

# ‘Karmnishth’ Municipal Corporation of Delhi



# **Public Policy Research Centre**

## **UNDER THE GUIDANCE OF**

Dr. Sumeet Bhasin

## **PREPARED BY**

Avni Sablok

Deepa Kaushik

Satyajeet Landage

Nancy Sharma

Pratik Gudhate

**February, 2022**

# Table of Contents

<b>01</b>	<b>Preface</b>	<b>04</b>
<b>02</b>	<b>Introduction</b>	<b>06</b>
<b>03</b>	<b>Swachh Delhi</b>	<b>07</b>
<b>04</b>	<b>Education</b>	<b>10</b>
<b>05</b>	<b>Health</b>	<b>16</b>
<b>06</b>	<b>Green Delhi</b>	<b>19</b>
<b>07</b>	<b>Pollution-free Cremation</b>	<b>22</b>
<b>08</b>	<b>Reducing the Load of Landfill Sites</b>	<b>23</b>
<b>09</b>	<b>Clean Energy</b>	<b>24</b>
<b>10</b>	<b>Citizen Centric Governance</b>	<b>26</b>
<b>11</b>	<b>Systematic Parking &amp; Traffic Management</b>	<b>29</b>
<b>12</b>	<b>Measures During COVID-19</b>	<b>31</b>
<b>13</b>	<b>Reference</b>	<b>34</b>





# Preface

India's urban governance and its landscape has evolved considerably over the last few decades. This evolution has marked the transition towards a more aspirational society that desires better facilities and improved governance that ensures an ease of living for citizens. However unfortunately, much less focus has been devoted to the state of India's urban local bodies while little has been done to understand successful interventions by such bodies. Consequently, there is little evidence on best practices which serves as a knowledge bank for urban bodies across the country as they attempt to reform themselves and improve the lives of citizens. Given that urban local bodies serve as the first point of contact of citizens with any layer of the government, improving them has been critical. In our effort to bring greater focus on quality of governance by urban local bodies, we have analysed the experience of Delhi. The parliament passed the Delhi Municipal Corporation Act 1957 because it was the largest union territory, and the national capital was situated within this territory. Therefore, improved urban governance was critical in the administrative reason. This was followed by greater devolution of powers to the urban local bodies to strengthen grassroots-level democracy by decentralising governance and empowering them under the 74th constitutional amendment act of 1992.

Our study of Delhi's experience has been an evolving one – as we have adopted a unique approach towards this project. We look at the evidence over a decade and attempt to understand the changes in the governance landscape of Delhi's Municipal Corporations. Our previous report, 'Delhi Tangible Transformation Project' was launched in 2012-13, where we had undertaken extensive interview of the stakeholders along with field surveys which were supplemented by secondary datasets. We looked into areas such as parks, cleanliness, solid waste management, parking issues and management of

public parts, management of crematoriums, primary education and primary healthcare institutions under the Delhi Municipal Corporation. The study made several recommendations which were subsequently considered by the municipal corporations.

A decade later, we revisit the issue of Delhi's urban governance and reiterate the need to objectively evaluate the situation with the objective of better understanding the interventions that have worked so that they can be replicated elsewhere. This report acknowledges the changing nature of urban governance and therefore considers the same while undertaking the analysis. It must thus be seen not just as an extension of the previous report but more as an evaluation of the local urban governance in Delhi – and its subsequent transformation over the last decade.

Needless to say, that the efforts by the three MCDs towards improvement in the quality of public service must be appreciated. More so when one considers unique interventions that are environmentally conscious such as the utilisation of waste like scrap material, fallen trees, etc. by converting them into benches, swings & even art forms, the MCDs have resorted to the best practices to make Delhi more sustainable than ever. Moreover, by engaging in participative governance at the municipal level, they have managed to yield quite a good performance to effectuate a better standard of living for the people of Delhi.

What is particularly impressive is the severe resource constraints faced by the municipal corporation. Frequent tussles with Delhi government have had no impact in achieving the targets despite the lack of funds due to inordinate delays in transferring funds to the municipal corporation. The improvement in urban governance given such delays are an outcome of efficient and optimized use of the existing scarce resources. Moreover, despite such resource constraints, there has been no attempt at increasing the tax rates. In fact, the municipal corporations have undertaken an extensive effort to improve the voluntary tax compliance through various interventions to generate additional resources.

In areas such as primary health and primary education, the corporations have managed to improve both the



capacity and quality with the objective of ensuring these basic public facilities are provided to every citizen rather than them remaining a luxury for the select few. This is visible in an effort to launch activity-based learning in primary schools which see most students from low economic background. Such interventions are geared to trigger the interest of students, improve their learning outcomes and reduce the drop-out rates. Such interventions have recently been endorsed and adopted by the National Education Policy (2020).

It must also be acknowledged that during the pandemic, we acknowledged the hard work done by our frontline workers, be it the doctors or medical staff. We are indebted to them for their continued service.

Delhi's Municipal Corporations have one more set of front-line workers, the safai karamcharis who worked round the clock without any disruption even as many were in their homes to limit any form of contact with others. They worked throughout lockdowns in an effort to ensure clean and hygienic surroundings throughout the pandemic. We extend our gratitude to them and acknowledge their support in our fight against the deadly pandemic.

I also appreciate the efforts of the researchers at Public Policy Research Centre (PPRC) who brought to light the efforts made by the municipal corporations of Delhi and reflected on the various initiatives taken by them.

**Dr Sumeet Bhasin**  
**Director**  
**Public Policy Research Centre**



# Introduction

*“Those who enter local boards and municipalities as representatives go there not to seek honor or to indulge in mutual rivalries, but to render a service of love and that does not depend upon money”*

Mahatma Gandhi

The Municipal Corporation is a civic body that provides representation to local people. Most of its members are directly elected on the basis of adult franchise. The Municipal Corporation was set up under the 74th Amendment Act and plays a crucial role in the formulation of a plan and its implementation for local development, especially programs, designed for urban poverty alleviation. The Municipal corporation is responsible for roads, public transport, records of birth and death, sanitation which includes waste management, sewage, drainage and flood control, public safety services, garden or building maintenance, etc. Delhi – home for all major government buildings, offices, residential complexes, and diplomatic missions – managed by majorly by three Municipal corporation namely East, North, and South Delhi. The functions of the East, South and North DMCs are primarily same as those of other corporations across the country. They run hospitals and dispensaries, manage water supply, maintain the drainage system, ensure the upkeep and maintenance of markets, build and maintain parks and parking lots, oversee the construction and maintenance of roads and over-bridges, look after solid-waste management, ensure street lighting, run primary schools, recover property

and professional taxes, operate the toll tax collection system, run cremation grounds and maintain the birth and death records of the area.

PPRC report titled ‘Delhi Tangible Transformation Project’ examined with due analysis the key functions performed by the Municipal Corporations of Delhi and underscored their tangible results. This engagement on the subject aided by ground-level analysis not only highlighted the huge mantle of the Municipal Corporations in the city’s development but also documented the best practices of the MCDs over the years. This civic body made it imperative to align participative governance with sustainable outcomes and thus in 2017, the people of Delhi voted for Bhartiya Janta Party while rejecting both the Aam Admi Party and Congress and once again showed their faith in those people who were working for them tirelessly.

The Election results of Municipal Corporation were declared on 23rd April, 2017 and BJP won 181 seats forming a clear majority with an increase of 43 seats compared to the previous elections. The citizens of Delhi rejected the AAP Government in Delhi MCD because within a few months after coming into power, AAP lost its moral sheen. Its promise of good governance also turned hollow as the government had little to show for its track record. Instead, the Delhi government has been busy playing blame-game against the central government & its representatives whilst hogging credit for the work done by the Delhi MCDs.



# Swachh Delhi

Cleanliness is next to Godliness and is our foremost duty to keep our surroundings and environment clean. To effectuate this, the Municipal Corporations of Delhi have not only started promoting solid waste management by sending 'Safai Mitras' or sanitary workers but also started establishing C&D waste management plants, constructing a greater number of 'Dhalao Ghar' and sending vans to collect households' garbage door-to-door and contributed towards raising awareness about wet and dry waste. The MCDs have begun to induce, not only a change in people's mindset regarding the contribution that our sanitation workers make towards achieving a cleaner and greener Delhi, but also a change in people's behavior who now address these someone who used to be just 'Sanitary Workers' as 'Safai Mitras' a title that not only forges a new bond between residents and sanitary workers, but also fortifies and nourishes a new found respect for our 'Safai Mitras'. These are some positives that have come to light under 'Swachh Bharat Abhiyan'.

The Public Policy Research Center had published a report titled 'Delhi Tangible Transformation Projects' from where we have noted the requirement for establishing solid waste management, C&D waste management plant and fixed compactor for achieving the goal of Swachh Delhi. Walking towards achieving the target of Swachh Delhi, the municipal corporations have implemented a plan for 'solid waste management' to keep public places

clean.

In Delhi 'Dhalao', the three-walled garbage collection point in every locality, has been a menace as the delay in the collection of waste causes garbage spills onto the road and raises concerns about sanitation and disease outbreaks. With due recognition to this issue, the municipal corporations in Delhi have taken a range of steps from regular monitoring, to fixing 'zero waste hour' at 'Dhalaos', Door to door waste collection service to installation of Fixed compactors installed to collect waste. The vacant areas are being converted into and being utilized as recreational facilities.

In the East Delhi Municipal Corporation, there were 309 dump houses in which 141 dump houses have been closed and the vacant sites are being utilized as a public kitchen, seating area for the elderly and entertainment center, and other facilities. Further, 37 compactor plants have been set up by East Delhi Municipal Corporation for disposal of garbage. This plant compacts about 7 tons of garbage into 1 tons of garbage which is sent to the SLF site. Now the door-to-door collection of garbage has started, which has benefited about 45 lakh people of the East Delhi region. Due to the tireless efforts of the sweepers, about 2100 metric tons of garbage is now being transported to the SLF site every day. As compared to the earlier situation, the corporation has reduced total Garbage being sent to Ghazipur site by 600 Metric Tons per day which cumulatively stands at a number 216,000 Metric Tons per year. Garbage is transported through closed trucks, due to which



Figure: Door to door collection being done in South Delhi Municipal Corporation



Figure: Home composting being done in the South Delhi Municipal Corporation





garbage is no longer flying on the roads.

Trying a new approach to tackle illegal dumping of construction and demolition waste, the East Delhi Municipal Corporation has decided to reduce the number of designated notified spots where the debris can be dumped. The number of such designated spots will be reduced from 61 to just 17.

Under the East Delhi Municipal Corporation in each ward 533 auto tippers, e-tippers and e-rickshaw, 819 hand rickshaw, 29 loaders are engaged in door-to-door collection and disposal of garbage in each ward. The Super Shaker Machine for cleaning the big drains, the corporation will use two super shaker machines. Also, the corporation is using 28 suction cum jetting machines for cleaning small drains located in the colonies of the corporation area. Along with, the corporation have 38 compactor machines, 10 road sweeper, 2 super suckers, and 10 skid steers. Under Atal Mission for Rejuvenation and Urban Transformation (AMRUT), EDMC has rejuvenated the lake in Shahdara to encourage tourism with facilities that include eateries, an open-air theatre and boating.

The SDMC set up dedicated two fixed compactor transfer stations (FCTS) in the West Zone covering 19 lakh people in 29 wards. The South Delhi Municipal Corporation has closed 143 Dhalao Ghar. and set up dedicated two fixed compactor transfer stations (FCTS) in the West Zone covering 19 lakh people in 29 wards. Further, the Municipal Corporation in its Budget 2020-21 has proposed one sanitation center in each zone (Plastic Waste Management) and segregated waste in all the wards and commercial establishments to levy user charge for the collection of garbage. Further, 7 Tippers for door-to-door garbage collection and carrying the same to FCTS has been appointed, along with 2 Three-wheelers for garbage collection from shops in markets and carrying the same to FCTS.

Also, one compactor, hook loader, Tata 909 and tempo for unloading unclaimed Malba and a CNG Canter Vehicle for collection of waste and garbage from parks, along with JCB and Tipper Trucks for removal of unclaimed Malba, has been made available by the SDMC. As a progressive step, the SDMC has proposed construction of 6 new FCTS



Figure: Dhalao Ghar in NDMC

for replacing Dhalaos in the areas such as Opposite A-2 Block Pankha Road, Near Gas Godam, Prof. Joginder Singh Mang, among others.

The North DMC has taken steps for cleaning of roads and public places falling under the jurisdiction. Thus, the corporation has deployed 12 mechanical road sweeper machines of 6.5cum capacity, 6 mechanical road sweeper machines of 4.5cum capacity, 10 suction cum jetting machines of 8 KL capacity, 6 suction cum jetting machines of 4KL capacity, 2 super suckers' units and 15 skid steer loaders. Further, the corporation have procured 4 litter picker machines, 24 water tankers 9 KL capacity with sprinkling application system, 104 water tankers 3 KL capacity with sprinkling application system and 25 backhoe loaders.

There are 550 'Dhalaos' under the NDMC, out of which over 300 have been closed and out of a target of installing 97 compactor machines, 81 have been successfully installed. Door-to-door waste collection service, Fixed compactors installed to collect waste. Under the second phase of the project comprising the closure of open Dhalaos (garbage receptacle points) by installing fixed compactor machines, the North Delhi Municipal Corporation has started converting vacant sites into libraries and mini-gardens. (Ward 57), one such Dhalao has been redeveloped into a library. In Ward 53, a selfie point has been created by installing artifacts and flowering plants in vacant places around a Dhalao, while another site is being developed into a senior citizens' center.

Also, the North DMC is looking after the operation, running and maintenance of 25 permanent pumping







stations for pumping out storm water, mixed water of various locations and installation of new pumps for making Delhi a Swachh Delhi. Therefore, the North DMC has installed 2 new pumps house at RUB Mundka and RUB Kishan Ganj and revamped 25 permanent pump houses. Along with this, the corporation has operationalized the 162 portable pumps at the point which were prone to water logging.

Also, 8 MRS, 104 TATA ACE, 6000 road side twin bins, 300 tri-cycle rickshaw, 700 procurement stainless steel of road side bins 25 backhoe loaders, 6 (8 kg. liter.) and supply of 10-12 liter bins capacity is 4 lakhs. These machineries procured for solid waste management amounting to Rs. 32 crores. The NDMC has carried out various meetings with RWA, MTA & NGOs to make awareness regarding segregation of garbage at sourced and say “NO TO SINGLE USE PLASTIC”. Therefore, 105 auto tippers are deployed for households, 75 auto tippers for market/shopping centers, and, 15 fixed compactors with hook loader along with 15 mobile compactors are deployed, and, 8 refuse collector cum compactor are also deployed. As per Swachh Sarvekshan-2021, North Delhi Municipal Corporation declared cleanest city in 1-3 lakh population category. It has adjudged the cleanest among 372 Indian cities with populations according to the Swachh Sarvekshan-2021 rankings.

As per the Municipal Performance Index 2020, North Delhi Municipal Corporation has placed first among 60 Municipal Corporation bodies in the Municipal Performance Index –a survey conducted by Union

Housing and Urban Affairs Ministry to judge the overall performance of municipalities on the five parameters of service, planning, finance, technology and governance.

The ‘Swachh Bharat Abhiyaan’ is a campaign about cleanliness started by our Prime Minister Shri Narendra Modi aimed at covering all the cities and towns of India. It was launched on 2nd October 2014, on the birth anniversary of Mahatma Gandhi. This programme also themed at solving the problems of sanitation in almost all the village and waste management. The main objective of this programme is to create awareness among people about cleanliness.

Further, all the municipal corporations of Delhi have constructed world class toilets equipped with electricity, water and sanitation workers in essential and target areas. For instance, the SDMC was declared “Open Defecation Free” corporation area on 5th May, 2018 and Swachhta App was launched through which complaints are being resolved within 12 hours. SDMC’s All India Ranking is 11th with regard to the construction of 396 Public Toilet Complexes and 129 Community Toilet Complexes. Further, Repair and Maintenance of all existing toilet blocks and Urinal Blocks by RCC, Brick work, finishing work, Steel work, Aluminum work, Sanitary fitting etc. and by providing toilet seats, Urinal Pots, PVC tanks, Washbasins, tile works, Aluminum works and Structural steel works has been carried out by the SDMC in its area of jurisdiction.

The North DMC certified ODF in December, 2019 & ODF+ in January, 2022. The North DMC has 301 CTCs, 129 PTs & 1352 public urinals under its jurisdiction. All 301 CTCs have been outsourced for operational and maintenance to Private agencies. The North DMC has carried out workshop in the month of December 2021 for awareness about ODF+ and garbage free city. Also, the NDMC is planning to apply for garbage free city (3star) certification and ODF++ certification sourly.

Under the Swachh Bharat Mission, the EDMC has constructed 63 community and 290 public toilets and Pink Toilets separately for women. Washing work of all toilets located in eastern corporation is being done by 18 water jetting machines of 4000 liters capacity.



# Education

Education is the basis of human development in modern and progressive society. It is indeed the foundation for social and economic development of a nation. Undoubtedly, policy makers should make efforts to promote quality education which is accessible to all as their highest priority. There are parallel efforts to ensure that children from all socio-economic sectors equally benefit from such policy measures. However, the education sector is dynamic and needs dedicated efforts by the government to ensure that the policy positions are put in course of proper implementation. The issue gains significance in the case of the incumbent Delhi state government's claims on revolutionizing the education sector in the capital during their term. The veracity of the claims however, need to be ascertained in the light of facts and figures.

The quality of education is a factor of several important variables that unite to provide a perfect environment for students to learn and evolve and ultimately become architects of a progressive society. The factors can be understood in terms of two crucial aspects – physical and human infrastructure. The two factors are indispensable for quality education and cannot be compromised with any cost. This section delineates the condition of Delhi government schools on these below parameters and attempts to understand how they impact education and lives of students. The understanding is also strengthened through a comparative assessment of school infrastructure in Delhi Government Schools and MCD schools in Delhi NCT.

## Physical Infrastructure

School buildings, classrooms, laboratories, and equipment- education infrastructure - are fundamental elements of learning environments in schools. There is strong evidence that high-quality infrastructure facilitates better instruction, improves student outcomes, and reduces dropout rates, among other benefits.

Worryingly, schools under Delhi government continue to lag on this crucial front. We conducted an in-depth analysis of the condition of Delhi

government schools to assess their infrastructural capabilities. The survey revealed key shortcomings in respect of some of the most basic facilities required to impart education. Following are some of the facts collected from both visits to schools and statistics that paint a dismal picture. The analysis also gains insights from drawing comparisons from schools in Delhi under MCD and state government. The comparisons also bring forth a better understanding of how proactive administrative, policy control and decision making can drastically impact the quality of education and the resultant outcomes in the form of student output and performance.

However, further research into the facts reveals that none of the 25 new schools have been constructed under the incumbent AAP government. All these school constructions had already been initiated prior to 2015 i.e., before the AAP government came to power. Referring to the Government's reply on the floor of the house we find that a total of 82 plots are vacant today where new schools should have been constructed. It is noteworthy that the Delhi government had the possession of these 82 plots since 2015 and no construction has been initiated on any of them. Despite this, Delhi government keeps insisting that lack of sites is a hurdle for building new schools. The fact is clearly indicative of indifference towards the basic requirements of the education sector.

The East DMC is running 354 corporation schools and 11 corporation aided primary schools in which about 1.65 lakhs children are studying and various works are being done to provide better education. The building of EDMC schools Nand Nagri A-4, Nand Nagri B-4, New Kondli B-Block, corporation school in Shahdara Southern Zone, and Trilokpuri Block-6 school have been reconstructed and refabricated in order to provide better educational facilities to the students. Also, EDMC plans to build a greater number of schools, so that maximum number of children can be educated. Hence, the corporation has initiated the construction work of 6 Vidyalaya Bhawan in Shahdara South Zone, one school in Vijaya Mohalla and 7 schools in Shahdara North Zone. Along with this, the construction work for additional class rooms in schools is under







Pictures of MCD School with well-maintained physical infrastructure.

progress and a total 1315 teachers have been hired so far.

In addition to this, the teachers who were on a contractual basis till 19.04.2021 have now been benefitted with the extension of contract till 31.03.2022. The Corporation has also implemented 'Insurance Scheme' for children with regards to accidental death, injury, loss of limb etc. Under this scheme, assistance ranging from 25000 to 50000 is being provided to the families of the students in case of above-mentioned scenarios.

Furthermore, in order to encourage students and parents towards enrollment in the formal education system, the corporation is enthusiastically participating in central government's 'School Chalo Mission' and also distributing stationary items among students.

The corporation has provided an amount of Rs. 19.78 crores to students for uniform in the year of 2020-21. The work for setting up smart board in 3 classes of the corporation school of each ward has been taking place at a fast pace and so far, 125 smart boards have been installed with an estimated amount of Rs. 3,68,01,601 crores. Arrangement of fire extinguishers in EDMC corporation school, a total 124 school buildings have been equipped with fire extinguishers. Provided recognition to 6 private schools coming under EDMC.

A total 5889 large and 4371 small size desks have been purchased and supplied to the schools of East Delhi Municipal Corporation. And for the first time, a total 13248 plastic molded chairs and 2208 plastic tables have been purchased as a seating arrangement for nursery children. In the session 2020-21, a single shift school has been reopened in Ram Nagar which had been closed down in the year 2010.

The North DMC has 30 Utkrisht Vidyalayas where all the students are getting facilities of smart board and smart classes, 185 Pratibha Vidyalayas, 40 newly school building constructed in last five years having 702 new classrooms, 190 new toilets, 62 toilets blocks, toilet facilities to physical challenged students in every school, 649 printers & scanners, 440 new hand wash stations, 110 smart classrooms, 129 CCTV cameras, 163 solar system, 515 rain water harvesting systems etc. have been provided in NDMC schools. The corporation has also increased the cost of uniform in each primary school from Rs. 500 to Rs. 1100. In order to provide better education facilities to the students, the corporation hired 326 teachers and conducted 40 PTM since 2017. Along with this, the South Delhi Municipal Corporation is handling 582 schools which includes 14 nursery schools. The corporation have recruited 662 teachers and conducted Mega PTM in 581 schools.







Pictures of Delhi Government Schools in Najafgarh. The school is not only in a dilapidated condition but is also poses questions on the safety of children and teachers.

### Sanitation Facilities and Hygiene

After 2014, the central government focused exclusively on this issue as it was quite an important consideration. There was a high number of school dropout rates and absenteeism among adolescent girls due to the lack of toilets and its infrastructure. The girls, especially ones that reached puberty, started skipping schools as they lacked 'usable' toilets or water in the toilets. Looking at the lack of toilet infrastructure becoming one of the major issues for dropout rates and absenteeism, PM Narendra Modi launched Swachh Bharat Swachh Vidyalaya campaign in 2014. It made it mandatory for government schools in the country to have toilets with separate toilets for girls and boys within one year. The Ministry of Human Resource Development, Department of School Education and Literacy worked intensively to mobilize corporate support in the mission.

At the time of launch of the initiative, the difference in availability of functional toilets in all government schools was assessed and interventions were developed based on the assessment to ensure that every child had access to a gender segregated toilet facility. Enrolment and retention of children in schools, particularly of girls has also increased. 'Swachh Vidyalaya' was also recognized as one of the priority programmes for Prime Minister's Excellence Award for 2016. However, the story is

totally different in Delhi. Many people assume that the incumbent AAP government in Delhi brought focused on education. However, a very disgraceful side to this story is totally different.

Delhi Government failed to construct a single toilet from Swachh Bharat Funds. According to the report by the Controller and Auditor General of India (CAG), Delhi government despite having Rs 40.31 crore, failed to construct even a single toilet under Swachh Bharat Mission. Even, Delhi government failed to provide proper 'usable' toilets and in some cases, not even the construction of toilets was taken by the Delhi government in Delhi government schools. The Delhi government, thanks to its accounting maneuvering, boasted about its high allocation of budget to education. But the dark side of it is that these funds have not even been used. Therefore, no wonder that this government failed to construct new toilets in the schools. The government of Delhi failed to provide basic toilet infrastructure in the school let alone water in the toilets. Delhi government is only focusing on publicity while ignoring the actual work.

As per media reports, despite tall promises by Delhi govt, their schools do not have drinking water, clean toilets. Where toilets are at least constructed, there is no water in the toilets, especially the girls' toilets. Other than that, the water tanks were very unclean. Schools have written this to the Delhi



Toilets and Drinking Water facilities in MCD schools and in Delhi

government, but no action has been taken yet. The poor condition of Delhi schools, from going without water throughout the day, to girls having to urinate on ground because of lack of water, shows how AAP government has neglected the very basic needs in schools.

### Clean Drinking Water

Delhi schools not only lack toilet infrastructure but also lack basic requirements. According to available reports, a mere 5% of the government schools in Delhi fulfil the infrastructure requirements as mandated by the Right to Education law. Many schools lack infrastructure for clean drinking water. The tanks in the schools are not cleaned regularly causing serious health problems on consumption of the water. The water available in some schools is dirty and unhygienic which makes student prone to various diseases like diarrhea. Other than that, there are no RO plants to filter the water and the water quite noticeably, stinks.

Besides the lack of water infrastructure, the amount of water that's available is also a problem. Delhi High Court pulled up Delhi government over the poor facilities available in Delhi schools. A Senior Secondary School in northeast Delhi lacks teachers, drinking water and toilets. Reports published in the media said that the Delhi High Court pulled up the Delhi government over the lack of basic amenities

at a fully-aided government school in the city. The school was earlier run by a society, but was taken over by the Delhi government. The school lacked basic facilities and the land earmarked for a playground at the school was being used to dump garbage and domestic waste.

### Smart Classes

Smart classrooms are technologically and electronically enhanced classrooms. The concept of smart classrooms does not completely do away with the traditional method of teaching rather it seeks to complement the use of technology with conventional methods. It has been the trend of using interactive tools for teaching. The emerging trend all over the world is towards more individualized and flexible forms of learning with an emphasis on the individualized methods of instructions. With the use of these technologies, teaching in classroom has changed from "blackboard & chalk" mode to the "computer & projection" mode.

In the picture above, an MCD school lucidly explains the essential components of a smart classroom. It involves usage of the smart board, document camera, laptop computer, and such other electronic devices that help teaching students in an interactive fashion. The millennials are the generation which is growing up in the presence of digital technology and internet, and they have very different characters







Personality development initiatives in the MCD Schools

from the previous generation of learners.

Various studies available in the public domain indicates that teaching through multimedia platform is an effective method in teaching. It produces in students a long-term memory about the concept. The e-learning platforms offer the platform to the students all over the world to learn through the common pedagogy. The 'Delhi Tangible Transformation Project' report also highlighted the need for replication of virtual classroom using VSAT at the primary education level, which was then implemented successfully in Mumbai.

Many private schools had introduced this technology way back as part of their global pedagogy. In the past decade understanding the importance of multimedia platforms in the classrooms to enable students from the government schools to learn at par with the private school students and vis-à-vis global education curriculum, the government has equipped classroom with smartboards and gadgets.

As of 2019, there were five schools under the East MCD that offer smart classes. During the COVID-19 pandemic, the EDMC used the 'Google Meet' Platform to conduct classes digitally and WhatsApp for the distribution of worksheets and homework for students.

128 smart boards have been installed in the schools for students. The Corporation has started smart classes, improved the school building, and has made available potable drinking water for the students. The total number of students studying in EDMC schools is 2,15,000 and their parents or guardians have been connected via Mega PTM. The East Delhi Municipal Corporation has established 4 schools and is in the process to construct 4 more. On 25th January 2022, EDMC launched 'e-library' - a repository of digital resources for learning purposes, developed by teachers to aid online teaching and learning. The portal covers 354 EDMC schools which will benefit 4500 teachers and over 2.25 lakh students.

The South Delhi Municipal Corporation has also conducted Mega PTM in 581 schools and has had discussions regarding challenges & redressal related to various issues. Along with this, the corporation is implementing an ambitious plan of making one smart school in every ward which can provide knowledge based on either Arithmetic Sciences or Robotics.

The North Delhi Municipal corporation along with Education Department has taken all the necessary steps in a positive manner in order to implement the 'Adoption Scheme' in the Private and MCD Schools. Also, during the pandemic NDMC left no stone unturned to ensure the continuous development of the students through online education. To meet the learning outcomes (set by NCERT) content was developed by the teams of mentor teachers. Content was divided into 30 weeks and videos were prepared to enhance the knowledge of the students. Also, worksheets having 80 life skills and activities based on moral values are being prepared by the teams of mentor teachers, as well as provision of offline worksheet is also being assured for offline connected students. Closure of schools was not a hindrance to enhancing the knowledge of students.







Zebra Crossing entrance to Class rooms as an initiative under BaLa technique in MCD schools

In addition to this, the North DMC under Ek Bharat Shrestha Bharat, 75 years of Amrit Mahotsav is spreading awareness about the environment and current issues like gender sensitization through various competitions are being organized. Also, a book named 'Gumnaam Nayakon ki Shourya Gadhayen' is prepared by the mentors of North DMC. It comprises stories of 75 brave unsung heroes. The specialty of the book is that a QR code has been given at every page to make sure that every primary student might be able to know about our heroes through the videos.

### Innovation

Installation of smart classes in the Delhi government schools is in name only. According to the RTI data (a report published by Public Policy Research Center titled as 'Politics of Performance vs Politics of Propaganda', 2019) we have received so far, just 10% of the Delhi government schools have smart classes. Some schools have also conceded that not all smart classes are even functional. For example, in zone 27 and Zone 28 cumulatively out of 8 allotments of smart classes, only 4 are in functional state which is indicative of government's unwillingness to benefit the students. The government is just providing the infrastructure, but is not ensuring that the students benefit from the policy.

Further, at the same time, we find a positive trend in MCD schools across Delhi. Quality in primary education is one of the most basic requirements for building a strong foundation and schools under Municipal governance are doing a commendable job within given resources.

The Delhi Corporation schools have a science club for children of all classes. Such clubs encourage innovation and invention by fostering scientific temper among students right at primary level. The idea is to promote scientific temper and innovation among children right at primary level. Several schools that were visited as part of the survey had well equipped science rooms with qualified teachers to encourage students to create innovative ideas and make student understand the basic concepts through modelling & hand-on- experience. They had a series of science models, science models from waste models, developing environment friendly solutions etc.

The schools also have tied up with voluntary organizations which have, among others, the objective of providing career guidance and financial assistance to students and encouragement of scientific research. The organization runs a National Level Science Selection committee for talented students and accords training and support under their program.



# Health

## Disease Prevention Measures

The monsoon season and constant rainfall are favorable for the breeding of larvae of mosquitoes that carry the virus that can cause dengue and malaria. In order to reduce the number of cases of vector-borne diseases and mosquito-borne diseases such as dengue, chikungunya, and malaria, the Municipal Corporation started an 'intensive campaign' including regular fumigation, spraying of anti-larval medicines, and increased its workforce by engaging nearly 2,000 workers in preventing mosquito breeding by means of household surveys, awareness campaigns through the distribution Handbills and stickers, fumigation, and spraying of anti-larval medicines. The campaign included ward-level meetings with representatives of resident welfare associations (RWAs) and the distribution of pamphlets in the first phase. In the second phase, Gambujia fish was released in reservoirs so that they can eat the larvae, and spraying of anti-mosquito medicines in big drains took place in the third phase.

Notably, the East Delhi Municipal Corporation has added 2 more trucks for spraying insecticide on the roads. In a special drive EDMC sprayed insecticide along with Yamuna River adjoining areas by a boat as these are difficult to reach area. The corporation has also sprayed insecticide through drone in difficult to reach areas for the prevention and control of vector borne diseases cases in Delhi.

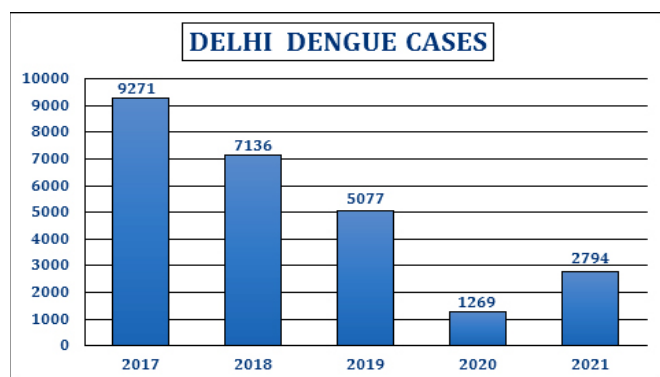
Also, a special drive was conducted during

Diwali and Chhatt Puja Festival for checking of the rooftop of houses, schools or public spaces for the prevention and control of vector borne diseases. During the drive, the corporation organized 'Dengue Month' by conducting awareness camps in every ward. The Fogging Machines too have been increased to 2 in each ward. Also, the civic body has deployed 70 drivers engaged in garbage collection, 100 Beldar, and 6 jetting machines in the sanitation department. The EDMC carried out the process of spraying insecticides house-to-house to prevent dengue. Insecticides were also sprayed around the railway track through the train and wherever it was not possible to reach, insecticides were sprayed through drone machines. O.R.S packets were also distributed in every household. In 2021, the MCD checked nearly 42,000 houses in JJ colonies out of which mosquito larvae were found in nearly 800 houses and 48 dengue cases were reported in the city till July 24.

Furthermore, in view of increasing blood slide examination for diagnosis of Malaria, EDMC has appointed 3 retired malaria inspectors on contract basis for different malaria clinics of East Delhi.

Similarly, the South Delhi Municipal Corporation deployed 2,500 field workers and domestic mosquito breeding checkers in the anti-dengue fight primarily at 35 sites. The North Delhi Municipal Corporation established a site checking squad which visits every building and site each Saturday. The team has visited 29,672 complexes and has also issued notices to those who have failed.

The corporation has around 250 additional beds in the hospitals and a total of 191500 cases were registered in fever clinics. 33 cases of Chikungunya, 1732 Dengue, and 765 Malaria-positive cases have been treated in between of 2017-19. Also, public is being sensitized through megaphone/ loudspeaker, posters, hand bills, stickers for awareness generation in general public regarding vector borne diseases. While, health awareness campaign for prevention and control of vector borne diseases through Munadi & Bulk SMS. Along with this, Gandhi Jayanti and World diabetes day were celebrated with a focus on public education for prevention and promotive health along with a three-day mass screening of the



public in all health facilities.

The above-mentioned zealous efforts made by the civic bodies resulted in the drastic decline of 69.86% in the registered dengue cases in the national capital from 2017. As it is clearly visible from the above graph the tireless initiative of the Delhi Municipal Corporations including South, North & East has resulted in huge depreciation in the cases. Also, under the visionary Indradhanush Mission of the Central Government, the national capital civic bodies have conducted 14,97,113 vaccinations to date which has also played a major role in controlling the rates of these diseases.

### AYUSH Health Service

AYUSH is the acronym of the medical systems that are being practiced in India such as Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy. These systems are based on definite medical philosophies and represent a way of healthy living with established concepts on prevention of diseases and promotion of health. With the joint efforts of the Central Government of India and the Municipal Corporations of Delhi, the number of Dispensaries, functioning or approved, has seen a drastic rise. In the year 2019, the National Capital had included 87 new dispensaries in the working dispensaries list. Whereas, the East Delhi Municipal Corporation is handling 114 Dispensaries.

Also, the EDMC has renovated the Ayurvedic Dispensary of Vinod Nagar and planned to suffice the dispensaries with medicines and essential equipment coming under the AYUSH system. While, the SDMC is providing free services related to AYUSH medicinal system to citizens through 35 dispensaries, 3 Panchkarma Hospitals, and 2 Ayurvedic Diabetes centers. In every dispensary, Immunity booster medicines that increase immunity are available in sufficient quantity in all Ayurvedic hospitals. Further, to protect against the Covid-19 pandemic, the corporation distributed immunity-boosting medicines among 1.5 lakh citizens at the time of lockdown. For the promotion and dissemination of Ayurveda, Jan-Jagran camps were organized in each zone by the department in which citizens were made aware about the COVID-19 pandemic. (Ref. Budget 2020-21)

The AYUSH Department of SDMC is providing preventive, promotive & curative Health Care Services to citizens in the area under the jurisdiction of South Delhi Municipal Corporation (SDMC). The SDMC is conducting Awareness Camps in order to provide information regarding home remedies and healthy way out by utilizing the nearest available resources. The corporation is constructing several new dispensaries, hospitals, Panchkarma Centers, Homeopathic dispensaries and even maintaining the old dispensaries and hospitals. In addition to that, more than 3 lakh immunity boosters were distributed to employees, frontline workers, and the general public.

Apart from modern medicine, the North Delhi Municipal Corporation (NDMC) is all set to open its first AYUSH hospital in Delhi. The hospital would be built in the Sarojini Nagar area and shall provide all around facilities to the citizens. About 30,000 square feet of space has been identified for the hospital near CGHS complex, apart from the metro station and Sarojini Nagar Market. The hospital will be looked after by the Ministry of AYUSH for about three years. It will then be handed over to NDMC. Even if a fee is kept, it will range from Rs.50 to a maximum of Rs.300. Different OPDs of all medical practices will be created and people will be able to get their diseases treated regularly everywhere.



Figure: Dispensary in Shankar Garden





Separate therapy centers will be set up for therapy under these five methods such as Panchakarma in Ayurveda, Hydro in Naturopathy, Acupressure and Acupuncture, etc. In the unprecedented times of the Covid-19 Pandemic, the faith of the people is highly increasing for the Ayurveda System of Medicine as Immunity Booster and Curative treatment.

## Other Health Related Services

- The three Municipal Corporations of Delhi run 6 general hospitals, five colony hospitals, 23 polyclinics, and hundreds of dispensaries, maternity and child welfare centers registering a footfall exceeding 1 crore patients on a daily basis.
- The East Delhi Municipals Corporation (EDMC), has 7 Maternity Homes with an indoor facility of 107 beds in total and providing institutional delivery & child care services. There are 23 M&CW centers that provide outreach services to a huge chunk of the underprivileged population of East Delhi. Similarly, around 2500 safe & normal deliveries were conducted in Maternity homes in 2018-2019 with Zero maternal mortality as well as antenatal check-ups of about 67000 women have been done under the South Delhi Municipal Corporations. And, around 2500 safe & normal deliveries were conducted in Maternity homes in 2018-2019 with Zero maternal mortality under North Delhi Municipal Corporations.
- The EDMC has constructed a three Storey operation theatre complex in Swami Dayanand Hospital (SDN) to handle the increasing number of pregnancies requiring caesarean deliveries along with other surgeries at a cost of 2.7 crores. The building, equipped with state-of-the-art facilities, has a capacity to perform around 50-60 surgeries a day.
- Under Kayakalp Programme which is a part of SWACH BHARAT ABHIYAN. Swami Dayanand Hospital received a Commendation award & prize of Rs. 3 Lacs.
- Queue management system has been started in OPD Pharmacy by the EDMC.
- The EDMC has improved and upgraded the infrastructure of Dr. Shyama Prasad Mookerjee Hospital which include repairing of damaged roof of OPD block, repairing of isolation ward, repairing of damaged overhead tanks & sanitary pipes, tilling in required rooms of Engineering Department with an estimated cost of Rs. 40 lakhs.
- Up gradating and Consolidating work of buildings including construction of a separate room for installation of X-Ray machine with CR System at Shahdara Chest Clinic with an estimated cost of Rs. 2.42 Lakhs.
- An amount of Rs. 2 lakhs have been approved by the EDMC for 07 Maternity Homes under NRHM for Rogi Kalyan Samiti.
- The EDMC in Swami Dayanand Hospital is providing medical facilities and have increased the capacity to 370 Beds, 250 Wards, 120 M&CW Block. In addition to this, 6 high level dependency unit (HDU) beds are also available with all major specialties.
- Under the corporation, all the citizen-centric service provided by Public Health Department is available online, for instance, for the registration and processing of Birth and Death (RBD) along with the addition of name and correction, in particular, can be done online.
- The South Delhi Municipal Corporation (SDMC) has now introduced 191 new public toilets in its four zones as part of the Swachh Sarvekshan Survey 2021 in an attempt to attain ODF++ (open defecation free) status.
- The North DMC has simplified the process of health trade license policy with extension of terms for grant/renewal of health trade licenses for 3 years for various categories on MHA portal.
- The North DMC has launched a e-cart policy for sale and purchase of food/pre-food items. Also, the fees of water trolley have been reduced to Rs. 200 which was Rs. 1000 earlier.
- In addition to this, 1 Colony Hospital, 17 Polyclinics, 6 Maternity Homes, 31 Dispensaries, 11 mobile vans, 59 Maternity and Child Welfare Centers, 1 PUHC, 1 VD clinic, 6



M&CW Zonal units are under NDMC. These institutions have around 3104 beds and all the healthcare services are provided free of cost to the poor and vulnerable section of the society.

- The labs of North DMC have conducted over 67.92 lakh tests of various types including 1.34 lakh X-rays and 83000 Ultrasounds in 2017 which has increased to 42.42 lakh tests at present. Also, 27000 surgeries and 21000 deliveries have been conducted so far. More than 50000 children are being vaccinated with primary vaccines in these health units.
- 64 doctors, 16 pharmacists, 36 staff nurses, and 116 ANMs joined as regular staff, and 65 new appointments were carried out in Medical College. In 2019, 245 students and 45 interns were enrolled in North Delhi Medical College.
- A Cancer detection clinic in Hindu Rao and Kasturba Hospitals where all the biochemical and radiological investigations will be provided free of cost was inaugurated by NDMC.
- Mammography machine was installed in the department of Radiology for early detection of breast cancer.
- EWS is being implemented in all institutions and consequently the number of seats has been increased in MBBS from 50 to 60.
- Nephrology is upgraded with new two dialysis machines and Department of urology is fully upgraded with a Flexible CystoNephroFibrescope which helps in diagnosis and therapeutic procedures at HRH.
- Academic performance in Medical College continues to be of the highest quality and 22 students of the first batch (MBBS 2013) from NDMC Medical College cleared the NEET examination and secured PG seats in prestigious medical colleges.
- The Nursing school in HRH and KH has been upgraded with intake of 22 seats in college.
- In order to provide quality health services, new equipment has been provided in hospitals including 800 MA, 600 MA and 500 MA x-ray machine, slit lamp with imaging, 2D echocardiography and so on.

## Green Delhi

Since time immemorial, Delhi has been a favored place for green lovers and a heaven for solitude lovers. Even today, when the whole city pulsates the rhythms of modernity, you can easily find some serene sectors nestling under the amiable shades of Neem and Jamun. Delhi, with its garden and green spaces, with its high levels of income attracts lakhs of people. This rapid growth of Delhi has resulted in enormous pressure on existing service infrastructure and a significant increase in all types of environmental pollution. In an attempt to countervail these issues, Delhi Municipal Corporation has taken many unbeaten initiatives and today the national capital flaunts of being one of the greenest places of tourist interest.

For maintaining the green cover, reducing pollution and providing its residents, especially children, with green parks and modern play areas, all three municipal corporations have made transformative and innovative efforts. For keeping East Delhi green and caring for plants “Adopt A Tree” program has been started under which citizens could take the responsibility of taking care of trees by voluntarily adopting them. The name and address bar would be put up on the tree guard for the citizens who would adopt trees. At present, a total 4880 trees have been adopted by the citizens. Earlier, the corporation did not have any arrangement for pruning tall trees, so two hydraulic tree-pruner machines have been purchased from Urban Development Fund of Rs.27 lakhs, so that tall trees are now being pruned in a convenient way. In 2012-13, the Public Policy Research Center has indicated the need for more facilities at the parks for children as well as young people. We have also given larger emphasis on the steps for the beautification of parks and open spaces to generate interest of citizens in the physical activities.

Thus, in 2016, the three municipal corporations first installed open gym areas in the city's park and established children parks while utilizing scrap material which got good response from the citizens, with even sections earlier unable to afford exercise equipment's or gym membership now gleefully gathering in numbers for the daily physical exertions. The way these parks have been conceptualized, with basic



equipment's and signboards by giving instruction on their use, it has been easy and safe for newcomers to access the facilities. Apart from engaging people in healthy activities, the gyms have helped reduce crime rates in parks because more people come to the park, which otherwise were used mostly by drug addicts and anti-social elements. The popularity of the open gym has spurred member of parliament and state assembly to allocate a big percentage of their local area development funds for them.



Figure: Beautification of parks done by NDMC

Taking a creative initiative by the East Delhi Municipal Corporation, a mobile children's park has been built on an old truck out of scrap material, on which swings have been installed for small children. In this direction, the corporation has made good use of fallen trees by making 40 wooden benches and stands to sit in the parks. On the other hand, under the Waste to Art Project, 110 old and broken iron benches were repaired and installed in various parks which has saved about Rs. 7.50 lakhs which enhanced the beauty of parks. This initiative has been done keeping in mind the benefit of those people who do not have any park near their house. Further, acupressure tiles are being installed in one of the parks of each ward keeping the health of the elderly and diabetic patients in mind, and open-air gyms have also been arranged in the parks of each area.

At present EDMC is taking care of 2162 parks with a total area of about 903 acres. There are about 1025 ornamental parks, 8 herbal parks, 148 children park etc. In addition to this, EDMC is handling 70 parks of DDA and have initiated a new scheme for 28 parks under which companies will be provided with the free of cost space for milk booth. On the basis of PPP Model, EDMC has decided to collaborate with private players for 92 parks and 4 flyovers. This collaboration will help in the maintenance, beautification and other such facilities at the public places. For enhancing the beauty of parks, the corporation have installed Animal Like Face Masks on the trees. Also, water harvesting

has been installed in 20 parks, apart from this, a total 30 parks have been redeveloped and refabricated.

Further, the EDMC has been installed a 125 KV PNG Generator at Shayama Prasad Mookerjee Chest Hospital, Padpadganj which is in compliance with the guidelines of Delhi Pollution Control Committee and National Green Tribunal at a purchase cost of Rs. 23 lakhs. Till now, the corporation has planted 17,741 trees and 34,717 herbs & shrubs and over 4813 tree guard has been installed. There are 26 Green Waste Management Centers where 110 net have been installed in various nurseries and parks where manure is being made. In addition to this, the corporation has taken further steps to curb the pollution in which the most prominent one is installation of 40 water sprinkler machines of 8000 liters capacity which are doing important work of sprinkling 650 Km of road daily, cleaning dust particles, dusting of trees etc. Notably, the EDMC participated in Garden Tourism Festival, 2021 and won 5 awards in different categories.

The South Delhi Municipal Corporation is taking care of 6102 parks and has planted Vertical Garden on 120 Pillars and planted 1 lakh trees and 1.5 lakh green bushes and utilized modern equipment for beautification. In order to reduce pollution levels further the Municipal Corporation has purchased 75 electric vehicles and installed 123 charging stations, saving 1.65 lakh liters of petrol and diesel per year and reducing pollution.

In the SDMC jurisdiction area, swings have been







Figure: Beautification of parks done by EDMC

installed in 197 parks, work is in progress in 103 parks, 1 Chindran Park(Nandan Van) has been prepared and 5 more have been identified in which new and modern swings, various attractive artefacts, gates, gazebos, play stations, tree decks etc. will be available. 243 open gyms were set up, further work is going on for 57 more. Construction of 37 fitness trail parks which will have light, medium and heavy exercises on 3 types of acupressure tracks. Further, plan for park is in progress in 10 developed on 13 Gram Sabha land. The SDMC has undertaken irrigation through Sprinkle Irrigation System in 494 parks resulting in 50% water saving. The beautification of parks was done by construction and renovation of boundary wall, grill, entrance, bench, high mast lights, raw and pucca walking track in the park. Plantation was carried out in all the parks. Also, many DDA parks which were in pathetic condition got them delivered to the corporation and beautified them.

The North Delhi Municipal Corporation have taken various innovative and constructive measures in order to enhance the Green Cover in Delhi. In this regard, the 'Adopt a Tree' campaign have further boosted to 'Gift a Tree' Program in which people can gift their trees to their friends and relative. The North DMC have completed the work of 167 municipal school



Figure: Plantation done SDMC in parks

greening by planting several herbs or shrubs in the school premises with an estimated cost of Rs. 418.96 lakhs. Also, the North DMC have planted various plants on the 43 municipal roads with an estimated cost of Rs. 142.95 lakhs. The corporation is zealously working towards achieving good health of the citizens; thus, the corporation have installed Open Gyms in 553 parks while providing 6944 equipment's and constructed children play stations in 275 parks with 1604 equipment's. Under the Rani Jhansi Flyover, 12 parks have been developed, along with this 16 Poshan Vatika has been developed and 67 more Poshan Vatika are in the process of construction. The NDMC have installed water harvesting systems at 478 municipal school sites. Currently, the corporation is handling 6095 parks.

While the corporation is tirelessly planting trees around the city, it becomes imperative to examine the health of these trees so that necessary actions can be taken. Therefore, the corporation has started the auditing process of the trees and the 1st phase of audit has been completed which shows that the survival rate of trees is more than 75%. Furthermore, taking another innovative step, the corporation has developed Jal Shakti Park in Roshanara Bagh under Keshav Puram Zone for conservation of ground water.



# Pollution-free Cremation

The age-old Hindu tradition, Antyesti, or the funeral rites for the dead, are performed with the body carried near a river or a waterbody by family or friends and burned after placing on a wooden pyre. Later, the ashes are immersed in the Ganges or other rivers. The flowers, urns, and other items used for the rituals performed prior to the cremation are later dumped into the river along with the ashes and the bones.

According to a study conducted by IIT Kanpur in 2016, it was indicated that 4% of toxic carbon monoxide emissions are released into the air through the cremation sites concluding that over 2,129kg of carbon monoxide, 33kg of Sulphur dioxide, 346kg of PM10, and 312kg of PM2.5 dust particles were being emitted every day by cremations. A tailwind that arises amidst the implementation of the pollution-free cremation in Delhi is by the attitude of the people who do not wish to go against the tradition. On the demise of a person, the concerned family members are already in trauma that the thought of protecting the environment does not strike them. While opting for an eco-friendly cremation, they get criticized by their relatives. Hence, another option has been provided at the Ghat - Mokshda Harit, which is a good substitute to the conventional pyre, as this one needs about two quintals less wood than the conventional way. This one costs around Rs 1,200 and takes about two hours

for the wood and the body to incinerate.

In order to reduce the pollution level, the East Delhi Municipal Corporation has installed 4 CNG-based crematoria in Ghazipur and Karkardooma crematorium with an estimated cost of Rs. 1.25 crores. Also, the corporation is using stubble and cow dung for pyres instead of wood. This initiative helps save wood and produces around 90% less pollution than the traditional method of a funeral pyre.

The South Delhi Municipal Corporation has established the CNG furnaces at its Subhash Nagar and Green Park cremation grounds to create more space for performing last rites. And the North Delhi Municipal Corporation has decided to set up a real-time monitoring system and central control room for cremation grounds. Now, Delhi has 32 Covid-designated cremation and burial grounds which together have a capacity to deal with 1,100-1,200 bodies daily. The capacity has been ramped up to attend to around 1,500 cases. The Cremation grounds have also been modernized with an increased number of platforms and CNG facilities. (Ref. Budget 2020-21)

The North Delhi Municipal Corporation has started providing an Online Pyres availability system and also issuing e-cremation slips at all the Municipal Cremation Grounds. The corporation has established a Green Crematorium at Wazirpur Cremation Ground, 6 CNG furnaces with a cremation capacity of 36 bodies per day at Nigam Bodh Ghat, and introduced the usage of cow dung or Parali cakes for cremation.

From increasing the space for cremations and managing the pollution arising from the traditional funeral pyres, the MCD has taken up various initiatives in this regard. The system of Green Cremation has been introduced in Delhi for the first time. Moreover, other options are also available for performing the last rites such as Mokshda. These measures do not only result in the reduction of hazardous emissions but a reduction in the cost of cremation and input of firewood.



Figure: Construction of CNG based crematorium at Green Park



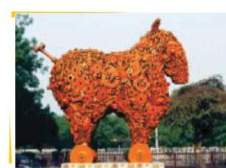


# Reducing the Load of Landfill Sites

Solid waste management was the major problem especially with the handling of plastic waste, the rising population, industrialization, urbanization resulting in increasing amount of solid waste. The alarming rate of increasing population and in result solid waste in urban system (Delhi) was required immediate actions to dilute before situation going to be out of control. Apart from being an eyesore of increasing piles of waste, the main problem with landfills is toxins, leachate, and greenhouse gases. Nowadays, waste may be used as a valuable resource. A rapidly growing population generates larger quantities of solid waste in Delhi and there was a need to manage it effectively. In order put the landfill waste to productive use and reduce their height, the municipal corporations of Delhi are utilizing the waste especially plastic waste in road construction, creating unique parks from industrial and other waste. Malba in small quantity can be dumped by general public at these sites from where the same is transported to C&D waste recycling plant by the concessionaire of recycling plant. Bulk generators have been directed to dump Malba either at C&D waste processing facility or at Sanitary Landfill sites. For instance, in the NDMC, bulk generators have been directed to dump Malba either at C&D waste processing facility at Jahangirpur, near Burari or at Bhalswa SLF site.

As per the NITI Aayog's report on 'Waste-Wise Cities- Best practices in municipal solid waste management 2021 to channelize the C&D waste generated, NDMC has augmented the capacity of IL&FS Environmental Infrastructure and Services Limited (IEISL) project – the first facility of its kind in the country – on the private-public partnership (PPP) model to recycle Construction & Demolition waste at Burari, Delhi. The plant scientifically processes 2,000 tons per day (TPD) of C&D waste into aggregates that are converted to ready-mix concrete, cement

bricks etc. Over 16 lakh recycled concrete blocks from the plant are being used in the new Supreme Court annex building. The plant has processed since its inception in 2009 over 45 lakh tones of C&D waste that would otherwise have been dumped illegally in river Yamuna or other eco-sensitive areas. Construction of New Supreme Court building and MP flats used about 23 lakh tones of recycled materials. The 4-km Express Bakkarwala Road made by DDA used 2.6 lakh tones of recycled C&D material. The C&D waste plant has been established with capacity to process over 8 lakh tons of C&D waste. Further, the EDMC has demarcated 60 sites from where they are collecting C&D waste. Till now, 8.8 lakh tons of C&D waste have been processed. The EDMC signed a Joint Venture with National Thermal Power Corporation (NTPC) to harness waste into green energy. Also, EDMC has set up an 8 MW plant and is working to expand it by 11 MW plant. 16 plants are set up out of which 14 convert waste into fertilizers and 2 plants convert waste into electricity. Further, the corporation, as compare to earlier situation, the corporation have reduced total Garbage being sent to Ghazipur site by 600 Metric Tons per day which cumulatively stand at a number 216,000 Metric Tons per year.



The Horse  
Approximate Dimension - 11 feet x 13 feet x 3.5 feet  
Dwarka (Kaveri Apartments Park), New Delhi



The Rhino  
Approximate Dimension - 7 feet x 13 feet x 5 feet  
Dwarka (Sector 6), New Delhi



Tiranga Boys  
Approximate Dimension - 8 feet x 8 feet x 4 feet  
Boy sculptures in the colors of the National Flag  
Amar Colony Market, New Delhi



Yoga pose 1  
Approximate Dimension - 8 feet x 5 feet x 2 feet  
Dwarka, New Delhi



The Dog  
Approximate Dimension - 5 feet x 8 feet x 4 feet  
W Block, GK I, New Delhi



Man with wings  
Approximate Dimension - 11 feet x 5 feet x 8 feet  
Dwarka, New Delhi



Welcome - Lady figure  
Approximate Dimension - 14 feet x 12 feet x 2 feet  
Dwarka (Sector 23), New Delhi

Figure: Waste to Wonder artefact in the SDMC





In the SDMC, 4 machines have been procured to make compost from 40 tons of wet waste per day, four plants will be set up to make compost from 5 tons of solid waste per day. Further, the SDMC is planning to set up 4 plants for making compost from 1-ton solid waste per day and composting pits are being made in each ward. Beautification of waste sites by making 30 artifacts from 15 tons of perishable / unusable materials, rock garden on about 8 acres in Munirka, Jamun Park on about 3 acres in Khidki Extension was beautified which is made on sight.

The NDMC has undertaken bio-remediation of legacy waste at Bhalswa dumpsite by installing 28 trommels and 4 keelaman machines and cleared 20.30 lakh MT (25.30%) legacy waste out of 80 lakh MT. This has led to reduction in height and area of the dumpsite as 14.90 acres was cleared from 11m high first mound (First mound at top has been completely cleared) and clearing of second mound is in progress.

SDMC is setting up two C&D waste recycling plant to make tiles etc. from rubble, due to which construction and demolition waste will be recycled. To generate electricity from the entire solid waste generated from the corporation area another plant is being installed. For making compost from green waste, the SDMC has purchased 8 chipper-cum-shredder machines, 2 more will be purchased, 301 Vermi compost beds are ready, 100 more are being prepared for making compost. 120 quintals of green waste are processed daily by the Municipal Corporation. Further, the corporation has installed waste to energy plant of 2000 MT at Okhla in which a total 3200 MT solid waste and 2000 MT wet waste can be consumed.

The North DMC is running a C&D Waste processing plant at Jahangirpur, near Burari since year 2009 in concession agreement. The initial capacity of plant was 500MT/day which was later enhanced to 2000MT/day in the year 2014 to cater the increased inflow of C&D Waste. NDMC has setup its second C&D waste recycling plant of minimum capacity 1000 TPD at Ranikhera on PPP mode from 20th December, 2021. The 2200MT – 2500MT of waste collected from CSP, Karol Bagh & Narela Zones is being dumped at Bhalswa landfill site. Thus, a MoU has been executed between North DMC and IOCL on 19/01/2021 for setting up integrated waste to energy facilities in the

jurisdiction of North DMC by processing of 2500 MT of MSW and the tender has been received and case is under process. An IOCL has assured to operationalized integrated waste to energy facilities by 31.12.2022. The 20 lac tons legacy waste is already bio mined and the top dump of an area of 15 acres & 11 MT. Till date, the height has been completely cleared by biomining. The efforts made for disposal of inserts are correspondence with NHAI, NTPC, I&FC, DDA, DM(North) & DM (N-W).

The initiative taken by the MCDs in Delhi to management of solid waste helps to reduce the pollution on surface, air and groundwater and bring the improvement in general quality of life in the city. These projects are helping to overcome the problem of waste management. These initiatives and policies of MCDs are bringing back the “Greendays” in our capital city.

## Clean Energy

Solar energy is the future of our upcoming generation. It is safe and a greener and economical alternative. Moreover, it can be replenished so it serves as a renewable source of energy. As a result, it does not cause pollution. Thus, Delhi Municipal Corporation is promoting the greater usage of solar energy while implementing various plans and initiatives.

The Delhi Corporations promoted solar power generation and installed solar panels on all its schools and buildings. The surplus power generated from solar power was made available to BSES, from which the corporation earned an amount of Rs.3.72 crore. (Ref. Budget 2020-21)

The North Delhi Municipal Corporation has installed 1,77,015 LED lights. Also, the NDMC has successfully installed a total of 1170 KW solar power plants at 164 school sites which include places such as Rohini, Narela, Keshav Puram, Civil Lines amongst others. The NDMC under the Smart City plan had envisioned 69 projects worth 1897.27 crores in four broad sectors i.e., E-Governance & M-Governance, Information Dissemination, Electricity distribution, and Solar energy. Out of 69 projects 33 projects have been completed and work is





Figure: Installed LED Street Lights and Solar Panel at Najafgarh Zone

under progress in 36 projects. Also, the Corporation had set up solar plants in 200 government schools. A total expenditure of around Rs. 3.53 cores have been utilized on installation of these solar power plants. Till January 2022, a total solar power generation recorded on these solar plants was more than 10.55 lakhs unit.

During 2017-2021, the Electrical Engineering and Auto Department, EDMC have replaced the conventional lights by LED Lights and a total number of 1.77 lakhs lights has been replaced. Thus, average energy saving per year reaches to 9 crores units and equivalent removal of carbon footprint. Notably, outcome of the project in financial terms is approximately 45 crores saving per annum. Further, this project gained momentum and received India's Highest 'Certificate of Merit' award in energy conservation 'National Energy Conservation Award (NECA 2020)' along with this, the corporation has received 'HUDCO (Under MoHUA, GOI) award for best practices to improve living environment 2019-20.

For identification and removal of Dark Spots, a survey was undertaken by the corporation while joining hands with an NGO 'SAFETIPIN' and in compliance installed 3225 streetlights poles and 6065 street lights in the year 2018 as one-time massive program of dark spots removal.

Align with the Agreement of Solar Energy Corporation of India and South Delhi Corporation, the solar panel was installed on the roofs and open spaces of 297 buildings, due to which not only the corporation expenditure on electricity bill by Rs. 87 Crores has been reduced but the earning income has also in-

creased. Further, the South Delhi Municipal Corporation has replaced 2 lakhs of Sodium-based Street Lamps with LED Lights & GIS-based street lights and commissioned 2.25 MWp solar power plants. Also, they have planned for constructing 20 MWp in Najafgarh Zone. The corporation have installed 3,72,722 LED lights. The corporation has taken the following steps for the betterment of street lights: -

- Installation of Poles & LED Lights after identification of Dark Spots
- 158 GI poles at 5 mtr with 35W LED Lights
- 19 MS poles at 6mtr with Double 30W Flood Lights
- Installation of Poles and LED Lights in front of all Mandirs and Gurudwara
- Electrification of 5 New Public Toilets.
- Illumination of District Centers with 140W Flood Lights
- Installed 36W recessed LED Lights at SDMC Community Hall
- Illumination of Police Felicitation Centre at District Center
- Temporary lighting at Ramleela/Krishnleela/Chhath and Durga Puja
- Electrification of 3 FCTS
- Installation of 108 high Mast & LED Lights poles in all parks

Under the East Delhi Municipal Corporation, there were 1,16,000 street lights at different places which have been changed with LED Lights which helped in saving 78% of energy. Also, they have improved their complaint redressal as of now the corporation is solving problems related to street lights within 2 to 24 hours.



# Citizen Centric Governance

Standing in long lines to pay our bills at a government department or agency and being at the receiving end of the apathy of a public servant across the desk is a familiar experience to most city dwellers. But there is good news from some cities on how e-governance or use of IT in city administration is making a difference to the delivery of public services in urban India.

Hence, several services of the municipal corporations of Delhi, such as payment of property tax, applying trade licenses, issuance of birth and death certificates and others under the municipal corporations of Delhi have been made available at just a click of a button. For instance, now there is no requirement of visiting various government offices for certification and issuing of licenses as the public can enter the concerned details on the online platform and download the approved documents after verification by the concerned authorities.

These services have also been made available at over 3,000 common service centers (CSCs) across the city, a mission mode project under the Digital India Programme of the Centre, in order to increase the accessibility of said services. Notably in the national capital, there are 2636 CSCs are working located in 560 sq.mt. across an area of 1484000 sq.mt. 28 Aadhaar registration centers have been started in schools in the SDMC and in order to monitor civic amenities and redressal of public grievances at the earliest 'SDMC 311' mobile app has been launched. Further, for the approval of maps of residential and industrial buildings a Single Window approval system was created, as a result of which now there is no need to go to 9 different agencies for this. The entire process is transparent online, thereby curbing bribery and touting.

In addition to this, a total 23 Online Services are available on the EDMC official page in which essential services like COVID Helpline Portal/Call Centers, License and Lease Management, Digital Archive, Pet Dog Registration, etc. are unavailable. Whereas, North Delhi and South Delhi municipal corporations have incorporated them and are providing a total 46

and 42 online services respectively. In addition to this, EDMC has announced plans to start an online licensing system for industries.

The municipal corporations of Delhi receive funds from the central government on project basis due to which many long-delayed projects have been completed. For instance, the long pending Rani Jhansi Flyover under the NMCD was finally inaugurated in October 2018 which was conceived in 1998 and commissioned by the erstwhile unified Municipal Corporation of Delhi in 2006. Further, originally the 1.6-km-long flyover from St. Stephens Hospital to Filmistaan Cinema was scheduled to be completed by September 2010 but due to inordinate delays, the project witnessed several fold cost escalations from the initial estimates.

Further, the EDMC's long-pending Shahdara Jheel redevelopment projects got new boost in July 2019 as the project was inaugurated again under the central government's AMRUT (Atal Mission for Rejuvenation and Urban Transformation) scheme. Also, in a special project under Pradhan Mantri Kaushal Vikas Yojana 3.0 (PMKVY 3.0) the project for upskilling of Street Food Vendors (for e-cart license) in East Delhi Municipal Corporation- RPL for 2500 street food vendors who apply for e-cart license to upskill them and make them well versed in hygiene, safety, customer centricity, digital transactions, and entrepreneurship skills has been undertaken.

In 2019, EDMC introduced an online platform for easy permission for plots up to 500 sq. meters. Though, no steps have been taken so far to end the mandatory requirement for permissions. While approvals can now be taken online without any human interface. However, the need for approval is still there.

Under AMRUT, steps taken to provide water supply to every household and in the NCR of Delhi, so far ten water supply projects worth Rs. 292 Crore have been taken up in the four ULBs, namely North Delhi Municipal Corporation (NDMC), East Delhi Municipal Corporation (EDMC), and South Delhi Municipal. For people staying in unauthorized colonies of Delhi, regularization has been a far-fetched dream. Property owners, who do not have registration papers, find it difficult to sell or mortgage their assets. To help such people, the central government has come







Figure: Community center at Janakpur

out with the Pradhan Mantri Unauthorized Colonies in Delhi Awas Adhikar Yojana (PM-UDAY).

As of September 2021, under the PM-UDAY scheme, around 4,25,033 people got their registration done and around 78,000 have filled the applications. Further, the conveyance deeds along with authorization slips stand at around 8,000. According to the official sources, more than eight lakh households shall be covered under the scheme.

In addition to this, the civic bodies for the celebration of Chhath Puja - an ancient Hindu festival and celebrated widely for four days by the devotees- have endeavored to provide better facilities to the devotees. Thus, to provide all facilities to the people celebrating Chhath Puja, the East Delhi Municipal Corporation has decided to ensure proper maintenance of Ghats with sanitized toilets, lights, mobile dispensaries, repairing of roads, connecting the Ghats, and other basic arrangements. Similarly, the South Delhi Municipal Corporation developed Ghats on the occasion of Chhat Pooja and spent 40 lacs to provide facilities to more than 500 devotees. This is an ongoing annual process during winters.

In October 2019, North Delhi Municipal Corporation raised the remuneration to monkey catchers (per capture) from Rs.1,200 to Rs.1,800. And a total of 182 monkeys have been handed over to the Wildlife Sanctuary area located in Asola Bhati Mines from April 2020 to October 2020. At present, a total of 14 centers are running the program of sterilization of

non-pet dogs. In the current FY, a total of 8823 stray dogs are sterilized, and a total of 343 stray animals were sent to Hare Krishna Gosadan. About 80% of non-pet dogs have been sterilized in 23 wards under the Animal Birth Control Policy. The North, South, and East Delhi municipal corporations send stray cattle to four shelters at present — Gopal Gausadan in Harewali with a capacity of 3,200; Sri Krishna Gaushala in Bawana, which has space for 7,600 cattle; Manav Gausadan in Rewla Khanpur, which can accommodate 500; and Dabar Hare Krishna Gaushala in Surhera with a capacity of 4,000.

The North Delhi Municipal Corporation has approved to embed microchips in stray cattle with a code that will help get the information of the cattle owners and help officials to identify them. A penalty of Rs 25,000 has been imposed on those abandoning cattle. (Ref. Budget 2020-21). The East Delhi Municipal Corporation has started the process of regularizing the 1,500 workers and also, proposed the increment in the salary structure from the current Rs 14,000 to around Rs 30,000. The South Delhi Municipal Corporation is working to regularize all the Daily Wager Safai Karamcharis/Class IV employees appointed till 31-3-2017. (Ref. Budget 2020-21)

The North Delhi Municipal Corporation has started online booking of Community Halls for the general public through Mobile based applications or another mode of internet services from anywhere. Also, the corporation is making efforts for the outsourcing of Community Halls for optimum utilization and maintenance.

The Hon'ble Delhi High Court had asked the Delhi State Government to provide the pension to all senior citizens, widows, and people belonging to the specially-abled category but the AAP Government showing its disinclination towards the matter. Also, the civic authorities have written numerous letters to the government on the same matter but it is still pending with the AAP Government.

The civic authorities of Delhi have done all the relevant work from their end and the final decision is pending with the Delhi State Government which they are ignoring for so long and delaying the whole process of exempting all industries, small units, and factories. Under the East Delhi Municipal





Figure: Community Hall in North DMC

Corporation, the community centers are available free of cost for those young people who have lost their father and condolence ceremony. And for religious ceremonies, the community centers can be availed at half cost.

The South Delhi Municipal Corporation has refabricated 2 community halls and provided world-class facilities along with a good ambiance for ceremonies without changing the rates. The SS Mota Singh Marg and Posangipur community centers have given False Ceiling, Tiling, Flooring, Toilets, Fan Rods, Lights, etc. for the citizen's comfort. Also, the corporation has installed solar panels on the roof of 16 community centers.

### Measures for Unorganized Sector

- India comprises major population working unorganized sectors as labourers. This population is majorly active in the activities such as agriculture, construction, and manufacturing sector. This Informal sector covers large number of workers from rural areas. The unorganized labourers engage in casual, seasonal and scattered employments, which are not unionized. So, the Unorganized workers face the issue of not availing Social Security Benefits such as Old Age Pensions, Gratuity, Employees State Insurance, Workmen's Compensation etc. in India.
- For the effective implementation of labourers legislations for the informal sectors, unorganized labors in India should be given special attention. It was essential to provide

social security benefits to the informal sector and bring them into the formal economy and to address the issues of unorganized workers, the Ministry of Labor, Government of India has launched its e-Shram portal to form a database of workers in unorganized sectors in August 2021. This portal gives huge boost towards last mile delivery of the welfare schemes for crores of unorganized workers. The schemes would not only register them but would also be helpful in delivering to them various social security schemes being implemented by the Central and State Governments. The worker will be able to access the benefits of the various social security schemes through this Card anywhere anytime. After registering, the worker will get an Accidental Insurance cover of 2 Lacs under PMSBY. In future, all the social security benefits of unorganized workers will be delivered through this portal. In emergency and national pandemic like situations, this database may be utilized to provide necessary assistance to the eligible unorganized workers.

- All the MCDs in Delhi have taken various efforts to implement this scheme and registered workers at e-Shram portal by setting up camps in several wards and under the scheme, a total of 29,10,020 people in Delhi have been registered and it is growing day by day.
- When COVID-19 pandemic hit the Indian Economy, the street vendors suffered a lot, meanwhile along with the central government, all the three Delhi Municipal Corporations took various initiatives to support street vendors. The PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) was launched by the Ministry of Housing and Urban Affairs in June 2020, for providing affordable Working Capital loans to street vendors to resume their livelihoods that have been adversely affected due to Covid-19 lockdown. Under this scheme, a total of 51,901 beneficiaries have been benefitted and a total fund of Rs. 52 crores have been sanctioned in the National Capital. The East Delhi Municipal Corporation has provided benefits to 6652 street vendors with a total expenditure of



Rs. 10,000 per street vendor.

- Further, in the wake of the COVID-19 pandemic, the East Delhi Municipal Corporation has waived off the fees for the street vendors until March 31st, 2022. This decision will benefit about 55,000 vendors. Further, it also proposed to set up Covid test centers for vendors at weekly markets which reduce the risk of virus transmission. Also, various licenses are being given to weekly bazaar shopkeepers to ensure that they can avail all the facilities which are available to them.
- The North Delhi Municipal Corporation is providing the following facilities in the weekly market that comes under their jurisdiction: -
  - a. Traffic and Local Police are informed to maintain Law & Order and to control vehicles at the market.
  - b. Health Department personnel are being deployed to ensure screening facilities during the COVID-19 period.
  - c. Volunteers are being deployed to ensure that adequate distance between vendor and buyer is maintained and not more than 2 buyers are allowed to deal at any stall at one time during the pandemic. Proper marking of each stall is ensured for distancing between buyers and vendors and to ensure that each vendor is keeping hand sanitizer ready for use by the general public or customers.
  - d. Personnel from DEMS Department are being deployed to control garbage/spitting in the weekly market. It is also ensured that dustbin is available in the weekly market.
  - e. The steps taken towards the welfare of the unorganized sector by the Central Government and Municipal Corporations brought major changes in the informal sector. These labors are now getting benefits of social security and employment-based schemes of Central and State Governments. The workers in diverse professions have registered at the e-Shram portal. This registration is facilitating delivery and accessibility to crucial welfare programme and various entitlements meant for the workers in the unorganized sector and employment.

## Systematic Parking & Traffic Management

In the everyday lives, the parking systems have become increasingly important. We need parking spaces in our homes, offices, malls, hospitals and other places that we visit. The increasing rate of private car usage in the urban areas as a result of fast-growing economy, derelict policies and subsidies are the main causes making car parking one of the main concerns for transport and traffic management all over the world. In the recent years, we have seen an evolution of technology and part of it is the improvement of parking management systems. The Parking Management Systems are not only convenient but flexible when it comes to controlling the flow of vehicles in a parking area. The cruising of parking takes place due to non-availability of enough parking space for parkers and high demand for on-street parking in such type of areas. It has negative impact on the traffic of most of the metropolitan cities in India. Thus, there was a need to come up with a systematic parking policy and traffic management in Delhi to address this issue.

Taking into consideration the recommendations given by the Public Policy Research Center, New Delhi in the 'Report on Delhi Tangible Transformation Project (DTTP) in 2012-13, the MCDs implemented the suggestions and built automated multilevel car parking to resolve the problem of parking and traffic in the city. The automated parking system is technically sustainable as the system is mechanized thus preventing corruption. It maintains data on the number of vehicles along with the amount collected and the duration of time for which the vehicle was parked. The initiative is financially sustainable, even though the capital investment is high. The daily collection, which is done based on the parking rates, which has proven to be profitable. The efforts taken by all the municipal corporation by building automatic multilevel car parking at crowded places and in market areas is helping to resolve the problem





of parking management and traffic in Delhi.

The 'No Parking Space' in Delhi is a major problem faced by the national capital citizens because of limited available space which usually leads to congestion on roads. Hence, an effective solution for this problem was required. At the crowded places such as markets and parks, people face parking and traffic issues. All the three municipal corporations in Delhi framed various policies and came up with various solutions to combat the problem of parking and traffic and took steps to provide systematic parking in the cities and manage the traffic in the city. The Municipal Corporations in Delhi built an automatic multilevel tower car parking to resolve this issue.

The East Delhi Municipal Corporation provided the citizens with the first fully automatic multilevel tower car parking in the Krishna Nagar Area to the public within a stipulated time frame. This modern car parking has levels 17-17 in 4 towers that can accommodate 136 cars at a time. Also, they have parking space of 10,000 vehicles and further implementing plans to develop parking spaces to accommodate vehicles.

The North Delhi Municipal Corporation is building 17 multilevel parking lots at different locations



Figure: Automated Multilevel Tower Car Parking at Green Park

and 3 stack facilities across several areas under its jurisdiction. This multilevel car parking shall have the capacity to accommodate 12,915 vehicles at a time. Currently, the North Delhi Corporation runs 130 parking lots.



Figure: Lajpat Nagar Automatic Parking

The South Municipal Corporation has constructed the first automatic puzzle parking in Delhi which can accommodate 246 vehicles at a time with an outlay of Rs. 27 crores within a span of just 1 year at Lajpat Nagar. Further, the corporation has constructed a multi-level car parking in the Rajouri Garden Area with five floors which will provide facilities for 200 vehicles. Along with this the corporation is constructing a 17 storey fully automated tower

parking in Green Park with a capacity of 136 vehicles.



# Measures During COVID-19

In 2020, the world was hit by the COVID-19 pandemic which caused major difficulties for people and their lives were disturbed. The devastating COVID-19 pandemic has impacted the world and left many rippling effects. Delhi was amongst the states which was worse hit by the pandemic but due to the zealous efforts made by the Civic Authorities of Delhi, the citizens of the national capital stood firmly against the virus. And, all thanks to the 40,035 'Safai Karamchhari' who were working tirelessly under Delhi MCD's without thinking about their own safety for all of us, we have overcome the pandemic.

## North Delhi Municipal Corporation

Under the NDMC, in the first wave of COVID-19 (June to October 2020) the Hindu Rao Hospital was equipped with 5 ICU beds and 95 oxygen beds for Covid patients and the Balak Ram Hospital started 100 bed Covid Care Centre. Further, the Rajan Babu Institute of Pulmonary Medicine and Tuberculosis (RBIPMT) arranged the management of 120 patients at a time.

During the 3rd wave, the NDMC prepared 133 oxygen beds in the RBIPMT and MVID Hospital for Covid patients. Also, at the Kasturba Hospital and the Balak Ram Hospital, 50 oxygen beds were installed. Along with this, GLM hospital has installed 60 oxygen beds and Hindu Rao hospital installed 505 oxygen beds. Further the following point-wise progress was made by the NDMC:

- More than 750 oxygenated beds and 190 ventilators are ready for handling another wave.
- 333 oxygen concentrators installed in 6 hospitals of North MCD.
- Number of ICU beds in Hindu Rao increased from 10 to 55 including 20 beds for pediatric age group. 10 bedded ICU and 10 bedded HDU being established in RBIPMT.
- Oxygen pipeline extended in 5 major Hospitals. Medical gas pipeline system is near completion in Balak Ram Hospital. More oxygen cylinders procured for hospitals.
- 1000 LPM capacity PSA based oxygen generation

plant installed in Hindu Rao Hospital, RBIPMT, GLM Hospital.

- Increase in capacity of 10,000 litre (8000 cum) LMO Plant in Hindu Rao Hospital to supply more beds by installation of new evaporation coils.
- Increase in electrical points in hospitals for usage of electrical medical equipment including ventilators, oxygen concentrators, multipara monitors, electric suction machines etc. Extensive training programme organized for orientation of medical staff for using newly installed medical equipment. AYUSH staffs were also trained. All DNB students of Hindu Rao Hospital were made to do compulsory 2 weeks posting in ICU so that they can be deployed in ICU during wave of Covid Pandemic.
- List of doctors with PG qualification were kept handy to ensure rapid deployment in hospitals when need arises. Increase in intake of Interns (MBBS) in Hindu Rao Hospital to make more manpower available. Increase the number of Interns in Technical courses namely Lab Technician, OT Technician, X Ray technicians, Physiotherapist. Pharmacist in RBIPMT.
- The North Delhi Municipal Corporation has done the sanitization work of various areas where suspected cases of COVID-19 were found.
- Also, public was being sensitized through Megaphone/ Loudspeaker to follow the lockdown guidelines. Along with this, posters, hand bills, stickers for spreading awareness.
- The NDMC not only procured essential medicines for treatment of patients but also checked the stock position of medicines. RTPCR testing facility has been set up and functional North DMC Medical College at Hindu Rao Hospital and RAT and RTPCR testing are being done in 4 Hospitals, 05 Polyclinics, and 16 M&CW centers of North DMC. With regard to COVID 19 vaccination centers of North DMC, 93 vaccination centers have been set up and more than 35 lakh number of COVID Vaccine doses administered to date.

## East Delhi Municipal Corporation

The Municipal Corporation have done the sanitization work of every household during the COVID-19 pandemic and provided treatment to the patients





by giving various arrangement of medicines in all dispensaries. In the EDMC area, the distribution of medicines was also carried out through mobile dispensaries. At the time of increasing dengue cases, people in and around Delhi were also treated while keeping 160 beds on hold. 02 ventilators and 02 ICU beds had been procured from MPLADS fund and 75 CCTV cameras were installed for the safety of the patients in the hospital.

An oxygen plant with a capacity of 1000 liters per minute was installed in Swami Dayanand Hospital. In view of the huge number of patients in Swami Dayanand Hospital after being converted into a Covid hospital, all types of moderate and severe infected patients were successfully managed and proper oxygen was arranged for them. Swami Dayanand Hospital continued to provide high level of facilities and treatment during the COVID-19 pandemic when private hospitals stopped the delivery of pregnant women. Further, weekly bazaar fees were waived off for general public affected by COVID-19 which helped around 50,000 people in difficult times.

During the unprecedented times of COVID – 19 pandemics, the Government of India launched Vande Mataram Mission to get Indian citizens back to their homes. Thus, every individual needs to be screened and for this, the EDMC had sent 5 teams at the IGI Terminal-3 Airport from 21st March, 2020 to 22nd February 2021. Each team consisted of doctor, public health nurse and mobile chain dispensary.

The staff of M&CW section were involved in monitoring of COVID-19 patients under home isolation at the respective health facilities and regular evaluation for physical verification of such patients and adherence to

isolation norms in their allotted areas. Medicines, pulse oximeter were also given to the COVID-19 patients by the concerned medical officer in charge for treatment and monitoring.

The EDMC have taken several others steps which specifically includes:

- 20 COVID-19 vaccination centers were made functional.
- Provided uninterrupted patient care services during COVID-19. From January, 2021 to September 2021, a total 46680 patients have been provided with the facilities
- Since GTB Hospital was designated as COVID hospital, Swami Dayanand Hospital designated for other health facilities round the clock.
- Conducted IEC activities to educate people about the importance of physical distancing, wearing mask, and hand hygiene.
- Maternity home in Seemapuri has been renamed as Maa Janaki Maternity Home.
- Chandiwalla, Maternity Home has been renovated and made fully functional.
- The reconstruction work of Allopathic Dispensary, Karawal Nagar have been completed with an estimated cost of Rs. 200 lakhs and now it is functioning properly.

Also, following the thread of Indian Culture 'Nar Sewa hi Narayan Sewa', the corporation opened hunger prevention centers in its 91 schools, from where cooked food was distributed. Not only this, the corporation has distributed dry ration from its 92 corporation schools including wheat, rice etc. Under the snack scheme, a cash amount was given to the children in the bank accounts from April 2020 to June 2020 and after that



Figure: Beds in MCD Hospitals



Figure: Beds in COVID Centers







Figure: Oxygen Plant in SDMC

from July 2020 to March 2021.

### South Delhi Municipal Corporation

We all have been affected by the current COVID-19 pandemic. However, the impact of the pandemic and its consequences were severe but due to the zealous efforts taken by the South Delhi Municipal Corporation, the residents didn't feel left out or helpless. The South Delhi Municipal Corporation arranged about 12 Quarantine and 175 Isolation Centers by converting corporation schools and community buildings into isolation centers. These isolation centers have treated over 10,321 people. The SDMC had also constructed Asia's largest quarantine center (Radha Swoami Satsang Byas Campus, Chhatarpur) in which numerous doctors, paramedical staff, and sanitization workers were employed in the service of people who were infected. The doctors and paramedical staff of the corporation were working to take samples of RT-PCR and Rapid Antibody Test.

In order to provide better treatment and doorstep medical facilities to the patient, the corporation has established more than 80 flu clinics that run on a daily basis. In these Flu Clinics from 26th March 2020, about 5,51,687 persons were given OPD facilities and were sent to the hospital in case of severity. In addition to this, the corporation has also converted its 2 hospitals namely PSMS Hospitals and TNCH Tilak Nagar which have a capacity of 50 and 70 beds respectively into isolation centers.

To prevent the pandemic, the Ayurvedic and Homeopathic departments of the corporations distributed Arogya decoction (Kadha) to 1,57,516 people and Arsenic 30 to 3,57,751 persons which increased their ability to fight the pandemic. Furthermore, the

Ayurveda Department of the civic body has taken steps to spread awareness about the symptoms, prevention, and usage of Ayurvedic Medicines in the prevention of COVID-19. By this awareness program, more than 3,74,315 have taken benefit.

Sanitization plays a very important role in the process of prevention from pandemic. Therefore, the corporation has completely sanitized the area under its control, using all possible equipment and tools continuously. The corporation has utilized the following machines in this process:

- 400 - Motorised Pumps
- 893 - Pitthoo Pumps
- 10 - Tanker Sprayers
- 16 - Jetting Machines
- 16- Water Sprinklers
- 02 - Drones

About 22,000 sanitization workers of the corporation were constantly putting their lives at risk to keep the area clean. Thus, the corporation has sanitized 64,206 colonies, 54,894 public places, and more than 150 containment zones daily.

The DEMS Department of the corporation was engaged in collecting solid waste from isolation centers and took special care that it should be disposed-off in such a way that the pandemic did not spread further. On average 3,200 MT of garbage per day was collected and disposed-off. Along with this, the Corporation continuously called organic waste from all quarantine, isolation centers and gave it to a Common Biomedical Waste Treatment Facility (CBWTF) for disposal. By taking one step further, the corporation has sustained 32 food shelters, 70 cooked food centers, and 70 raw ration centers.

The Corporation doctors are not only treating corona-infected patients' day and night but are also motivating their officers and employees who have recovered from corona to donate plasma. Hence, the Corporation has prepared a database of such potential plasma donors so that in the future, the lives of infected persons can be saved. The maternity center run by the corporation is functional 24\*7 and is providing facilities to pregnant women at the time of delivery including pregnant women infected with COVID. Also, the Corporation toll-free no. 1800115676 was issued on which the doctors and clinical psychiatrists continuously available since April 15.



# Reference

<https://www.dailypioneer.com/2017/delhi/sdmc-dedicates-two-fcts-for-west-zone.html>  
<https://www.hindustantimes.com/delhi-news/in-delhi-s-tagore-garden-sdmc-begins-waste-segregation/story-GY26sBrnnS-FobIq7SKognO.html>  
<https://timesofindia.indiatimes.com/city/delhi/delhi-5-more-trommel-machines-to-be-acquired-for-bhalaswa-landfill-says-mayor/articleshow/77703612.cms>  
<https://www.hindustantimes.com/cities/in-this-rohini-ward-trash-is-serious-business/story-5nPpDGgf95ED6hKzaNJJEI.html>  
<https://timesofindia.indiatimes.com/city/delhi/dhalaos-in-north-delhi-get-fresh-look-with-selfie-point-library/article-show/79985480.cms>  
<https://www.newindianexpress.com/cities/delhi/2019/nov/14/edmc-to-introduce-smart-classes-in-more-schools-in-delhi-2061584.html>  
<https://indianexpress.com/article/education/delhi-lg-opens-smart-classrooms-sdmc-plans-project-at-14-more-schools/>  
<https://digitalllearning.iletsonline.com/2018/04/north-delhi-mcd-launches-smart-classes/>  
<https://indianexpress.com/article/cities/delhi/delhiites-municipal-services-doorstep-civic-bodies-csc-7400421/>  
<https://mcdonline.nic.in/edmcportal/service>  
<https://mcdonline.nic.in/ndmcportal/service>  
<https://mcdonline.nic.in/sdmcportal/service>  
<https://timesofindia.indiatimes.com/city/delhi/many-civic-services-in-edmc-areas-go-online/articleshow/81792753.cms>  
<https://www.newindianexpress.com/cities/delhi/2019/may/18/delhis-rani-jhansi-flyover-a-project-that-took-two-decades-to-be-completed-1978642.html>  
<https://timesofindia.indiatimes.com/city/delhi/projects-at-shahdara-jheel-east-corpns-zonal-hq-back-in-action/article-show/75652202.cms>  
<https://pib.gov.in/PressReleaseDetail.aspx?PRID=1788919>  
<https://www.newindianexpress.com/cities/delhi/2019/nov/18/building-approvals-delhi-civic-bodies-open-web-portal-here-is-everything-you-need-to-know-2063194.html>  
<https://www.livemint.com/news/india/planning-a-house-in-delhi-get-your-building-plan-sanctioned-online-11571195923533.html>  
<https://www.newindianexpress.com/cities/delhi/2019/nov/18/building-approvals-delhi-civic-bodies-open-web-portal-here-is-everything-you-need-to-know-2063194.html>  
<https://www.newindianexpress.com/cities/delhi/2019/nov/18/building-approvals-delhi-civic-bodies-open-web-portal-here-is-everything-you-need-to-know-2063194.html>  
<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1777284>  
<https://housing.com/news/pm-uday-yojana/#:~:text=According%20to%20the%20DDA%2C%20more,under%20the%20PM%20UDAY%20scheme>  
<https://www.cityspidey.com/news/9912/mayor-holds-meet-to-prepare-edmc-for-chhath-puja>  
<https://navbharattimes.indiatimes.com/metro/delhi/other-news/ghats-being-spruced-up-mobile-toilets-and-dispensaries-being-provided-for-chhath-puja-in-delhi/articleshow/71841015.cms>  
<https://www.hindustantimes.com/delhi-news/chhath-in-delhi-how-yamuna-has-been-spruced-up-for-the-biggest-festival-in-town/story-aSYBcLy91pF8Q8KqUu0mXI.html>  
<https://timesofindia.indiatimes.com/city/delhi/ghats-being-spruced-up-mobile-toilets-and-dispensaries-being-provided-for-chhath-puja-in-delhi/articleshow/71838402.cms>  
[https://mcdonline.nic.in/edmcportal/downloadFile/lan\\_210218104136236.pdf](https://mcdonline.nic.in/edmcportal/downloadFile/lan_210218104136236.pdf)  
<https://www.hindustantimes.com/delhi-news/losing-monkey-catchers-need-to-raise-their-salary-north-mcd/story-sy3VBxFEKRkmzMWf6EoeKJ.htm>  
[http://timesofindia.indiatimes.com/articleshow/77176345.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/77176345.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)  
<https://theprint.in/india/microchips-coming-soon-for-delhi-cattle-owners-abandoning-them-will-pay-rs-25000-penalty/605972/>  
<https://theprint.in/india/microchips-coming-soon-for-delhi-cattle-owners-abandoning-them-will-pay-rs-25000-penalty/605972/>



<https://www.bhaskar.com/local/delhi-ncr/news/east-mcd-begins-the-process-of-regularizing-the-replacement-sweepers-128418703.html>  
<https://indianexpress.com/article/cities/delhi/east-delhi-body-speeds-up-regularisation-of-sanitation-workers-5538582/>  
[https://www.business-standard.com/article/pti-stories/ndmc-issues-letters-to-regularise-18-sanitation-workers-119091701077\\_1.html](https://www.business-standard.com/article/pti-stories/ndmc-issues-letters-to-regularise-18-sanitation-workers-119091701077_1.html)  
[https://www.business-standard.com/article/news-ians/delhi-government-will-accommodate-mcd-pensioners-116012001244\\_1.html](https://www.business-standard.com/article/news-ians/delhi-government-will-accommodate-mcd-pensioners-116012001244_1.html)  
<https://www.etvbharat.com/hindi/delhi/state/east-delhi/east-delhi-municipal-corporation-started-two-cng-crematoriums-at-ghazipur-crematorium/dl20210521015412613>  
<https://timesofindia.indiatimes.com/city/delhi/corpns-plan-more-cng-furnaces-at-crematoria/articleshow/85138658.cms>  
<https://www.amarujala.com/delhi/now-the-use-of-cow-dung-cakes-will-be-done-in-cremation-northern-and-eastern-municipal-corporation-approved>  
<https://indianexpress.com/article/cities/delhi/delhi-cremation-grounds-furnaces-6448067/>  
<https://www.newindianexpress.com/cities/delhi/2021/apr/22/north-delhi-municipal-corporation-plans-new-system-to-streamline-last-rites-2293166.html>  
<https://timesofindia.indiatimes.com/city/delhi/civic-bodies-strengthen-their-infra-to-fumigate-city-rwas-not-convinced/articleshow/87319135.cms>  
<https://nvbdcp.gov.in/index4.php?lang=1&level=0&linkid=431&lid=3715>  
<http://164.100.24.220/loksabhaquestions/annex/176/AU3155.pdf>  
<https://pib.gov.in/Pressreleaseshare.aspx?PRID=1579464>  
<https://mcdonline.nic.in/edmcportal>  
<https://mcdonline.nic.in/sdmcportal/>  
<https://mcdonline.nic.in/ndmcportal/>  
<http://www.millenniumpost.in/delhi/sdmc-introduces-191-new-public-toilets-433990>  
<https://app.powerbi.com/view?r=eyJrIjoim2FhMmRmMjAtZDIzOS00ZWU2LWE1NGQtMDhiODA2ODVIY2EyIiwidCI6IjE1NjUyNDgwLTA3MjUtNDk2Yy1hOTg0LWRIYjFIZGExNjFhMCJ9>  
<https://pmsvanidhi.mohua.gov.in/Home/PMSDashboard>  
<https://timesofindia.indiatimes.com/city/delhi/east-corp-n-not-to-charge-fees-from-weekly-market-vendors-due-to-pandemic/articleshow/83968188.cms>  
<https://timesofindia.indiatimes.com/city/delhi/sdmc-to-start-survey-of-hawkers-at-lajpat/articleshow/84623778.cms>  
<https://timesofindia.indiatimes.com/city/delhi/civic-bodies-ready-strict-norms-for-weekly-markets/articleshow/82108763.cms>  
<http://www.millenniumpost.in/delhi/north-mcd-to-register-weekly-market-street-vendors-294301>  
<https://www.jagran.com/delhi/new-delhi-city-ncr-delhi-weekly-market-news-north-delhi-municipal-corporation-will-give-license-to-shopkeepers-of-weekly-markets-21404215.html>  
<https://timesofindia.indiatimes.com/city/delhi/edmc-to-make-space-for-1500-vehicles-by-20/articleshow/68103171.cms#:~:text=At%20present%2C%20EDMC%20has%20parking%20space%20for%2010%2C000%20vehicles.>  
<https://www.amarujala.com/delhi-ncr/multilevel-parking-facility-in-krishna-nagar-market-from-today>  
[http://timesofindia.indiatimes.com/articleshow/70916758.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/70916758.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)  
<https://www.hindustantimes.com/cities/delhi-news/north-mcd-to-create-parking-slots-for-13000-cars-101610309860393.html>  
<https://indianexpress.com/article/cities/delhi/delhi-lajpat-nagar-gets-puzzle-parking-with-space-for-246-cars-7217539/>  
<http://www.millenniumpost.in/delhi/automated-multi-level-car-parking-inaugurated-in-rajouri-garden-300156>  
<https://timesofindia.indiatimes.com/city/delhi/delhis-first-automated-tower-parking-site-opens-in-green-park/article-show/79419663.cms>  
[https://mcdonline.nic.in/edmcportal/downloadFile/13.8.20\\_20081306070888.pd](https://mcdonline.nic.in/edmcportal/downloadFile/13.8.20_20081306070888.pd)  
<https://www.cityspidey.com/news/3876/east-delhi-s-c-d-waste-plant-recycles-500-mt-of-debris-every-day>  
<https://mercomindia.com/ntpc-edmc-jv-waste-to-energy/>  
[https://www.business-standard.com/article/news-cm/ntpc-sets-up-jv-company-ntpc-edmc-waste-solutions-120060101442\\_1.html](https://www.business-standard.com/article/news-cm/ntpc-sets-up-jv-company-ntpc-edmc-waste-solutions-120060101442_1.html)  
<https://www.newindianexpress.com/cities/delhi/2019/aug/01/north-mcd--to-set-up-solar-plants-in-200-govt-schools-2012312.html>





**PUBLIC POLICY RESEARCH CENTRE (PPRC)**

**PP66, Dr Mookerjee Smruti Nyas, Subramania Bharti Marg  
New Delhi- 110003**

**T: 011-23381844 E: [contact@pprc.in](mailto:contact@pprc.in) W: [www.pprc.in](http://www.pprc.in)  
Facebook: PPRCIndia Tw: @PPRCIndia**