

**Manual 14**  
**[Section 4 (1) (b) (xiv)]**  
**IT projects Information**

**E-Governance**

**Functions & Responsibilities**

Information Technology department of NDMC is making continuous efforts towards computerization of all departments to provide transparency and better services to its citizens. The main objective of IT department is computerization of various activities and work flows of various departments in order to promote efficiency, transparency, accountability and responsiveness

**OBJECTIVES OF THE INITIATIVE(S):-**

- IT Department is making continuous efforts towards computerization of all departments and its online services to reduce human interface and delivery time.
- Provide transparency, accountability, responsiveness and monitoring/ MIS for better services to its citizens.
- Eliminate inefficiencies from operations, reduce costs, and maximize the output and reliability.

**SMART ELECTRONIC AND MOBILE GOVERNANCE**

The pace and growth of urbanization in India pose enormous challenges to urban governance. Over the last few years, mobile phones have become the preferred mode of internet access, with most people preferring to quickly access information and services over their mobile devices however, most government/ civic services available over the internet are optimized for accessing through computer/PC. To overcome this limitation, governments are increasingly trying to take their services and interactions with the citizens on the mobile platform – this is commonly referred to as M-Governance. In many cases, M-Governance complements E-Governance and increases the flexibility and agility in governance functions, including those, which are citizen focused. It is important to bridge the urban infrastructure deficit and institutional reforms are crucial for reaching out to the private sector for sharing the financing burden and ensuring that it results in improved service delivery. Citizen participation exercise is very important under the Smart City Mission, as it would be pivotal in implementing government the schemes and missions on the ground.

NDMC has taken several IT-based initiatives through technology intervention for strengthening of e-Governance and m-Governance during to improve efficiency and effectiveness in providing civic services to citizens in an equitable, non-discretionary and transparent manner.

## **1. Municipal Services and Grievance Redressal through NDMC311 Mobile App**

NDMC has implemented mobile App NDMC 311 to resolve citizens' Complaints and grievances in an efficient and transparent manner. This App is available on Android and iOS platforms and 51491 users have downloaded this App as on 09<sup>th</sup> January, 2019. Through this App, citizens are filing their grievances/complaints pertaining to water, electricity, sanitation, sewerage, roads/footpaths, green areas, street lights, etc. and are getting real time updates about are solution of their grievances. In case, citizens are not satisfied with their response, then they have the option tore-open the case on NDMC311 App. Response of the public on NDMC311 App is over whelming, and as on 10.01.2019, 86812 grievances have been received, out of which 85195 grievances (98.13%) have been resolved.

To solve all kinds of grievances in seamless manner, NDMC311App has been integrated with other Apps so that NDMC311 App becomes the single window for NDMC officers to receive all the grievances, such as grievances received from CPCB, Swachhta App, Listening Post of LG, and PWD Seva of GNCTD, etc.

## **2. Mobile e-Challaning**

In the year 2015-16, NDMC collected Rs.34.77 lakhs through imposition of fines /penalties against issuance of 11,185 challans. NDMC introduced mobile e-challaning through NDMC311 Officers App in the year 2016, after which NDMC collected Rs.61.87 lakhs through imposition of fines / penalties against issuance of 12,542 challans. The e-challaning has helped in imposing of fines/penalties on area time basis thereby increasing realization of fines before Municipal Magistrates. NDMC has realized fines/penalties to the tune of Rs.1.43 crores in the year 2017-18 against 14737 challans. In the current financial year, NDMC has realized sum of Rs.1.81 crores against 16183 challan still December, 2018. The improvement in realization of fines/ penalties may be established from the above mentioned figures where in the amount collected by NDMC through imposition of fines/penalties has been increased manifold from Rs.34.77 lakhs to Rs.1.81 crores from the year 2015-16 to 2018-19.

### **3. Implementation of Geographic Information System(GIS)**

A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage and presents spatial or geographic data. For visualization and better planning of services, NDMC launched GIS portal with 256 layers of different services where is important static services have been mapped, including 31 layers of different services created.

### **4. Digitization of Vigilance Department**

#### **a. Implementation of Online Vigilance Clearance System**

All establishments used to seek vigilance clearance of the employees at the time of their promotion, foreign visits, etc. manually which was a time taking process. Online Vigilance Clearance System has been developed and launched in October, 2018 to make the process paper less and vigilance clearances are issued on click of a button. Till 10.01.2019, 1660 clearances have been issued using the Online Vigilance Clearance System. This has saved several human hours and brought efficiency in the system there by providing are life to the employees through availability of instant vigilance clearance.

#### **b. Online verification of the complainant through call recording:**

An online dedicated communication system with recording system has been deployed in the Vigilance Department for verification of the authenticity of the complaints, through which calls can be made to the complainant, and such system has brought further transparency and effective vigilance.

### **5. Establishment of new Common Service Center (CSC) in collaboration with Ministry of Electronics and Information Technology, Government of India**

One CSC center at Minto Road has been established to provide the Government services to the citizens at a single window such as Passport, Pan Card, AADHAR, IRCTC ticket booking, etc. in collaboration with the Ministry of Electronics and Information Technology, Government of India.

### **6. AADHAR based Authentication for name inclusion for Birth.**

The online application of birth and death services with in-built QR Code has been implemented free of cost, under which 4.77 lakhs birth certificates

and 1.10 lakhs death certificates have been generated upto 10.01.2019. Further, inclusion of name in birth certificate after authentication of details using Aadhar details has been started to facilitate citizens since many people decide name of their child after discharging from the hospitals and till date 362 names have been included using this service.

## **7. Implementation of e-Office**

While concerted efforts were made to implement NIC's e-office system in NDMC, the same was stabilized and all the local issues including customization as per requirements of NDMC, due to which, so far more than 20 thousand files have been created on the e-office system successfully.

## **8. Implementation of e-Hospital**

NDMC has implemented e-Hospital application in collaboration with NIC, which covers all the NDMCs Hospitals, Dispensaries, Poly-clinics, AYUSH Centre's and Central Medical Store, and have modules such as Patient Registration (OPD & Emergency), Billing, ORS (Online Registration System), Lab, IPD (Admission/ Transfer/ Discharge), Pharmacy & Central Medical Store etc. During the year 2018, 12, 00,793 patients have registered through e-Hospital Application, which shows the success of the e-Hospital application.

## **9. Tablet based mechanism in Public Toilet on real-time basis**

To gather the response of citizens regarding the up keep of public toilet units (PTUs)/ Community Toilet Units (CTUs), an online mechanism has been deployed to take the feedback/response through installation of 331 number of tablets at such PTUs/CTUs. During the year 2018, total 4, 67,530 numbers of feedback/ response have been received through these tablets. Further, to create an offline feedback environment, QR code based feedback mechanism is being placed in such PTUs/CTUs, which is likely to be completed.

## **10. Legal Information Management & Briefing System (LIMBS)**

Legal Information Management and Briefing System (LIMBS) of the Ministry of Law and Justice, Government of India have given the NDMC the access to the LIMBS application to strengthen the monitoring of court cases. NDMC has become the first institution to enter data of all the 1244 court cases of NDMC into the LIMBS application.

## **11. Online Pension Application**

Online Pension Application has been developed to facilitate the pensioners to online access their account from their residences, and to register for AADHAR based Jeevan Praman for producing live certificate, filing of grievances and downloading of Form 16. Online Pension Application is capable to calculate qualifying service, pension, family pension, commutation of pension, gratuity as well as generation of PPO Book.

## **12. School Management Information System**

The School Management Information System has been implemented in all the NDMC schools, having modules such as attendance, staff management, teacher management, and through which schools are managing the attendance, preparation and generation of the mark sheets, comparing the performances of the students as well the schools, and 29649 students have been registered under this School Management Information System.

## **13. Development of Tree Information System**

Information of 100 Trees in Lodhi Garden shortlisted on the basis of their medicinal, spiritual, heritage values have been made available through green boards having QR codes on such trees to enable visitors to explore the beauty of nature through their smart phones.

## **14. Online Mutation of Properties**

- I. To facilitate hassle free mutation of properties under the Ease of Doing Business, Sub-Registrar Office and NDMC Property Tax Department have been connected digitally through online Property Mutation Portal in the year 2018-19. NDMC has developed a web based application, which is integrated with mutation application of Sub-registrar offices to receive the application for mutation online for issuance of mutation certificate after examination of previous dues (if any).
- II. Information of Registered deed of property falling in NDMC area registered at Sub-Registrar's office will be provided to the NDMC everyday online. In case, there is no dues of Property Tax pending against the property registered in the day, NDMC would issue a system generated Mutation Certificate immediately.

- III. In case any dues are outstanding against the property, a system generated provisional mutation certificate valid for 30 days and indicating the is amount outstanding property tax would be issued .A fresh system generated final mutation certificate will be issued if the property tax dues are paid within 30 days, failing which the system generated provisional mutation certificate would become invalid.

Further, the following projects are in pipeline and are likely to be completed:

**15. Unique Smart Addressing Solution for Urban Properties / Establishments**

Work for Unique Smart Sequential Addressing Solution for Urban Properties/Establishments depicting an Alpha Numeric Smart Address code for each property/ establishment in New Delhi with the information of main road, sub road/ lane, landmarks building and the floor has been awarded in the year2018-19. So far, more than 49,000 Digital Door Number has been created, and work is likely to be completed by March 2019. Under the project, properties shall be affixed with unique number with RFID sensor, and details of all properties such as electricity meter, water meter, property tax etc. will be identified with the unique number assigned to each such property.

**16. Enhancement of Data Centre Security**

Standardization Testing and Quality Certification (**STQC**) Directorate is an attached office of the Ministry of Electronics and Information Technology, Government of India. NDMC has given work to M/s STQC for auditing the Application, Network and Servers of NDMC Data Centre and recommendations of STQC are being received and implemented to ensure highest level of safety and security of data, after which a STQC certification will be obtained from the STQC Directorate.

To enhance the quality of civic services provided by NDMC to its citizens and visitors through use of technology and to bring in more transparency and reduce subjectivity, following initiatives will be undertaken:

## **17. Adoption of Block Chain Technology for Birth & Death Application**

Block Chain is a growing list of records, called blocks, which are linked using cryptography. Each block contains cryptographic hash of the previous block, a timestamp, and transaction data. Through block chain, all stakeholders can be brought on the same platform with the feature of encrypted data security. In first phase, implement this technology for Birth & Death Applications by bringing-in all hospitals in NDMC are under the coverage.

### **Following in pipeline**

#### **A. Multi-protocol Label Switching (MPLS) to connect field offices of NDMC**

Network is a backbone of any organization. NDMC is providing several civic services online through its website and NDMC 311 App. Data is being generated for such civic services at several points in NDMC area such as SCAD data from Nirman Bhawan, CCTV footages in NDMC buildings, e- Hospital system in NDMC hospitals/ dispensaries, school management information system in NDMC schools, biometric attendance data from field offices, feedback data from PTUs, Air quality data, etc. which is to be brought at a centralized location for storage and management, and then for utilization of such data to create various analytical reports for optimum utilization of available resources. MPLS is required in NDMC to handle such variety of data from different sources.

#### **B. Networking in Palika Kendra**

Network in Palika Kendra Building has become old and with time and increase computer nodes and normal wear and tear, such network needs replacement to deal with the enhance digitization of the civic services. It is therefore proposed to replace the existing network in the Palika Kendra completely by 30/09/2019.

#### **C. Implementation of Single Sign on (SSO) for all citizen services** NDMC is providing several citizen centric online services where in citizens have to access such services after entering their logging details, which are different for different services. For the convenience of the citizens to have a single logging detail to access all the NDMC online services for convenience.

#### **D. Implementation of Dynamic GIS**

NDMC has launched GIS portal with 168 layers of different services with static services. GIS applications are tools that allow users to create interactive queries (user-created searches) analyzes partial information edit data in maps and present the results of all these operations. It is in process to link real time data of municipal services on GIS portal to utilize the data of such layers on GIS portal along with real time data of services provided by NDMC.

#### **E. Upgradation of NDMC 311 Mobile App by adding additional modules**

A new version of NDMC 311 Mobile Application with new look and feel and additional modules has been developed, further strengthening of public service governance features to improve citizen services and user experience through NDMC 311 Citizens App in the year 2019-20, and to provide further modules for enhancing the NDMC 311 Officers App such NGT/SWM section nine-Challenging module, online payment module to receive the challan payment on the spot, etc.

#### **F. Establishment of four Common Services Centre in NDMC area**

Common Services Centers (CSC) scheme is one of the mission mode projects under the Digital India Programme. CSC are the access points for delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from host of government services to citizens. One CSC center has already been launched at Minto Road.

#### **G. Ease of doing Business**

As a part of NDMC's Mission towards computerization of its various services online and in order to bring efficiency, transparency and responsiveness in the Governance, various steps have been taken up and development is in process:

#### **H. Integration of Online Health Licenses Module of NDMC with Delhi Police and Delhi Fire Services**

NDMC launched Online Health License Module in the year 2018-19 to provide grant/renewal of health licenses online. Under Ease of Doing Business, it is in



process to integrate NDMC Online Health License Module with 'No Objection Certificates' Delhi Police and Delhi Fire Service from through API/web-services.

#### **I. Online Bill Tracking System**

To ensure the transparency and reducing delay in processing and making payment to NDMC vendors, it is proposed to implement Online Bill Tracking System to track the bills of contractors/ vendors etc. with provisions to enable monitoring and reviews at higher level in case of delay. The module will be commissioned by March, 2019.

#### **J. Online Booking**

The payment module for booking of BaratGhar, NDMC water tankers, Community Centers, and different NDMC venues for Public Events is being made online, and is likely to be commissioned by March, 2019.

#### **J. Online applications for electricity and water connections**

It was proposed to completely digitize the process of applying for electricity and water connections in NDMC, with definite timelines within which the departments concerned to grant sanctions to citizens applying for these services. This project has been designed to ease the application process and to prevent the citizen from having to run from pillar to post. The software has been developed for the same and same is presently under testing phase, and is likely to be commissioned by March 2019.

#### **K. Introduction of e-measurement booking Engineering Department**

Software providing online e-measurement of works relating to Civil, Electrical and Horticulture Departments was deployed on a pilot basis. Several modifications have been made in the software for its customization as per requirements of user departments, to enable them to review the performance of the field staff through this software on real time basis. The software is under testing phase and is likely to be made operational by March 2019.

#### **L. Online Payment Facilities**

As a part of Digital India Initiative of Government of India, NDMC has implemented various modes of online payment system like UPI, BHIM enabled Bharat QR, BBPS, NEFT/RTGS and Debit/Credit Cards.

## **M. Electronic Human Resource Management System**

Electronic-Human Resource Management System (e-HRMS) will give a comprehensive and combined view of the human resource deployed in the NDMC, and will provide HR analytics to the NDMC. With launch of e-HRMS, employees will be able to not only see all their details w.r.t service book, leave, GPF, Salary etc., but also apply for different kind of claims/ reimbursements, loan/ advances, leave, leave cashment, LTC advances, Tour etc. On a single platform. E-HRMS will bring all processes of personnel management from hiring to retiring on digital platform and manual system of handling personnel management will be dispensed with. Modules of e-HRMS includes Personnel Information System, Leave, LTC, Loan/Advances, Tour, e-service book, etc.

To ensure quality services “just by tapping on the phone”, NDMC SCL has launched a mobile-based app called NDMC-311 download able on Android and iOS platforms.

- I. As of January 9, 2019, 51491 users had downloaded this app, which allows the citizens can make payments, do online applications, search emergency numbers, schedule appointments, receive notifications and report civil issues related to its jurisdiction.
- II. This app provides open channels of communication which is noticeable in addressing public grievances. This platform is used by the officials for real-time monitoring.
- III. The NDMC-311 app comes with an exclusive range of features, allowing citizens to access enormous civic services like availing detailed information about the NDMC avail 24\*7 emergency helpline from NDMC control room, fire, ambulance, disaster management, women helpline, pay water bill, electricity bill, property tax, and estate bill look for nearby places of your current location. No matter whether you are looking for public toilets, police stations, metro stations, petrol pumps, taxi stands, hospitals, bus stands, veterinary clinics, NDMC library, gyms, markets, tourist locations, etc. register complaints about any issue related to toilet department, NDMC Building Maintenance Department, electricity department and more with photos and remarks receive a comprehensive range of citizen services like electricity, water, property tax, estate, Baratghar, yellow fever vaccination, birth and death certificate, online building approval, etc. real-time information about the

traffic and parking in different areas of the city and connect with the NDMC in case of any queries.

- IV. As of January 10, 2019, the public grievances received on the NDMC 311 app was 86812, out of which 85195 grievances (98.13 percent) have been resolved. For the convenience of the authorities to redress the grievances, received on CPCB, Swachhta App, Listening Post of LG, and PWD Seva of GNCTD, etc.
- V. Mobile e challenging has been introduced in the NDMC 311 App.
- VI. Until December 2018, NDMC collected INR 1.81 crores through the imposition of fines/ penalties against issuance of 16,183 challans. The-challaning has helped in imposing of fines/penalties on a real-time basis thereby increasing realization of fines before Municipal Magistrates.
- VII. Further, the strength of the e-governance of NDMC is reflected by the launch of the online vigilance clearance system in October 2018, and until January 2019, 1660 clearances were issued, and continues to save several human-hours and has instilled efficiency into the system.
- VIII. A dedicated online communication system with recording system has been deployed in the Vigilance Department for verification of the authenticity of the complaints. This has brought further transparency and effective vigilance.
- IX. NDMC has collaborated with the Ministry of Electronics and Information Technology, Government of India, and established a new Common Service Center (CSC), at Minto Road has been established to provide government services to the citizens at a single window such as Passport, Pan Card, AADHAR, IRCTC ticket booking etc.
- X. The e-office system of the National Informatics Center (NIC) of the NDMC has been stabilized and customized and created over 20, 000 files on the e-system successfully.
- XI. Legal Information Management and Briefing System (LIMBS) of the Ministry of Law and Justice, Government of India have given the NDMC the access to the LIMBS application to strengthen the monitoring of court cases. NDMC has become the first institution to enter data of all the 1244 court cases of NDMC into the LIMBS application.
- XII. Online pension application has been developed to facilitate the pensioners to access their accounts online and to register for AADHAR based Jeevan Praman for producing life certificate, the filing of grievances and downloading of Form 16. This application can calculate the qualifying services, pension,

family pension, commutation of pension, gratuity as well as the generation of PPO Book.

XIII. Other e-governance initiatives undertaken by the NDMC include online mutation of properties development of tree information system for 100 trees of Lodhi Gardens 49,000 digital door numbers have been assigned for properties and establishments like electricity meter, water meter, property tax etc. which will be identified with the unique number assigned to each such property etc.

**XIV. Some of the proposals for the impending 2019-2020 include:**

- i. Providing encrypted data security for birth and death applications in all hospitals in NDMC area.
- ii. Multi-Protocol Label Switching (MPLS) to connect field offices of NDMC.
- iii. Enhance digitization of the civic services in the Palika Kendra Building.
- iv. Implementation of Single Sign-On (SSO) for all citizen services in NDMC area.
- v. Up gradation of NDMC 311 App by adding additional modules.
- vi. Establishment of four CSC in NDMC area for the delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from host of government services to citizens.
- vii. Online booking of Baratghar, NDMC water tankers, community centers, and different NDMC venues for public events.
- viii. Online applications for electricity and water connections.
- ix. Provision of online payment gateway system to all civic services provided by the NDMC among others.