place for augmenting the treatment capacity of 33 DSTPs and 14 STPs in the Najafgarh drainage zone by 92 MGD.

SOURCE: Delhi Jal Board
DJB approved India’s biggest STP to come up at Okhla in 2022

The facility will have the capacity of 56.4 crore liter per day

Estimated to be operational by June 2022 and will cater to 40 lakh residents

Total cost of the project is Rs 1,161 crores

To aid in directing treated water to River Yamuna, thereby reducing pollution levels

The plant will remove 41,200 kg of organic pollutant load and 61,600 kg of solid load per day

SOURCE: Delhi Jal Board, The Hindu
CITY OF LAKES
Delhi Government focused on revival of lakes and water bodies across Delhi

VISION

• Revival of Lake involves restoring the waterbody (Lake/Waterbody/drain) back into its original form with clean water, flora, fauna, balance of ecology and improving the surrounding environment

• This involves: Removal of historical sludge from bottom, removal solid waste municipal, dairy and horticulture from the site, removal of encroachment, creation of a perennial water source for the waterbody, landscaping, development of public facilities like slides, open gym

• Currently, the Delhi government has allocated ₹1064 Cr for the rejuvenation of lakes and water bodies in 2022-23

• Work has already been completed in the Dwarka WTP lake, Pappan kalan lake and several other water bodies.

• Several lakes such as the Rohini STP lake, Bhalswa Lake, Sanjay Lake are being rejuvenated

Rajokri lake used as a pilot project to create a model for lake rejuvenation

SOURCE: Delhi Jal Board
Rejuvenation of the **Sanjay Van Lake**

- Sanjay Van Lake falls under the jurisdiction of the Delhi Development Authority and has been rejuvenated by Delhi Government.
- To filter and purify water in the Sanjay Van lake, Delhi Jal Board has installed a unique kind of water filter plant – 4000 umbrella grass species plant on floating rafters.
- The deployment of floating rafters in the lake will also help in improving the groundwater level.

**SOURCE:** Delhi Jal Board
The **Rajokri Lake** project

- Until 2017, *Rajokri lake* used to be a turbid pond fed by sewage from the nearby shanties. It has now transformed into a water body of 2000 square meters which is now fed with treated effluents.

- This has a capacity to naturally clear **600 kilolitres per day of sewage water** with BOD (biochemical oxygen demand) levels of 150 ppm to less than 20 ppm.
Success story of **Pappankalan Lake**

- Digital water level recorder installed at Pappankalan lake
- 2 metres rise in water level recorded in three months
- Inspired by the success of lake, it is proposed to create additional lake to enhance groundwater recharge

<table>
<thead>
<tr>
<th>SALIENT FEATURES</th>
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<tbody>
<tr>
<td><strong>AREA</strong></td>
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<tr>
<td><strong>VOLUME</strong></td>
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<tr>
<td><strong>TREATED EFFLUENT UTILIZED TO RECHARGE</strong></td>
</tr>
<tr>
<td><strong>RISE IN GROUNDWATER LEVEL</strong></td>
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</tbody>
</table>

**FUTURE PLAN**
- 2 additional lakes in an area of 4 acres & 10 acres

*SOURCE: Delhi Jal Board*
YAMUNA CONSERVATION
Delhi Government has set up a ‘Yamuna Cleaning Cell’ to reduce Yamuna Pollution by February 2025

1. Increasing the capacity of Sewage Treatment Plants and Decentralised Sewage Treatment Plants
2. In-situ cleaning of four drains Polluting Yamuna: Najafgarh drain, Supplementary drain, Barapullah drain and Shahdara drain.
3. Action against industrial waste
4. Drains of JJ cluster to be connected with sewer lines
5. Connect 100% of the houses with sewer network
6. Desilting of sewer lines

6 step Action Plan formulated to clean Yamuna by 2025

SOURCE: Delhi Jal Board
13 drains trapped to reduce pollution in the Yamuna, plans to trap the remaining 5 drains as well

- There are **18 drains**, including **Najafgarh drain**, falling directly into River Yamuna.
- Barapullah Drain & Maharani Bagh Drain are being diverted to Okhla STP and Mori gate Drain is being diverted to Coronation Pillar STP for treatment by Dec 2023.
- Interceptor Sewer Project is constructed along 2 drains i.e. Najafgarh/Supplementary and Shahdara drain.
- Therefore, **out of 18 drains**, Delhi Jal Board has already trapped **13 drains**.
- There are about 453 drains outfalling into **Najafgarh Supplementary and Shahdara drain**. Out of these, **405 drains** have been trapped till April 2022.

**SOURCE:** Delhi Jal Board
Upgradation of CETPs, trapping of industrial drains and drains in JJ clusters; part of the Yamuna Action Plan

- Out of the 28 approved industrial areas, **17 are connected to 13 CETPs** and there are **11 not connected with CETPs**
- Untreated wastewater is discharged from network of drains in both conforming and non-conforming industrial areas and enters river Yamuna. Now **DJB is trapping these drains** which will have the following effects:
  - Reduce load on STPs
  - Enhance treatment at underutilized CETPs
  - Mitigate industrial pollution in river
- As part of the project, **sewerage lines are being laid in JJ Clusters**.
- **383 out of 683 JJ clusters** have already been trapped and sewage from these areas is being treated, **work is in progress in 255 out of 683 JJCsts till date**

SOURCE: Delhi Jal Board
THANK YOU