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Report of the
Comptroller and Auditor General of India
on
Performance Audit of
Manpower and Logistics Management in Delhi Police
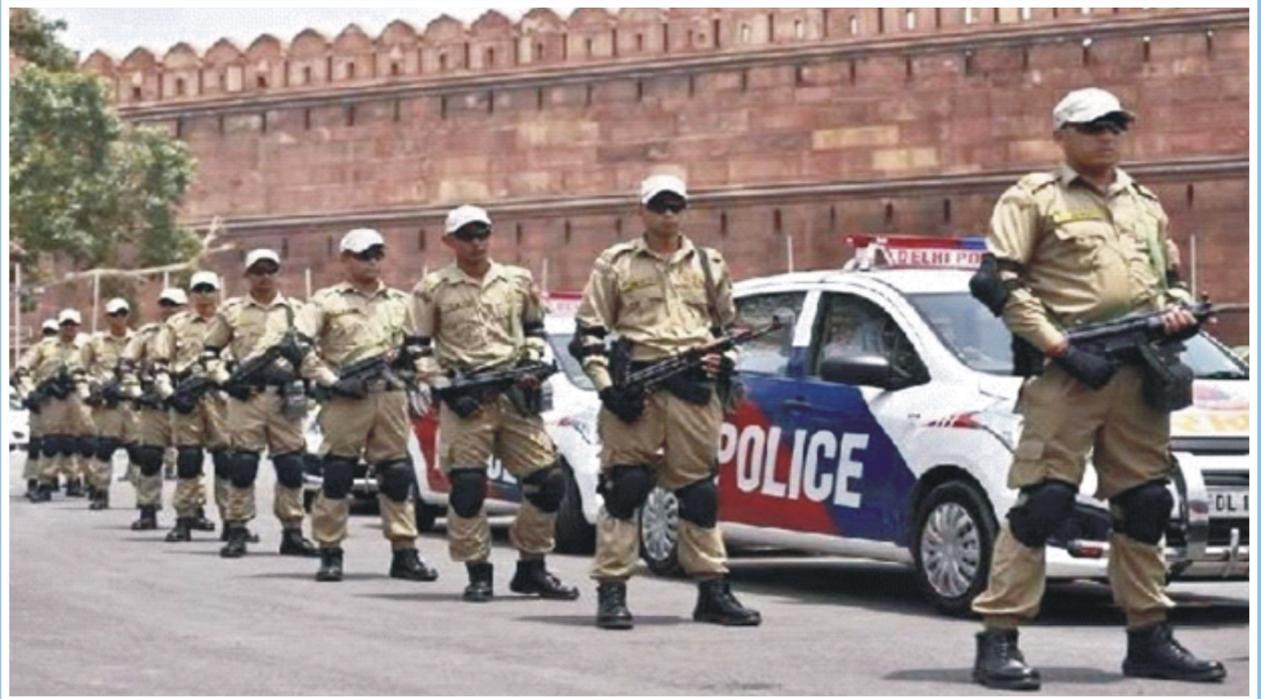
Union Government (Civil)
Ministry of Home Affairs
Report No. 15 of 2020
(Performance Audit)

Report of the
Comptroller and Auditor General of India
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Performance Audit of

"Manpower and Logistics Management in

Delhi Police"

for the year ended March 2019

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Contents

Preface

This Report has been prepared for submission to the President of India under Article 151 of the Constitution of India.

Delhi, being the capital of India, is the centre of a wide range of political, cultural, social and economic activities. Accordingly, Delhi Police has to assume a multitude of roles and responsibilities, from providing security cover to the Protected Persons, to patrolling in neighbourhood by beat officer, from managing of traffic by Traffic Police to fighting organized crime by the Special Cell etc. The magnitude and importance of Delhi Police cannot be over-stated.

In these circumstances, it is imperative to ensure that Delhi Police has adequate police personnel, and they are sufficiently equipped with required weapons, vehicles, Bulletproof jackets, and other equipment. That there would be some shortcomings in such a major organization is also not unexpected. The issues that remain, and that have been pointed out in the report, should not, therefore, be seen by the stakeholders as a fault-finding exercise. The gaps / shortcomings have been pointed out in the spirit of constructive suggestions to realise the full potential of Delhi Police.

This report has identified several areas of concern, such as shortage of manpower especially at the police stations which results in long work hours and shortages in other resources like vehicles, equipment and physical infrastructure which impacts efficient policing. Though Delhi Police has revamped its Emergency Response System, has launched Mobile and Web Applications for ease of citizens and was improving the physical infrastructure, there is a need to upgrade its 20 year old Communication System on priority basis.

Executive summary

The main objective of the Performance Audit was to examine whether the Delhi Police is managing its manpower and logistics efficiently and effectively. Further, another area of emphasis is the examination of the adequacy of infrastructure across all units of the Organisation. The Performance Audit primarily covered Law & Order Police (territorial Police Districts), Security Unit, PCR, Operations & Communications, Special Cell, Provision & Logistics, IT Cell and PHQ, for a period of six years, from 2013-14 to 2018-19.

Audit scrutiny revealed that the less than optimal deployment of manpower and other resources like vehicles, physical infrastructure, other equipment etc. have become a major impediment in the effective functioning of Delhi Police, though it is better equipped in terms of manpower as compared to other metros. Pending manpower proposals with the Ministry of Home Affairs (MHA) coupled with the slow process of Recruitment and sub-optimal deployment of available manpower has resulted in excess burden on the existing manpower. Due to shortage of staff and skewed deployment, many police stations and units are working with much lesser staff than the sanctioned strength. Many PCR vans are functioning without gunmen. Vehicles, bulletproof jackets etc. were also found to be inadequate in many units.

Several issues were noticed in the functioning of Police Control Room, where increasing numbers of blank calls over the years have been a major irritant affecting the performance of Emergency Response system; however, a satisfactory solution was yet to be found. Quality of data entered in the system by the call takers, dispatcher load, queuing time, response time etc. are also areas of concern. With the launch of the new Emergency response system some of the above parameters have seen improvement.

The performance of communication system of Delhi Police has rapidly deteriorated due to ageing and the number of wireless sets have declined sharply in the last 10 years. Delhi Police is using a 20 years old trunking system (APCO) beyond its normal life span of 10 years. It was also found that large numbers of CCTV cameras installed by Delhi Police were not functioning.

Delhi Police has taken many IT initiatives to support its functions, however, vulnerabilities in the security architecture of CCTNS and the lacunae in the data entered in CCTNS remained a major concern. Many Citizen Centric Applications were launched by Delhi Police, However, several issues have been observed regarding the procurement of application, its subsequent functioning, and lukewarm response by the users in spite of sizeable expenditure on their publicity.

The major observations of the Performance Audit are as under:

Chapter 2: Crime Incidence in NCT of Delhi

— The incidence of crime registered under the Indian Penal Code (IPC) in the NCT of Delhi during 2019 increased by 275 *per cent* from that of 2013. The sharp increase was due to huge increase in crimes registered under "Other Theft" and "Motor Vehicle (MV) Theft". Delhi Police attributed this sharp increase in "Other Theft" and "M.V Theft" to better reporting of crimes and facility to lodge e-FIRs for theft of Motor Vehicles and other properties.

— There was an increase in heinous crimes from 4,159 in 2013 to 5,185 in 2019. The total number of heinous crimes registered had sharply increased from year 2013 to 2015 and then continuously decreased during 2015-2019, which is a positive trend.

Chapter 3: Manpower Position in Delhi Police

— Adequate, optimal and proper deployment is necessary for effective functioning of police force and maintenance of law and order in the State. However, the functioning of the Delhi Police is also affected by shortages in manpower. MHA approved sanction of 12,518 posts, out of which 3139 posts were to be effected initially and remaining 9379 posts were to be operationlised, subject to recruitment and deployment of these personnel on ground. However, due to failure of Delhi Police to recruit personnel against these 3139 posts, the remaining 9379 approved posts cannot be acted upon.

— Representation of women in Delhi Police was 11.75 *per cent,* which was much lower than the desired target of 33 *per cent.*

— Audit analysed records related to selected specialized trainings and observed an average shortfall of 42% during the period of 2016-19 in terms of personnel planned to be imparted specialized training and those actually trained.

— No cadre review has been carried out for upper and lower subordinates till date.

— The housing satisfaction was quite low as there were only 15,360 quarters available for about 80,000 Delhi Police personnel.

Chapter 4: Police Districts

— Only one out of the 72 police stations in the selected police districts had staff as per the norms prescribed by Bureau of Police Research and Development (BPR&D). It was seen that in the test checked police stations, there was 35 *per cent* shortage of manpower. Acute shortage of

staff has also put the police personnel under tremendous strain as their average daily duty hours in the six test-checked police districts ranged from 12 to 15 hours against eight hours prescribed under the Model Police Act 2006.

− Shortage of manpower has also resulted in inadequate number of investigation teams to carry out original work involved in investigating crimes. This had impact on the results of Delhi Police in bringing criminals to justice.

− Infrastructure facilities at Police Stations were also inadequate. Out of 72 test checked Police Stations, many police stations lacked facilities necessary for a comfortable working like barracks, canteen/Mess, Kitchen, parade/play grounds etc. Facilities for public like reception/waiting are toilets, women help desk etc. were also below the required standards.

− Police stations in the selected districts also suffered from shortage of vehicles, which severely limited their ability to respond to law and order situations quickly.

Chapter 5: Police Control Room

− Distress calls are received at the Central Police Control Room via a Computer Aided Dispatch system (PA-100 till September 2019, and replaced by Emergency Response Support System (ERSS)-112 thereafter). Increasing blank calls over the years has been a major irritant affecting the performance of Emergency Response System, however, a satisfactory solution has not been arrived at yet.

− Quality of data entered in the system by the call takers is also an area of concern as there is mixed use of Hindi/English in the forms, which affects the usability of data. The categorization of calls is also not coherent and is likely to create problem for further analysis.

− Other issues have been highlighted which need to be accounted for in an efficient Emergency response system like dispatcher load, queuing time, response time etc. Some of the parameters have seen improvement with the new system but others remain.

− PCR Vans and Tourist MPVs were operating with only 4,141 police personnel against a requirement of 6,171 and 55 *per cent* of the MPVs were operating without a gunman.

Chapter 6: Operations and Communication

− The number of conventional wireless sets declined from 9638 in June 2009 to 6172 in June 2019 as the sets condemned during the period were not regularly replaced.

− Delhi Police is using a 20 years old trunking system (APCO), which is 10 years beyond its normal life span. Proposals for up-gradation of these sets were initiated 10 years ago but even tenders have not been finalized yet.

− The performance of wireless sets has rapidly deteriorated due to ageing.

− More than 3800 CCTV cameras had been installed and maintained by Electronics Corporation of India Limited (ECIL). The percentage of cameras functioning satisfactorily is abysmally low, especially for older installations, ranging from entirely defunct pilot phase cameras to 31 *per cent* - 44 *per cent* defunct cameras for Phase-I, IIA and III respectively.

− Other major issues affecting the performance of CCTV cameras are unavailability of spare cameras as per agreement with ECIL and inordinate delays in approvals for shifting/repairs of cameras if needed.

Chapter 7: Special Cell

− Despite being the National Capital's specialized Counter Terror Unit, the Special Cell of Delhi Police could not be strengthened in terms of assessed manpower requirement for effective deployment in its functional units.

− Ranges were ailing from deficiencies in availability of vehicles, protective equipment like bullet proof jackets, vehicles and arms and ammunition which are vital for quick response in real time situations.

− SWAT, the first responder to any armed act by the terrorists, gangster or anti-national elements in Delhi was functioning with reduced efficiency in terms of bullet proof jackets as well as specialized training for their all-round development and preparedness.

− Non deployment of sufficient number of trained and qualified manpower to efficiently handle the cyber related crimes led to inadequate disposal of cases in the Cyber Crime Unit of the Special Cell.

Chapter 8: Security Unit

− Against requirement of 3896 police personnel for protection of all the Protected Persons (PPs), only 2661 were posted in E-Block for active duty, i.e., manpower shortage of 32 *per cent*.

− Although there was overall shortage of manpower in comparison with the requirement, 207 police personnel from E-Block were assigned

permanently for the security of 12 PPs who were not residing in Delhi. Similarly, there were 15 PPs who were residing in neighbouring states, but were being provided round the clock security (54 police personnel) by Security Unit (E-Block Security Line). As per the norms, they were required to be provided security by the State Government concerned.

Chapter 9: Digital Initiatives of Delhi Police

− Delhi Police has transitioned to a completely online and real-time version of Crime and Criminal Tracking Network and Systems (CCTNS) at 100 *per cent* locations. However, concerns remain about the quality of data entered into the system as several non-essential fields are still populated by junk data or left blank. Also, the validation of migrated legacy data was still under process.

− Vulnerabilities in the security architecture of CCTNS were pointed out in the 3rd party audit but have not been addressed. This exists largely due to an obsolete technology stack on which CCTNS is based.

− Safe and Secure Delhi, an enterprise-wide Data integration and Intelligence gathering project, to be implemented through ₹40 crore funding by the World Bank, was entirely shelved after repeated attempts to finalize vendors failed.

− Crime Mapping, Analytics and Predictive System (CMAPS) joint project of Delhi Police and Indian Space Research Organisation-Advanced Data Processing Research Institute (ISRO-ADRIN) to develop a Decision Support System by mapping crime data and generating actionable information has since been functioning sub-optimally. The planned project objectives have been abandoned and its utility is questionable of late.

− Several issues have been observed regarding the procurement of Himmat application, its subsequent functioning, and lukewarm response by the users in spite of sizeable expenditure incurred on its publicity. MV Theft web application is also functional but numerous issues were observed with the procurement of applications itself and the subsequent functioning and veracity of data generated via the web application.

1.   Introduction

The Delhi Police, having jurisdiction over the entire National Capital Territory of Delhi (NCTD) with over two crore population and 1483 km^2 area, is the largest metropolitan police force in the country. The primary roles and responsibilities of the Delhi Police are to uphold and enforce the law impartially; protect life, liberty, property, human rights, and dignity of the members of the public; promote and preserve public order; protect public properties, vital installations and establishments etc. against acts of vandalism, violence or any kind of attack; control and regulate traffic on roads; and plan and execute security arrangements for VIPs, VVIPs of India and visiting foreign dignitaries.

As per Article 239AA of the Constitution of India, inserted through the 69th Constitutional Amendment, the Delhi Police falls under the administrative control of the Ministry of Home Affairs (MHA), Government of India. The Delhi Police is headed by the Commissioner of Police for the overall functioning of Delhi Police. The Delhi Police has various units including law & order police (Territorial Police Districts and Police Stations therein), Security Unit, PCR Unit, Operations & Communications Unit, Special Cell, Traffic, Armed Police Battalions etc. The organisation chart of the Delhi Police is given in Annexure-1.

1.1.   Financial details

The Budget allocation and actual expenditure by Delhi Police during 2013-14 to 2018-19 is as given in Chart 1.1.

Chart 1.1 - Budget allocation and expenditure details
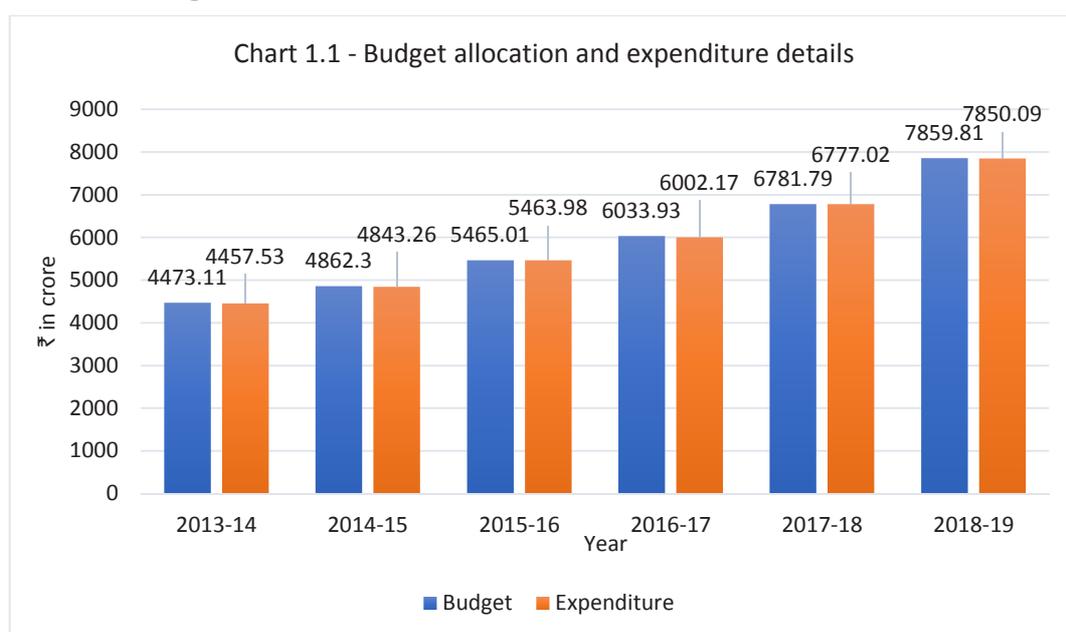
Source: Information provided by Delhi Police

1.2. Audit Objectives

The objectives of the Performance Audit were to ascertain whether:

− Delhi Police is managing its human resources efficiently and effectively.
− Delhi Police is assessing its requirement of weaponry, mobility, communications, technology and other equipment and procuring the required items economically, efficiently and effectively.
− Delhi Police maintains and utilizes the available and procured weaponry, mobility, communications, technology and other equipment efficiently and effectively.
− The physical infrastructure in police stations and police housing are adequate.

1.3. Audit Criteria

The main sources of audit criteria adopted for the performance audit were the following:

− Delhi Police Act 1978
− Delhi Police Manual/Rules-1980
− Punjab Police Rules applicable to Delhi Police.
− Annual Action Plan
− Bureau of Police Research and Development (BPR&D) norms
− General Financial Rules (GFR)
− Orders and Circulars of MHA/Delhi Police and CVC.
− Any other rules and regulations applicable to Delhi Police

1.4. Audit Scope and Methodology

The Performance Audit commenced with an entry conference (August 2018) wherein the audit methodology, scope, objectives and criteria were explained to the Delhi Police. The Performance Audit primarily included coverage and examination of records of Law & Order Police (territorial Police Districts[1]), Security Unit, PCR, Operations & Communications, Special Cell, Provision & Logistics, IT Cell and PHQ, for a period of six years from 2013-14 to 2018-19. Besides, out of 14 territorial police districts of Delhi Police, six Districts were selected for test-check at field level using simple random sampling method (discussed in detail in Paragraph 4.1). Within these six Districts, all the 72 Police Stations were covered in the Performance Audit. The audit methodology involved scrutiny of records, collection and analysis of data, issue of audit queries, responses of units to audit queries, joint physical verification and photographic evidence. Replies, wherever received, have been suitably incorporated in the report.

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[1]   The entire NCT of Delhi has been geographically divided into two Zones, which are further divided into three Ranges each and each Police Range is further divided into two to three Police Districts.

2.   Crime Incidence in NCT of Delhi

Prevention of crime and protection of life, liberty, property, human rights and dignity of members of the public are amongst the main functions of the police. The incidence of crime registered under the Indian Penal Code[2] (IPC) in the NCT of Delhi during 2019 increased by 275 *per cent* from that of 2013, as depicted in chart 2.1 and 2.2.

Chart 2.1. : Crimes Registered Under IPC By Delhi Police

Heinous Crimes ■   Non-Heinous Crimes ■

Year	Heinous Crimes	Non-Heinous Crimes
2013	4159	76025
2014	10266	145388
2015	11187	180190
2016	8238	201281
2017	6527	227053
2018	5688	245031
2019	5185	295900
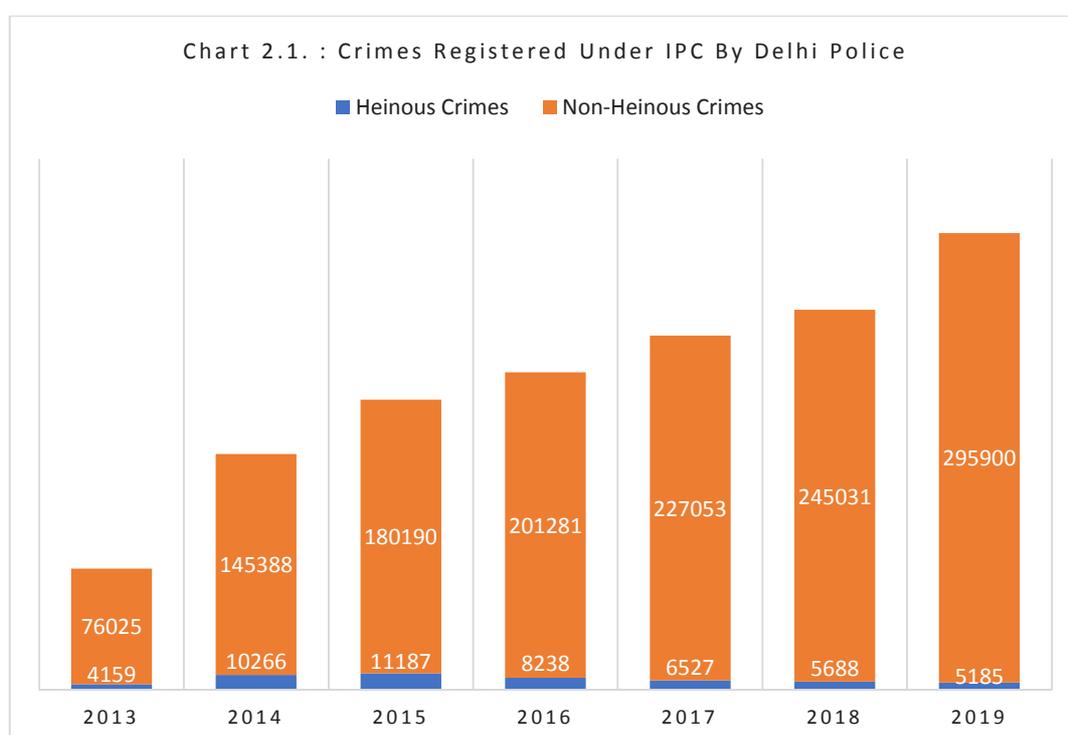
Source: Statistics given on Delhi Police website

Audit observed that the sharp increase in total number of IPC crimes registered was largely due to huge increase in crimes registered under "Other Theft" from 0.12 lakh in 2013 to 1.91 lakh in 2019 and "M.V. Theft" from 14,916 in 2013 to 46,215 in 2019. Delhi Police attributes this sharp increase in "Other Theft" and "M.V Theft" to better reporting of crimes and facility to lodge e-FIRs for theft of Motor Vehicles and other properties without visiting Police Stations. Meanwhile, the number of crimes registered under "Snatching" also increased by 72 *per cent* from 2013 to 2019.

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[2]   The various crime heads covered under IPC are murder, attempt to murder, rape, riot, kidnapping and abduction, arson, preparation and assembly for dacoity, robbery etc.

Chart 2.2. : Heinous crimes registered under various categories

	2013	2014	2015	2016	2017	2018	2019
Robbery	1245	6464	7407	4761	3147	2444	1956
Rape	1636	2166	2199	2155	2146	2135	2168
Kidnapping for Ransom	30	38	36	23	16	19	15
Riot	113	160	130	79	50	23	23
Attempt to Murder	585	770	770	646	645	529	487
Murder	517	586	570	528	487	513	521
Dacoity	33	82	75	46	36	25	15
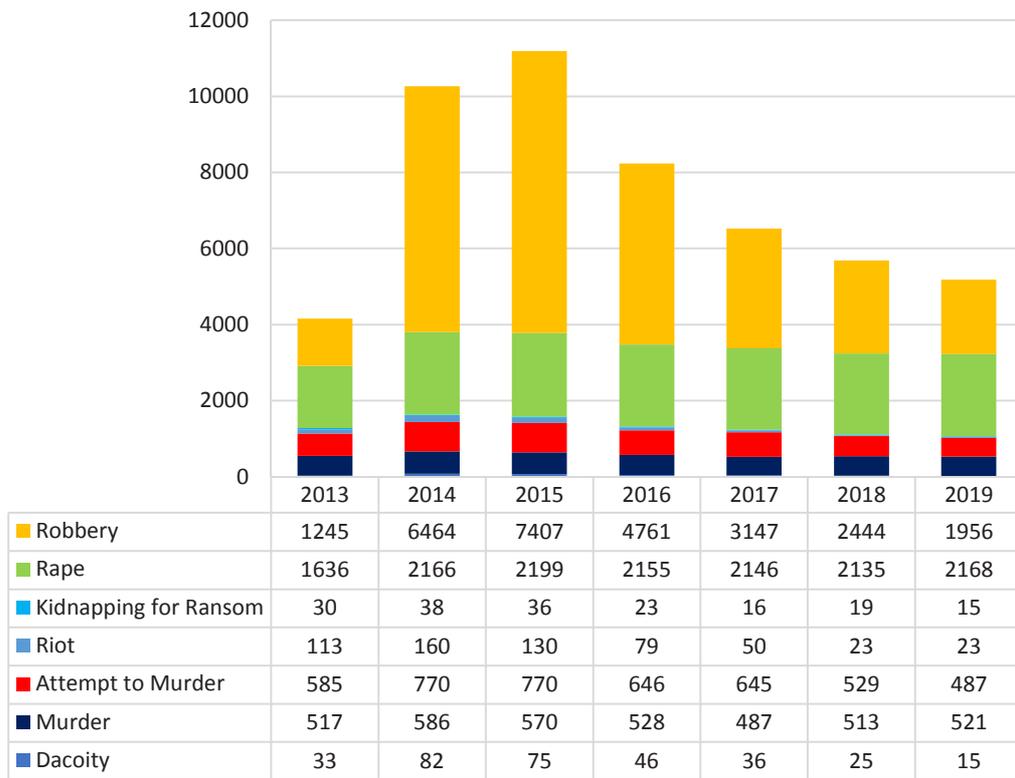
Source: Statistics given on Delhi Police website

Audit further noticed that there was an increase in heinous crimes from 4,159 in 2013 to 5,185 in 2019, as seen in Chart 2.2 above. However, the total number of heinous crimes registered had sharply increased from year 2013 to 2015 and then continuously decreased during 2015-2019, i.e. a positive trend. Meanwhile, crimes under 'Riot' category significantly decreased from 113 in year 2013 to 23 in year 2019[3].

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[3]   However, crimes under 'Riot' category sharply rose to 680 in January-April 2020 as against only two such cases during the same period in 2019.

3.   Manpower Position in Delhi Police

Efficient manpower management is crucial for a police organisation as availability of adequate manpower and its proper deployment is necessary for effective functioning of police force and maintenance of law and order in the state. This requires efficient strategy for ensuring timely recruitment to minimise deficiencies and adoption of judicious approach for deployment of manpower for various roles and functions so that adequate police coverage is provided to all the areas and units and the crime graph is kept under control.

3.1.   Sanctioned vis-a-vis Actual Strength

As on 1st April 2019, the sanctioned strength of Delhi Police was 89,670[4], against which the actual strength was 79,621 i.e. 88.8 *per cent*. The manpower position in Delhi Police against sanctioned strength and corresponding shortages in percentage during 2014-19 is given in Chart 3.1.

Chart 3.1: Details of Sanctioned and Actual Strength in Delhi Police (as on 1st April of the year)

Year	Sanctioned Strength	Actual Strength	Vacancy %age
2014	82242	76254	7.28%
2015	82242	76827	6.58%
2016	84357	76039	9.86%
2017	86529	75684	12.53%
2018	86529	74274	14.16%
2019	89670	79621	11.21%
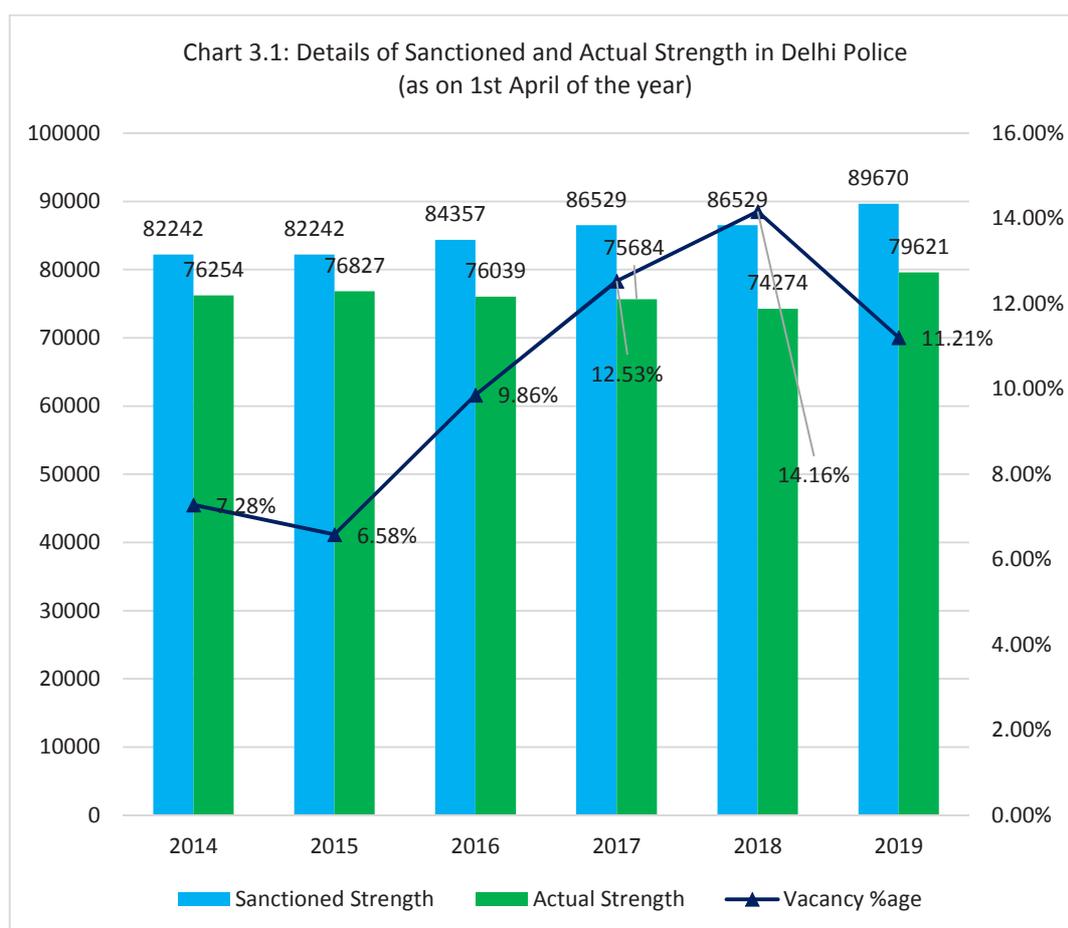
Source: Information provided by Delhi Police

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4   Excludes civilian posts and Group D

Audit observed that the availability of manpower slightly improved during 2018-19. This was primarily due to selection of 7307 constables through the recruitment process initiated in 2016 and culminated in 2018, and their ongoing induction thereafter in phases (discussed in detail in Paragraph 3.3). Details of cadre-wise (Lower subordinates[5], upper subordinates[6] and Officers[7]) position of sanctioned and actual strength of police personnel in Delhi Police (as on 1st April 2019) was as given in Chart 3.2.

Chart 3.2.: Cadre-wise Manpower Position (as on 1st April 2019)
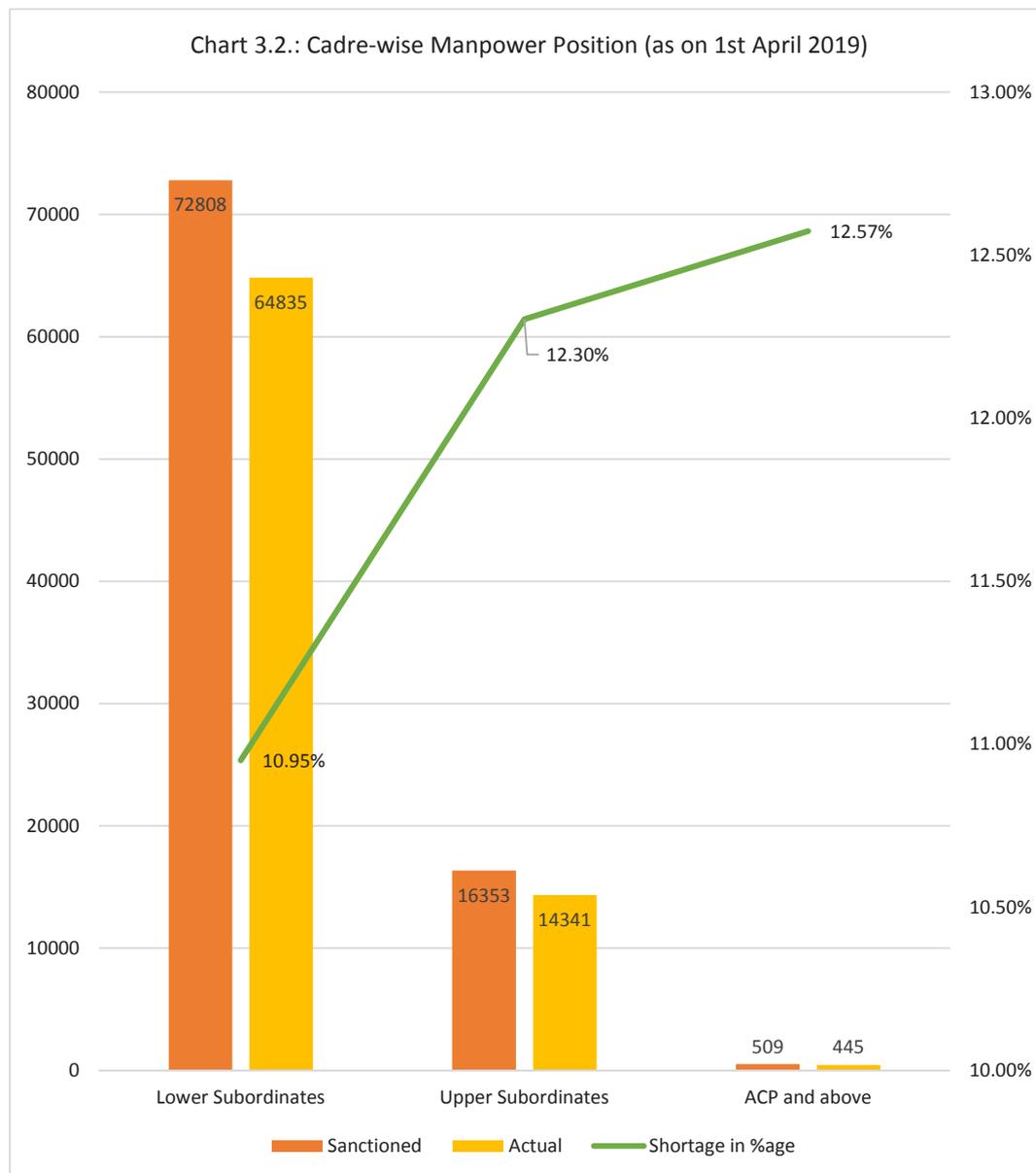
Source: Information provided by Delhi Police

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[5]   Constable & Head Constables
[6]   ASI, SI and Inspector
[7]   ACP and above

Besides the existing sanctioned strength, several proposals[8] were submitted by Delhi Police to MHA for more than 50,000 additional posts (chronological details of proposals in Annexure-2). These proposals were on account of new police units created over time, which have already started functioning with personnel diverted from other units (e.g. SWAT Unit, 370 PCR Vans[9], new police districts/stations etc.) or were awaiting sanction of additional posts to begin functioning as separate police units (e.g. North-Eastern Range of Special Cell).

These proposals were sent by Delhi Police in a piecemeal manner. In June 2015, MHA setup a High-Level Committee to look into all these proposals holistically, which were then consolidated (July 2015[10]) on the directions of MHA.

Subsequently, Delhi Police categorised (August 2016) the proposals for sanction of a total of 53,959 additional posts as Priority-I (15,222 posts), Priority-II (15,239 posts) and Priority-III (23,498[11] posts).

Against the Priority-I proposals for 15,222 posts, MHA approved (April 2018) sanction of 12,518 posts. Out of these 12,518 posts, 3139[12] posts were to be effected initially and remaining 9379 posts were to be effected subject to deployment of these personnel on ground; and thorough review of working of Delhi Police in view of above deployment.

However, Delhi Police had not done recruitment against these 3139 posts sanctioned. Besides, in order to review the working of Delhi Police, MHA had directed (June 2018) Delhi Police to submit Monthly Action Taken Reports. However, audit observed that monthly reports were not submitted by Delhi Police from September 2018 onwards till April 2019.

Thus, due to failure of Delhi Police to fulfil the conditions set by MHA, the remaining 9379 posts approved were yet to be effected.

Since the creation of remaining 9379 posts was subject to recruitment and deployment of personnel against 3139 posts approved, immediate recruitment of personnel against the vacancies is essential. The audit observations pertaining to recruitments are discussed in detail in Para 3.3.

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[8]   These proposals were based on recommendations of Bureau of Police Research and Development (BPR&D), of Internal committee and High-Level Committee of MHA.

[9]   MHA sanctioned 370 PCR Vans in Feb 2013, without sanctioning the additional manpower sought for the same.

[10]   consolidated 89 proposals (47 proposals forwarded to MHA between the period 1998-2015 and 42 new proposals)

[11]   15775 +7723 (For 541 MPVs (included in September 2016))

[12]   For new Police Districts and Police Stations

Delhi Police replied (June 2020) that a review of the working/functioning of Delhi Police was undertaken and its detailed report has been sent to MHA in July 2019 and discussed during subsequent meetings with MHA. Delhi Police has further replied that as on June 2020, 118 manpower proposals consisting of 52,514 posts of various ranks are under consideration in MHA, and that these proposals are their future requirements. Audit does not concur with the reply that all these proposals are for their future requirements, as these proposals primarily comprises manpower for the units, which have already started functioning with manpower diverted from existing units e.g., the pending Priority-I proposals include a proposal for additional 3,684 posts for 370 PCR vans which have already been inducted into the fleet in February 2013, etc.

The Government replied (July 2020) that proposal for creation of additional 3086[13] posts is under consideration.

3.2.   Comparison with other States

As per the latest BPR&D's report titled 'Data on Police Organisations-2019" (released in December 2019), 'Police personnel per lakh Population' in various States was as follows (as on 1st January 2019).

Chart 3.3: Police personnel per lakh of Population (as on 1st January 2019)

State	Value
Delhi	359
Punjab	274
Chattisgarh	235
Assam	195
Jharkhand	181
Maharashtra	172
Haryana	164
Tamil Nadu	157
Karnataka	140
Odisha	137
Kerala	135
Gujarat	132
Uttar Pradesh	130
Rajasthan	128
Madhya Pradesh	126
West Bengal	101
Bihar	81
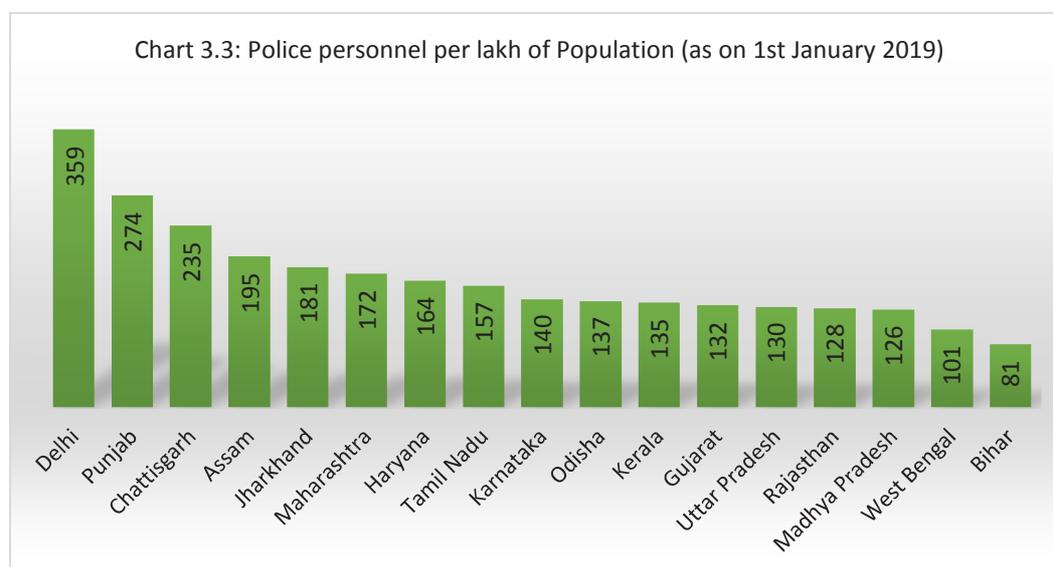
Source: BPR&D's report on 'Data on Police Organisations-2019'

It was observed that in terms of the 'Police Personnel per lakh Population' statistics, the Delhi Police fares much better than any other major State and UN recommended rate of 222 Police personnel per one lakh of population.

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[13]   Out of remaining 9,379 posts of Priority-I proposals, which have been approved, but awaiting creation for want of recruitments against 3,139 posts already created.

3.3.   Recruitment

In Delhi Police, recruitments are done at Constable rank in lower subordinates' cadre and Sub-Inspector (SI) rank in upper subordinates' cadre. As on 1st April 2019, there were 10,049 vacancies in Delhi Police out of which 7,973 and 2,012 were in lower subordinates' and upper subordinates' cadres respectively. Audit observed that the recruitment of SIs was regularly conducted whereas the recruitment at constable level was not as regular (Chart 3.4).

Chart 3.4 Recruitment of Constables and Sub-Inspectors
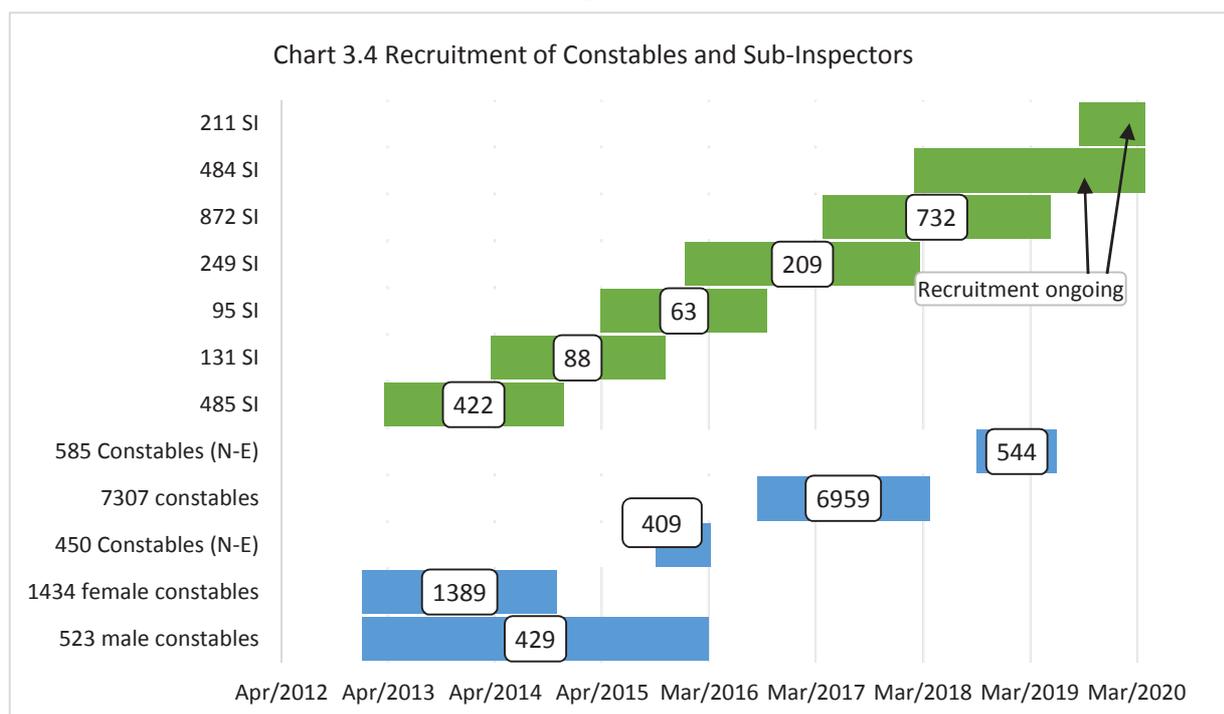
Note: vertical axis mentioned the number of vacancies advertised for the recruitment process, and figures mentioned inside the Chart are number of Joinees against the recruitment process. Width of the Bar indicates time taken for completion of the recruitment process.
Source: Information provided by Delhi Police

Audit observed that during the last five years, instead of recruiting constables on a regular/periodical basis, Delhi Police conducted only one major recruitment for 7307 constable posts through Staff Selection Commission (SSC) in 2016[14] and special drives for 450 and 585 posts of constables from eight north-eastern states in 2015 and 2019 respectively.

As a result, the shortage in lower subordinates' cadre of Delhi Police continuously increased during 2013-2018 and only slightly decreased on joining of 6434 constables in 2018-19 (Chart 3.5).

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[14]   Joining in 2018 and 2019

Chart 3.5: Details of vacancy position and recruitments in lower subordinates
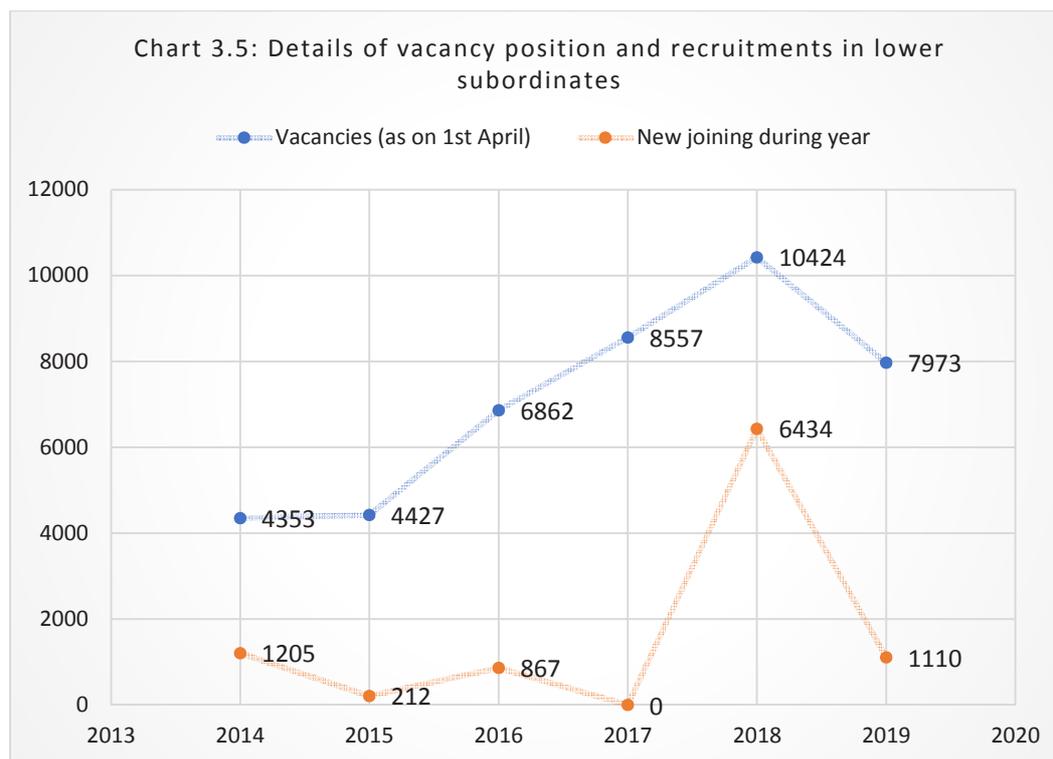
Source: Information provided by Delhi Police

Audit further observed that against vacancies of 7973 for constables as on 1st April 2019, selection of 5243 constables through outsourced agency[15] has been proposed. However, the agency to conduct written examination was yet to be selected (September 2019). Thus, the shortage in lower subordinate cadre is expected to increase (due to promotions and retirements[16]) manifold by the time the recruitment process is completed and candidates selected join the Delhi Police (usually takes around one and half to two years), undergo training for about one year and get deployed thereafter.

Delhi Police should plan the recruitment processes efficiently and effectively in such a manner that the vacancies arising in next 2-3 years due to retirements/promotions are also accounted for.

Delhi Police, in its reply (June 2020), mentioned that, there are ongoing recruitments for 2605 vacancies and 7393 vacancies are to be advertised. The reply is not satisfactory as Delhi Police is not accounting for the vacancies arising in near future, while advertising for the vacancies. In this scenario, since the

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[15]   Computer based written examination at 10 centres all over the country and physical test subsequently in Delhi. In view of inability conveyed by SSC to conduct exam till 2019-20.

[16]   Delhi Police accounts for the retirements during remaining months of the current year, but the recruitment process takes about three years (including the induction training period of 10 months for constables and 12 months for SI)

recruitment process itself takes around two years for culmination, and 7393 vacancies are yet to be even advertised, Delhi Police would not be in a position to reduce its manpower shortage.

3.4.   Training of Manpower

Apart from the induction training provided to freshly recruited police personnel, Delhi Police conducts specialized training to the serving police personnel to upgrade and impart skills regarding weaponry, investigation, IT etc. Audit analysed records related to selected specialized trainings and observed the following:

- There was an average shortfall of 42% during the period of 2016-19 in terms of personnel planned to be imparted specialized training and those actually trained. As per Delhi Police, the shortfall was due to insufficient nomination from District/Units of the Delhi Police as they were not able to spare their personnel for this purpose, due to exigent field duty. This also indicates that shortage of manpower adversely affects the trainings of police personnel.

- Specialized trainings for Delhi Police personnel are conducted at two centres (Police Training School, Jharoda Kalan and Police Training Centre, Rajendra Nagar). Deployment details of 138 police personnel relating to five specialized courses during the year 2017 was test-checked to examine if the personnel were deployed in units related to the field in which they were trained. However, it was observed that around 42 *per cent* trainees[17] were not posted to the units for which they were trained.

3.5.   Women in Delhi Police

A police force with inadequate gender representation is a major practical barrier in effective implementation of legislation intended for the protection of women and greater representation of women in police force also leads to increase in reporting of crimes against women. In this regard, MHA had issued (2009, 2013)

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[17]

Training	Total no. of Trainees	% of Trainees not posted to relevant unit
Commando Training	60	22 %
Economic Offences, Scientific Investigation	19	84 %
Crime against Women	29	7 %
Cyber Forensics	24	87 %
TOT-Electronic & Biological Investigation	6	100 %

advisories to all States/UTs to increase the overall representation of women in police to 33 *per cent* through affirmative actions. Also, GoI approved (March 2015) 33 *per cent* reservation for women horizontally and in each category (SC, ST, OBC and others) in direct recruitment of non-gazetted posts from Constable to Sub-Inspector in Delhi Police.

Audit observed that subsequent to approval of 33 *per cent* reservation for women, Delhi Police has implemented the reservation in all its recruitments and representation of women in Delhi Police has shown an increasing trend from 7.16 *per cent* in 2014 to 11.75 *per cent* in 2019, as given in Chart 3.6. Audit also observed that in the six test-checked police districts, women comprised 8.2 *per cent* of the total police personnel.
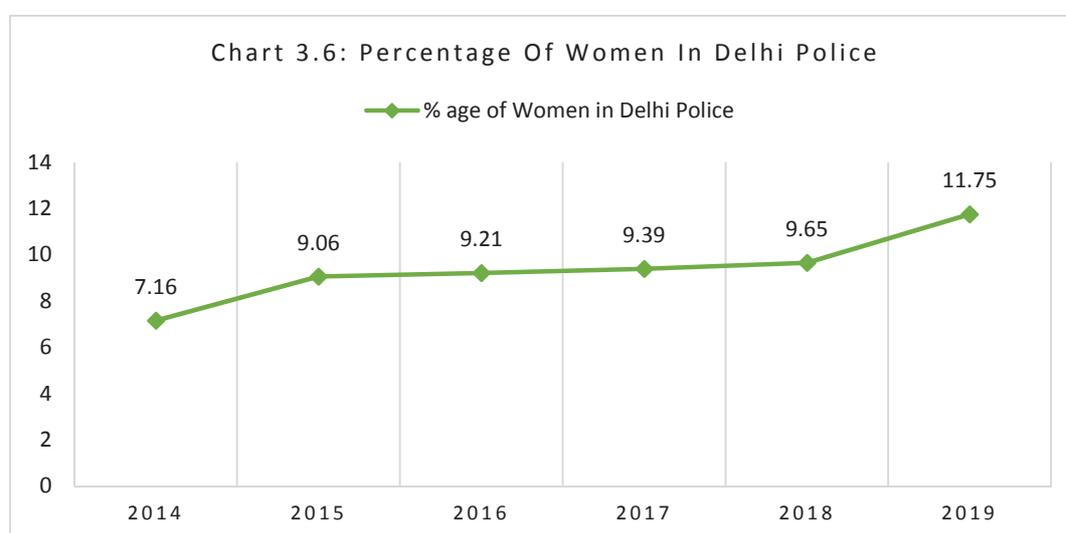
Source: Information provided by Delhi Police

However, considering the current trend of percentage ratio of women personnel in Delhi Police, the achievement of target of 33 per cent women in entire Delhi Police appears to be an uphill task which might take considerable time, unless special drives for recruitment of women are conducted.

Government and Delhi Police may consider special recruitment drives for women as an affirmative action to increase representation of women in Delhi Police to 33 per cent.

Delhi Police replied (June 2020) that the 33 *per cent* reservation for women has been implemented in all ongoing and future recruitments. However, the reply is silent regarding any special recruitment drives for women to increase overall representation of women in Delhi Police to 33 *per cent.*

3.6. Cadre review

The main objectives of a cadre review are to estimate future manpower requirements on a scientific basis, plan recruitment in such a way to avoid future promotional blocks and at the same time prevent gaps building up, and restructure the cadre so as to harmonise the functional needs with the legitimate career expectations of the personnel and to enhance the effectiveness.

Audit observed that in Delhi Police, cadre review for the posts of IPS[18] and DANIPS[19] is being carried out regularly in every five years but in respect of lower/upper subordinate staff, no periodicity has been fixed for cadre review. Further, no cadre review has been carried out for upper and lower subordinates till date.

Government should put in place a mechanism for periodical cadre review for the upper and lower subordinates' cadres of Delhi Police

Delhi Police replied that cadre review for the upper/lower subordinates is not carried out as it sends proposals for their posts on need-basis. The reply is not satisfactory as the manpower proposals were largely pending since Delhi Police has failed to fulfil the conditions laid down by MHA. Moreover, cadre review is targeted towards combination of fulfilling functional needs along with the legitimate career expectations of the personnel.

3.7. Police Housing

As of August 2019, Delhi Police had only 15,360 quarters available for allotment to its force of around 80,000 personnel. Out of these 15,360 quarters, 380 quarters have been declared dangerous and were to be demolished and another 1276 quarters were not being allotted for lack of basic facilities.

Out of the remaining 13,704 quarters, only 1,371 quarters were vacant and available for allotment. However, 7900 applications for allotment of quarter were pending against only 1,371 vacant quarters.

Besides the 15,360 quarters, it was observed that only 701 quarters are under construction in six locations and another 339 quarters are at planning stage which are not adequate to significantly improve the satisfaction level. Therefore, the total number of quarters both under the planning stage and those under

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[18]   Indian Police Service
[19]   Delhi, Andaman and Nicobar Islands, Lakshadweep, Dadra and Nagar Haveli and Daman and Diu Police Service

construction are not adequate for taking care of the pending applications for allotment of accommodation.

Delhi Police need to plan for construction of police housing to ensure that the waiting list for quarters is minimised and housing satisfaction level can be improved.

Delhi Police replied (June 2020) that 5,848 Staff quarters are now under construction/planning stage and that after completion of these quarters, the housing satisfaction level will increase from 19 *per cent* to 27 *per cent.* Audit observed that MHA had approved purchase of ready-built houses from DSIIDC[20], for the personnel of Central Industrial Security Force. Delhi Police may also pursue with DSIIDC/Government of National Capital Territory of Delhi for purchase of flats on similar lines. Besides, Government may also consider purchase of flats in neighbouring National Capital Region (NCR) towns, where there were more than 49,000 unsold houses (March 2020).

3.8.   Transfer/Posting

As per the Delhi Police's standing orders (October 2010) regarding posting/transfer of police officers and personnel in Delhi Police, various units of Delhi Police are categorized as A (tenure of 3-6 years), B (tenure of 3 years) and C (tenure of 3, 2 and 1 years) for the purpose of transfer/posting.

Audit examined transfer/posting records of randomly selected 1,310 police personnel posted in six selected districts to examine compliance with the standing orders. It was observed that out of these 1,310 police personnel, 271 personnel had exceeded their tenure in their postings by more than a year. Thus, in 21 *per cent* of the test-checked cases, the policy envisaged in the standing orders of transfer/posting policy was not adhered to, which defeats the objective of optimum utilization of the manpower and grooming the police personnel to have multifarious experience.   Further analysis of cases with extended tenure of more than one year revealed that the maximum number of cases i.e. 124 cases fall in the range of 2-4 years beyond the specified tenure in the particular unit.

3.9.   Conclusion

As far as the statistics of Police personnel per lakh of Population is concerned, Delhi Police fares better than other State Police. As the Delhi Police faces new emerging and diverse challenges related to providing security to the national capital, it may require additional sanction of manpower, however, existing size

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[20]   Delhi State Industrial Infrastructure Development Corporation

of Delhi Police force is bigger than other State Police in terms of number of Police personnel per lakh Population. It also exceeds the UN recommended rate of 222 police personnel per lakh population.

Even though the Delhi Police has requested MHA for sanction of more than 50,000 posts in addition to its existing Sanctioned Strength of around 90,000, the Delhi Police failed to keep its actual strength close to its sanctioned strength (perpetual vacancies of more than 10 per cent), due to ill-planned and irregular recruitments.

Moreover, the Delhi Police suffers from issues related to sub-optimal deployment of its police personnel, such as Police Districts with surplus staff posted in District Headquarters whereas the police stations had 35 per cent shortages (discussed in Paragraph 4.3.), manning of call taker positions by police personnel which can be assigned to outsourced personnel with due checks in place (Paragraph 5.4), security provided on regular basis to PPs even during their absence from the station (Paragraph 8), etc.

4.   Police districts

4.1.   Introduction

For maintaining law and order, the entire NCT of Delhi has been geographically divided into two Zones (each headed by a Special Commissioner of Police), which are further divided into three Ranges each (each headed by a Joint Commissioner of Police). Each Police Range is further divided into two to three Police Districts (each headed by a Deputy Commissioner of Police), below which there are Sub-Divisions (each headed by an Assistant Commissioner of Police) and thereafter Police Stations (each headed by SHO/Inspector) at the cutting edge level with distinct geographical areas under their jurisdiction.

During the year 2018, there were 14[21] police districts and 163 police stations in Delhi. Out of these, audit test-checked six police districts[22] and all the 72 police stations therein.

Figure 4.1: Map of Delhi Police Districts (selected six districts are highlighted)
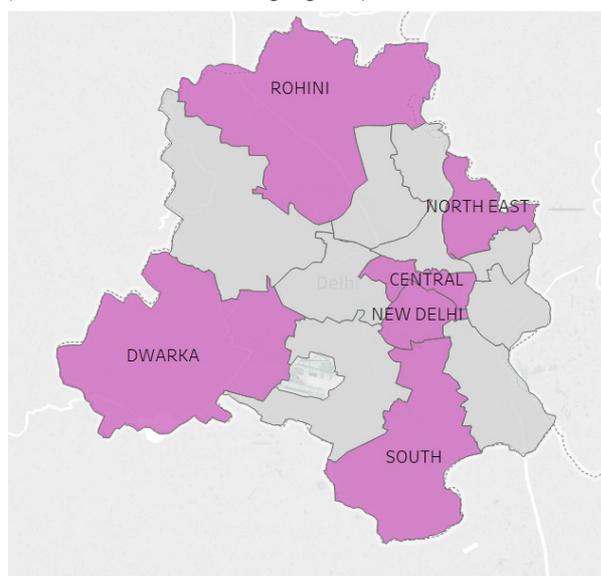
The core functions of the Police viz., maintaining law and order and detection and investigation of crimes, are fulfilled through Police Stations. Thus, for effective policing, police stations should be manned with adequate police personnel equipped with required weaponry, communication equipment etc., and provided with the required physical infrastructure.

4.2.   Manpower position in Police Districts

As of 1ˢᵗ April 2019, against overall shortage of 11 *per cent* of police personnel in Delhi Police, there was 18 *per cent* shortage in the police districts.

In the test-checked six police districts, actual strength of upper subordinates (Inspectors, SIs and ASIs) and lower subordinates (Head constables and Constables) against sanctioned strength was as given in Chart 4.1.

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[21]   As on June 2020, there were 15 police districts (after creation of a new district "Outer North" from 1ˢᵗ January 2019) and 178 territorial police stations.
[22]   Selected through statistical random sampling method

Chart 4.1.: Sanctioned Vs Strentgh In 6 Test-checked Police Districts (As On July 2019)
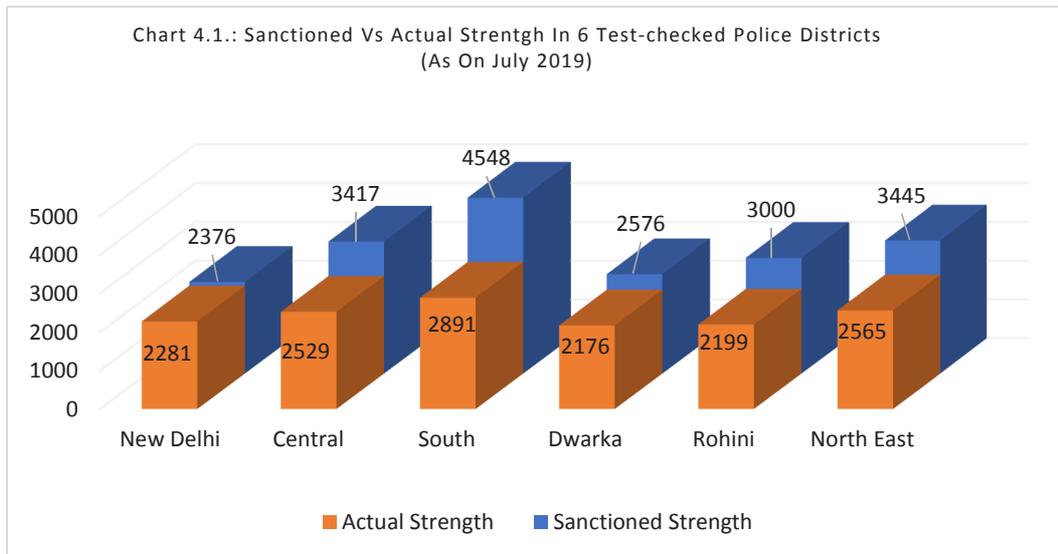
Source: Information provided by Delhi Police

It can be observed from Chart 4.1 above that cumulatively, the test-checked six police districts have 24 *per cent* shortfall in availability of manpower as against the sanctioned strength. In these six districts, manpower shortage varied hugely from as low as four *per cent* in New Delhi District to high of 36 *per cent* in South District.

It was also observed that Police Districts with higher IPC Crimes had comparatively higher manpower shortage, whereas manpower shortage in New Delhi District (having far lesser IPC crimes) was much lesser than in other districts of Delhi Police.

Chart 4.2: Comparison of manpower shortage (July 2019) and IPC Crimes (during calender year 2018) in test-checked Districts
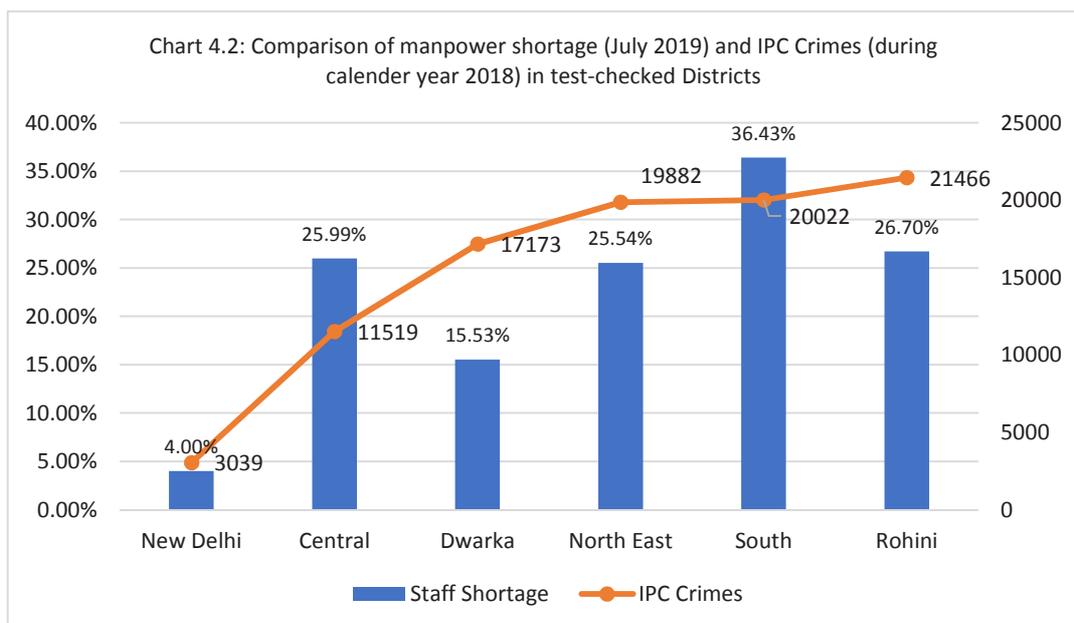
Source: Information provided by Delhi Police

Thus, instead of equitably distributing the manpower shortage of Delhi Police in all the Districts/units, police deployment was skewed in favour of districts with heavy VIP presence i.e. New Delhi, rather than districts with higher crimes reported.

Delhi Police replied (June 2020) that the variation in percentage of shortage among the districts has now been reduced, i.e., 12 *per cent* in Dwarka District, 20 *per cent* in New Delhi District, 23 *per cent* in Rohini District, 24 *per cent* in North-East District, 25 *per cent* in South District and 26 *per cent* in Central District. Audit is of the view that Delhi Police may further endeavour to minimise the variation keeping in view the requirement.

4.3.   Manpower in Police stations vs. District/Sub-Division Headquarters

In each police district, manpower is to be deployed at district/sub-divisions Headquarters and Police Stations. Audit observed that there was excess (four *per cent)* deployment of manpower at headquarters whereas there was 35 *per cent* shortage of manpower at police stations of the six test-checked police districts.

Chart 4.3.: Manpower Surplus in District/sub-division Headquarters and Shortage in Police Stations, in the six test-checked districts

Source: Data given by District Headquarters (as on June/July 2019)
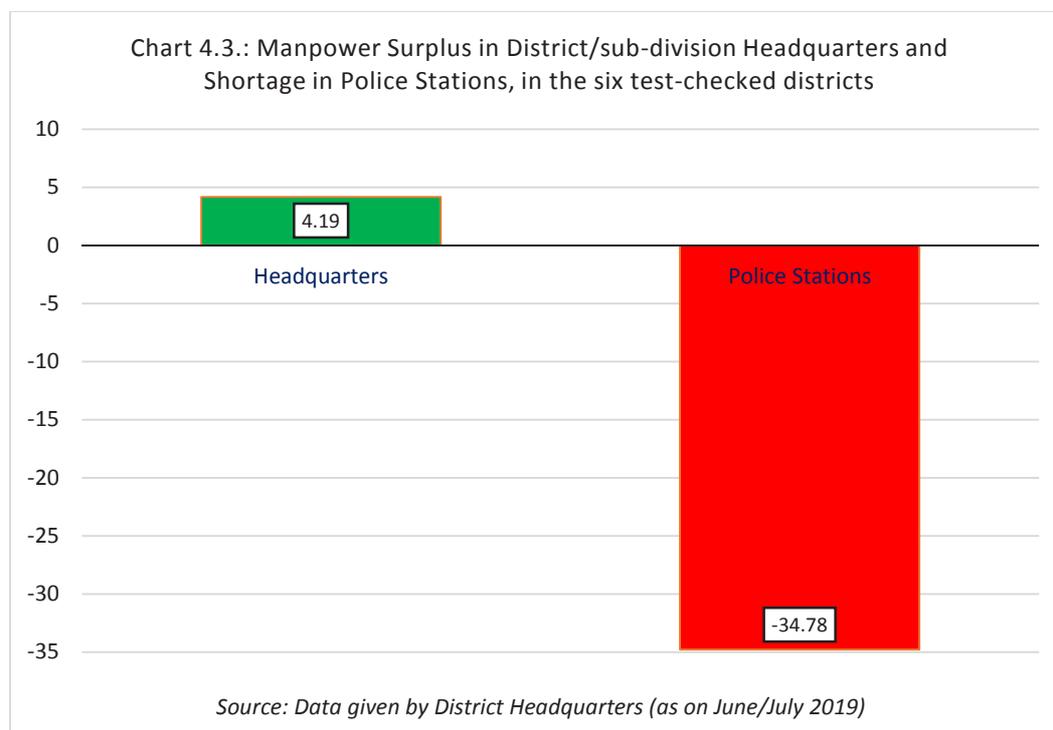
The police stations are the cutting edge for Police force, and Delhi Police should strive for least shortage at the cutting-edge level. Delhi Police may consider withdrawal of excess police personnel at district/sub-division headquarters, and deploy them in police stations.

4.4. Police Stations

As per the norms, the requirement of police personnel in a Police Station (PS) is as given in Table 4.1.

Table 4.1: Requirement of personnel in a police station

S. No.	No. of IPC crimes registered in a year in PS	Manpower required
1.	Less than 250	196
2.	250-500	207
3.	Above 500	220

On the basis of these norms, each police station should be manned with at least 196 police personnel. There were 72[23] police stations in the six test-checked police districts, out of which 59, eight and five Police stations required 220, 207 and 196 personnel respectively. However, only one out of the 72 PSs had the required number of personnel (237 in Narela PS) and in the remaining 71 PSs, number of personnel ranged from 64 to 186 against the minimum requirement of 196.

Despite the huge shortfall in staff strength in the Police Stations, few[24] police personnel were actually deployed in District Headquarters despite being posted in the Police Stations. This affects the functioning of Police stations as they are already reeling with huge manpower shortage.

4.4.1. Static vis-a-vis Active Duties

In a Police Station, there are various roles and duties for the police personnel. These duties can be basically distinguished as Static duties, e.g., Reception room, Malkhana, Record Room, Dak duty etc., and Active duties, e.g., crime investigation, beat duty, pickets, patrol duty etc. Though the static duties are essential in order to ensure that the active policing (i.e. maintenance of law and order and crime investigation) is done efficiently and effectively, adequacy of active duty staff is of utmost importance.

In the 72 police stations, the actual availability of manpower for static duties and active duties in comparison with the requirement as per the prescribed norms, is given in Chart 4.4.

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[23]   Number of PS increased to 74 from 1st January 2019 onwards
[24]   Seven, seven, five, two, two and three police personnel from Hauz Khas PS, Dwarka Sector 23 PS, Begumpur PS, IP Estate PS, Parliament Street and Seelampur PS respectively were deployed in District Headquarters

Chart 4.4: Requirement And Availability Of Police Personnel On Static And Active Duties In 72 Police Stations

Active Duties — Availability: 7026, Requirement: 11584
Static Duties — Availability: 2826, Requirement: 4032

Legend: Availability (orange), Requirement (blue)
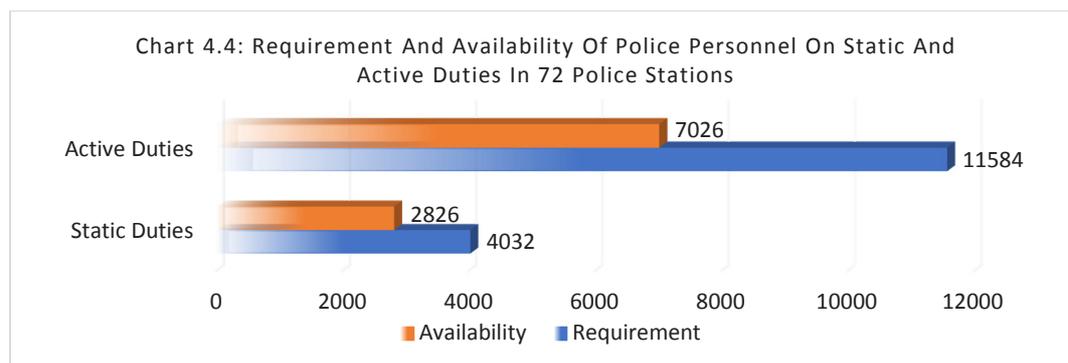
Source: Information provided by Delhi Police

It can be observed from the Chart above that within police stations, there is overall shortage with regard to the norms, and deployment of manpower is slightly skewed in favour of static duties as there is higher shortfall of 39 *per cent* for active duties against 30 *per cent* shortfall for static duties.

4.4.2. Beat Policing

In police terminology, area within the jurisdiction of a police station is geographically divided into 'Beat'. As per recommendations of Internal Committee of MHA, the total staff in a Beat should be one SI/ASI (Beat In charge), three Head Constables and three Constables for effective and active policing. The Beat-in-Charge is the backbone of policing and directly responsible for prevention and detection of crime and maintenance of law and order within his beat. They are also one of the most important links between the police and the public and should be aware of each and every criminal activity in their respective areas so as to curb crime in their respective areas.

Audit test-checked manpower position in 20 Beats of five police stations from five different districts, and observed that out of 20 Beats, there were nine Beats without a Beat in-charge and 19 Beats had shortage of lower subordinate staff (February 2020). Over all, all the 20 Beats had shortage of staff. Notably, some Beats had excess staff in a particular cadre e.g. one Beat in New Delhi had 4 ASIs posted where the norm requires just one ASI/SI per Beat.

Further, Daily Diary entries regarding arrival and departure of Beat staff are to be lodged regularly. Audit observed that in Noida and Bengaluru, Police Departments have adopted QR code-based monitoring of 'Beats' wherein Beat staff is required to scan QR codes placed at the designated vital spots/locations required to be covered by them during patrolling. However, similar technology

solutions for more efficient monitoring of beat patrols was not observed in Delhi Police.

4.4.3. Investigation Teams

Crime investigation is a complex task, involving examination and re-examination of witnesses to cross check statements, preservation of scene of crime, surveillance of suspects, arrest of one or more accused persons, detailed consultation of police records etc. and requires time and teamwork besides skills.

As per the norms accepted by MHA, an investigation team of one SI/ASI, one Head Constable and one Constable[25] is required for investigation of 60 IPC/75 Non-IPC cases[26] in a year. Audit observed that as per these norms, 1811 investigation teams were required in the six test-checked police districts, against which only 587 investigation teams were available due to shortage of manpower available for active duties. The shortage of investigation teams in police stations is a matter of serious concern as it affects the time taken to investigate the criminal cases, with resultant delays affecting delivery of justice to the aggrieved.

In the six test-checked police districts, there was large scale variation in the availability of Investigation teams as against requirement. The position is given in Chart 4.5.
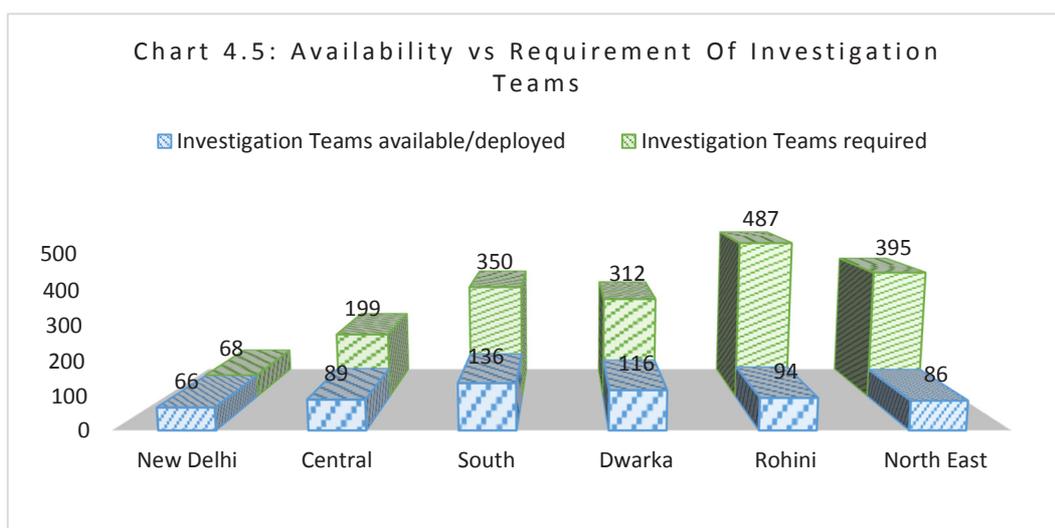
Source: Information provided by Delhi Police

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[25] The SI and HC would be involved with investigating the cases and the Constables would only assist in the investigations

[26] BPR&D analysis indicates that a team should comprise of one SI/ASI, one HC and two Constables.

While the number of available investigation teams were short by only three *per cent* in New Delhi district, there was shortfall ranging from 55 to 78 *per cent* in the remaining five districts.

Audit further observed that a proposal for sanction of additional 2907 posts was submitted (September 2005) by the Delhi Police to MHA for separation of the crime investigation duties from law and order duties. Subsequently, Supreme Court of India also directed (January 2007) the Centre and States to separate the crime investigation duties from law and order duties. It was observed that no significant progress was made regarding the proposal till November 2010, when the relevant file was withdrawn without any recorded reasons. The proposal was later reconsidered (January 2013) in the aftermath of the December 2012 Nirbhaya case. Subsequently, the High Court of Delhi on its own motion directed (August 2014) MHA for early decision on the proposals for additional posts in the Delhi Police. Thereafter, proposal for 2907 posts for separation of crime investigation was reassessed as 4974, but no final decision was taken till December 2015 when the High Court of Delhi expressed its disappointment at the manner and pace at which the matter was being handled.

Afterwards, MHA approved (December 2015) 4227 posts for separation of investigation duties and it was decided to operationalise the posts in two phases, i.e., 2115 posts in 2016-17 and the remaining 2112 posts in 2017-18. However, audit observed that separation of crime investigation from law and order duties was done in only 14 out of 72 police stations in the six police districts (as on June 2019).

Delhi Police may implement the separation of the crime investigation duties and law and order duties on priority basis, within a scheduled time frame and increase the number of Investigation teams.

Delhi Police replied (June 2020) that the number of Investigation Teams has now been increased to 835 in the six test-checked districts. As per the latest position of Investigation teams submitted by Delhi Police in June 2020, the range of shortage of investigation teams has also improved to 32 to 69 *per cent* from three to 78 *per cent* earlier observed during audit. Audit is of the view that Delhi Police should strive for minimising the shortages in number of Investigation Teams across the Districts.

4.5.   Long duty hours of police personnel

As per Model Police Act 2006, the state government shall take effective steps to ensure that the average hours of duty of a police officer do not normally exceed eight hours a day; provided that in exceptional situations, the duty hours of a police officer may extend up to 12 hours or beyond.

Audit observed that due to shortage of manpower and nature of work, existing manpower/police personnel was under severe stress as the average[27] daily duty hours in six test-checked districts was continuously in the range of 12 to 15 hours (Chart 4.6).

Chart 4.6: District Wise Avarage Working Hours Per Day
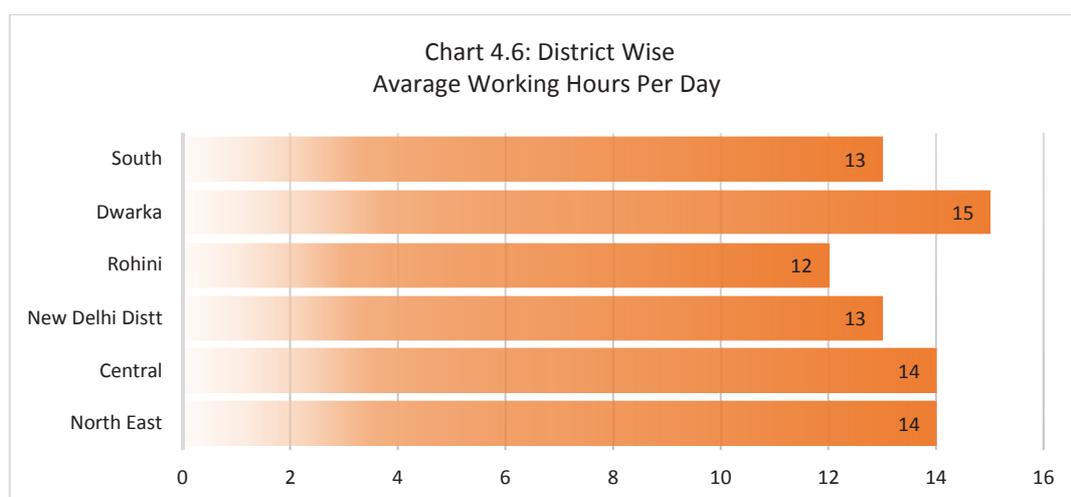
Source: Information provided by Delhi Police

Further, regarding the four days of rest to be given in a month to police personnel, average monthly rest given to police personnel ranges from Nil to 2.94 in five out of six[28] test-checked districts. Details of monthly rest availed by police personnel of the five districts was as given in Chart 4.7.

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[27]   For calculating the average working duty hours and weekly off, data for four months of 2018 i.e. January, April, August, and October (selected via random sampling), was selected for 72 Police Stations of six selected districts. Average was worked out on the basis of duty hours of ten *per cent* of the staff working in these 72 police stations as provided to audit by Delhi Police.

[28]   South District did not provide the relevant records

Chart 4.7: Monthly Rest to police personnel in police districts

District	Value
New Delhi	2.05
Central	0.7
Dwarka	1.16
Rohini	2.94
North East	0
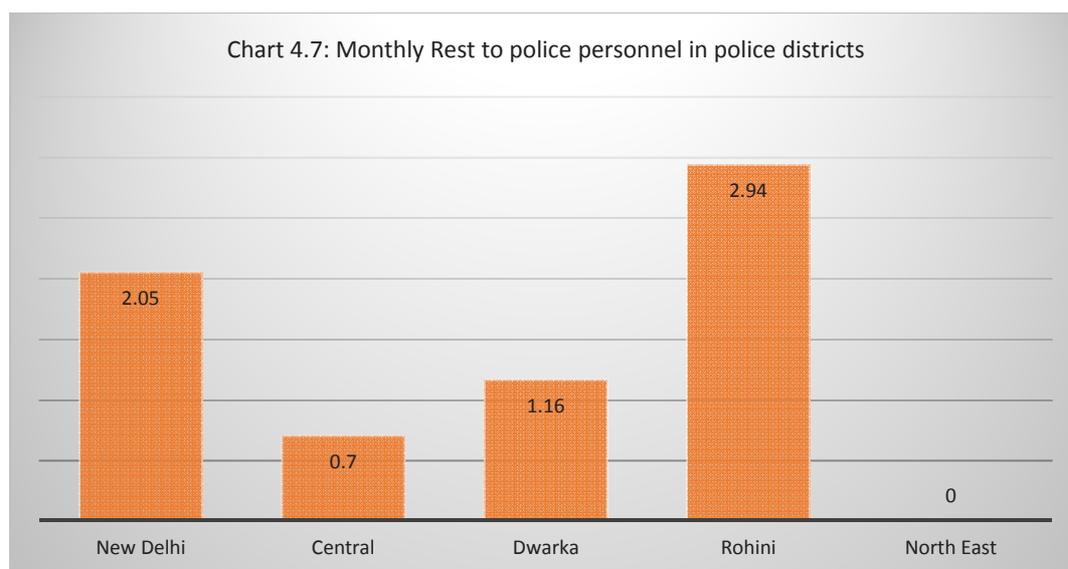
Source: Information provided by Delhi Police

Thus, it was observed that police personnel in police stations are heavily stressed since the daily working hours which are normally to be eight hours, were continuously in excess of 12 hours and also less than three days of rest in a month was available to them. These strenuous working conditions would have an adverse effect on the physical and psychological well-being of police personnel. Thus, the Delhi Police should strive to improve the manpower availability in police stations.

Delhi Police need to ensure that the manpower is sufficiently augmented in order to ensure that all police personnel get adequate/sufficient rest, and that the working hours of police personnel resonate with the norms prescribed in Model Police Act.

Delhi Police replied (June 2020) that different type of duties is performed by devoting extra duty hours, due to shortage of sufficient manpower. The reply makes it evident that shortage of manpower is putting undue stress on the existing police force.

4.6. Mobility in police stations

Mobility is measured in terms of the ability of the police force of a unit to move quickly to the incident site. Quick police response helps save precious lives, maintain law and order and protect public and private property, besides being a reliable indicator of police performance. BPR&D has prescribed scales for various types of operational vehicles such as heavy/medium/light vehicles and motor cycles for police stations. As per the BPR&D norms, seven four-wheelers,

18 two-wheelers and three[29] special four-wheelers are required for each police station.

Audit examined the status of availability[30] of vehicles against the requirement in 72[31] police stations of six selected districts and observed that there were huge shortages in availability of vehicles against the requirement, in all the police districts. There was a shortage of 75 *per cent*, 78 *per cent* and 53 *per cent* in 4-wheelers, special 4-wheelers and 2-wheelers respectively (district-wise details in Annexure-3).

Shortage of vehicles could adversely affect the mobility of police especially their patrolling functions and ability to respond quickly to law & order incidents. Moreover, audit observed that the police stations have not requested or submitted any proposals for procurement of vehicles, and neither has the district headquarters taken cognisance of the matter related to shortage of vehicles.

Delhi Police should ensure that the shortage of vehicles in all police stations is assessed at the earliest and necessary steps are taken to overcome the shortage in a timely manner.

Government replied (July 2020) that authorization for procurement of additional 4,444 vehicles was given to Delhi Police. In the financial year 2019-20, 1874 motorcycles have been purchased and allotted to Districts/units. The remaining vehicles will be procured by Delhi Police in 2020-21 and 2021-22.

Audit is of the view that Delhi Police should devise a mechanism wherein the process for replacement of the vehicles due for condemnation in the year, is initiated well in advance, to ensure that the police stations/units are always equipped with vehicles as per the requirement/norms.

4.7. Physical infrastructure in police stations

The police station is a key functional unit of the police force, where the police discharges its tasks of maintenance of law and order, investigation of cases etc., and is the primary point of interaction between the citizens and the Police. Considering the present-day functional domain of the police stations and the number of functions entrusted, BPR&D has set up some standard norms for

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[29] One TATA-407, One Minibus and One Pickup Van
[30] As on date of audit during December 2018 to March 2019
[31] Number of police stations has changed after January 2019. Audit inspected 72 police stations which were in the 6 districts till December 2018.

building of police stations to meet the requirements of functional spaces for smooth working of police personnel and distressed citizens visiting the police station. During the joint physical verification of all 72 police stations in the six selected districts, audit observed several deficiencies in respect of amenities available for visiting public and police personnel. The major deficiencies are discussed in the succeeding paragraphs.

4.7.1. Citizen centric and public friendly facilities

Differently abled friendly access to Police Stations

Requirement	Status
Entrance to the police station should be differently abled friendly, with a low gradient ramp and railing for convenience of differently abled persons.	23 out of 72 police stations inspected did not have differently abled friendly access, i.e., there were no ramps/lifts available and visitors have to climb a significant number of stairs/steps to gain entry to the police station. (Details are in Annexure-4)

Delhi Police replied (June 2020) that PWD has been directed to start the work regarding construction of ramps in 42 Delhi Police buildings, and estimates for other buildings has been requested. Delhi Police may ensure completion of the required works at the earliest.

Reception/Waiting Area

Requirement	Status
At the entrance of the police station, there should be a reception area with a reception counter and an enclosed waiting area for visitors to sit comfortably and wait.	Out of the 72 test-checked police stations, 15 police stations had adequate waiting area (123 m^2), while four police stations had no proper waiting area (less than 20 m^2) and 53 PS had a very small waiting area (20-50 m^2) compared to norms (123m^2). Illustrative Pictures are provided below (Details are in Annexure-4)

Figure 4.2: Waiting Room/Reception Desk in K.M.Pur PS (South District) and Chhawla PS (Dwarka District)

Visitors Toilets

Requirement	Status
There should be a separate toilet for male, female and differently abled visitors near the reception	In all the 72 police stations, common toilets for visitors and police personnel were available. However, differently abled friendly toilets were available in only 18 PS of four districts out of 72 police stations of six districts. (Details are in Annexure-4)

Women Help Desk

Requirement	Status
Near the reception, there should be a separate enclosure for a women help desk to help and listen to the complaints of females	Audit observed that though a women help desk was available in all 72 PSs, it was not in an enclosed space in 37 out of 72 police stations and thus, did not provide a sense of privacy to the female visitor. In the light of the Delhi High Court order (April 2009), which expressly indicates that the statement of the victim shall be recorded in private, the availability of women help desk in an enclosed space assumes significance. (Details are in Annexure-4)

Figure 4.3: Illustrative pictures to show that Women Help Desks are placed in open without any semblance of privacy

Delhi Police in its reply stated (June 2020) that new Police Stations are being constructed as per BPR&D norms and efforts are being made to make such provisions in all the Police Stations. Delhi Police may ensure that the women help desk in all police stations is situated in an enclosed space to provide privacy to the complainant.

Lockups

Requirement	Status
Each police station shall have lockups as per the NHRC guidelines, and should be monitored through CCTV cameras	Out of 72 police stations, 22 police stations did not have any lockups and lockups of other police stations were being utilised for the purpose. In the remaining 50 police stations, lockups were effectively being monitored through CCTV cameras. (Details are in Annexure-4)

Delhi Police replied (June 2020) that lockups are being constructed in new police stations projects. Police also replied that a proposal of CCTVs installation in various police establishments is also under process. However, immediate steps are required to be taken to equip all police stations with lockups to minimise the risk involved in transporting the prisoners from one police station to other, where lockups are available.

4.7.2. Police personnel centric facilities

Barracks for police personnel

Requirement	Status
Separate barracks to be provided for at least 120 men and seven women police personnel, with adequate number of toilets, urinals and bath areas	− None of the Police stations (PS) had separate barracks for women police personnel. − Three[32] PS had no barracks for male police personnel as well. − 17 out of the remaining 69 PS had barracks with capacity of less than 20 beds. − Further, the condition of the barracks was largely poor, in terms of cleanliness, hygiene, ventilation and lighting. − Toilets attached with barracks were grossly insufficient and in poor condition.

Figure 4.4: Condition of Barracks and Toilets in test-checked Police Stations

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[32] Shahbad Dairy PS and Narela PS in Rohini; Chhawla PS in Dwarka

Canteen/Mess and Kitchen

Requirement	Status
Kitchen with modern equipment and cafeteria with modern furniture required for police personnel staying in barracks and for police personnel on duty	− Four[33] out of 72 PS did not have canteen and kitchen facility, and four other PS had only kitchen facility without any sitting space. − Besides this, canteen/mess in 23 PS had insufficient space. − The condition of canteen and kitchen varied from good to poor and unhygienic in different police stations. Illustrative pictures of kitchen and canteen area are given below:

Figure 4.5: Illustrative pictures of Kitchen/Mess in Police Stations

Creche

As per the norms, a creche is to be provided in case large number of police personnel are posted. Audit observed that only nine out of 72 police stations had creche facility despite the fact that around 100 personnel were deployed in each PS. (Details are in Annexure-4).

Open ground for parade and Playground

As per the norms, adequate open ground should be available in the police station compound for a parade and for playing games (volleyball, badminton and basketball). Audit observed that 47 out of 72 police stations did not have any open ground available depriving the police personnel facilities for any sort of outdoor sports. Similarly, out of 72 PS, only nine and 14 PS had gym equipment and recreation room available respectively. (Details are in Annexure-4)

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[33]   Sangam Vihar PS (South District), Deshbandhu Gupta Road PS (Central District), North Avenue PS and South Avenue PS (New Delhi District)

Safety/security infrastructure

- Boundary Wall: Two[34] police stations in North East District did not have proper boundary wall.
- Watch Tower: Only two out of 72 PSs had watch towers.
- Firefighting system: Eight PSs did not have any firefighting equipment available, making them prone to risks of fire.
- Daylight and ventilation: Seven PSs did not have proper day lighting and ventilation system

Delhi Police replied (June 2020) that a request has been made to PWD to send estimates of boundary walls wherever it does not exist. Immediate steps are required to be taken to improve the vital infrastructure.

Police stations in rented buildings

In the test-checked six police districts, six out of 72 police stations were functioning from rented buildings. It was also observed that all the six police stations have been functioning from these rented buildings for more than 10 years as of July 2019 and four out of these six police station buildings were found to be in dilapidated condition, especially Karawal Nagar PS, which was reported to be unsafe in case of any natural calamity.

These six police stations had inadequate space resulting in deficient facilities e.g. lack of parking space, barracks, playground, waiting area etc. and insufficient safety/security infrastructure e.g., absence of lockups, watch towers etc.

It was further observed that though Delhi Police has been pursuing the matter with land owning agencies for allotment of suitable land, no progress in this regard could be made. MHA may also take up the matter with the ministry concerned for timely action in this regard.

Delhi Police should assess the derelict situation in the functional spaces in the police stations and plan for their upgradation in a scheduled and time-bound manner, to ensure that the infrastructure in police stations is as per the BPR&D norms.

Delhi Police replied (June 2020) that land owning agencies have been asked to allot the land for the police stations running in rented premises. Audit is of the view that matter may be dealt with by MHA, wherever there are major hurdles/delays in land allotment.

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[34] Karawal Nagar PS, Harsh Vihar PS, Jafrabad PS.

5.   Police Control Room

5.1.   Introduction

The Police Control Room (PCR) Unit of Delhi Police aims to provide quick police assistance to public in need/distress by the quickest means and in the minimum possible time. The PCR Unit consists of the Central Police Command Room (CPCR) and Mobile Police Posts[35] (MPPs). All calls on Police emergency number 100, Help-lines (Crime Alert-1090, Women & Child Helpline-1091; Sr. Citizen & Student Helpline-1291 etc.) and 112[36], are received in CPCR from where they are dispatched to the nearest Mobile Police Post which, being the first responder, reaches the spot quickly and takes appropriate action. The PCR Unit is responsible to cover entire Delhi as field support units for handling distress calls, law and order arrangements and securing VVIP routes. The PCR Unit is headed by the DCP/PCR and is operationally divided into six Ranges (each headed by an ACP) and 15 zones (each headed by an Inspector). Delhi Police CPCR was using Police Assistance-100 (PA-100) system for last 10 years, and has implemented Emergency Response Support System-112 (ERSS-112) system (as replacement of PA-100 system) from September 2019. Under this system, all the existing emergency numbers like 100 (Police), 108 (Ambulance), 181 (Woman and Child Care) etc. will be gradually integrated to unified number 112. Prior to full-fledge setup of ERSS-112, '112' emergency number was mapped (July 2017) to PA-100 system.
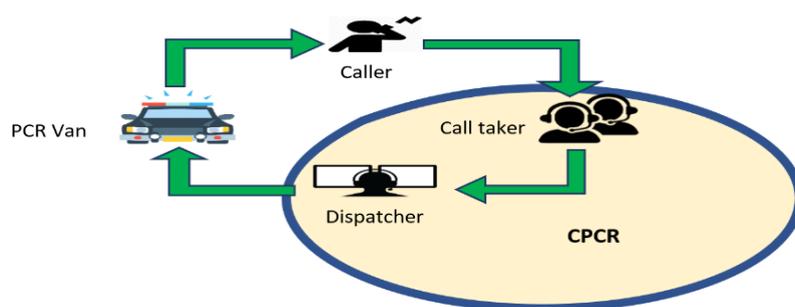
Figure 5.1: Flow-diagram of call to Delhi Police Control Room

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[35]   Mobile Patrol Vans (MPVs) and PCR Motorcycles to function as a "Mobile Police Post".

[36]   112 is a Pan-India single number (112) based emergency response system for citizens in emergencies. Each State/ UT is required to designate a dedicated Emergency Response Centres (ERC) to handle emergency requests. 112 is a globally recognized single emergency number, adopted by most of European countries, common wealth nations and mapped to emergency numbers in USA and Canada. Most of Phone handsets are manufactured with pre-programmed 112 as emergency number to be dialled with single key press. Telecom Regulatory Authority of India (TRAI) allotted this number for the purpose of single emergency number in India in May 2015.

Audit primarily examined the performance of the PA-100 system, which was later replaced with ERSS-112 in September 2019. Audit also did (March 2020) a preliminary review of ERSS-112 to examine if the issues seen in PA-100 system have been resolved in ERSS-112. On a preliminary review of ERSS-112 system, it was observed that a few issues observed in PA-100 system have been rectified whereas some issues still remain in the new system. When a caller dials the 100/112/Helplines, the call is received by an operator ('Call taker') in the CPCR, who then types the information on PA-100 (till September 2019)/ERSS-112 (September 2019 onwards) console, which is then sent to a 'Dispatcher' along with other units (depending on the type of complaint). It is the Dispatcher's job to locate the closest Mobile Patrol Van (MPV)/PCR Van and inform about the incident.

The MPV, once it reaches the site where a police intervention is sought, gives a ground report/ "Haalaat" to the CPCR (Dispatcher). In case medical assistance is required, it is the MPV which provides it, either by providing initial first aid or rushing the injured to a nearby hospital.

Audit observations regarding the functioning of the PCR Unit are given in the following paragraphs.

5.2. Central Police Control Room (CPCR)

The Central Police Control Room of Delhi Police receives mainly three types of calls: Distress Calls, Enquiry calls and Blank Calls. While police action is initiated for distress calls, enquiry calls are disposed of by call takers themselves and Blank calls are not acted upon.

The trend of calls received at CPCR during 2015-2019 is given in Chart 5.1.

Chart 5.1: Calls (in lakhs) to PA-100 system of Delhi Police

Year	Enquiry Calls	Distress Calls	Blank Calls
2019 (upto 20 Sept)	10.31	23.89	106.94
2018	18.57	34.38	169.57
2017	19.18	33.27	102.16
2016	19.05	31.96	58.37
2015	16.97	23.64	38.24
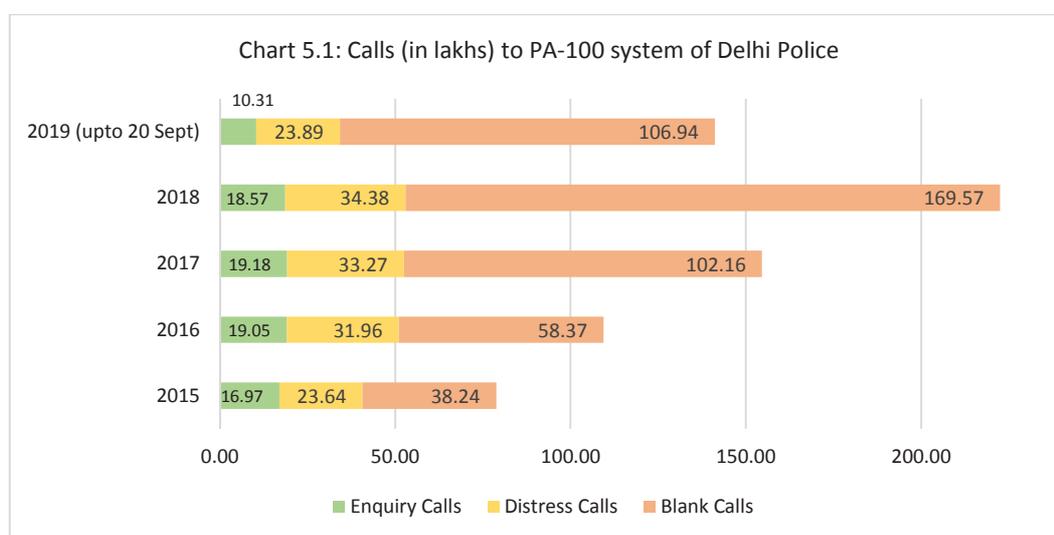
Source: Information obtained from CPCR, Delhi Police

As observed from the Chart above, there was a steep increase in the number of calls made to CPCR from 2015 to 2019. The percentage of blank calls to total calls increased from 46 *per cent* in 2015 to 77 *per cent* in 2018 and 72 *per cent* in 2019 (up to 20th September 2019). During the year 2018, more than 2.2 crore calls were received at CPCR. However, out of the 2.2 crore calls, around 1.7 crore calls (i.e. 77 *per cent*) were blank calls.

It is evident that the steep increase in calls to PA-100 system was primarily due to a huge jump in the number of blank calls (343 *per cent*), as there is nominal increase in enquiry (9.4 *per cent*) and distress calls (24.4 *per cent*) during the same period.

Audit analysed in detail the calls received during the period of one week from 22nd-28th May 2019. During this period, 4.50 lakh calls were received at CPCR. Out of these, 80 *per cent* of the calls were blank calls, 14 *per cent* were distress calls and six *per cent* were enquiry calls.

Upon further analysis, it was discovered that 52.35 *per cent* and 47.65 *per cent* of the total calls at CPCR were made to '100' and '112' respectively. However, 99.69 *per cent* of calls received at '112' were blank calls. Thus, 99.83 *per cent* of the distress calls which required police intervention, were received at the phone number '100'.

Blank calls to 112

As discussed above, 99.69 *per cent* of the calls received at '112' in PA-100 system were blank calls, and this was attributed to technical issues in mapping of 112 with the PA-100 system of CPCR, which remained unresolved till date since the mapping in July 2017. In order to filter out the blank calls, Delhi Police adopted Interactive Voice Response System (IVRS) wherein the moment one dials 112, the caller has to press '8' to connect with the call taker, else the calls automatically get disconnected. Audit observed that in February 2020, ERSS-112 system registered 1.27 crore incoming calls out of which 1.23 crore calls (i.e. 96 *per cent*) were rejected by IVRS system, and only 4.56 lakh calls were attended to by the call takers. Audit is of the view that IVRS has aided in filtering out the blank calls but in case of serious emergencies, it may adversely affect the response time and lead to difficulty/confusion to the person in distress, especially those who are not technology savvy. An analysis of the IVRS employed in the '911' response center (in USA) revealed that the system presents the caller with a simple selection menu. In these cases, the 911 IVR

answers the phone with a statement "If this is not an emergency, call the police at...". If there is an emergency, an option is presented to press "1" or simply wait and the next available 911 operator respond to the call. However, IVRS in ERSS-112 system automatically disconnects the call unless caller press "8", which is not intuitive and may be counter-productive.

Ministry of Home Affairs should take up the matter of enormous number of blank calls landing at 112 with Department of Telecom (DoT), so that the issue can be resolved in a more efficient manner.

Blank calls to '100'

Audit analysed the call data for one week from 22nd-28th May 2019 and observed that 61.27 *per cent* of the calls received at 100 during the period were blank calls. Out of 1,44,484 blank calls to '100', 45,362 calls were from 3696 callers only, who were responsible for repeated blank[37] calls during the period. Amongst these 3696 repeated blank callers, there were few callers from whom huge number of blank calls were generated and 20 *per cent* of these 45,362 blank calls were received from 15 callers only (details in Annexure 5).

Blank calls to emergency numbers cause congestion in the network, waste time and resources, and increases the response time required for the Delhi Police to address genuine distress/enquiry calls. Audit observed that the Delhi Police has not taken any action to identify the callers who were responsible for the repeated blank calls and for hindering the functioning of CPCR and thereby obstructing smooth functioning of the duties of government servants.

It was also observed that though PA-100 administrator console has the option to generate letters to those responsible for blank calls, the same was not being put to use.

To prevent abuse of emergency numbers, the Delhi Police may consider forming a graded response policy in which thresholds for the number of blank calls from individual numbers may be set for action to be taken by the Delhi Police. It may include automated text messages to the caller as warning, followed by enquiry and punitive action, if required.

The Government replied (July 2020) that the recommendation is noted. The Delhi Police, in its reply (June 2020) mentions the ageing system and obsolete hardware as reasons for suboptimal performance of the system. The reply also

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[37] More than one blank call from these 3696 callers

mentions that ERSS-112 has been instituted to replace the PA-100 system and to address the drawbacks highlighted in PA-100. The reply mentions that the only tenable reason for blank calls is inadvertent press of power button, resulting in SOS call (Call to 112).

The issue remains important nonetheless as Delhi Police needs to analyse and identify whether high number of blanks calls are landing at ERSS-112 (and filtered out by IVRS) from different number callers or from same callers as was observed for '100'. Also, IVRS in ERSS-112 system automatically disconnects the call unless caller press "8", which is not intuitive and may be counter-productive. Moreover, the reply was silent regarding audit observation on huge number of Blank calls from few numbers on Emergency number '100'.

Abandoned calls

Audit also observed that several calls to CPCR are also getting abandoned as the calls were not reaching/or being answered at the call taker position. On detailed analysis of calls to '100' during the period of one week from 6:00 AM, 22nd May 2019 to 6:00 AM, 29th May 2019, it was observed that 5.5[38]*per cent* of the calls were abandoned (not answered) at CPCR. Within the abandoned calls, 64 *per cent* calls were abandoned without an alert, i.e., while waiting in queue. This is probably due to the large number of calls received and congestion in network, for which the blank calls are a major factor. The probable reason for the remaining 36 *per cent* calls being abandoned after alert is that either the call takers are not available despite being logged in or the call is disconnected at the caller's end after waiting.

Delhi Police should ensure that appropriate action is taken to minimise the blank calls, and that the requirement of number of call taker positions is reviewed regularly to prevent calls getting abandoned while in queue.

The Government in its reply (July 2020) mentions that, in the current system (ERSS-112), the emergency calls are routed to IVRS to avoid the calls being abandoned and that such incidents have reduced. However, the premise of an emergency response system is minimal response time, which is likely to be affected due to routing to IVRS. While the initiative is in positive direction, the related parameters (shift wise average waiting time, maximum waiting time, logged-in agents) require further analysis by Delhi police.

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[38]   i.e. 11,350 of the total 1,95,419 calls

5.2.1. Call takers

When a caller in distress dials Police emergency numbers (100, 112 or other police helplines), the call is automatically assigned to a call taker designated for that emergency number, based on the availability. As a call alert is raised on the call taker's console, the call form is automatically populated with unique CPCRDD Number and other information (Date & Time and Phone number along with the name and address registered with the phone number) through CLI (Calling Line Identification). In case it is unavailable, the details are to be filled manually by the call taker.

Subsequently, the complaint type is selected through a dropdown menu (from the 107 crime heads), incident address and complaint details are typed in the form and the jurisdictional police station is selected. On the basis of the complaint type, the system assigns priority type to the call, which can be escalated by the call taker if required. Similarly, on the basis of the complaint type, the system automatically chooses the units to whom information shall be escalated and communicated, and the list of such units can be expanded by the call taker.

During joint visit to CPCR and demonstration by Delhi Police, following was observed regarding functioning at call taker positions:

Use of mix of Hindi/English by call takers:

It was observed that primarily, the incident details and incident address which are entered by the call taker are transliterated from Hindi to English, which severely limits the comprehensibility of details 'as typed' by the call taker. Moreover, the different call takers use different combination of alphabets to represent a letter, use or omit connecting phrases, verbs etc. Few illustrative challans are given in Figure 5.2.

Since Delhi Police was also undertaking initiatives involving analytics, in which one of the primary data sources would be CPCR call details, data quality in PA-100 consoles is essential. Interpreting the challans through a software utilizing natural language processing algorithms (which utilize statistical analysis of standards texts with definitive grammatical rules and syntax), would not be possible if the details are entered in such manner.

Incident Address	KIRTI NAGAR ME GOLA BENQUAT HOLL PER
Incident Information	NEED POLICE=ME AKELI HU
PS Name	KIRTI NAGAR

POLICE WALA CALEER KE COMPLNED NHI LIKH RHE H

PARK ME KOI BHI GARD NAHI H----2ND CALL

CALLER KE NIGHT KO JHAGRA HUA OR DHAMI BHI DE HAI

CALLER HR 55AB 4949. OLLA CAB SE H AUR CUSTOMER PASAAE DIYE BINA JA RAHA F , NEED HLP............... 2ND CALL

LADY CALLER KH RHI H KI DUKN WALO NE MEWRI SCOOTY KHARAB KAR DI H

CALLER KH RHI H KI IO AMAR SINGH HAMARI SUNWAHI NHI KAR RHE

Incident Address	GONDA PARK CIVIL LION
Incident Information	NEED POLICE
PS Name	CIVIL LINES

Figure 5.2: Illustrative Challans depicting mix use of Hindi English, which makes it incomprehensible

Source: Challan details obtained from Delhi Police

The Delhi Police replied (June 2020) that the audit observation is commendable and that the process of text to speech conversion and its standardisation is now being done in ERSS-112 project.

Categorization of distress calls

It was observed that 24 *per cent* of the distress calls during the period of 22nd-28th May 2019 were categorised under **'Miscellaneous'** category by the call takers, despite there being 107 categories for classification of distress calls.

On further scrutiny of randomly selected 100 challans under Miscellaneous category, it was observed that 25 calls could have been classified under one of the existing categories such as molestation, threat to women, snatching, cow related, kidnapping, accident, missing person, burglary, gambling and detection of missing vehicle. Since the priority of calls classified under 'Miscellaneous' would not be immediately known, and dispatcher as well as field personnel would be dependent on the details recorded by the call taker, proper classification of distress calls is essential for prompt response.
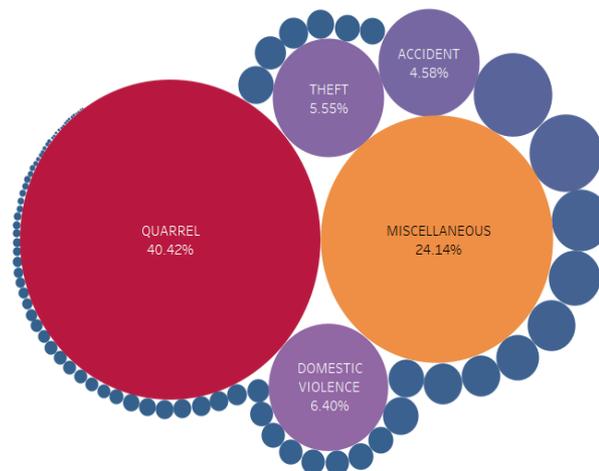
Figure 5.3: Breakup of Calls into Categories

Moreover, audit observed from the test-check of 100 challans that multiple calls belonged to some common and specific categories (grievance against police (7), parking (5), domestic feud (7), business-client dispute (6), labour grievance (7), grievance against civic agencies (6), but were not yet defined in PA-100 console.

Further, it was observed that certain heads for distress calls were impractical and were not fit to be used at call taker positions e.g. 'Missing person-false alarm, which should be recorded as only 'Missing person' by call taker and on basis of situational reporting by MPV to dispatcher, may be updated to 'Missing person-false alarm' by the dispatcher. Also, audit observed that the calls were currently not being re-categorized at dispatcher position after situational reporting from MPVs.

Thus, Delhi Police may consider designing a two-tier classification for the distress calls, in which the call takers may assign the first level i.e. broad category and dispatcher may assign second level i.e. specific category on receipt of 'halaat' report (situational report) by the MPV.

Delhi Police replied (June 2020) that now an Inspector has been assigned responsibility to check deviations in the call categorisation. Regarding the Recommendation of assignment of detailed category by the Dispatcher, no specific reply was given.

Delhi Police may consider implementing a two-tier categorisation of distress calls, wherein call takers would assign a broad category and dispatcher would update the detailed category after receipt of 'halaat' report. Also, the call

categories should be regularly reviewed to ensure that the number of calls categorised under 'miscellaneous' is minimised.

5.2.2. Dispatchers

In CPCR, there are 20 dispatcher positions and each of them is responsible for communicating to MPPs (PCR Vans and Motorcycles) in the geographically divided zones assigned to them. On the basis of the police station concerned, the challan is transferred to the specific dispatcher responsible for that area.

On the dispatcher's console screen, a summary of all queued calls (i.e. where PCR Van is yet to be informed) and in-progress calls (i.e. where PCR Van has been informed but is yet to revert back with the status) is available. This information is colour coded based on the priority[39] of the call.

Unequal distribution of calls to Dispatchers

Audit observed that since the jurisdiction of dispatchers is fixed geographically (entire PCR zone or part of a zone), there is huge variation in the call load between dispatchers as given in Chart 5.2.
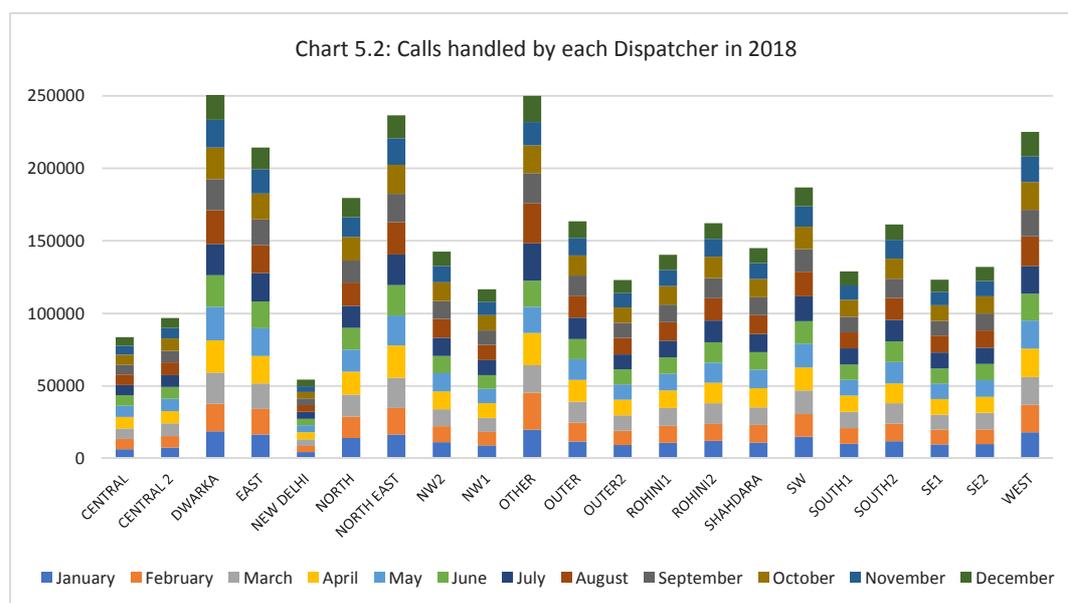
Source: Information obtained from CPCR, Delhi Police

Since calls pertaining to a particular area are assigned to a specific dispatcher, a high number of calls in that area would result in later calls ending up in queue, while some other dispatcher, assigned to another area, might be free and available at that point of time.

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[39] Priority is linked to the type of complaint and call taker may increase the priority, if required.

The Delhi Police replied (June 2020) that care shall be taken to ensure equal distribution of calls to each channel in future.

Delhi Police could consider devising a mechanism by which challans in queues are transferred to other available (free) dispatchers dynamically, to ensure that an MPV is informed about the distress call with minimum delay.

Haalaat Report

The actual response time of Police to distress calls is computed as time of MPV reaching the incident location after the distress call was made. It was however observed during analysis of call records that the time of MPV reaching the place of incident was recorded in only 2.54 *per cent* of the calls. Also, a test-check of the log books of 30 MPVs showed that the exact time of reaching the place of incident is not recorded by the MPV in-charge. In the absence of details regarding exact time of MPV reaching the spot, the actual response time cannot be computed and senior management cannot reliably monitor the performance of the PCR Unit and take decisions to optimise the resource allocation on the basis of such data.

Delhi Police should ensure that the time of reaching of MPV at the caller location is always recorded in the call book register as well as informed to the dispatcher. This would allow the senior management to assess the exact response time of MPVs of various zones and accordingly deploy the resources optimally.

5.2.3. Response Time

The Central Process Control Room acts as the link between aggrieved person/caller and MPPs, and in case of urgency, time taken by CPCR to inform the MPPs plays a vital role. Audit analysed the data pertaining to calls received during the period 22nd-28th May 2019, to calculate the time taken by CPCR from receiving the distress call to informing the MPP about the crime. It was found that information related to 84 *per cent* of the distress calls was communicated to MPPs within 10 minutes, i.e., CPCR took more than 10 minutes to identify and inform an MPP in respect of 16 *per cent* of the calls.

It was further observed that the PCR Van reaching time was recorded in only 1401 cases, out of which only 45 *per cent* of the calls were responded to by PCR Van within 10 minutes and 80 *per cent* of the calls were responded to by PCR within 30 minutes, i.e., MPP did not reach the scene of incident even in 30 minutes in 20 *per cent* of the calls.

Chart 5.3: Time taken to inform MPV
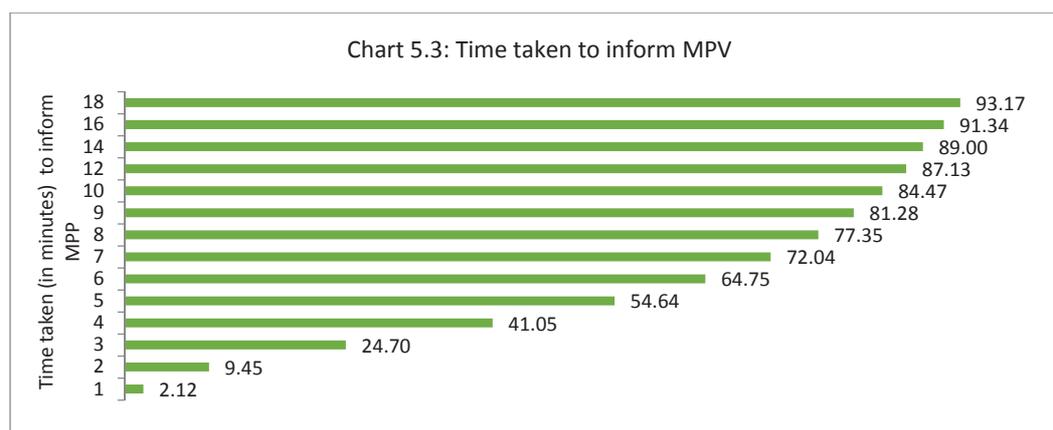
Source: Information obtained from CPCR, Delhi Police

It was also noticed that in response to the High Court's order, the Delhi Police had filed an affidavit stating that the response time of Delhi Police is 5 minutes in 80 *per cent* of the cases. However, methodology for arriving at this was not provided to Audit. Since audit's calculation regarding response time of the Delhi Police is displaying huge variance with Delhi Police's affidavit in High Court, the Delhi Police must ensure that the PCR Van reaching time is recorded for all the calls to allow senior management to monitor the performance of CPCR and make appropriate decisions. Delhi Police should also disclose the methodology used by them in calculating the response time, on the basis of which the High Court affidavit was filed.

With regards to the response time, the Delhi Police, in its reply (June 2020), acknowledged the lacuna in the PA-100 system and stated that the same has been resolved in the ERSS-112 system.

Audit analysed the data for February 2020 from ERSS-112 system and found that the vehicle reaching time is now automatically logged in via information conveyed by Mobile Data Terminal (MDT) as the vehicle reaches the distress caller. Further, it was found that 91.4 *per cent* of the calls was responded to between 0-10 minutes and 6.7 *per cent* of the vehicle reached the distress caller between 11-20 minutes. This indicates improvement in performance of PCR Unit after implementation of ERSS-112.

5.3. Mobile Police Posts (MPVs/PCR Motorcycles)

The prime objective of MPVs/Motorcycles is to immediately respond to a distress call to assist the caller within the shortest time possible. On receipt of instruction from dispatcher at CPCR to reach the scene of incident, the MPV/Motorcycle proceeds to the spot and confirms the incident and sends the

details back to CPCR and also to the District Control Room. The MPV/Motorcycle waits for the local police and preserves the scene of crime till their arrival. The MPVs/Motorcycles also take part in all the route arrangements of VVIPs/VIPs and other visiting dignitaries.

In the wake of the 28th November 2008 terrorist attack in Mumbai, Delhi Police had requested (December 2008) MHA for sanction of 370[40] MPVs in addition to its then sanctioned fleet of 630 MPVs in order to improve its response time to distress calls, law and order situations etc. The MHA accorded (February 2013) the sanction after a period of five years. Afterwards, on the basis of decision of High-Level Committee, MHA decided that there should be one MPV for every one km^2 area, and Delhi Police submitted (March 2018) a proposal for sanction of 541[41] MPVs in addition to the existing sanction of 1000 MPVs. This proposal was, however, pending for approval of MHA as on July 2019.

Delhi Police replied (June 2020) that the proposal is under consideration. The Government replied (July 2020) that 4444 new vehicles have been authorised. However, the reply was not specific as to whether these 4444 vehicles included the 541 MPVs.

Government should expeditiously take a decision regarding the proposal for sanction of additional 541 MPVs, since the shortage of MPVs adversely affects the efficiency of PCR Unit of Delhi Police.

5.3.1. Shortage of MPVs

Further, it was observed that against sanction of 1000 MPVs, the PCR Unit was functioning with only 843 MPVs (as on 1st May 2019) and the MPV fleet has been declining continuously over the last three years. This is primarily due to the fact that the Delhi Police has not purchased any additional vehicles for the PCR Unit in the last four years and only replacements have been purchased for the vehicles condemned. Further, though the vehicles of the PCR fleet were condemned and replacements were also purchased, new vehicles purchased were allotted to other units instead of the PCR Unit on many occasions, resulting in decline in PCR fleet size.

[40] Additional 3684 posts were also proposed to operate these additional 370 PCR Vans
[41] 1483 Vans for 1483 km^2 area of Delhi + reserve, proposal for additional 7723 posts for these 541 PCR Vans was also submitted

Thus, against assessed requirement (August 2016) of 1541 MPVs and sanction (May 2013) of 1000, the PCR Unit of Delhi Police was functioning with a depleted fleet of only 843 MPVs (May 2019).

During the last five years from 2015 to 2019, while the number of MPVs with PCR Unit has been falling continuously from 1002 to 843, the number of distress calls have continuously increased from 26.23 lakh in 2015 to 29.86 lakh in 2019. The details are given in Chart 5.4. As a result, the annual average number of distress calls per MPV has increased from 2,618 in 2015 to 3,542 in 2019.

Further, out of total 843 MPVs (as on 1st May 2019), only 81 *per cent,* i.e., 685 were actually deployed on active/operational duty in field. The remaining 19 *per cent,* i.e., 158 MPVs, were attached with officers, diverted to other units, under condemnation process etc.

Chart 5.4 : PCR MPVs Fleet
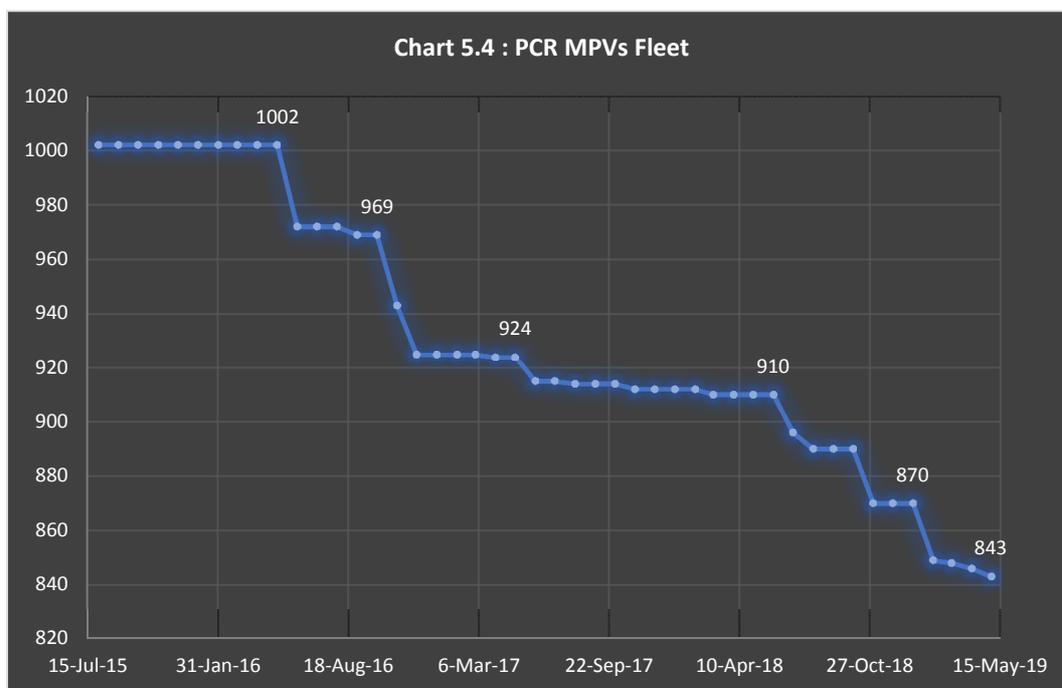
Source: Information obtained from PCR Unit, Delhi Police

Audit is of the view that since the PCR Unit as such was facing shortage of MPVs and entire sanction of 1000 MPVs was meant to attend to distress calls from public, diversion of MPVs to other units and assigning of these MPVs to officers/offices is not justified.

Delhi Police replied (June 2020) that at present, there are 871 vehicles in PCR Unit, out of which 715 vehicles are deployed as MPVs and 61 vehicles are on operational duties by ACsP, Inspectors, and checking officers in the field. Audit is of the view that all the vehicles of PCR Unit should be deployed to fulfil the

current sanction of 1000 MPVs, and Delhi Police should seek separate sanction for the vehicles required by ACsP, Inspectors etc.

Delhi Police should ensure that the MPV fleet is operating at its maximum sanction, and all available MPVs are utilised/deployed for the assigned roles only.

5.3.2. Types of MPVs

In recent years, the PCR Unit has introduced specialised MPVs, i.e., 32 Parakram Vans, 15 All Women MPVs and 15 Tourist MPVs.

Parakram Vans	as first responder for incidents requiring armed intervention and to add further anti-terror backup in the city for situations warranting armed response and deployed in important vulnerable locations, i.e., high footfall area and crowded places
All Women MPVs	stationed outside colleges and metro stations
Tourist MPVs	stationed at spots frequently visited by tourists to assist the them

These specialised MPVs were generally stationed at their designated locations and have specific responsibilities. However, while assessing the requirement of 1541 MPVs for entire Delhi, the proposal was not clear as to whether these specialised MPVs have been considered as a regular PCR Van or not. Since these specialised MPVs generally do not attend to distress calls, the Delhi Police may consider seeking sanction for these also seperately. Reduced mobility would result in lowering the crime fighting effectiveness of the Delhi Police.

Delhi Police replied (June 2020) that as suggested by audit, Parakram Vans will be utilized as PCR MPVs once the additional vehicles are allotted, which is likely to be done shortly.

5.3.3. Equipment in MPVs

As per the prescribed norms, MPVs fitted with wireless sets and equipment and manned by police personnel have to be located at different strategic points all over Delhi. A total of 38 equipment has to be kept in a MPV to facilitate the police personnel in performance of their duty. Scrutiny of the details provided by 15 zones of PCR unit revealed that there was shortage of five important items (Chart 5.5).

Chart 5.5: % of MPVs in which items were not available

Item	%
Body protector	45
Tear gas grenades	34
PCR Net wireless set	13
PA system with siren	17
Hand search light	54
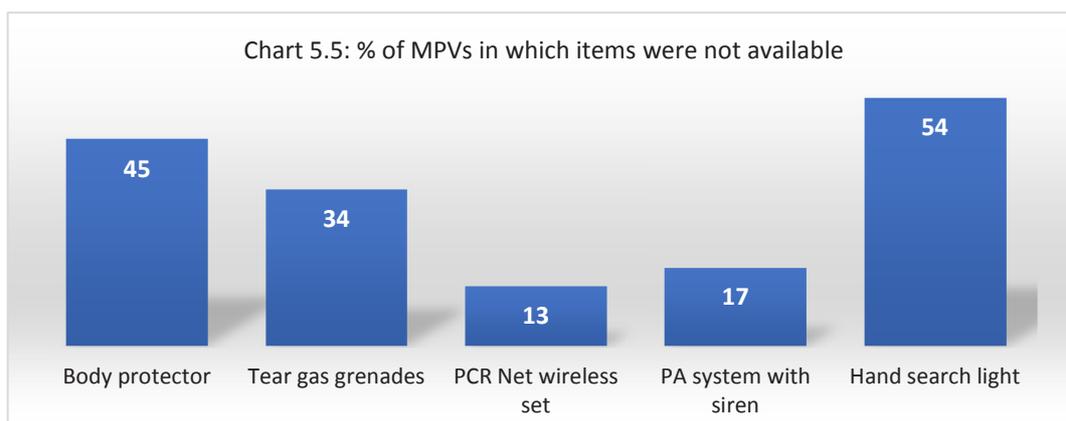
Source: Information obtained from CPCR, Delhi Police

Regarding Parakram Vans, which have been launched for situations warranting armed response, adequate protective gear should be provided to the police personnel in these Vans for full protection from any assault/terrorist attacks. Audit observed that while three Bulletproof (BP) Jackets were to be provided for three commandos in each of the 32 Parakram Vans in 10 zones, 18 Parakram vans in seven zones were operating with only 26 BP jackets against the requirement of 54 BP Jackets. Also, there was shortage of equipment like Ballistic glasses/goggles, half finger gloves, Advanced Tactical Elbow, Advanced Tactical Knee pads, Baton Stun Gun, Pepper Spray, and Camera Clip.

Delhi Police replied (June 2020) that the equipment in the Prakaram Vans are under active consideration for procurement.

Delhi Police should ensure availability of all the required gear and equipment for all the Parakram Vans as per the prescribed norms.

5.4.   Manpower for PCR Unit

The total sanctioned strength of police personnel for PCR Unit was 8422 against which actual strength was only 5,456 (March 2019). As per the prescribed norms, each PCR MPV is to be manned by a minimum of three police personnel in three shifts of 12 hours each. Accordingly, 6171 police personnel were required for 653[42] PCR MPVs.

[42]   As on 12 March 2019 (Excluding 32 Parakram Vans)
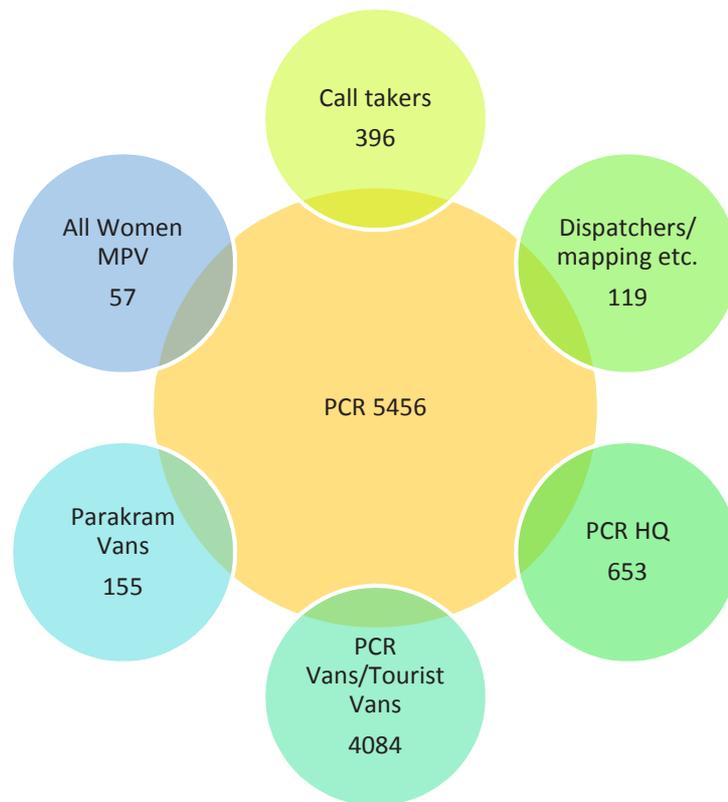
Figure 5.4: Manpower available in PCR Unit

However, these 653 MPVs were operating with only 4,141 police personnel, which indicates that either the MPVs are operating with less than three police personnel or the police personnel are doing longer duty hours. Also, 55 *per cent* of the MPVs were operating without a gunman (as on 1st December 2018).

Delhi Police must ensure that all the operational MPVs are manned by minimum required number of police personnel including gunmen, to ensure that they are adequately capable to handle any sort of emergency or incident while attending to distress calls.

Besides the MPVs, 396 police personnel were deployed on call taker positions in CPCR. Audit observed that the Police departments of Madhya Pradesh and Uttar Pradesh have outsourced the call taker positions.

Delhi Police may also consider outsourcing the call taker positions to persons, who are duly trained in soft skills and call centre related tasks. These functions can be outsourced to the private sector with due regulations in place. This would help in relieving at least 396 police personnel currently deployed on call taker positions and enable their deployment elsewhere for core policing functions

Delhi Police in its reply (June 2020) accepted the fact that due to shortage of staff, gunmen are deployed only on MPVs stationed at vital installations and sensitive areas. Thus, immediate steps should be taken to ensure that staff is made available for deploying gunmen in each and every MPV.

Delhi Police in its reply also accepted that if the proposal to replace the permanent staff with outsourced manpower is finalized, 556 Head Constables/Constables can be spared, but the matter has to be dealt at higher level due to sensitivity of certain issues (there are regular VVIP movements and calls regarding routes and arrangements are received by the call takers).Regarding the sensitivity concern, it is to be mentioned that the Police departments of Madhya Pradesh and Uttar Pradesh have already outsourced the call taker positions. Besides, Delhi Police may consider dedicated call taker positions for such enquiries regarding VVIP routes and arrangements, which can be manned by police personnel.

6. Operations and Communications

6.1. Introduction

The Operations & Communications (Ops & Comm) Unit of the Delhi Police is responsible for providing communications facility to all police stations, pickets, check posts, traffic, PCR vans, security arrangements and officers of the Delhi Police. It is also responsible for overall maintenance of CCTV cameras installed by the Delhi Police.

6.2. Communication systems

As of May 2019, the communication system of the Delhi Police was employing a mix of conventional and trunking[43] (APCO P25 Phase-I and TETRA) communication systems.

Trunking	APCO P25 Phase-I	• Procured in 1999 by Delhi Police from M/s Motorola, completed its normal life span in 2009 but yet to be upgraded. • Covered entire Delhi with 5 repeater bases • Proposal for upgradation initiated in August 2011 but tenders were yet to be finalised as on July 2019
	TETRA	• Implemented (installed in the year 2009 and accepted in March 2012 with contract period of 87 months) TETRA System on rental basis from M/s HCL through GNCTD. Covered entire Delhi with 56 repeater bases. • The contract period of 87 months was completed in May 2019 and it has been discontinued from June 2019 onwards.
Conventional	UHF/VHF	• Short-range (1-2 Kms), used for roof top arrangements, picket checking, events in stadiums etc. • No need for repeater bases, useful in case of disasters • Oldest system with Delhi Police; retained to ensure diversity of technology and redundancy in communication.

The number of conventional wireless sets declined from 9638 in June 2009 to 6172 in June 2019 as the sets condemned during the period were not regularly replaced and purchases of replacement sets was incommensurate with the number of sets condemned during this period.

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[43] "Trunking" systems differ from "conventional" systems in that a conventional system uses a dedicated channel (frequency) for each individual group of users, while "trunking" systems use a pool of channels which are available for a great many different groups of users.

Audit observed that after more than a year of condemnation of 406 conventional wireless sets during July-October 2013, Delhi Police initiated[44] (January 2015) a proposal for purchasing 880 sets. Further, the procurement processes for purchase of replacement sets were also fraught with inordinate delays, as the wireless sets could be procured and taken to stock only after more than four years in March 2019.

Meanwhile, when APCO P25 Phase-I completed its normal lifespan of 10 years in 2009, the Delhi Police acquired TETRA trunking communication system to be used alongside on rental basis. However, due to expiry of the contract period of TETRA in May 2019 and failure to upgrade the APCO P25 even after 10 years of its normal lifespan, Delhi Police is now reliant (June 2019 onwards) only on the 20 years old 'APCO P25 Phase-I' communication systems for pan-Delhi coverage. Further, the Delhi Police has continuously recorded (since 2011) that the APCO P25 has been giving deteriorated performance due to ageing. Also, the number of the trunking wireless sets[45] for the APCO system declined[46] continuously during the last 10 years. Ultimately, the total number of trunking wireless sets declined sharply in June 2019 due to discontinuation of TETRA system and its 3657 sets.

Chart 6.1: Trunking Wireless Sets (as on 1st June of the year)
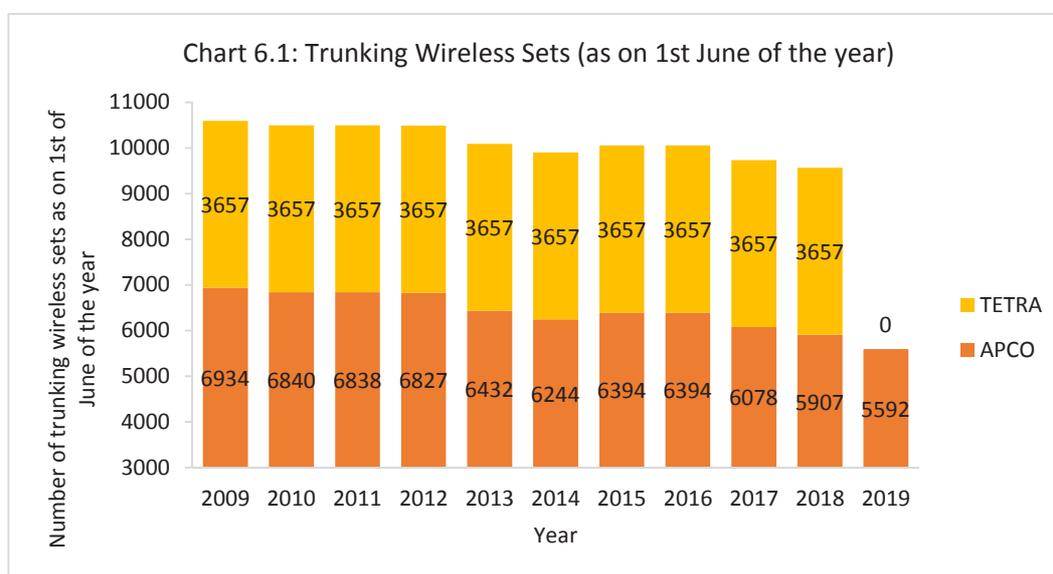
Source: Compiled from records of Ops & Comm Unit, Delhi Police

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[44]   As per the records of Delhi Police, no conventional wireless sets were procured in 6-7 years before this proposal was initiated

[45]   Handheld sets are used by field personnel, mobile sets are used in vehicles and static sets are used in police stations, control rooms etc.

[46]   number of wireless sets available with Delhi Police has drastically reduced from 10,591 (6934 APCO sets and 3657 TETRA sets) Trunking wireless sets in June 2009, to only 5592 sets after 10 years in June 2019.

Audit observed that Delhi Police initiated (August 2011) a proposal for the upgradation of Motorola's "Smart Zone" APCO P25 Phase-I system to Motorola's "SmartX" APCO P25 Phase-II system[47]. Delhi Police had clearly stated that the upgradation project is not in lieu of the TETRA system and had envisaged simultaneous use of TETRA and APCO P25 Phase-II systems for 'diversity in technology, frequency band, repeater sites and operational methodology'. Further, the proposal had assessed a tentative requirement of 6000-7000 wireless sets with APCO P25 Phase-II, which would have replaced the approximately 6800 APCO P25 Phase-I sets being used then (in 2011) and supplemented the 3657 TETRA sets.

However, despite the criticality of the proposal, it kept shuffling between the Delhi Police and MHA for almost seven years before tenders were invited for the first time in September 2018.

During this period, no progress was made on the proposal till December 2013, when MHA advised Delhi Police to get the proposal independently examined by DCPW (Directorate of Coordination-Police Wireless) and resubmit the proposal after considering DCPW's comments. DCPW responded to the Delhi Police expressing its reservations about the proposal which was likely to lead to a single bidder solution and that the proposed system could not be recommended since Scientific Analysis Group's (SAG)[48] approval was not available for the same. Thereafter, MHA accorded (September 2016) 'in-principle' concurrence to the proposal on Delhi Police' assurance that SAG approval would be sought after selection of firms.

The Delhi Police then submitted (June 2017) to MHA the technical specifications and draft tender documents, on which MHA again observed (August 2017) that the proposed system seems to be patented and proprietary technology and asked (April 2018) the Delhi Police to obtain quotes from at least three vendors. On being informed (May 2018) by the Delhi Police that quotes/estimates obtained from two firms were higher than the estimates given by M/s Motorola, MHA accorded (July 2018) approval for the tender documents and global tender. Upon inviting (August 2018) the bids, though five firms had participated

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[47] APCO P25 is an open standard for communication systems, with several manufacturers e.g. Motorola, Harris, Tait etc.

[48] This issue of SAG encryption was resolved (December 2015) when it was decided that when requirement for secured channels would arise, necessary approval shall be obtained from SAG.

(October 2018) in pre-bid meeting, single bid of M/s Motorola was found to be received on opening the bids. The tender was then scrapped and re-invited in June 2019.

Audit further observed that out of 70 queries received during the pre-bid meeting (October 2018), modifications were effected for 43 queries. However, out of these, 19 modifications were reverted/not incorporated in the tender document issued in June 2019. Out of these, modifications were again effected in 14 cases during pre-bid meeting for 2nd tender, which indicates that adequate due diligence was not carried out while retendering. Moreover, in the remaining five cases, request for modification was not accepted and no reasons were recorded for the decisions taken thereon.

Besides, APCO P25 Technology Interest Group has listed 'Multivendor sourcing' and 'Interoperability' among the benefits of APCO P25. The technical specifications issued by MHA, as guidance for all states/UTs, also seeks Interoperability (IOP) certification from technical Working group of the APCO Association' to ensure interoperability with minimum two vendors. Similarly, the Delhi Police had mandated demonstration of the interoperability of system with sample sets of other vendors and submission of interoperability certificate.

However, the Delhi Police included another clause, "the radio system infrastructure (base station and switch) and radios (portable, mobile and static) shall be of the same make from the same OEM (original equipment manufacturer)", which rendered the interoperability requirement inconsequential, thus depriving Delhi Police from benefitting from one of the major benefits of APCO P25 open standards. Also, this issue was raised during pre-bid meetings but no deliberations in this regard were found available on record.

Regarding Interoperability, Delhi Police replied (June 2020) that it is not possible to do Factory Acceptance Test (FAT) at OEM locations if different product of different OEM is quoted. Reply is not tenable since, if the bidder is quoting for products of different OEMs, then it would be the responsibility of the bidder to arrange the products of different OEM at one place to give FAT (Factory Acceptance Test).

The Delhi Police had continuously highlighted the fact that APCO P25 Phase-I system had crossed its normal life span of 10 years (in 2009), and was giving deteriorated performance due to ageing, and needs immediate replacement to

meet operational requirements of the Delhi Police. Further, it was highlighted that this system is the backbone equipment of the Delhi Police communication system and may collapse at any point of time due to its old age. Audit is of the view that based on the comments of MHA on various occasions about the tender specifications favouring one particular vendor, the Delhi Police should have exercised more diligence in finalising the tender specifications and accepted/rejected queries by recording its justification and reasons. Overall, this appears to have affected the response to the tender and ultimately resulted in delay in upgradation of the trunking system.

In its reply (June 2020), Delhi Police mentioned that the tender process for upgradation of communication system was at final stage and price bid will be opened shortly after the technical evaluation. Delhi Police also replied that a proposal for purchase of 3063 UHF handheld sets, 100 UHF Static/Mobile sets, and 19 UHF repeaters is also under process.

Government of India and Delhi Police should ensure that utmost priority is given for upgradation of Delhi Police's communication system in a transparent and time-bound manner. Government may also consider revision in delegation of financial and administrative powers to Delhi Police to avoid undue delays in procurement of such vital equipment.

6.3.   CCTV Surveillance

In the last ten years, the Delhi Police has installed 4,100 CCTV cameras in entire Delhi to keep a watch on the public places by deployment of cameras at strategic locations. Out of these 4,100 cameras, 3,870 cameras were installed through ECIL in four phases, as shown in Table 6.1, and 230 cameras were on rental basis.

Table 6.1: Cameral installed through ECIL

Phase (Contract Date)	No. of Cameras	No. of Sites	Expenditure incurred
Pilot Phase (Feb 2009)	56	2	₹5.61 crore
Phase-I (March 2010)	1,073	29	₹85.61 crore
Phase-IIA (Jan 2012)	2,085	38	₹121.35 crore
Phase-III (March 2012-Jan 2014)	656	10	₹18.87 crore
Total	3,870	79	

Source: Information provided by Delhi Police

Audit observed that during April 2018-March 2019, the number of functional CCTV cameras ranged between 2152 and 2631 out of a total of 3870 cameras, i.e., 55 to 68 *per cent functional cameras*.

Chart 6.2: Phase-wise Percentage of functional Cameras

Legend: Pilot | Phase-I | Phase-IIA | Phase-III | Total

Y-axis: %age of cameras functional as on 15th of the month

X-axis: Month and Year — Apr-18, May-18, Jun-18, Jul-18, Aug-18, Sep-18, Oct-18, Nov-18, Dec-18, Jan-19, Feb-19, Mar-19
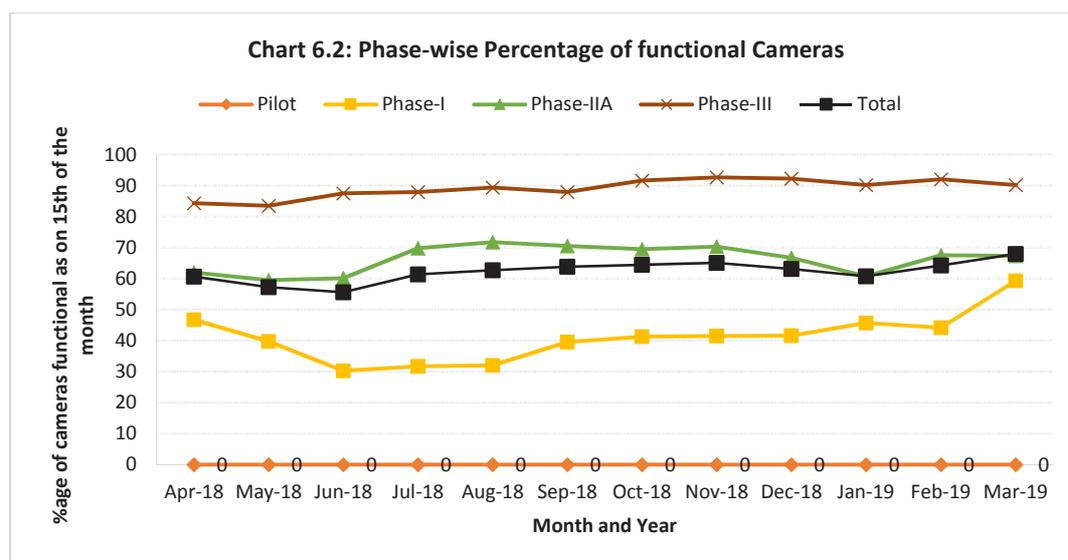
Source: Compiled from records of Delhi Police

Audit observations regarding functioning of CCTV cameras are given in the succeeding paragraphs.

6.3.1. Functioning of cameras

The work for installation of 56 CCTV cameras at two sites, Ghazipur Border (18) and Vasant Vihar (38), under Pilot Phase, was awarded (February 2009) to Electronics Corporation of India Limited (ECIL) for ₹5.89 crore. After the installation of cameras by ECIL, the sites were handed over to the Delhi Police in March 2012 and March 2015 respectively. Audit observed that the agreement with the service provider did not include provision for internet leased line to link Master Control Station with Local Surveillance Station. Consequently, ECIL submitted additional bills (₹0.41 crore in January 2013 and ₹0.35 crore in September 2014) for payment for the internet lease line.

However, the agreement was not amended and all these 56 cameras were declared non-functional from August 2015 due to lack of connectivity. Thereafter, the system has been dismantled in November 2018. Thus, due to not keeping provision for connectivity/leased line in agreement, the 56 cameras installed under the Pilot Phase remained operational for less than three years, rendering the expenditure of ₹5.61 crore wasteful. Delhi Police replied (June 2020) that since there was no provision for reimbursement of leased line connectivity charges, efforts were made but the proposal could not be got approved before the dismantling of the system due to major third party damages. However, necessary provision in agreements of consecutive phases were made.

As per the agreement with ECIL, 99 *per cent* monthly system availability was required to be ensured by ECIL. Also, ECIL was to provide one *per cent* extra cameras of each type at all the sites listed under various phases without any additional cost to ensure that all the completed systems (including all equipment, hardware, software, cables, consumables etc.) achieve the objectives of the Delhi Police. Since ECIL has not kept reserve cameras for any site, Delhi police should consider adjustment of amount payable to ECIL, by reducing the cost for the cameras not provided.

	Phase-I	Phase-IIA	Phase-III
Total Sites/ cameras	29/ 1073	38/ 2085	10/ 656
Sites with Availability>99 %	0	1	0
Sites with Availability:51-99 %	12	18	10
Sites with Availability: 26-50 %	11	5	0
Sites with Availability: 0-25 %	6	14	0
Whether 1 % reserve cameras kept	No		

Besides, Audit also observed inordinate delays in various approvals by the Delhi Police for shifting/repairs of faulty/damaged cameras/equipment etc. Some illustrative examples are given below:

Site	Remarks
Saket complex Market	45 CCTV cameras installed at Saket Complex Market at a cost of ₹1.94 crore were inoperative since February 2016 for want of shifting of equipment. ECIL had submitted (March 2017) the estimate for which PHQ accorded (January 2019) approval after more than 20 months. Meanwhile, all the equipment in old building were found to be not functioning due to non-maintenance.
Tilak Nagar Market	37 CCTV cameras installed at Tilak Nagar Market at a cost of ₹7.19 crore were inoperative since October 2016 due to fire accident. ECIL had submitted (November 2017) the estimate for which PHQ accorded (February 2019) approval after more than 15 months. The cameras were not made operational as of August 2019.
India Gate	28 CCTV cameras installed at India Gate at a cost of ₹2.26 crore were inoperative since March 2018 due to construction work of National War Memorial. ECIL had informed Delhi Police to relocate these cameras but Delhi Police was yet to take a decision in this regard resulting in the cameras installed at a cost of ₹2.26 crore lying non-functional.

Delhi Police replied (June 2020) that an Internal Monitoring Committee for CCTVs has been constituted under chairmanship of Special Commissioner (Operations) and that sincere efforts are being made to keep all the cameras fully functional. Also, the cameras at Saket Market Complex and Tilak Nagar Market have been restored since January 2020. Delhi Police should strive for restoring the cameras to their functional state with minimal delay.

6.3.2. Monitoring of surveillance feed

All the CCTV cameras installed are connected to the Local Control Station (LCS) placed locally, and the Master Control Station (MCS) located at the police station concerned. The video feed can be monitored at the Police Station, the District Control Room and at C4i (Integrated Command, Control, Coordination and, Communication Centre).

The C4i at Police Headquarters was established as a unified command and control centre with video linkages from CCTV surveillance system and communication linkages through wireless, hotlines, etc. The C4i has a video wall, wherein feed from 64 cameras can be viewed simultaneously. Presently, C4i has video feed from 1054 cameras installed under Phase-I discussed above. Audit observed that during 2018-19, the percentage of cameras which could be monitored (as on the 15ᵗʰ of every month) at C4i ranged from 22 to 48 *per cent* only. Surveillance feed from the remaining cameras was not available either due to faulty cameras or network related issues. Moreover, there was only one official deployed to monitor the video feed at C4i. Audit observed that continuous monitoring of 60 cameras along with documenting the observations would be a very difficult task for only one person.

The percentage of cameras which could be monitored at C4i ranged from 22 to 48 *per cent*, which is very low. Delhi Police may ensure that a systematic and detailed review be carried out with appropriate steps proposed, to ensure that a high percentage of cameras are always functional.

Delhi Police replied (June 2020) that manual process of finding out network issues or defective cameras has limitations and thus, a proposal for purchase of health Monitoring system for CCTV cameras is under process.

7. Special Cell

7.1. Introduction

The Special Cell of the Delhi Police is the National Capital's specialized Counter Terror Unit which also deals with terror associated/ancillary criminal activities of narcotic and psychotropic drugs syndicates, gunrunning, FICN (Fake Indian Currency Notes) circulation, cyber-crimes and other forms of organized criminal activities in the National Capital. It functions through the four Ranges, SWAT[49] Unit, City Suspect Surveillance Unit, Cyber Crime Unit and other supporting units/sections.

As of March 2019, the total sanctioned strength of the Special Cell was 841 against which 1265 personnel were deployed. The Delhi Police has also submitted proposals for sanction of 1043 additional personnel for the Special Cell. However, the proposals are yet to be considered by the Government.

7.2. Ranges

In the Special cell, there are four functional Ranges (New Delhi Range, South-Western Range, Northern Range and Southern Range), which are responsible for collection of intelligence to monitor and check anti-terrorist activities, checking of hideouts, apprehension of terrorists/militants/gangsters, smugglers, gunrunners, counterfeiters, narcotics etc. and any other matter affecting national security, public order and tranquillity.

7.2.1. Manpower in Ranges

Against the requirement[50] of 987 personnel, actual strength of the four Ranges is only 638 personnel.

It was observed that the Delhi Police has proposed (December 2014) to carve out the 'Eastern Range' which will cover entire Trans-Yamuna area of Delhi, from the existing 'New Delhi Range' and had assessed requirement of 146 and 318 personnel for the Eastern Range and, post-bifurcation New Delhi Range respectively. Since the proposal has been awaiting approval for more than four years, the Trans-Yamuna area is still being covered by 236 personnel of the New Delhi Range only. Thus, deployment of only 236 personnel against assessed

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[49]   Special Weapons and Tactics Unit
[50]   As per the proposals of Special Cell

requirement of 464 personnel, is putting these 236 personnel under acute stress as their daily duty ranges from 16-18 hours.

7.2.2. Vehicles in Ranges

Besides deficient manpower, Ranges also suffer from deficiencies in availability of vehicles, which are vital for quick response in real time during law and order situations. Audit also observed that against the Special Cell's assessment (February 2018) of requirement of 47 four-wheelers and 125 two-wheelers for operation purpose in Ranges, there were only 25 four-wheelers and 50 two-wheelers at their disposal. Out of these, against the requirement of one Bulletproof (BP) Light Motor Vehicle (LMV) and one BP Minibus for each Range, one Range did not have either, and the remaining three Ranges did not have Bulletproof LMV. The shortage in availability of vehicles for Ranges should be addressed immediately, as it may affect their operational efficiency.

Chart 7.1.: Details of Vehicles In Special Cell Ranges
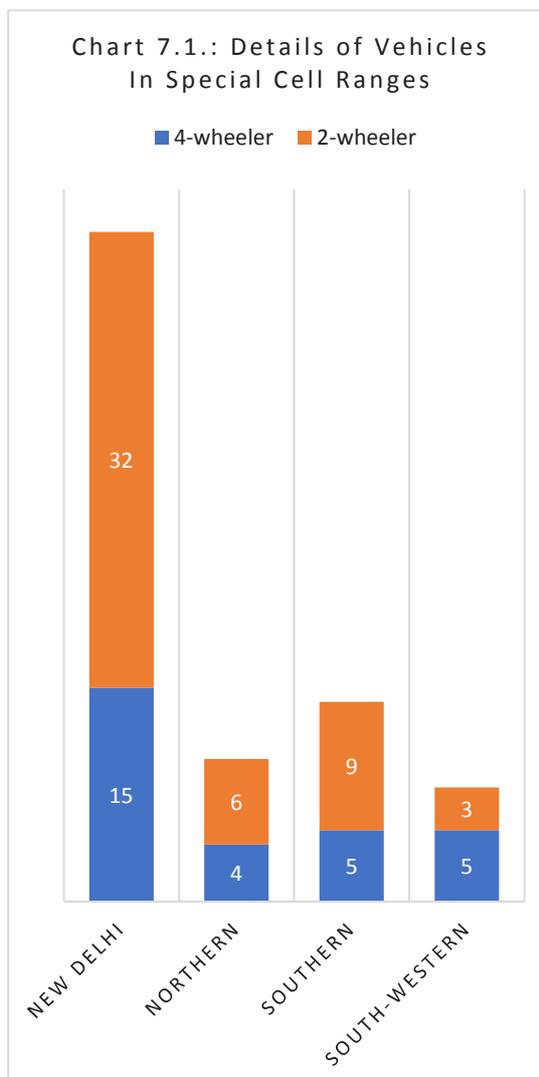
7.2.3. Bulletproof Jackets and Weapons in Ranges

Regarding the protective equipment (Bulletproof Jackets) for personnel on active duty in Ranges, no norms have been prescribed by BPR&D/Delhi Police. However, it was observed that the number of BP Jackets available (105) were less than the personnel on operational/active duty in Ranges (506). Also, the Special Cell has requested (January 2019) for 400 BP Jackets, which indicates that the Ranges are currently not provided with adequate number of BP Jackets for their personnel, who regularly undertake dangerous and sensitive operations.

Though there were no specific norms to assess the requirement of arms and ammunition, a disproportionately lower number of primary weapons/sidearms (Pistol/Revolver) in South-Western Range merits review (Chart 7.2).

Chart 7.2.: Details of Weapons In Special Cell Ranges
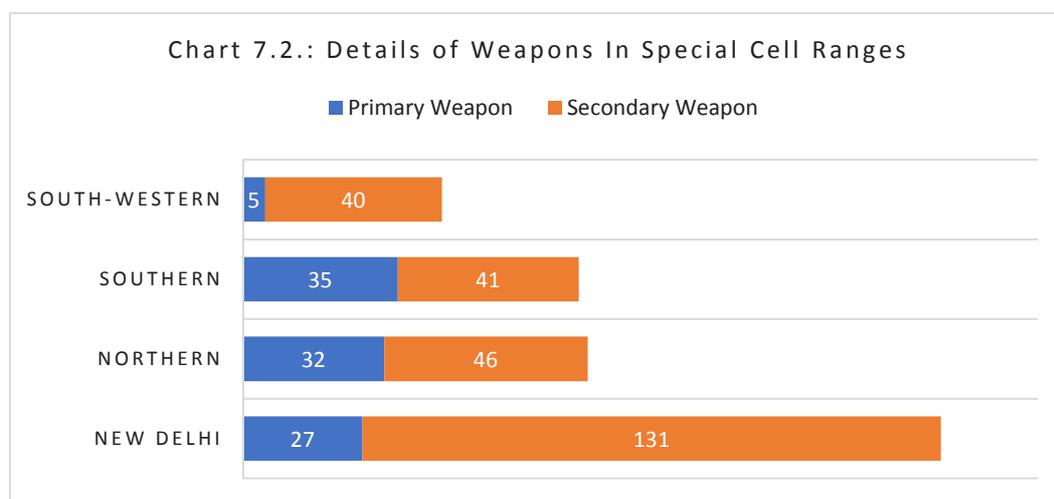
Delhi Police replied (June 2020) that procurement of BP Jackets is ongoing and that the tender for procurement of 7351 Bulletproof jackets was scheduled to open on 29th June 2020.

Government should expeditiously take a decision regarding Delhi Police's proposal for creation of 'Eastern Range' and ensure that the manpower deployed in Special cell ranges is as per the requirement. Delhi Police need to address the issue of severe shortage of vehicles (including bulletproof vehicles) and bulletproof jackets to ensure that the operational efficiency of Special cell is not affected.

7.3.   SWAT Commando Unit

The SWAT (Special Weapons and Tactics) Commando Unit consists of 202 commandos (as of March 2019) specially trained for counter terror operations, and SWAT Teams are deployed at vulnerable places to thwart any terrorist attack and remain in a continuous state of preparedness. SWAT has been constituted (2009) as first responder to any armed attack by terrorists, gangsters or anti-national elements in Delhi. During April 2016, when SWAT was operating with 174 personnel[51] from a single base, it had assessed a total requirement of 309 personnel to operate from at least three bases in Delhi to be able to respond in the quickest time. As of March 2019, though SWAT is operating from four bases, the number of personnel was only 241 (including 202 commandos).

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[51]   Inspectors, SI, Constable

Subsequently, MHA approved (November 2018) total 483 personnel for SWAT, and the new 242 posts were to be selected by the Delhi Police from the 3139 posts already sanctioned by MHA for other units of the Delhi Police. Audit observed that the Delhi Police was yet to take action in this regard. Thus, even after four years of the proposal to strengthen the SWAT and six months of approval of MHA to upgrade the SWAT, it was still operating with less than the required number of personnel (202 commandos against requirement of 311 and Nil personnel for Dog Squad and Bomb Disposal Squad, against a requirement of 24 and 18 respectively). It is important to have bomb technicians and dog squads with SWAT Teams to rapidly deal with explosive devices to prevent delays, enhance the teams' safety and improve their ability to successfully complete the mission.

During scrutiny of records, audit observed that Commandos of SWAT Teams should be given training at specialized training centres regularly to keep them fit and alert as well as for awareness of the latest technologies and tactics. However, it was observed that there was no policy for providing specialized training after commando training in Police Training Centre (PTC), and out of 202 commandos, only 38 have undergone specialized training at National Security Guard (NSG). Besides the specialized training, number of commandos who attended the commando course at the PTC in a year ranged between 15 to 99 during the period 2013 to 2018. Thus, a mechanism should be evolved to regularly impart specialized training to the commandos for all round development, regular upgradation of professional and physical skills and adequacy of preparedness of commandos.

Regarding protective gear for SWAT Commandos, there were only 136 old BP Jackets of which most were reported to be in a very poor condition. Though the SWAT Unit has requested (January 2019) for 245 BP Jackets for its commandos, action is yet to be taken on this. Inadequacy of an important protective item such as a bullet proof jacket would not only reduce the efficiency of the Commandos in case of any armed act by the terrorists in Delhi but could also put their lives at risk.

Delhi Police replied (June 2020) that final decision regarding sanctioning of 275 additional posts is under process. Reply is not indicative of time bound action plan on part of Delhi Police.

7.4. Cybercrime Unit

The Cyber-Crime Unit (CCU) deals with cyber related crimes. It investigates hacking/unauthorized access to emails and websites, net-banking frauds, data thefts, phishing, fake profile on social networking sites, malware intrusions, use of proxy servers and TOR browsers for crime, use of crypto currencies for settlement of crime proceeds, ransom ware, etc. It is thus imperative for CCU to have sufficient and trained manpower for effective policing by upgrading the skills of its personnel to meet the demands of the current environment.   During scrutiny of records, Audit observed that out of 142 personnel deployed (as of April 2019) in CCU, only five had technical[52] qualifications, 15 members had received some training in the field of cyber-crime and 35 had general proficiency in computers. This indicates that the CCU is ill equipped in terms of qualification and training to function efficiently at its optimum capacity.
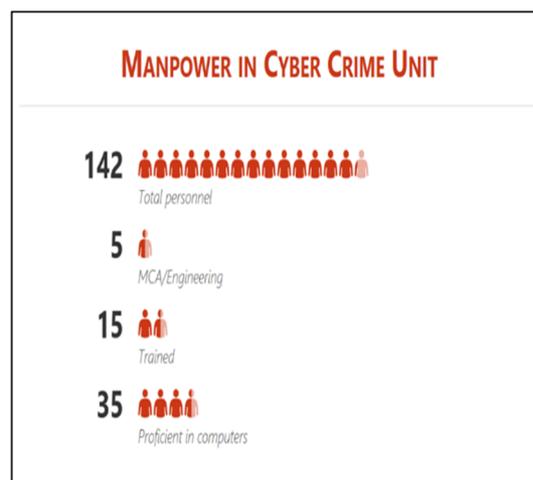
Regarding the output of CCU, it was observed that out of 65 cases reported[53] between April 2018 and March 2019, only 10 could be disposed of till March 2019. Similarly, out of 608 complaints received between April 2018 and March 2019, 469 were pending as of March 2019. Though, the CCU did not furnish records/reasons relating to non-disposal of cases, it was noted that the unit was deficient in terms of adequate number of trained and qualified manpower to efficiently handle cyber related crimes. Government may consider defining the minimum qualifications and/or relevant training as criteria for deployment of personnel in Cyber-Crime Unit, to ensure expeditious disposal of cases related to cyber-crimes.

Delhi Police replied (June 2020) that it is imperative for the Cyber Crime Cell to have sufficient and trained manpower for effective policing, and a proposal regarding augmenting the strength is under process. Reply does not assure commitment for immediate improvement.

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[52]   Two were MCA and three were B.Tech
[53]   Cases wherein First Investigation Report has been lodged

8.   Security Unit

The Security unit of the Delhi Police has been entrusted with the onerous responsibility of planning and executing the security arrangements for the President of India, the Vice President of India, the Prime Minister of India, Foreign Heads of States and Government, Members of the Union Cabinet, Judges of the Supreme Court and High Court, apart from important Indians and visiting foreign dignitaries and a large number of persons provided special security cover in view of specific threats from terrorists and organized criminals. Besides this, the unit is also responsible for the security of important venues like Parliament House, Lieutenant Governor's house, Delhi High Court, Supreme court, Home Minister's residence, Vidhan Sabha, Vice President's house etc.

As on January 2018, there were 6,884 police personnel posted in the Security Unit against stated cadre-wise sanctioned strength of 7,209. However, the total sanctioned strength of all the cells within the Security Unit is only 6,256 and doesn't match with the total cadre-wise sanctioned strength, which needs to be reconciled by the Delhi Police. The Delhi Police had requested for sanction of additional 7,263 personnel in nine proposals, out of which five proposals for 1,436 personnel were recommended (September 2017) by the MHA's high-level committee. However, further action is still awaited on the matter.

The 'E-Block Security Line' was responsible to provide security cover to the entitled Protected Persons (PPs) residing in Delhi, and 'Visiting PP Cell' is responsible to provide security to the PPs who visits Delhi occasionally. As per the assessment[54] of the Delhi Police, 3896 police personnel were required for protection of all the PPs against which only 2661 were presently posted in E-Block for active[55] duty, i.e., manpower shortage of 32 *per cent*.

Audit observed that although there is overall shortage of manpower in comparison with the requirement, there were 12 PPs who were not residing in Delhi but 207 police personnel from E-Block were assigned permanently for their security.

Similarly, there were 15 PPs who were residing in neighbouring states[56], but were being provided round the clock security (54 police personnel) by Security

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[54]   In accordance with the Yellow Book
[55]   Total 2864 personnel are posted in E-Block, out of which 203 are on administrative duties.
[56]   Gurugram, Haryana; Noida, Uttar Pradesh and Ghaziabad, Uttar Pradesh.

Unit (E-Block Security Line). As per the norms, they were required to be provided security by the State Government concerned.

Government replied (July 2020) that they are in liaison with the neighbouring states to take over the security of PPs staying in neighbouring states, and is also withdrawing the mobile components of PPs, when they are not in Delhi. Government may continue to pursue the matter with neighbouring states, and ensure that the mobile component of security cover provided to PPs is adjusted as per the requirement.

Government may review all cases of security provided to PPs living outside Delhi for which 261 police personnel are engaged.

9. Digital Initiatives of Delhi Police

9.1. Introduction

In order to achieve the desired technological advancement to keep pace with the trends across the globe, Delhi Police has taken a number of digital initiatives during the last six years. These includes major IT projects aimed at improving efficiency of Delhi Police leveraging data analytics and latest technologies, and delivery of some services digitally through Mobile Apps and Web Applications. The records pertaining to implementation and functioning of these projects and applications were examined during the Audit and detailed observations are given in the succeeding paragraphs.

9.2. Police-centric IT Projects

9.2.1. Crime & Criminals Tracking Network and Systems (CCTNS)

Ministry of Home Affairs (MHA) conceptualized (2009) the CCTNS project as a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing at all levels through creation of a nationwide networked infrastructure for tracking of crime and criminals in real time. The project involved digitization of processes and functions at all levels of policing from reporting of crime/complaint to investigation of crimes. Also, the legacy data was to be digitized and migrated to CCTNS after due validation. Primarily, MHA and National Crime Record Bureau (NCRB) were responsible for project planning, providing the Core Application Software (CAS) and project monitoring and States were responsible for project implementation including need-based customization of CAS. Delhi Police had engaged (November 2012) Tech Mahindra as System Integrator (SI) and Deloitte as State Program Management Unit (SPMU) for the CCTNS Project.

Target	Status
Go-Live at all locations by August 2014	Achieved in May 2016, primarily due to delayed rollout (January 2014) of the first stable version of CAS (CAS 3.0[57]) by MHA to states
CAS integration with external agencies and internal applications by July 2015	Integration with a few external agencies (e.g. Forensic Science Labs, Department of Prosecution and Department of Prisons) and applications (e.g. ZIPNET and certain modules of MV Theft and Property Theft applications etc.) was still under testing stage (September 2019) even after three years of scheduled target date.

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[57]   MHA rolled out the next stable version (CAS 4.5) in November 2016 and Delhi Police got its system upgraded to CAS 4.5 in September 2018.

As of July 2019, Delhi Police was using completely online version of CCTNS at 100 *per cent* of the locations and all the registrations viz. FIR, Missing person report etc. are being done on real-time basis directly in CCTNS. On detailed examination of records related to CCTNS, audit observed the following:

Issues related to Data- Migration and Quality

Data quality in CCTNS is vital since this database has to serve as the master data for police records and efficacy of any business intelligence tools shall be dependent on the quality of underlying data. There are three primary sources of CCTNS data i.e. real-time data entries at police stations, data migrated from legacy systems and data integrated from other related applications such as PA-100, MV Theft App etc.

However, it was observed that despite in-built controls like data validations, many mandatory data fields were being populated at police stations with junk data, and non-mandatory data fields[58] were left blank in spite of sufficient information available. Regarding the legacy data, the digitisation and migration of data pertaining to last 10 years (before the Go-Live date- May 2016) was reported to be complete as of February 2019. However, validation of the migrated data was still under progress at police station level and none of the police stations had completed the validation process as of July 2019. Thus, quality of legacy data was also yet to be verified. In respect of integration of database of other applications (such as MV Theft, Lost Report, e-FIR, PA-100, ERSS-112) with CCTNS, it was observed that all data fields were not being shared with CCTNS resulting in gaps in the database.

The Delhi Police, in its reply, mentions that 60 *per cent* of the migrated data has been validated by the police stations and is likely to be completed in near future. Also, the data of Register No. 9 (iii) (Data related to crime details) and Register No. 19 (Details of case property) have been validated to the extent of 100 *per cent*. Also, the data has been moved to production server.

Capacity building

− District CCTNS cells were to be created (March 2017) at each district for technical support to the operational staff, bug reporting and coordinating with the helpdesk. However, it was observed that there was lack of adequate infrastructure and dedicated manpower in the CCTNS cells.

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[58] In December 2017, 25986 General Diary entries were reported blank. In case of Unidentified dead body, condition of dead body, injury marks etc. were populated with junk data

− Besides, SPMU was appointed (November 2012) for a period of three years but is still being continued (as on March 2019) as CCTNS project was yet to be completed. Meanwhile, MHA had advised (July 2017) that an incentive mechanism must be devised so that in-house personnel of Delhi Police may be motivated to take over the role of monitoring and management. However, no such initiative for incentivization was observed to have been taken by Delhi Police, which may hamper the smooth transition from consultant led project management to in-house capacity building.

Delhi Police replied (June 2020) that the SPMU Contract expired in September 2019 and an in-house team is now monitoring the project. Also, 43,611 police personnel have been trained so far for creating awareness and sensitizing them about CCTNS application.

*Vulnerabilities in security architecture*

Audit further observed that a proposal for Security Operations Center was mooted (December 2016) by security expert[59] who had identified vulnerabilities in security architecture of CCTNS. However, decision in respect of the proposal was pending as of August 2019. Also, third party audit of CCTNS again highlighted (June 2019) critical vulnerabilities of CCTNS, which primarily hinted at an ageing system and outdated nature of applications/software being used.

Delhi Police replied (June 2020) that a proposal for Technical refresh has been prepared and is under consideration currently.

9.2.2. Safe and Secure Delhi

The Ministry of Home Affairs proposed (January 2013) to Ministry of Electronics and Information Technology (MeitY) a project titled 'Safe & Secure Delhi' under World Bank funded 'e-delivery of Public Services projects' with intended benefits as given in Picture below:

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[59] Security Expert was hired in SPMU team for 3 months w.e.f. 8/02/2016, with a mandate to comment on security aspects for data center and various applications. In terms of cyber security maturity level, the report rates Delhi Police at a primitive, "Stage 1" out of 5 graduated levels.

Action Plan	• Integrate the Delhi Police with prison computerization and computerization of courts • Integrate back end operations of Delhi Police, intelligence gathering and strengthen hard core policing • Make Delhi Police technically capable to track real time, any women in distress through GPS enabled systems
Intended Benefits	• Focused and faster mitigation of complaints • Quick action in apprehension and prosecution of suspects • Better planning and coverage of vulnerable areas • Enhanced visibility of police in identified hotspots • Identification and support to vulnerable section of society • Automatic identification of location along with rapid response to distress calls.

The project cost was estimated (January 2013) at ₹40 crore[60] in two phases over a period of 12 months. The MeitY conveyed Administrative Approval (AA) for ₹14.75 crore in July 2013 and acceptance of the terms and conditions of the AA was conveyed back by Delhi Police after 10 months in May 2014. To guide and review the progress of project implementation, MeitY constituted a Project Review and Steering Group (PRSG) which subsequently recommended (November 2017) for closure of the project citing "*Undue delay in finalization of System Integrator by the Delhi Police*".

The project mainly comprised of the following components and activities:

- Linking all existing Databases of various Delhi Police Units for seamless real-time exchange of information (Enterprise Information Integration Solution - EI2S)
- Collate, categorise, analyse and convert unstructured information into meaningful and actionable intelligence (Open Source Intelligent Solution - OSINT)
- Delivery of required information '*on the move*' to various stakeholders via Mobile terminals and interactive PDAs

The consequence of the failure of the project (and avoidable loss of grants amounting to ₹40 crore) was that IT projects of Delhi Police continue to be siloed, disparate, and not linked.

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[60] Phase-I of ₹14.745 crore and Phase-II of ₹25.285 crore.

9.2.3. Safe City Project

The MHA conceptualised (November 2017) the 'Safe City project', aimed at safety for women in public places in eight metro cities including Delhi. The project was to be funded by Nirbhaya Fund and proposals were to be submitted by Police Commissioners and Municipal Commissioners by December 2017.

Delhi Police submitted (November 2017) a detailed project proposal report 'Women Safety-CCTV surveillance in public places' to GoI with preliminary estimates for ₹1250 crore and key components of 24x7 CCTV surveillances of places frequented by women or prone to women related crime, Integration of location based services and crime and criminal databases with CCTV feeds, real time video analytics and generation of actionable alerts. The project proposal was later revised to ₹858 crore and approved (February 2019) by the Government of India with directions that Delhi Police, in consultation with Line department of Ministry of Women and Child Development, GoI, Govt. of Delhi, NCR and other stake holders, shall prepare non-technological community led interventions, and shall ensure convergence with similar projects by other agencies.

Audit observed that unlike the proposals for other metro cities, the proposal of Delhi Police did not include any non-technological component such as community policing, soft skill training, induction of women in police etc. and it was surveillance-centric despite the fact that existing cameras installed by Delhi Police were not functioning properly (discussed in Paragraph 6.3.1).

It was also observed that Delhi Police had initiated proposal (September 2016) for a study[61] on crimes against women but the study could not be conducted till September 2019. Besides, no impact assessment study has been conducted by Delhi Police for the effectiveness of already installed cameras in prevention of crimes, especially against women.

Thus, in the absence of any substantiated study on efficacy of surveillance in preventing crime or impact assessment study for existing cameras, heavily surveillance centric project of Delhi Police needs to be reviewed. Project proposals of other metro cities were much comprehensive with combination of surveillance system, patrol vehicles, road lighting, emergency call boxes, social

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[61] Sociological study on causes of rape and psychoanalysis of rape accused

media abuse tracking, legal assistance, behavioural change campaign, gender sensitisation, impact assessments etc.

The Delhi Police replied (June 2020) that many non-technological / community-led initiatives were also being taken by the Police. It was further replied that work order to start survey for implementation of the project was awarded to Centre for Development of Advanced Computing (C-DAC), Pune as Total Service provider in September 2019. As of June 2020, the detailed project implementation Plan submitted by C-DAC Pune in May 2020, is under consideration by the Technical committee.

Delhi Police may consider commissioning a third-party evaluation of these initiatives so as to ascertain the efficacy/ impact assessment of surveillance-based policing.

9.2.4. CMAPS (Crime Mapping, Analytics and Predictive System)

Delhi Police and Indian Space Research Organisation–Advanced Data Processing Research Institute (ISRO-ADRIN) had signed (December 2015) an Memorandum of Understanding (MoU) to develop CMAPS, i.e. a web-based application deployed in Delhi Police Headquarters and accessible via a browser from all police stations and districts of Delhi. It was primarily envisioned as a Decision Support System for Police. The major function of CMAPS was to spatially map the crime types, analyze the crime related data based on various parameters (region, frequency, crime type etc.), so as to gain a better insight into criminal behaviour which helps control it.

ADRIN was responsible for development of application, analytical tools and techniques whereas Delhi Police was responsible to provide the hardware, infrastructure, capacity building costs and data for the system. The project was to be completed by December 2018 in four phases with a graduated level of features i.e. Crime analytics module, Security module (target threat rating, situation database creation), News Module (Geo tagging, clustering) and Social media and siterips (Social network analysis, Text annotation). Audit, however, observed that CMAPS largely fetches data from PA-100 only and complete integration with CCTNS was yet to be achieved (as of September 2019), which could have enabled better utility owing to wider profile of data available. Also, the advanced features like security module, open source content analysis (from News and Social media), etc. have not been implemented.

Meanwhile, Delhi Police and ADRIN had deliberated (November 2017) upon some incremental features e.g. criminal profiling and analysis, mobile based CMAPS etc. to be implemented by January 2018. However, no progress was made in this regard either and records made available to audit did not indicate any communication by Delhi Police with ADRIN after March 2018.

Regarding the capacity building among the key stakeholders i.e. officials responsible for decision making, Delhi Police requisitioned (March 2018) CDAC to arrange training program for Constables and Head constables. However, training to Constables and Head constables lacks justification since CMAPS is to be used by senior management to aid decision making while effecting changes in deployment, recalibration from active policing to community policing, generating actionable intelligence etc. and training of lower constabulary for CMAPS might not be useful. Besides, lack of appreciation of technology was evident in this project as well, as all the four phases were projected to be completed within 12 months while remaining time was allocated for MoU finalisation, problem formulation etc.

Thus, IT projects were ill-planned as the timelines committed were unrealistic e.g. in Safe and Secure Delhi project and were inadequately monitored as seen in CMAPS, which witnessed diminished interest after initial stages.

Delhi Police should implement the IT projects in an iterative manner with staggered timelines and sufficient gaps for learning and feedback from user units.

9.3. Citizen-centric service delivery applications

9.3.1. Himmat/Himmat Plus App

Himmat (later upgraded to Himmat Plus) is a women safety centric mobile application of Delhi Police, which provides the functionality of sending SOS to Police control room, along with the location coordinates of distress caller. Himmat App was initially launched by Delhi Police in January 2015. The app development cost incurred was ₹45 lakh and ₹4.5 lakh were spent annually on AMC (Annual Maintenance Contract) for 3 years. The Himmat App was later replaced with Himmat Plus in February 2018. The cost of development of Himmat Plus was ₹18.5 lakh and cost for AMC is ₹2.77 lakh plus taxes. Thus, the total expenditure incurred on development and AMC for Himmat/Himmat Plus App was ₹83.5 lakh (as on August 2019). Audit observed the following issues related to development, adoption and publicity of the Application:

Development of Himmat and Himmat Plus Mobile Apps

− Ideally, an application should be developed on basis of user requirements and calling for the proposals from prospective firms. As per the records, the user requirements were broadly mentioned and file notings stated that after a market survey, only 'Smartcloud Infotech' (firm) was found to meet the requirements. Accordingly, the Himmat app was purchased (December 2014) from 'Smart Cloud Infotech' (firm) on nomination basis without calling for quotations or proposals from any other prospective firms.

− Further, PHQ raised certain queries regarding issues such as cost, proprietary nature of the solution and past experience of implementation by the firm. However, the Unit concerned (Ops and Communications) sought replies for queries from the firm ('Smart Cloud InfoTech') itself and forwarded the replies received from the firm to PHQ.

− Although Delhi is predominantly Hindi speaking region, Himmat App was launched only in English language, and was made Bilingual (Hindi and English) after more than two years, i.e., in April 2017. This was on behest of parliamentary Committee on Home Affairs, which mentioned (March 2017) that the lack of Hindi language support might be responsible for low downloads.

− Later, Himmat Plus App was launched (February 2018) as a new application instead of updating Himmat App. Regarding this, as per the records made available, there was no deliberation on whether the Himmat App should have been updated or an entirely new Application was required. Moreover, records made available did not indicate any efforts to reach out to the users of Himmat App and to ensure that they migrate to Himmat Plus. There was a possibility that existing users of Himmat App might not have moved to Himmat Plus.

The Delhi Police, in its reply (June 2020), mentions that before the finalization of Himmat application, comparative evaluation of apps by Tech Mahindra, CDAC etc. was carried out. However, the supporting documents have not been furnished to audit. Also, a mention has been made of the field-testing report of the app, in various parts of India with support of local police, prior to installation. However, the field-testing reports have not been provided to audit.

- Delhi Police did not discover costing for the application on its own, and rather accepted the costing model ('Nil' base cost and ₹1.5 lakh per console) offered by the firm i.e., ₹45 lakh for 30 consoles.

  Moreover, since the costing model was based on consoles, assessment of exact number of consoles required should have been done. However, the records did not indicate any assessment to arrive at requirement of 30 consoles. This is despite the fact that MHA's approval was conditional on the "requirement of 30 consoles being a bare minimum to achieve the intended objective" Surprisingly, the quantum of calls on Himmat helpline did not justify more than two consoles. It indicates requirement of consoles was not assessed properly and was heavily based on developers' suggestions.

Delhi police replied (June 2020) that the 30 consoles included 10 call taker positions earmarked for Women Helpline (WHL) and 20 dispatcher positions who dispatched the PCR Vehicle. The call taker used to generate challan on PA-100 system. The reply is not satisfactory as the consoles at 20 dispatcher positions were sparingly used as indicated by the status of challans generated remaining 'Open' (final action not taken at Dispatcher console of Himmat App).

- The "Terms and Conditions" as per the installed Himmat Plus app mentions that the underlying software code are owned by Delhi police. Audit, however, observed that no license or source code has been provided by the firm to Delhi Police.

- The detailed project proposal by the firm mentions features like- "Analytics report for the police personnel to identify risk areas, demographics", "personnel app and patrol vehicle app" which were never provided, as verified by audit.

Delhi police replied (June 2020) that they are taking up the matter with the firm to know the amount involved in not providing these functionalities and said amount would be recovered from the firm. The reply is not satisfactory as Delhi Police should independently assess the amount that would have been incurred had these functionalities developed.

- As per the Security Audit Reports of the App, certain vulnerabilities were pointed out e.g. unencrypted storage which can lead to data theft, insufficient transport layer security leading to risk of packet sniffing on an unencrypted channel, risk of SQL injection, clipboard vulnerability etc.

However, these were mentioned as a business exception without sufficient justification.

Delhi Police may ensure that the vulnerabilities are resolved immediately since the Himmat App data also contains videos recorded by mobile phones, which may lead to privacy issues in case of leakage.

Delhi Police replied (June 2020) that prima facie, there was no need for encryption as the data was migrated to National Informatics Centre (NIC) servers after 2017. However, the need for encryption was being discussed with vendor and would be implemented if needed. Though the encryption issue is being taken up with vendor, the reply is not satisfactory as the migration of data on secure NIC servers does not per-se solve all the security issues. In the opinion of audit, other security protocols like Transport Layer Security must be instituted at the earliest.

Installs and usage of Application

- There were total 1.01 lakh Installs for Himmat App and 0.65 lakh installs for Himmat Plus App (till May 2019) i.e. a total of 1.66 lakh till May 2019, on Google Android platform. However, there were 1.32 lakh uninstalls as well during the same period. This indicated poor user retention as 80 *per cent* of the users uninstalled the app after installing the app.

  Further, out of the 0.34 lakh remaining users, only 16,557 users have opened the Apps at least once in last 30 days (as on 16th May 2019).

- Regarding the ride sharing feature in Himmat Plus app, on scanning the QR Code displayed in a Taxi, the driver and taxi details are shared with Delhi Police and user can press SOS button in case of emergency. However, the QR codes are installed in only Black & Yellow Taxis and Airport Cabs, and does not include the Cab Aggregators (Ola, Uber etc.).

  As on May 2019, only 4303 drivers were registered with Himmat QR codes. Thus, absence of QR codes in Cab Aggregators has rendered this whole functionality deficient and it is indicated in poor usage of this function by users (3393 scans by users till May 2019).

- Since the introduction of Himmat App in January 2015 till May 2019, 442 actionable calls were generated through SOS feature of Himmat and Himmat Plus Apps, and a total of 9 FIRs were registered.

  As per the Delhi Police reply (June 2020), 827 number of actionable calls and FIRs has increased to 827 and 10 respectively. The number of

actionable calls when seen against the 75,032[62] crimes against Women reported during the same period of 1st January 2015-15th June 2020, indicates a dismal picture.

*Publicity of Himmat and Himmat Plus Applications*

Delhi Police has incurred total expenditure of ₹6.82 crore on advertisements (print, electronic and outdoor) for Himmat and Himmat Plus during last five years from 2014-15 to 2018-19 (Chart 9.1). However, such aggressive promotion has not translated into any palpable increase in user retention/ wider adoption, except at the launch of Himmat and Himmat Plus apps.

Chart 9.1: Advertisement Expenditure on Himmat/ Himmat Plus App
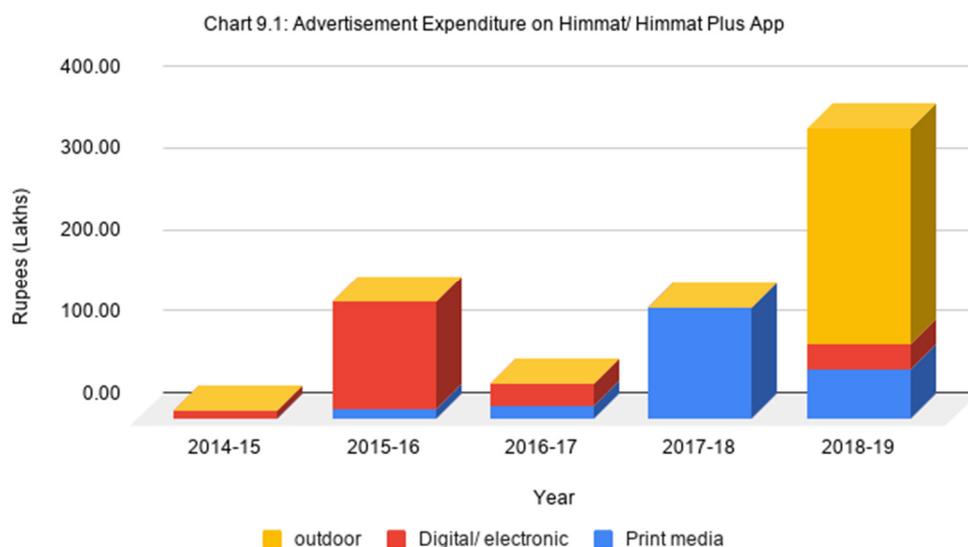
Source: Information provided by Delhi Police

The pattern of registration in Himmat and Himmat Plus Apps during the period from December 2014 to March 2019 is depicted in Chart 9.2.

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[62]   As per the Statistics on Delhi Police Website.

Chart 9.2: Registration in Himmat and Himmat Plus Apps
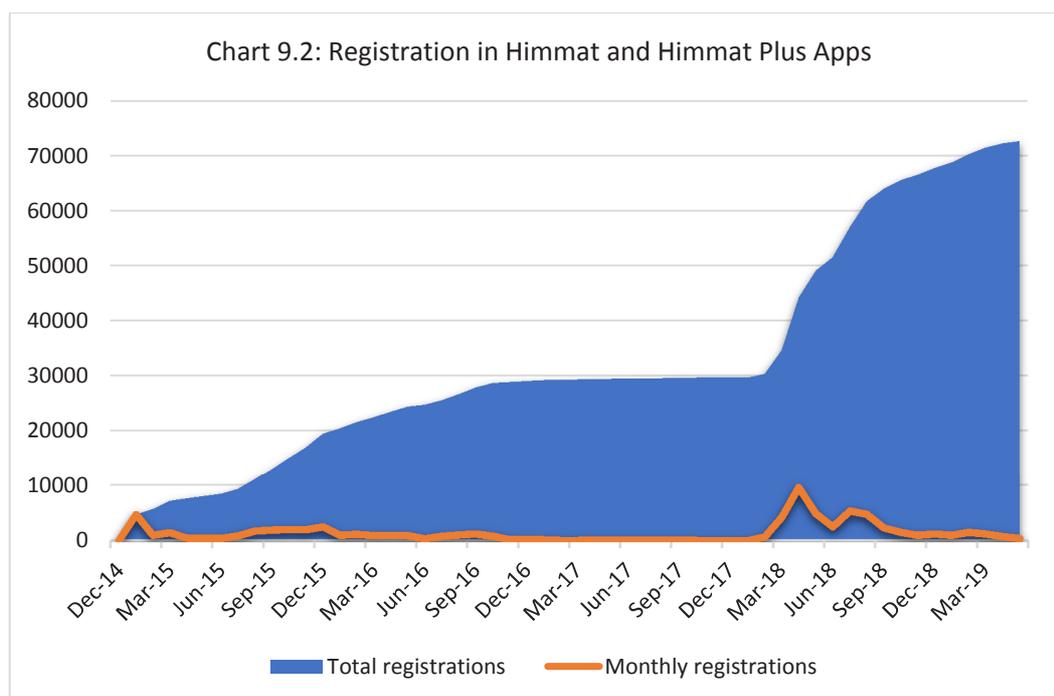
Source: Information provided by Delhi Police

It is evident from Chart 9.2 that user registrations spiked at the launch of Himmat App (January 2015) and then at the launch of Himmat Plus App (February 2018), and the surge in advertisement costs in 2015-16 and 2018-19 did not have a long-lasting impact, while advertisements in 2016-17 and 2017-18 had minimal impact.

Comparison with similar apps by other state Police.

Himmat application, its features, performance, user adoption and incident costs were compared against those of similar apps launched by different state Police departments in Haryana, Bengaluru and Maharashtra.

	Delhi Police (Himmat/Himmat Plus)	Bengaluru Police (Suraksha)	Maharashtra Police (Pratisaad)	Haryana Police (Durga Shakti)
Launched in	January 2015	April 2017	January 2016	July 2018
Development cost + AMC	₹83.5 lakh	NA	NIL (as a CSR initiative)	₹0.50 lakh
Installs (till May 2019)	₹1.66 lakh	₹1.03 lakh	₹1.50 lakh	₹1.33 lakh
Current Users (May 2019)	33,000	50,482	84,000	34,000
Advertisement costs	₹6.82 crore	₹0.98 lakh	NIL	₹8.8 lakh
Actionable Calls (till May 2019)	442	4885	NA	852

It was observed that the Personal Safety applications of other states had a greater number of installs and actionable calls, less cluttered user interface, and almost negligible expenditure on publicity due to massive use of social media.

Delhi Police spent about seven crore rupees in the last four years on promotion via the traditional media (electronic, outdoor, newspaper), which has not translated into proportionate gains in terms of app installs and usage.

This is evident in the poor retention rate (almost 80 *per cent* of the users uninstalled the app), meagre number of actionable calls (SOS Alerts) received, and high per client acquisition cost of ₹2,320[63] to the Delhi Police. It is also evident from the fact that as against 75,032 crimes against women reported, only 827 SOS Alerts through the App were received during the period of January 2015-June 2020.

Delhi Police should examine why their Himmat/Himmat Plus App has failed to provide the intended benefit, inspite of the crores of rupees spent on its development and publicity.

9.3.2. MV Theft App (Motor Vehicle Theft Application)

Delhi Police developed this application (web and mobile) to ensure trouble free registration of e-FIR of Motor Vehicle thefts, automated investigation and electronic generation and transmission of final report for online acceptance by the competent e-Court. Within 24 hours of generation of the e-FIR, Investigating Officer (IO) is assigned, who then contacts the complainant and conducts the investigation. The application delivers printable digitally signed Untraced Report to the complainant to process the insurance claim. Audit observations related to development and functioning of MV Theft Application are detailed in the succeeding paragraphs:

Development of MV Theft Application

The development of MV Theft web application was initiated in September 2014. The entire process can be broken down as:

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[63]   Per user Cost=Total cost/Total No. of users; Total cost = ₹6.82 crore (advertisements) + ₹0.835 crore (development + AMC); No. of users: 33,000.
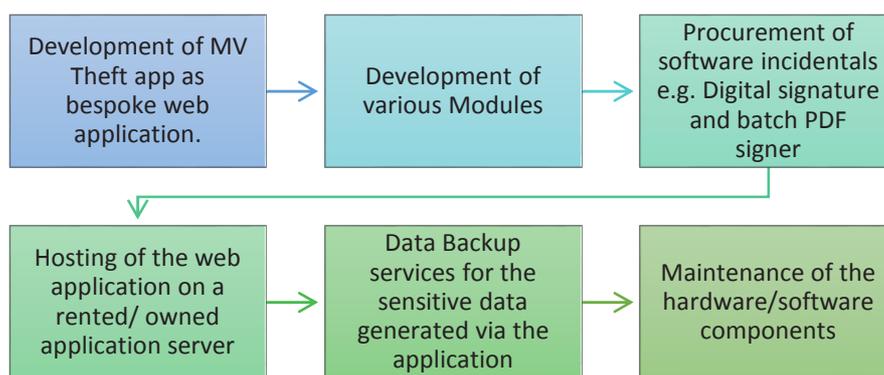
Audit observed following irregularities in the award of above works:

− For a coherent web application development, it is desirable that all the functional modules for software are identified by the agency/bidder, at the outset, and price bid be called/quoted for the entire package (with staggered timeline for modules, if required). This would enable hassle free implementation and also fair price discovery. Contrary to this, it was observed that unrelated bids were invited for six different components of a single web application. However, all the bids were ultimately awarded to a single firm (M/S PC Solutions).

− Delhi Police invited (September 2014) bids for development of the MV Theft Application (Core component of the MV Theft application package) and out of three bids received, the lowest bidder i.e. M/s PC Solutions was awarded (January 2015) the work at a cost of ₹1.98 lakh.

− Delhi Police invited bids for development of DO (Duty Officer) module of the application on 30th October 2014 i.e. even before the work for development on core component was awarded.

− Further, bids for development of three modules i.e. IO (Investigating Officer) Module, Court Module and MIS Module, were invited on the same date (14th March 2015) and awarded on the same date (31st March 2015) to M/s PC Solutions. It is important to note that Delhi Police verified the completion of work of all the three modules on the same day itself, which was not feasible.

Table 9.1: Details of MV Theft Application and its modules

Particulars	Tenders/Quotes invited on	Awarded to	Awarded on	Awarded at	Implemented on
MV Theft Application	29.09.2014	M/s PCS	27.01.2015	₹1.98 lakh	10.03.2015
DO Module	30.10.2014	M/s PCS	27.01.2015	₹1.99 lakh	10.03.2015
IO Module	14.03.2015	M/s PCS	31.03.2015	₹1.99 lakh	31.03.2015
Court Module	14.03.2015	M/s PCS	31.03.2015	₹1.99 lakh	31.03.2015
MIS Module	14.03.2015	M/s PCS	31.03.2015	₹1.99 lakh	31.03.2015
STA Module	June 2016	M/s PCS	26.07.2016	₹0.99 lakh	26.08.2016

Source: Compiled from records of Ops & Comm Unit, Delhi Police

− Delhi Police had purchased (November 2014) two digital signatures and pdf signing software for MV Theft App. Audit observed that the digital signatures and pdf signing software were handed over to M/s PC Solutions on 28th November 2014 i.e. two months before the issue of work order for development of Application to M/s PC Solutions on 27th January 2015.

− Delhi Police, on basis of market survey, hosted (November 2014) the application on rental server provided by M/s PC Solutions at ₹41,465 plus taxes per month. Since the initial proposal was to use rental server for only two months, Delhi Police had resorted to market survey only to identify the lowest rate. However, Delhi Police ended up using the server for 34 months (till September 2017) at cumulative cost of ₹14.10 lakh plus taxes without resorting to proper price discovery through tendering. Further, no efforts were made to renegotiate the rental cost considering the trend of declining price for hosting services. Similarly, Delhi Police took cloud backup services from M/s PC Solutions from August 2016 till August 2017 at total cost of ₹6.29lakh on basis of market survey.

The above observations point towards an irregularity in the process of planning for app development and a violation of procedure for inviting bids to enable fair price discovery. Ultimately all the 13 works related to MV Theft were awarded to M/S PC Solutions through unrelated bids at cumulative amount of ₹44.50 lakh.

Functioning of MV Theft Application

− The Mobile application for MV Theft remained functional from April 2015 to May 2017, after which the application was removed from google-play store for non-compliance with End User License Agreement (EULA) and had not been reinstated since. Thus, only the web version of MV Theft Application was available since May 2017.

− The website for MV Theft application was not secure as the communication between web clients and server is not secured using the HTTPS protocol. Thus, there is a need to encrypt the data in transit using any transport layer encryption service (TLS/SSL) which ensures the authenticity of website and encrypts the communication.

The Delhi Police, in its reply (June 2020) mentioned that the SSL certificate had been procured and implemented. Audit, however, verified (July 2020) that the SSL certificate was still not available for MV Theft App.

- On analysis of data dump, audit observed instances of multiple FIRs registered against theft of the same vehicle. The application should not allow registration of multiple FIRs against vehicles with the same registration number since it not only results in overstatement of theft cases, but also results in wastage of resources. Audit also observed seven entries with duplicate FIR number, reasons for which could not be ascertained.

- There were poor data validation checks while filling online form for registering FIR on the web application e.g. special characters were accepted in 'Name', Date of birth does not have any limiters and even a future date was being accepted, etc. such lack of validation checks adversely affects the data quality of application and other linked systems and limits its utility for generating actionable information.

Delhi Police's reply (January 2020) mentions that the lacunae regarding data validation has been noted and is being rectified in the application.

9.3.3. Other applications

Besides Himmat/Himmat Plus App and MV Theft App, records pertaining to the following five web-applications of Delhi Police were examined during the audit.

Application	Details
Property Theft App	To ensure trouble free registration of e-FIR for cases involving only theft of some property
Lost Report App	To enable reporting of any lost/missing articles (documents, credit cards etc.) without the need to go to a police station, and a printable digitally signed report is instantaneously sent in response to the complainant.
Found Articles App	To get updates regarding the article reported as lost/missing in 'Lost Report' Application, and for reporting of some article/document found by any person
Police Clearance Certificate App	To apply for PCC, required by an individual while applying for employment in private sector and for emigration purposes
Character verification Report App	To enable online applications from employers[64] for verification of character and antecedents of their employees

Audit observed the following deficiencies in the development and functioning of these web-applications:

- It was observed that similar to MV Theft App, the Property Theft App and Lost Report App were developed in two phases each even though both the phases were initiated at the same time and splitting of the development work was not justified.

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[64] On payment basis for private employers

− Similar to MV Theft App, all the above five web-applications were also not secure as the communication between web clients and server was not secured using the HTTPS protocol. Also, there were poor data validation checks while filling online form for registering FIR on these web applications as well.

Delhi Police replied (June 2020) that SSL certificate has been implemented and data validation checks are already in place. On verification (July 2020), audit found that SSL certificate was not available for Property Theft App, Police Clearance Certificate App and Character Verification Report App. Similarly, data validation issues were also still present in the applications (July 2020).

− The 'Found' Application was not functioning as the OTP required for registration of user was not received on multiple attempts during May-September 2019.

Delhi Police replied (June 2020) that OTP can be received via email if not received by phone number. Audit, however, verified (July 2020) that OTP was not received for 'Found' application, and instead an Error page appeared.

9.4. Imperative for a Comprehensive IT Policy

Delhi Police has an IT cell and a temporarily appointed Chief Technology Officer, albeit without any dedicated staff. The IT Cell has only 25 persons in position as against a sanctioned strength of 52 personnel. Moreover, the IT cadre is not structured according to the demands of modern IT management. Lack of a dedicated IT policy to handle issues like framing of guidelines, granting centralized approval, deciding technical specifications, further compounds the problems. An IT perspective policy/ Framework is also desirable to account for a growing organization, with constantly increasing reliance on Information Technology.

In the last few years, there has been a spurt in the acquisition of IT assets by all Delhi Police units, ranging from Computer Aided Dispatch and web/mobile applications to surveillance systems. This has led to increased opportunities for technology/ data driven policing as well as threats (Data security, network security etc.). This necessitates a comprehensive IT policy to address some extant issues, as below:

- **Lack of adequately skilled personnel**: In-house skill level in Delhi Police is low owing to the severely limited strength of IT cadre. The personnel trained by vendors (e.g. for PA-100, CCTNS) were not sufficiently incentivized to develop skills further. Moreover, the functional roles for staff keeps on changing according to unit of posting.

  Delhi Police need to induct IT professionals and incentivize the in-house trained manpower to reduce dependence on vendor/ consultant for system/network administration, minor customizations etc.

Delhi Police replied (June 2020) that rank based vacant posts will be filled in due course and restructuring of posts is also in the process. The Government has replied (July 2020) that Delhi Police should have regular post of IT head/Chief technology Officer who can have complete knowledge and understanding of IT infrastructure and assessed requirements according to functionality of IT cell. It has further stated that Delhi Police should have sufficient technical and trained manpower to run its IT cell securely, smoothly and efficiently.

Audit is of the view that Government and Delhi Police together take necessary steps to ensure that IT skills of Delhi Police personnel is enhanced and IT systems of Delhi Police runs efficiently.

- **Regular monitoring of the progress of IT asset**: Different Delhi Police units are pursuing projects in un-concerted manner, without defined timelines for completion, and agreed upon functionalities, creating systemic inefficiencies[65]. Thus, a comprehensive IT Policy with defined (SOPs for various kind of IT projects and a centralized dashboard for monitoring the progress and implementation strategy of IT projects is desirable.

Delhi Police replied (June 2020) that the projects are monitored by the user unit, and monitored by senior officers. The reply is not satisfactory, as it is imperative for Delhi Police to monitor the progress of its IT projects in a more efficient way, since all the projects suffered from delays and lack of regular supervision and monitoring.

The Government has replied (July 2020) that Delhi Police being a sensitive organisation, should have Information/Cyber Security Policy which should cover security aspects. The reply is silent regarding action taken in this regard.

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[65] Example- Disparate web applications, with dedicated infrastructure, the data of which is to be ultimately transferred to a Centralized (CCTNS) system is needless, when the same thing can be implemented on a common infrastructure, without the need for data migration at later stage.

10.   Conclusion and Recommendations

10.1. Conclusion

In NCT of Delhi, the Delhi Police faces enormous challenges, with the number of registered IPC crimes increasing sharply from 0.80 lakh in 2013 to 2.51 lakh in 2018. The functioning of the Delhi police is affected by shortages in manpower, with more than 11 *per cent* vacant posts, lack of regular/periodical recruitment of Constables and sub-optimal deployment of its existing strength. Representation of women in Delhi Police was 11.75 *per cent* which was much lower than the desired target of 33 *per cent*, despite its gradual increase from 7.16 *per cent* in 2013 to 11.75 *per cent* in 2019.

Only one out of the 72 police stations in the selected police districts had staff as per norms prescribed by BPR&D. Acute shortage of staff has also put the police personnel under tremendous strain as their average daily duty hours in the six test-checked police districts ranged from 12 to 15 hours against eight hours prescribed under the Model Police Act 2006. This shortage also resulted in inadequate number of investigation teams to carry out original work involved in investigating crimes. This compromised the ability of Delhi Police in bringing criminals to justice.

Infrastructure facilities at Police Stations were also inadequate. Out of test checked 72 Police Stations (PS), many police stations lacked facilities necessary for a comfortable working environment such as barracks (None had women barracks, three PS without male barracks, 17 without adequate space), canteen/Mess (four without canteen, 23 without sufficient space), Kitchen, parade/play grounds (47 PS without open space) etc. Facilities for public like reception/waiting area (57 PS lacking proper area), toilets (All 72 PS have common toilets for staff and visitors), women help desk (37 PS have women help desk in open space) etc. were also below the required standards. Police stations in the selected districts also suffered from shortage of vehicles, which severely limited their ability to respond to law and order situations quickly.

The Police Control Room also faced a number of issues such as a huge number of blank calls being received. These blank calls kept the call takers busy, causing abandonment of calls of distress from the public. In addition, time taken to respond to the distress calls was much more than ideal. In 20 *per cent* of the

test-checked cases, the PCR Van took over 30 minutes to reach the scene of incident. MPVs were operating with only 4,141 police personnel against a requirement of 6,171 and 55 *per cent* of the MPVs were operating without a gunman as of December 2018.

The communication system of the Delhi Police was mainly reliant on the 20-year-old APCO system, which has been giving deteriorating performance since it completed its normal life span of 10 years in 2009. Moreover, adequate replacement sets had not been procured for the police personnel and hence the number of functional wireless sets available kept decreasing even though the requirement increased over the years.

During April 2018-March 2019, the percentage of functional CCTV cameras ranged between 55 to 68 *per cent* out of a total of 3870 cameras. During the same period, the percentage of cameras which could be monitored at the Integrated Command, Control, Coordination and Communication Centre (C4i) ranged from 22 to 48 *per cent* only. Surveillance feed from the remaining cameras was not available either due to faulty cameras or network related issues.

The Special Cell was functioning with less than the desired personnel, vehicles, equipment or training. Besides the shortage of four wheelers and two wheelers, the number of bullet proof jackets available were far less than the personnel on operational/active duty.

As of July 2019, Delhi Police was using a completely online version of CCTNS at 100 *per cent* of the locations, but none of the police stations had completed the validation of the migrated legacy data. The 'Safe and Secure Delhi' project failed which resulted in avoidable loss of grants amounting to ₹40 crore.

In comparison with the personal safety applications of Bengaluru Police, Haryana Police and Mumbai Police, 'Himmat' App of Delhi Police had a smaller number of installs and actionable calls, more cluttered user interface, and much higher expenditure on publicity. In addition, six web-applications of Delhi Police were not secure as the communication was not secured using the HTTPS protocol. Also, there were inadequate data validation checks while filling online forms for registering FIR. The IT Cell of the Delhi Police requires trained and skilled personnel to address the growing need of information technology for effective functioning. Moreover, a dedicated IT policy to handle issues like

framing of guidelines, granting centralized approval, and deciding technical specifications is essential to meet the desired pace of growth in information technology required for the Delhi Police.

Addressing the above issues would be a big step in mitigating the shortages/ shortcomings, which would enable the Delhi Police to live up to its full potential.

10.2. Recommendations

- Delhi Police should periodically assess the vacancies arising out of retirements/promotions envisaged in next two to three years. The system should be modelled towards regular, preferably annual recruitments against vacancies arising due to retirements, promotions and sanctions received from MHA, to avoid critical shortfalls and inadequate training facilities if too many personnel are recruited at same time.

- Police Stations, the basic and cutting-edge unit of policing, were reeling with 35 *per cent* shortages while District Headquarters have surplus staff. Delhi Police and MHA should closely examine deployment of the force other than at police stations and rationalize deployment to reduce the shortages at Police Stations. Similarly, deployment of vehicle needs to be rationalised.

- Delhi Police should assess the conditions in the functional spaces in the police stations and plan for their upgradation in time-bound manner to meet BPR&D norms.

- IVRS has aided in filtering out the enormous number of Blank calls however, it automatically disconnects the call unless caller appropriate response is given. This may be counter-productive in cases of serious emergencies. The Delhi Police should consider situation prevailing internationally. The intentional blank callers be penalised to avert them from misuse of system.

- Delhi Police should ensure that the vehicles marked for MPV fleets are utilised solely for the laid down purpose and not used by officers, PCR line, etc., which are not involved in responding to the distress calls on day-to-day basis. Further, these MPVs should be adequately manned and equipped as well.

- Delhi Police may consider outsourcing the call receiving jobs at Police Control Room to a private operator with due regulations in place. This would relieve

large numbers of police personnel, deployed on call taker positions and would enable them to carry out core policing functions.

− Delhi Police must give utmost priority to upgradation of communication system which is 20 years old and has outlived its life 10 years back.

− Delhi Police should implement IT projects in an iterative manner with staggered timelines and sufficient gaps for learning and feedback from user units and stakeholders.

New Delhi   **(RAKESH MOHAN)**

Dated: 05 August 2020   **Principal Accountant General (Audit), Delhi**

Countersigned

New Delhi   **(RAJIV MEHRISHI)**

Dated: 05 August 2020   **Comptroller and Auditor General of India**

ANNEXURES

ANNEXURE-1

INTRODUCTION (Paragraph-1.1)

Organizational chart of the Delhi Police units covered in detail in the Performance Audit (March 2018)
(excludes the Delhi Police Units, which have not been covered in this Performance Audit, e.g., Traffic, Armed Police, Economic Offences Wing, Airport and Railways etc.)
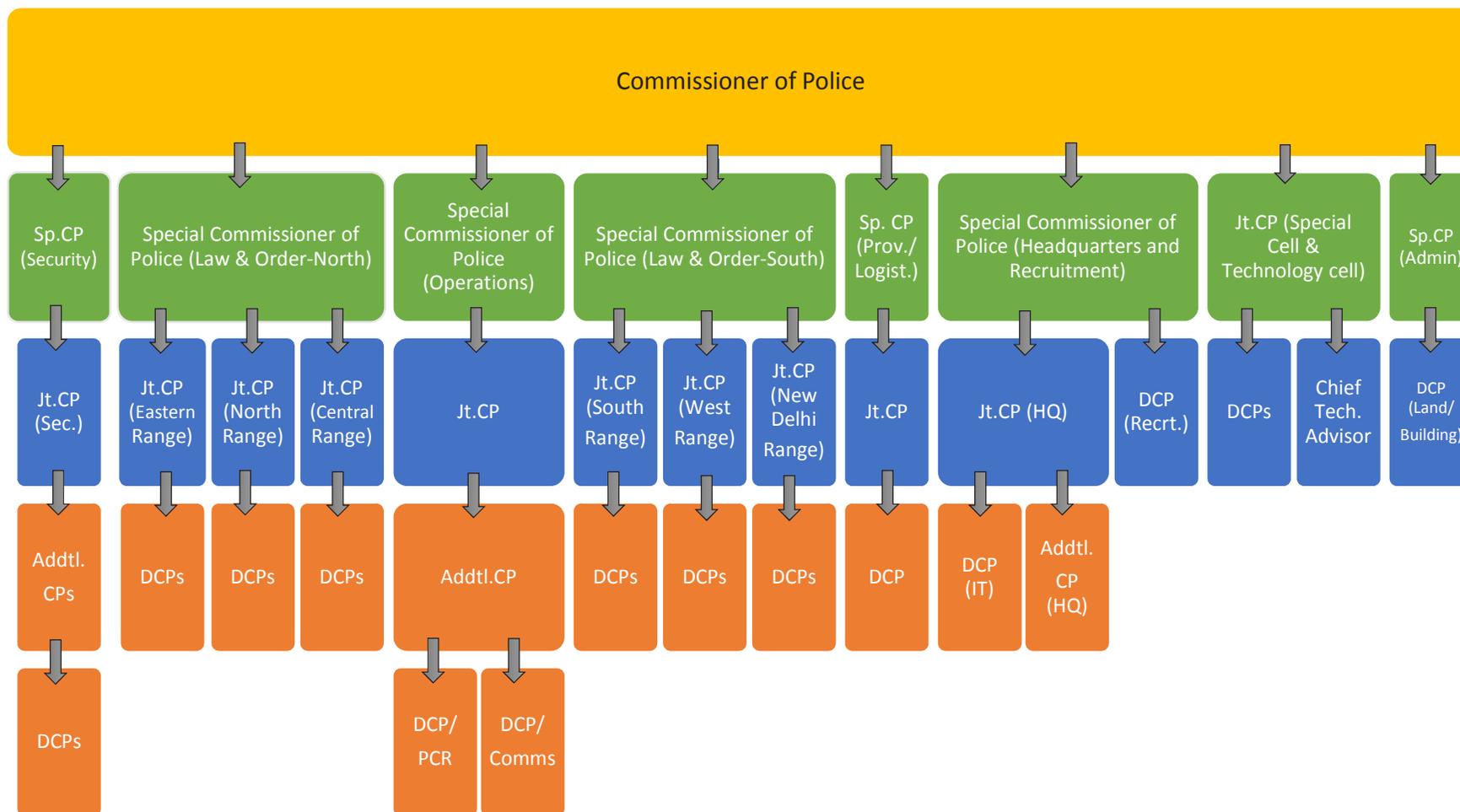
ANNEXURE-2

(Paragraph 3.1)

Movement of manpower proposals

Time	Action
May-2005	MHA directed Delhi Police to send a comprehensive proposal instead of a piecemeal approach
January-2006	Delhi Police forwarded 27 proposals (19754 posts) Phase-I (12036), Phase-II (4476), Phase-III(3232)
Febuary-2007	Delhi Police forwards proposal for 8213 posts for CWG games, with the instruction that these posts should be subsumed under the overall requirement
April-2008	5000 posts sanctioned for CWG. (Subsequently a revised proposal for 16489 posts sent to MHA. Phase-I(7612), Phase-II(6064), Phase-III(2813))
November-2008	Phase-I(7612) posts sanctioned
June 2009	PHQ forwarded proposal of 29 police stations (8707 posts)
August 2009	MHA sanctioned 6478 posts for 29 police stations
November-2010	Proposal file of Phase -II withdrawn by MHA
January-2013	Phase-II file again opened after Nirbhya case (MHA recommended 2907 posts for separation of crime & Investigation)
July-2013	Delhi Police forwarded 15 proposal of 14869 posts including separation of crime and investigation (Combination of Proposals send between the period 2005-2012)
June 2015	High level Committee set up by MHA to look in to proposals holistically
July-2015	Delhi Police submitted 89 proposal for 46949 posts called as comprehensive proposals 2015 (Combination of new and Pending proposals)
January-2016	4227 post sanctioned by MHA for separation of crime and investigation
August-2016	Proposal for creation of 2 new police stations (402 posts)

ANNEXURE-3

Mobility in Police Station (Paragraph No. 4.6)

4-Wheelers

Available: New Delhi 17, Central 22, South 27, Dwarka 20, Rohini 22, North East 19

Requirement: New Delhi 63, Central 105, South 105, Dwarka 70, Rohini 77, North East 84

Special 4-Wheelers

Available: New Delhi 3, Central 9, South 11, Dwarka 5, Rohini 6, North East 3

Requirement: New Delhi 27, Central 45, South 45, Dwarka 30, Rohini 33, North East 36

2-Wheelers

Available: New Delhi 67, Central 86, South 159, Dwarka 92, Rohini 118, North East 81

Requirement: New Delhi 162, Central 270, South 270, Dwarka 180, Rohini 198, North East 216

Legend: New Delhi, Central, South, Dwarka, Rohini, North East

Source 1: Data given by Police stations during joint inspections

ANNEXURE-4
Physical Infrastructure in Police Stations (Paragraph 4.7)

### Citizen-centric & public friendly facilities (Paragraph 4.7.1)

### Disabled friendly entry

Reception/Waiting Area
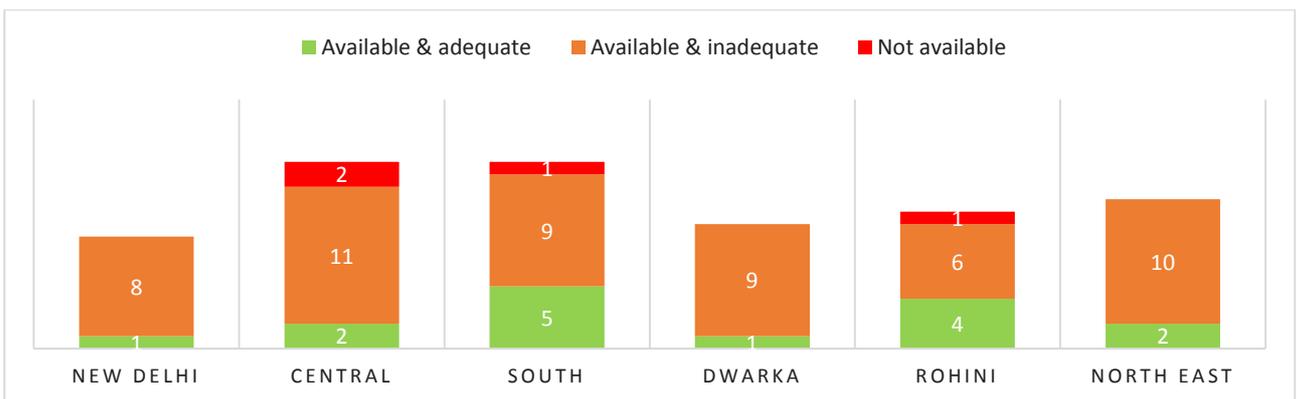
Visitor & Disabled friendly toilet
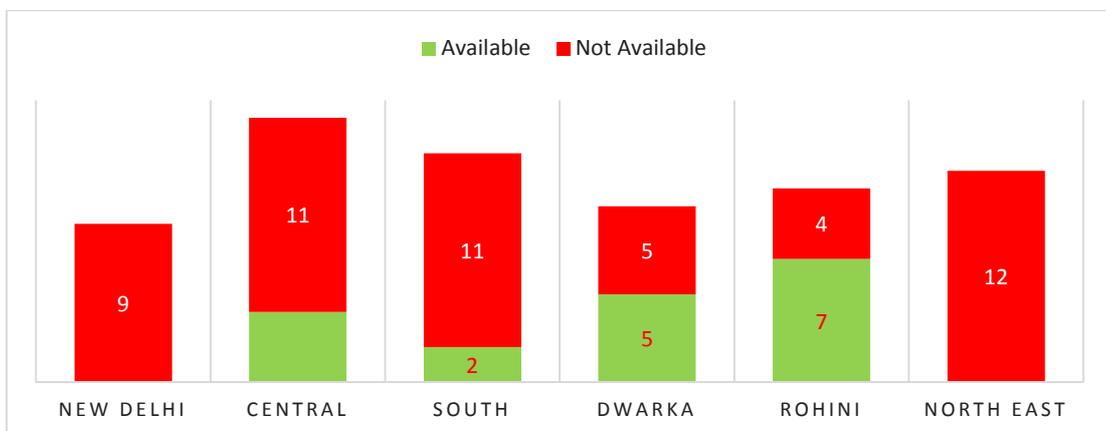
Women Help Desk
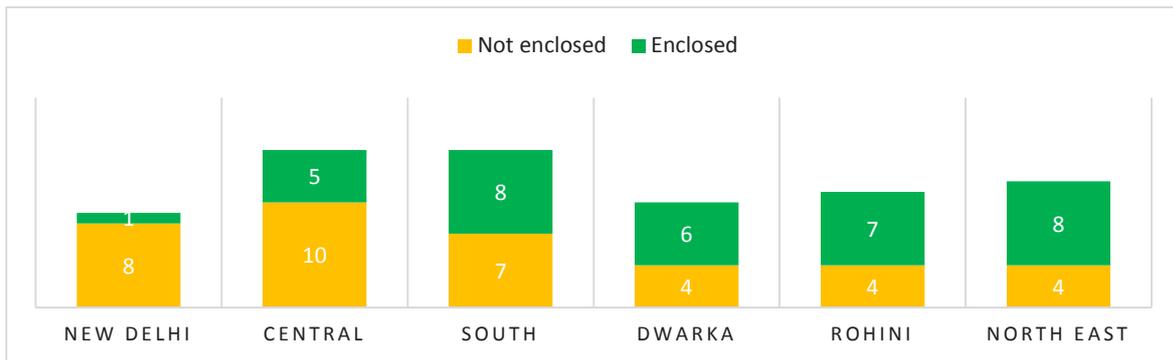
Lockup
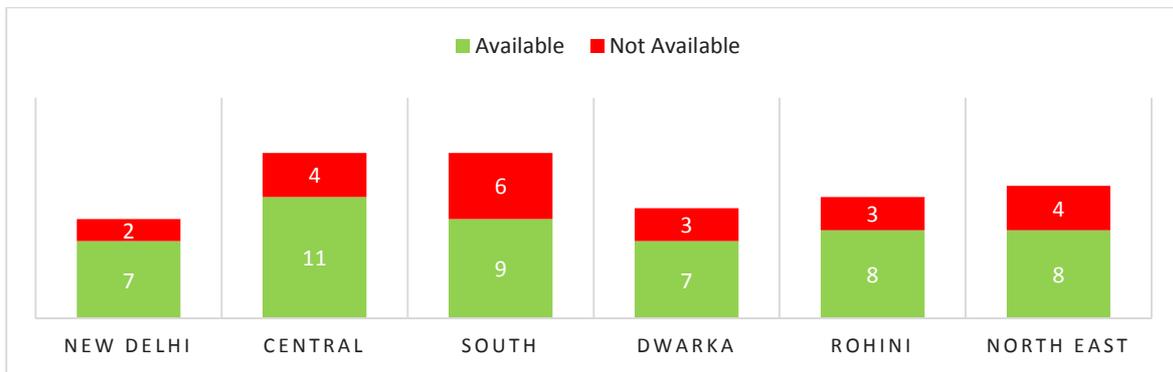
Police personnel centric facilities (Paragraph 4.7.2)

Creche
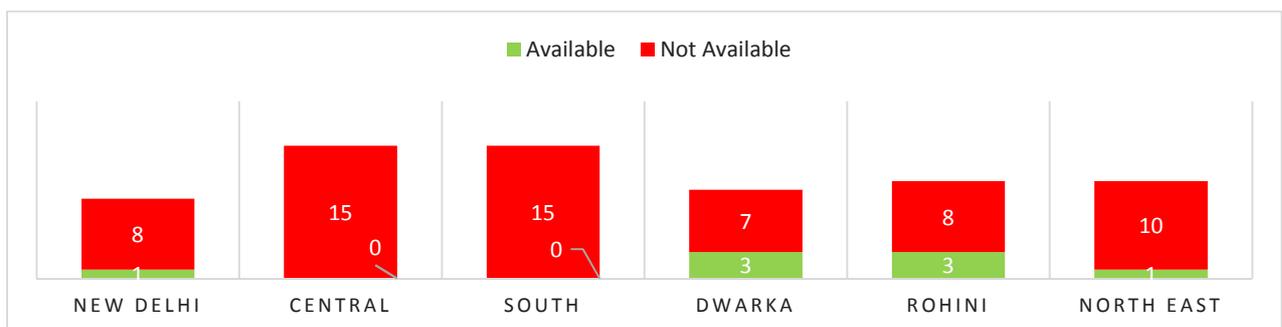
Open ground for parade & play ground
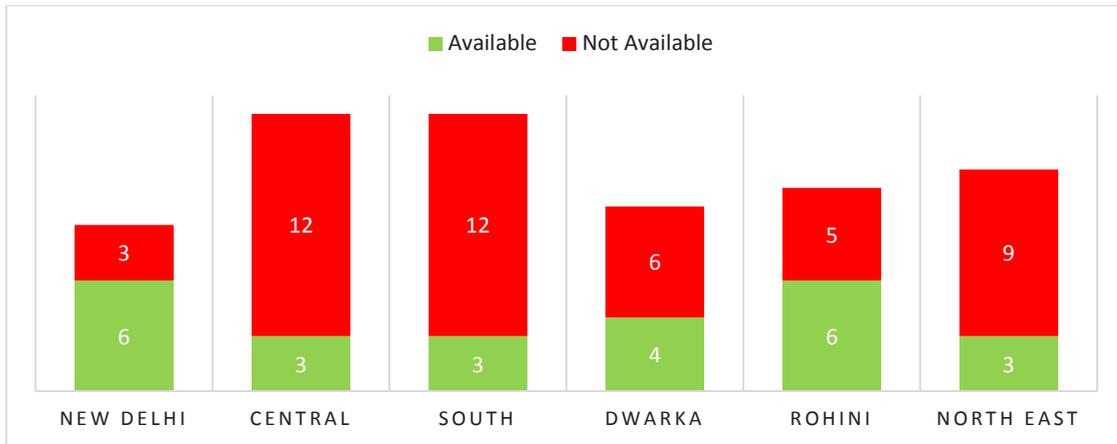
Recreation room/Gym
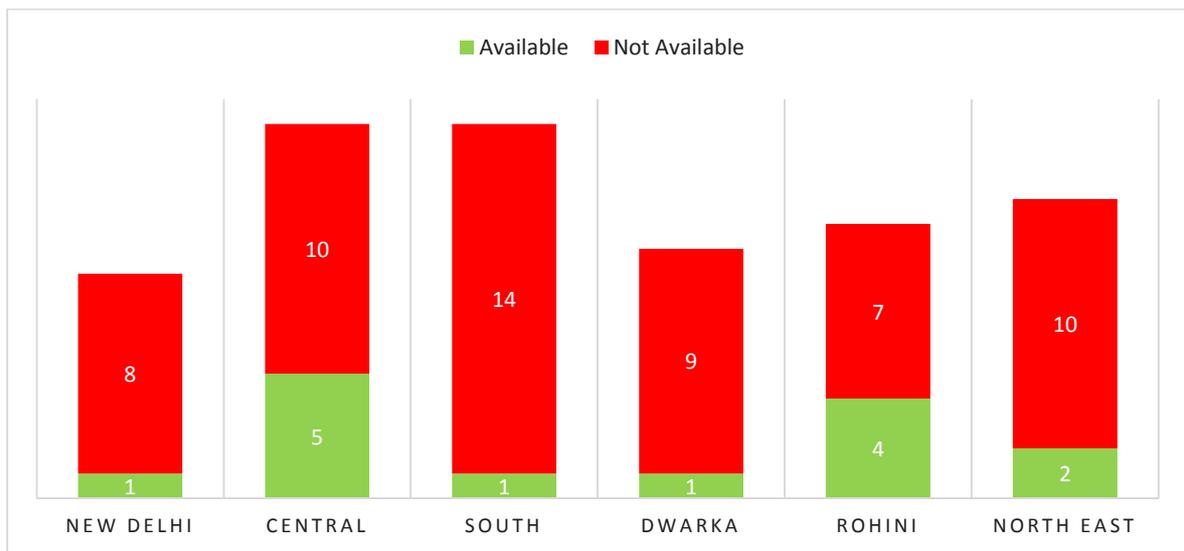
ANNEXURE-5

(Paragraph 5.2)

Details of 15 callers responsible for 20 % of the Blank calls during the test-checked period

Caller #	22.05.19	23.05.19	24.05.19	25.05.19	26.05.19	27.05.19	28.05.19	Total
9667628240	818	751	784	353	572	398	511	4187
8766309792	255	126	82	77	154	26	51	771
9667726489	68	21	190	151	30	94	132	686
9540150854	42	127	0	0	86	17	141	413
8743052898	0	0	0	0	0	109	245	354
9953416808	0	0	11	1	139	163	0	314
9654051294	62	61	0	13	102	13	35	286
8800731423	145	0	0	0	68	9	50	272
9718882641	38	32	40	40	46	29	34	259
9968734262	0	35	67	81	0	53	18	254
7428108185	116	9	0	87	6	35	0	253
9111612849	246	0	0	0	0	0	0	246
8506921969	18	17	111	40	10	4	9	209
7838431247	0	192	0	2	0	0	0	194
8076964940	7	58	28	64	0	25	6	188