Report of the Comptroller and Auditor General of India on Social Sector (Non-PSU) for the year ended 31 March 2012

Government of National Capital Territory of Delhi

Report No. 2 of the year 2013

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PREFACE

This Report is prepared for submission to the Lieutenant Governor of Delhi under Article 151 of the Constitution of India.

The Report contains findings of Performance Audit, CCO-Based Audit, Thematic Audit and Audit of transactions of various Departments, Autonomous Bodies in Social Sectors of the Government of NCT of Delhi.

The Report containing audit observations on matters arising from examination of Finance Accounts and Appropriation Accounts is presented separately.

The cases mentioned in the Report are among those which came to notice in the course of test audit of accounts during the year 2011-12 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports; matters relating to the period subsequent to 2011-12 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

CHAPTER-1
Introduction on Social Sector

1.1 Introduction

This Report of the Comptroller and Auditor General of India (CAG) relates to matters arising from Performance Audit, Thematic Audit, Chief Controlling Officer (CCO) based Audit of selected programmes, schemes, departments etc. and Compliance Audit of the transactions of Government departments and autonomous bodies in the Social Sector of the Government of NCT of Delhi.

Compliance Audit refers to examination of transactions relating to expenditure, receipts, assets and liabilities of the auditee units to ascertain whether the provisions of Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with.

Performance Audit is an independent assessment or examination of the extent to which an organisation, programme or scheme operates economically, efficiently and effectively.

CCO based Audit approach is to encompass financial audit, compliance audit and review of operational performance of the Government departments, its autonomous bodies and their units in a top down manner.

The primary purpose of the Report is to bring to the notice of the Legislature, important results of audit. Auditing Standards require that the materiality level for reporting should be commensurate with the nature, volume and magnitude of transactions. The findings of audit are expected to enable the Executive to take corrective actions as also to frame policies and directives that will lead to improved performance of the organizations, thus, contributing to better governance.

This chapter, in addition to explaining the planning and extent of audit, provides a synopsis of the significant audit observations followed by a brief analysis of the follow-up on audit reports. **Chapter 2** of this report contains findings/observations arising out of the performance audit of Sewage Management in Delhi and Jawaharlal Nehru National Urban Renewal Mission (JNNURM). **Chapter 3** contains observations on thematic audit of 'Water Management in Delhi', 'Patient Care Facilities in Delhi Government Hospitals', 'Delhi Ladli Scheme', and 'Delhi Building and Other Construction Workers Welfare Board'. **Chapter 4** contains observations on audit of transactions in Government Departments and **Chapter 5** contains observations arising out of CCO based audit of the 'Directorate of Health Services'.

1.2 Profile of audited entities

The Government Departments have been grouped in Social Sector, General Sector, Revenue Sector and Economic Sector (Non-PSUs) and Public Sector Undertakings of all Sectors for the purpose of audit. This Report covers audit observations on Social Sector, (Non-PSUs).

There are 23 departments under the Social Sector in the State, each headed by a Principal Secretary/Secretary, who are assisted by Directors/Commissioners and subordinate officers. There are 1433 units under the Social Sector, which are under the audit jurisdiction of the Principal Accountant General (Audit), Delhi. During 2011-12, a total **of 84 units** were covered in Audit.

1.3 Expenditure profile of the State Government

The total expenditure of the Government of NCT of Delhi including Capital Expenditure and Grant in Aid during the year 2011-12 was ₹ 21969.13 crore. Out of this the expenditure incurred on Social Services was ₹ 10717.12 crore, which was 49 *per cent* of the total expenditure of the GNCT of Delhi. A comparative statement of expenditure incurred on Social Services, General Services and Economic Services for the last five years i.e., 2007-08 to 2011-12 is given in chapter I of the Audit Report on State Finances (GNCT of Delhi).

1.4 Authority for audit

The authority for audit by the CAG is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. Audit of expenditure of Departments of the Government of NCT of Delhi is carried out under Section 13 of the CAG's (DPC) Act. The CAG is the sole auditor in respect of five autonomous bodies[1] under the Departments of Government of NCT of Delhi, which are audited under sections 19(3) and 20(1) of the CAG's (DPC) Act. In addition, the CAG also conducts supplementary audit of 50 other autonomous bodies under Section 14 of CAG's (DPC) Act, which are substantially funded by the Government of NCT of Delhi. Principles and methodologies for audit are prescribed in the Auditing Standards and the Regulations on Audit and Accounts, 2007 issued by the CAG.

1.5 Organisational structure of the office of the PAG (Audit), Delhi

Under the directions of the CAG, the Principal Accountant General (Audit), Delhi conducts audit of the State Government departments, Autonomous

[1] Netaji Subhash Institute of Technology, Guru Govind Singh Indraprastha University, Delhi Building and Other Construction Workers Welfare Board, Delhi Kalyan Samitee and Delhi Jal Board

Bodies and Government companies. The Principal Accountant General (Audit) is assisted by Senior Deputy Accountants General/Deputy Accountants General, Audit Officers, Assistant Audit Officers and supporting staff in the discharge of his/her official duties.

1.6 Planning and conduct of audit

Audit process commences with the risk assessment of various Government departments/organizations/autonomous bodies and schemes/projects, etc., based on expenditure, criticality/complexity of activities, level of delegated financial powers, assessment of internal controls and the concerns of stakeholders. The previous audit findings are also considered as an input to this exercise.

After completion of audit of each unit, Audit Inspection Report containing audit findings are issued to the Head of the unit/ Department. The units are requested to furnish replies to the audit findings within one month of receipt of the Audit Inspection Report. Whenever replies are received, audit findings are either settled or further action for compliance is advised. The important audit observations arising out of these Audit Inspection Reports are processed for inclusion in the CAG's Audit Report.

During**2011-12, 1570 party-days** were utilised to carry out compliance audit **of 84 units** out **of 1433 units** of various departments/organisations.

1.7 Audit observations

The present Report contains two Performance Audits, four Theme based Audits, five paragraphs on Compliance Audit and one CCO based Audit. The highlights of these audits are given in the following paragraphs (Paragraph 1.7.1 to paragraph 1.7.6):

1.7.1 Performance audit of Sewage Management in Delhi

There are two agencies in Delhi for sewage management. The Delhi Jal Board is responsible for treatment of domestic sewage and the Delhi State Industrial Infrastructure Development Corporation for treatment of industrial sewage.

The DJB added only one MGD capacity of STP and laid only 900 kms of sewer line during 2007-12 after incurring an expenditure of ₹ 1634.18 crore and could not utilize grants-in-aid received under JNNURM scheme during 2010-11 (100 *per cent*) and 2011-12 (51 *per cent*).

The DJB had not prepared any perspective plan for sewage management for Xth five year plan. Test check of records at 15 out of 32 Sewage Treatment Plants (STPs) revealed that all these STPs were working below their capacities. The DJB was able to collect and treat only 367 MGD (54 *per cent*) out of 680 MGD of sewage generated in Delhi and the remaining sewage was

discharged untreated into Yamuna River through storm water drains even after having a sewage treatment capacity of 543.40 MGD.

The construction of STPs and Sewage Pumping Stations (SPSs) revealed cost escalation due to delay in award of work (₹ 92.74 crore), non-imposition of penalty for delay in completion of projects (₹ 37.14 crore) and loss due to release of interest free mobilization advance to contractors (₹ 6.25 crore).Maintenance of STPs and SPSs revealed irregular payment of taxes (₹ 19.24 crore), infructuous expenditure (₹ 10.20 crore).

As regards treatment of industrial sewage, it was observed that four out of 15 Common Effluent Treatment Plants (CETPs) which were to be completed by 1998, were not completed as of December 2012 resulting in industrial sewage flowing into Yamuna untreated. There were instances of drains carrying industrial sewage, not connected to CETPs, leading to direct flow into Yamuna. The installed capacity of CETPs was much more than actually required and as such they were utilizing only 5 to 62.50 *per cent* of installed capacity.

1.7.2 Jawaharlal Nehru National Urban Renewal Mission

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in December 2005 with the objective of reforms driven and fast track development of cities across the country. State Level Nodal Agency (SLNA) was not fully equipped in terms of manpower to monitor implementation of projects under the mission. No revolving fund was set up for future maintenance of the assets created under this mission. Programme Management Unit and Programme Implementation Unit were not set up to keep a watch on the progress of projects. The Government of NCT of Delhi could not utilize ₹ 196.88 crore out of ₹ 2823.18 crore allocated for UIG. State Level Steering Committee and SLNA released ₹ 200 crore without any demand to Delhi Urban Shelter Improvement Board (DUSIB). Construction of 44720 Dwelling Units (DUs) had to be dropped due to non- availability of hindrance free sites. Only 85 out of completed 10684 DUs could be allotted to the beneficiaries as the policy of allotment of DUs could be finalised only in January 2011. The delay in taking decisions by the Government escalated the cost of a bridge on river Yamuna by ₹ 672 crore. The DJB awarded the consultancy work for the project 'Laying of interceptor sewerage system' on nomination basis to M/s Engineers India Limited and the agreement was also deficient on many counts. The MCD incurred an expenditure of ₹ 4.33 crore on improvement of roads, which were not approved by its Working Committee.

1.7.3 Water Management in Delhi

The raw water available in Delhi at present is not sufficient to provide potable water to the whole population of Delhi as per prescribed norms. Two dams

were proposed on river Yamuna in 1994 to augment raw water in Delhi, which could not be constructed even after a lapse of 18 years and after incurring an expenditure of ₹ 214 crore. The production of potable water at WTPs and waste water recycling plants was also found to be below designed capacity. The 8-MGD recycling plant at Chandrawal was commissioned after a delay of more than four years.

The drinking water was not being distributed equitably amongst the population due to lack of reliable data on population and water supplied to different areas. Further, 24.8 *per cent* of the households in Delhi were being supplied water through tankers in the absence of pipe lines where the average per capita supply was 3.82 litres per day against a prescribed norm of 172 litres. Metering of water at consumer end was not comprehensive due to which, less than 40 *per cent* of water produced was billed during last three years.

1.7.4 Patient Care Facilities in Delhi Government Hospitals

The thematic audit revealed that budgetary and expenditure control in the hospitals were inadequate leading to persistent savings under the head 'Machinery & Equipment', 'Supplies & Material' and 'Salaries' which indicates insufficient procurement of equipment, medicines and shortage of staff. OPD services were affected due to shortage of medical equipment, medicines, injections, infrastructure and medical support items. The Emergency Departments were not providing required services due to lack of essential equipment, medicines and adequate staff. Numbers of beds, necessary equipment, patient trolleys were not commensurate with the number of patients that the hospitals have to attend daily. Laboratories and Diagnostic Services were found wanting on many counts. Some tests were not being conducted in the hospitals as test equipment were out of order. All five minor hospitals did not have blood banks, whereas the license for blood bank was not renewed in GTB hospital. The GTB and LN hospitals have been using ambulances, mainly for miscellaneous purposes instead of for the patients, and the ambulances were not equipped with essential equipment for basic life support system. In GTB hospital, a CT Scanner costing ₹ 7.17 crore, was procured on emergency basis but installed after a delay of 20 months from the stipulated date of installation.

1.7.5 Delhi Ladli Scheme

The scheme aims at enhancing the social status of girl child in the family as well as in the society by ensuring economic security and proper education to make her self-reliant and protecting from discrimination and deprivation. The scheme was launched without having essential data of target beneficiaries, to be covered under the scheme as guidelines for the hospitals and schools for registering and renewing the cases of beneficiaries at the birth level and school level respectively, were not formulated.

The SBIL, the fund managing agency, gave interest rate of only 6.5 and 7 *per cent* during 2008-09 and 2009-10 respectively, which was approximately two third of the projected rate of 10.5*per cent*. Out of 125808 cases due for renewal during 2010-12, only 73108 cases (58.11 *per cent*) could be renewed.

1.7.6 Delhi Building and Other Construction Workers Welfare Board

The Board has not mapped all the construction workers in Delhi, as only 87273 construction workers have been registered up to 31 March 2012, against census figure of 2001 at 352830, the strength of workers. Out of fifteen welfare schemes prescribed under the Act, benefits of only seven schemes were availed by members, indicating lack of spread of awareness.

The Board incurred administrative expenditure in excess of prescribed limit of five *per cent* of total expenditure, in six financial years. ₹ 13.20 crore and ₹ 4.24 crore were released in lump sum to the Directorate of Education and the Directorate of Health Services respectively, out of which ₹6.99 crore is lying unutilised. The decision of the Government to set up 25 *Chalta - Firta* Schools at construction sites for the children of construction workers, was not implemented even after release of ₹ 7.50 crore by the Board to the Universal Elementary Education Mission. Imprudent financial decisions resulted in further loss of interest amounting to ₹ 4.24 crore.

The functioning of the Board was suffering due to lack of adequate man power and provisions of the Act governing budget, annual report, registration of workers, meetings of the Board, submission of Accounts to the C&AG of India etc. were not being adhered to or complied with.

1.7.7 Compliance audit

Audit has also reported on several significant deficiencies in critical areas which impact the effective functioning of the Government departments/ organizations. These are broadly grouped as:

(a) Non-compliance with rules and regulations;

(b) Audit against propriety and cases of expenditure without adequate justification; and

(c) Failure of oversight/governance.

A. Audit against propriety/expenditure without justification

- Purchase of 1100 pallets of higher specifications than actual requirement,at higher rate of ₹ 8500 resulted in avoidable expenditure of ₹ 65.84 lakh and undue favour to the supplier firm.

(Paragraph 4.1.1)

- The Directorate of Prevention of Food Adulteration procured equipment without having a proper plan in place for ensuring the availability of required technical staff for its operation. As a result, equipment worth ₹ 45.10 lakh was rendered idle for 48 months.

(Paragraph 4.1.2)

- Injudicious procurement by Hospital of consumables / non-consumables without assessing its actual requirements resulted in blockade of funds to the extent of ₹ 42.87 lakh for more than three years.

(Paragraph 4.1.3)

B. Failure of oversight/governance

- The Urban Development Department had been releasing funds for works of street lights and high mast lights under the MLALAD Scheme to private electricity distribution companies. However, it did not have a monitoring mechanism in place to monitor the implementation of projects by these companies. As a result, an amount of ₹ 6.28 crore was blocked with these companies, resulting in loss of interest.

(Paragraph 4.2.1)

- The investment of ₹ 1.29 crore on acquisition of land remained blocked for a period of over 96 months (upto August 2012) apart from non-achieving of objective of up gradation of the Hospital, which continues to operate at 250 *per cent* of its actual capacity.

(Paragraph 4.2.2)

1.7.8 Directorate of Health Services

No construction work had started at any of the land sites (August 2012), allotted at the cost of ₹13.13 crore between 1997 and 2008 for construction of 10 hospitals with proposed bed capacity ranging from 60 to 700.

The Directorate had not documented procedures and practices for procurement of materials and supplies. As the rates quoted by the suppliers were directly linked with the estimated quantities to be supplied, Central Procurement Agency (CPA) could not take advantage of competitive rates for bulk quantities of drugs and surgical items to achieve economies of scale as envisaged in drug policy. Purchases of medicines/drugs were made much in advance of the actual requirements, resulting in significant unused balances at the end of the year.

There was no mechanism in place to analyse the market rates of drugs during the extended period of rate contracts. This resulted in financial benefit to suppliers as the rates of drugs reduced in this period, resulting in an avoidable loss of ₹ 1.46 crore in purchase of drugs made by the Central Store alone.

No Management Information System, either manual or computerized, was devised at the Directorate, CPA and Central Store level for planning and managing procurements and supplies.

Testing of CPA drugs and surgical items were carried out in a routine manner and there was no tracking of supplies at CPA and the Central Store level to ensure that testing of all batches was carried out. Further, in case of non-CPA procurement, the indenting units were relying only on the in-house test reports of the drugs submitted by the supplier which is anomaly.

Public Health Standards approved by the Delhi Cabinet in 2010 to address the confusion caused by existence of heterogeneous primary healthcare facilities provided by multiple agencies have not yet been implemented.

No post for pathologist/lab technician was ever sanctioned by the Department for any of the 39 mother labs. Moreover, the *percentage* of referral cases in all the mother labs was as low as 8.43 *per cent* of the total cases.

To run the mobile clinics, 18 to 24 *per cent* of staff was arranged from the Government hospitals and dispensaries, besides using the services of NGOs to the extent of 34 to 48 *per cent*. Further, it did not have any alternative arrangement in place to make up for the absence of departmental doctors. Insufficient monitoring and diversion of mobile clinics were also noticed.

1.8 Recoveries at the instance of Audit

The audit findings involving recoveries that came to notice during the course of test audit of accounts of the Departments of the State Government were referred to the Departments/State Government through Audit Inspection Reports (IRs) for further investigation and in case of overpayments/excess payment, recovery of the same under intimation to audit.

The details of recoveries pointed out by the Audit during the year 2011-12, those accepted by the departments and recoveries effected are given in **Table 1.1.**

Table 1.1:Recoveries at the instance of Audit

(₹in crore)

Wing	Recoveries pointed out in 2011-12	Recoveries Accepted during 2011-12	Recoveries effected during 2011-12
Social Sector Departments	15.04	15.04	2.57

1.9 Lack of response to Audit

No Audit Committee meeting was held during the year 2011-12 in respect of paragraphs contained in IRs pertaining to departments, thus no audit paragraph was settled.

At the end of 31 March 2012, 668 Inspection Reports involving 2534 paragraphs were outstanding as detailed in **Table 1.2.**

Table 1.2: Status of IRs and Paragraphs

Opening Balance 1.4.2011		Additions during the year		Settled during the year		Closing Balance (31 March 2012)	
No of Inspection Reports	No of Paragraphs	No of Inspection Reports	No of Paragraphs	No of Inspection Reports	No of Paragraphs	No of Inspection Reports	No of Paragraphs
668	2427	76	670	76	563	668	2534

Pendency of large number of paragraphs of serious financial irregularities and loss to Government even after being pointed out in audit, indicated lack of response of the Government departments to Audit.

The Government may look into this matter and revamp the system to ensure proper response to the audit observations from the departments in a time-bound manner.

1.10 Response of departments to Audit Report material

The draft audit paragraphs proposed for inclusion in the Report of the Comptroller and Auditor General of India were forwarded by the Principal Accountant General (Audit) to the Principal Secretaries/Secretaries of the Department concerned, drawing their attention to audit findings and requesting them to send their response within six weeks. The fact of non-receipt of replies from the Government/departments is indicated at the end of each paragraph included in the Audit Report.

Five (5) draft paragraphs including two performance audit, one Chief Controlling Officer (CCO) based audit and four thematic audit reports, proposed to be included in the Report (Social Sector) of the Comptroller and Auditor General of India for the year ended 31 March 2012 were sent to the Principal Secretaries/Secretaries of the respective departments between March 2012 and February 2013. The Principal Secretaries/Secretaries of the departments did not send replies in respect of five paragraphs, two performance reviews and four thematic audit paragraph. These paragraphs have been included in Chapter-2, 3,4 and 5 of the Report without the response of the Principal Secretaries/ Secretaries of the department concerned. However, replies of the Head of the unit audited, wherever received, have been incorporated in the Report with suitable audit comments.

1.11 Follow-up on Audit Reports

A review of outstanding Action Taken Notes on paragraphs included in the Reports of the Comptroller and Auditor General of India pertaining to Social Sector, Departments of Government of NCT of Delhi as of December 2012 (details in **Annexure-1.1**) revealed that 35 ATNs were pending as of December 2012.

2.1 Performance audit of Sewage Management in Delhi

Executive Summary

There are two agencies in Delhi for sewage management. The Delhi Jal Board is responsible for treatment of domestic sewage and the Delhi State Industrial Infrastructure Development Corporation for treatment of industrial sewage. A performance audit of 'Sewage Management in Delhi' was conducted for the period 2007-12 with a view to ascertaining whether both the agencies were able to collect, treat and dispose off all the sewage generated in Delhi, in an efficient, economical and environment friendly manner.

The DJB added only 1 MGD capacity of STP and laid only 900 kms of sewer line during 2007-12 after incurring an expenditure of ₹ 1634.18 crore and could not utilize grants-in-aid received under JNNURM scheme during 2010-11 (100 *per cent*) and 2011-12 (51 *per cent*).

The DJB had not prepared any perspective plan for sewage management for XIth five year plan. Test check of records at 15 out of 32 Sewage Treatment Plants (STPs) revealed that all these STPs were working below their capacities as the DJB was unable to create a system to carry enough sewage to these STPs. The DJB was able to collect and treat only 367 MGD (54 *per cent*) out of 680 MGD of sewage generated in Delhi and the remaining sewage is discharged untreated into Yamuna River through storm water drains even after having sewage treatment capacity of 543.40 MGD.

51 MGD out of 206 MGD test checked in 15 STPs was not meeting the prescribed standards of Bio-Chemical Oxygen Demand and Total Suspended Solids etc.

The construction of STPs and Sewage Pumping Stations (SPSs) revealed cost escalation due to delay in award of work (₹ 92.74 crore), non-imposition of penalty for delay in completion of projects (₹ 37.14 crore) and loss due to release of interest free mobilization advance to contractors (₹ 6.25 crore). Maintenance of STPs and SPSs revealed irregular payment of taxes (₹ 19.24 crore), infructuous expenditure (₹ 10.20 crore).

A project for collection of sewage from 3 storm water drains and to carry it to the STPs by constructing interceptor drains, was initiated in January 2008. However, the work was awarded only in July 2011 with date of completion in July 2014. Even after completion of the project, it is doubtful whether it would be effective in monsoon, as storm water drains will carry rain water also. Harmful gases which can generate electricity are released in the atmosphere resulting in air pollution.

As regards treatment of industrial sewage, it was observed that four out of 15 Common Effluent Treatment Plants (CETPs) which were to be completed by

1998, were not completed as of December 2012 resulting in industrial sewage flowing into Yamuna untreated. There were delays in handing over of completed CETPs to the CETP Societies for operation and maintenance. There were instances of drains carrying industrial sewage, not connected to CETPs, leading to direct flow into Yamuna. The installed capacity of CETPs was much more than actually required and as such they were utilizing only 5 to 62.50 *per cent* of installed capacity. The hazardous sludge totalling 12769 MT, generated by these CETPs during treatment, was lying in the premises as of November 2012, creating a threat to the environment and health of the masses.

Sewage Management in Delhi

This performance audit is the fourth in the series of performance audits carried out by Audit on issues relating to sewage management and treatment aimed at controlling water pollution in the National Capital Territory (NCT) of Delhi. The earlier three reviews printed in the Reports of the Comptroller and Auditor General of India relating to the Government of NCT of Delhi and presented to the Legislature during 2000, 2004 and 2005, highlighted *inter alia* the slow progress of construction of sewage treatment plants (STPs) and sewage pumping stations (SPSs), rehabilitation of sewer lines, tardy progress of construction and utilisation of common effluent treatment plants (CETPs) to treat industrial effluents and continuing flow of large quantities of industrial and domestic sewage into the storm water drains without treatment.

In view of the significant under performance of sewage treatment projects, this performance audit was carried out with a view to assessing the management of the STPs, SPSs and connecting sewer lines as well as actual treatment of industrial and domestic sewage alongwith quality of treatment.

2.1.1 Introduction

The Delhi Jal Board (DJB) provides sewage facilities in areas under the jurisdiction of the Municipal Corporations of Delhi (MCsD). The New Delhi Municipal Council (NDMC), Delhi Cantonment Board and Delhi Development Authority (DDA) are responsible for construction of branch sewers and outfall into trunk sewers in the areas under their respective jurisdiction. The DJB would collect sewage only in bulk from the areas falling within the jurisdiction of the NDMC and the Delhi Cantonment Board, Military Engineering Services. The DJB is the executing agency entrusted with the construction and maintenance of STPs, SPSs, trunk sewers and collection and treatment of domestic sewage in the NCT of Delhi and bulk sewage of NDMC and Cantonment areas. The DJB has a capacity of 543.4 MGD of sewage treatment and total sewage generated in NCT Delhi is 680 MGD. The DJB is able to collect and treat only 367 MGD of sewage and the rest 313 MGD of sewage is discharged untreated into River Yamuna.

The Delhi State Industrial Infrastructure Development Corporation (DSIIDC) is entrusted with the task of constructing Common Effluent Treatment Plants (CETPs) in identified industrial estates. Different industrial estates house a large number of small and medium scale industrial units. In 1996, a PIL was filed in the Supreme Court of India, against the Government of India, requesting intervention of the Hon'ble Supreme Court for controlling industrial pollution in Delhi. The Hon'ble Supreme Court, concerned with the problem of environment, directed (February 1996) the Government of NCT of Delhi to construct CETPs to treat effluent of industrial units located in 28 different Industrial Estates of Delhi. The DPCC entered into an agreement

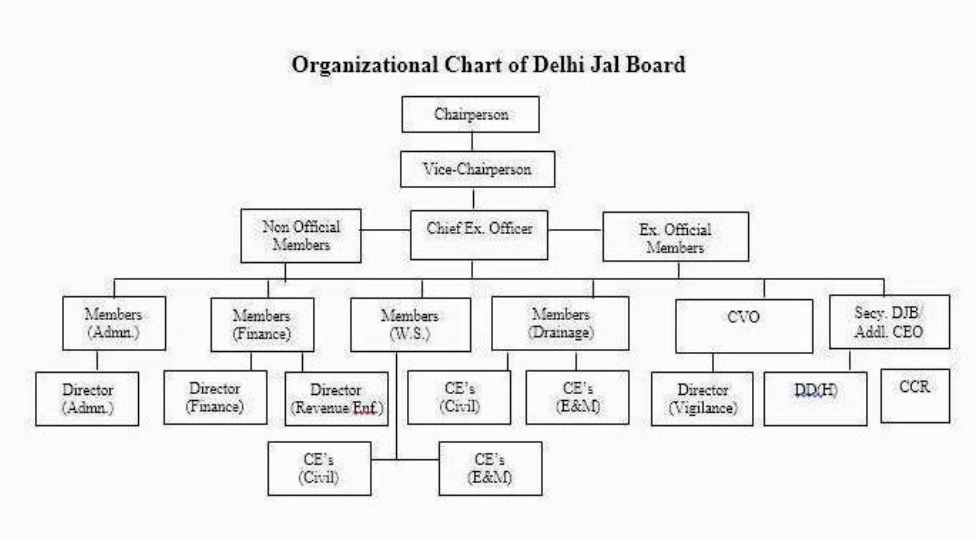
(March 1996) with National Environmental Engineering Research Institute (NEERI), to conduct a survey and suggest the measures to be adopted for treating industrial waste. The NEERI, in its report (June 1996) suggested establishment of 15 CETPs to cover 21 Industrial Estates of Delhi.

The DPCC and the Central Pollution Control Board (CPCB) are responsible for monitoring of pollution and enforcement of pollution standards.

An entry conference was held on 5 July 2012 and exit conference was held on 6 March 2013.

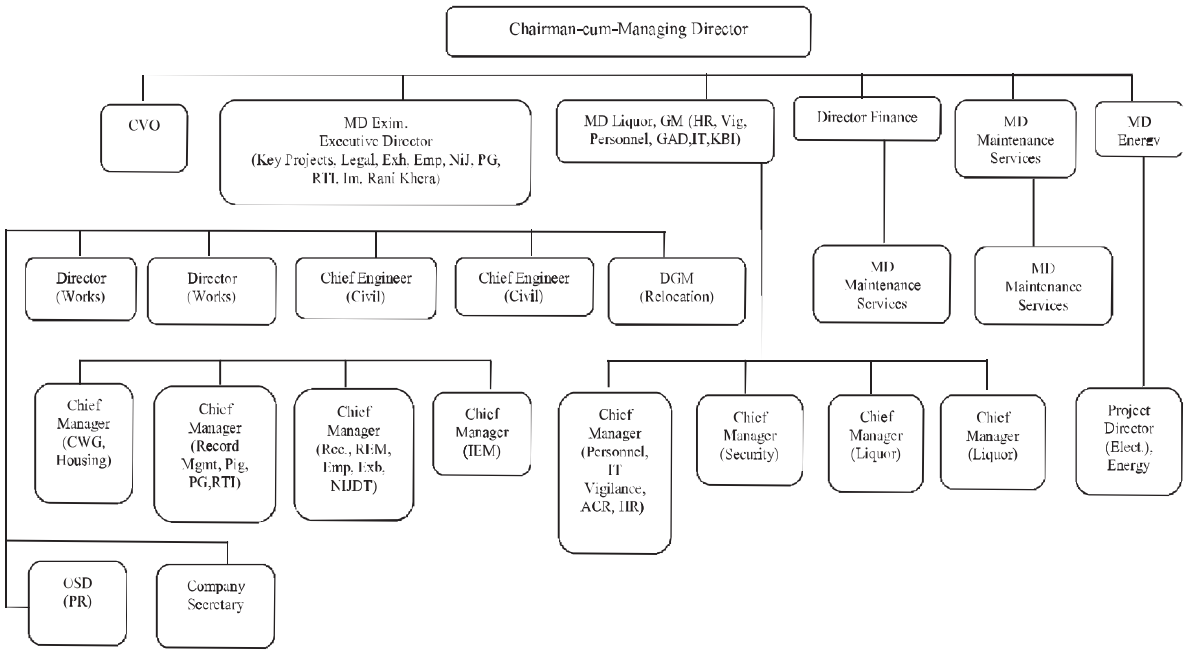
2.1.2 Organiasational set up

The DJB is headed by the Chairperson. There is one Vice Chairperson, one Chief Executive Officer, one non-official member, one executive official member, four members (Administration, Finance, Water Supply and Drainage), three Directors, six Chief Engineers (for Drainage), Superintending Engineers, Executive Engineers, Engineering staff and Zonal Revenue Officers.



2.1.2.1 Delhi State Industrial and Infrastructure Development Corporation

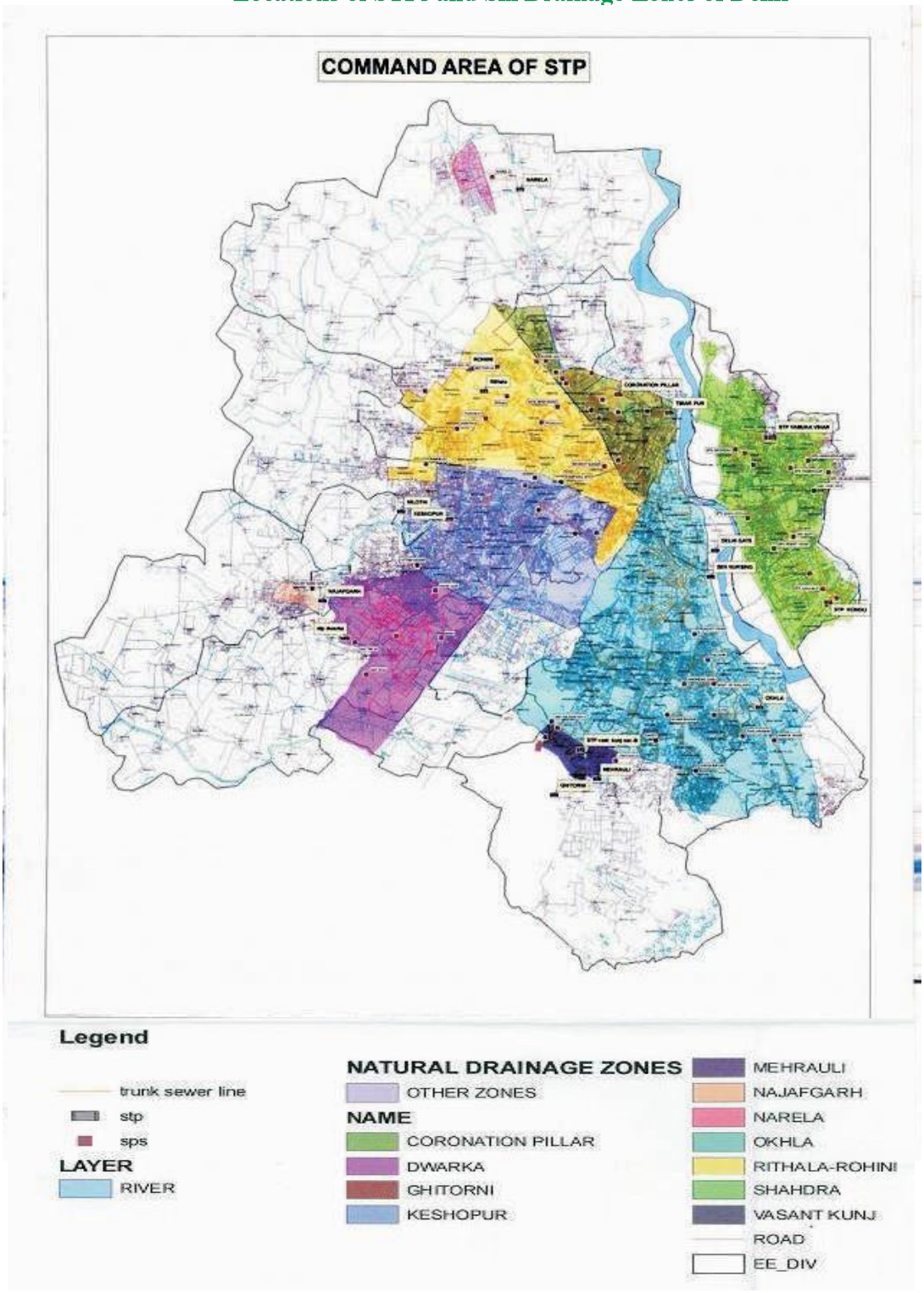
The DSIIDC is headed by a Managing Director. There is one Chief Engineer, one Chief Project Manager (E&M), one SPM (E&M), one Project Manager and one Manager for CETPs.



2.1.3 Existing sewage system in Delhi

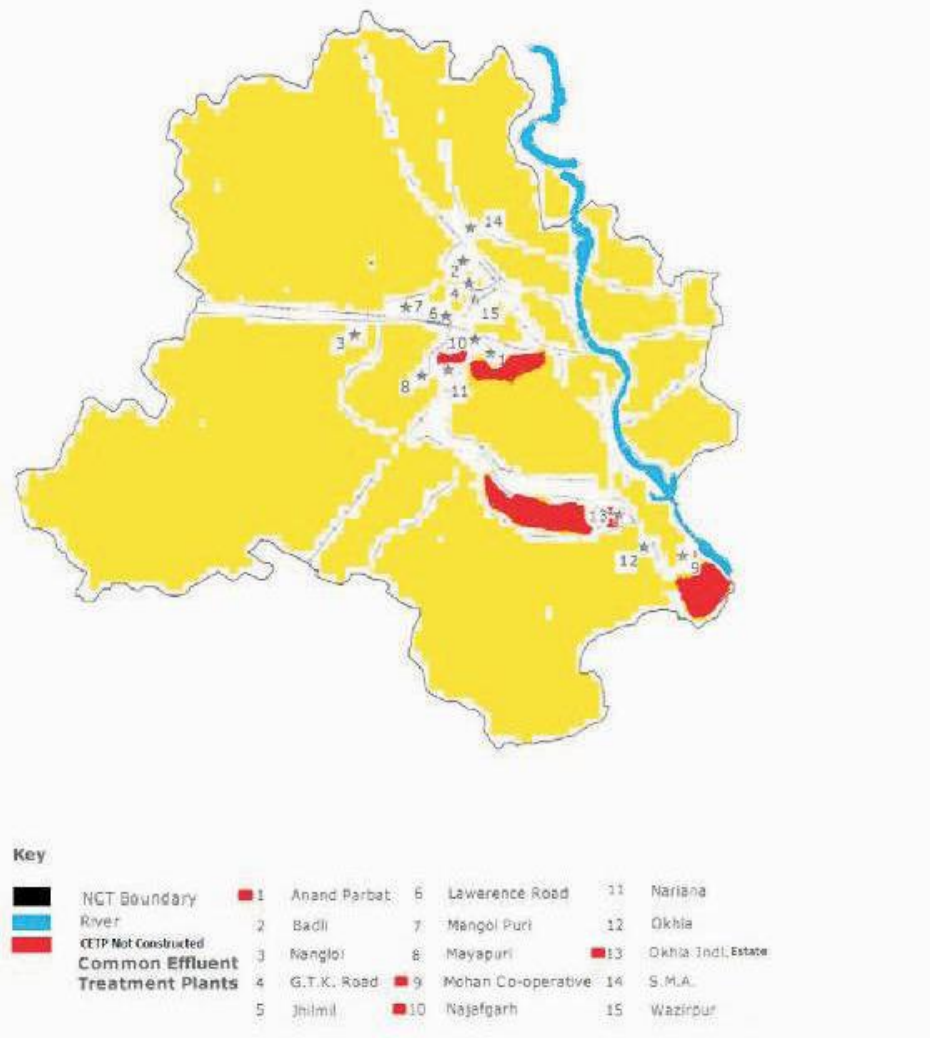
The DJB has 31 STPs at 18 locations in NCT of Delhi along with 42 SPSs. The sewage network comprises of 6500 kms of sewer lines including branch sewers (peripheral/ internal sewers). This includes 29 main trunk sewers of total length of 150 km and about 1500 km of peripheral network. For sewer management, Delhi is divided into six drainage zones of Okhla, Keshopur, Rithala-Rohini, Coronation Pillar, Shahadra and Outer Delhi. The locations of STPs and six drainage zones are depicted in the map:

Locations of STPs and Six Drainage Zones of Delhi



Out of 15 CETPs, as recommended by NEERI, the DSIIDC had constructed and made functional 11 CETPs, leaving four at Anand Parbat, Mohan Cooperative, Badarpur-Okhla and Najafgarh Road Industrial Estates. Apart from these, DSIIDC had constructed two more CETPs at Narela and Bawana, as these industrial estates came subsequent to NEERI Report. The estimated cost of construction of 15 CETPs was ₹ 256 crore. The location of 15 CETPs is depicted in the map below:

Locations of CETPs of Delhi



2.1.4 Audit objectives

The performance audit was conducted to verify whether:

- there was a gap between sewage generation, sewage treatment capacity and actual sewage treatment by the DJB and DSIIDC,
- the programs and schemes for sewage system in Delhi were conceived and systematically planned for treatment of sewage,
- the funds available for the sewage system were optimally utilized,
- the facilities created were effectively functioning in accordance with the stipulated performance standards,
- there was an effective system for monitoring the quality of the effluent water so as to enable timely corrective measures and the measures taken had impact in improving the quality of effluent water.
- the CETPs were handed over to respective CETP societies after completion.
- all the industrial areas were covered for collection of industrial sewage for treatment at CETPs, and
- the sludge generated was being disposed off properly,

2.1.5 Audit criteria

The performance of the DJB in sewage management was benchmarked against the criteria drawn from the following:

- The Sewage Manual of the Ministry of Environment and Forest, GOI,
- The General Financial Rules and other orders issued by the Government,
- The CPWD Works Manual,
- Guidelines and instructions issued by the Environment Pollution (Prevention and control) Authority (EPCA) and the Delhi Pollution Control Committee, and
- Guidelines and instructions issued by the Hon'ble Supreme Court of India.

The performance of the DSIIDC in industrial sewage management was benchmarked against the criteria drawn from the following:

- Hon'ble Supreme Court orders,
- EPCA/ DPCC survey reports,
- Report of NEERI, and
- Handing over/taking over documents of CETPs etc.

2.1.6 Scope of audit and methodology

The performance audit was conducted during August-November 2012 covering the period from April 2007 to March 2012 by examining the records relating to the Sewage Management in Delhi and test check of records of DJB and DSIIDC. The audit team also examined records maintained by STPs located at seven sites along with the connected SPSs and CETPs in Wazirpur, Badli, Jhilmil, Nangloi and Okhla Industrial Area and Delhi Pollution Control Committee and Central Board of Pollution Control.

For the purpose of audit, STPs at seven locations were selected through Statistical Random Sampling without Replacement (SRSWR). Audit sample was 100 *per cent* for STPs with capacity of more than 70 MGD (three), 40 *per cent* for STPs with capacity from 20 to 70 MGD (two) and 30 *per cent* for STPs with capacity less than 20 MGD (two) along with their SPSs. Out of 40 construction and sewage maintenance divisions of DJB, eight divisions (20 *per cent*) were selected through SRSWR viz. four from maintenance divisions and four from construction divisions.

The performance audit with reference to scheme for Sewage Management in Delhi was conducted in the DSIIDC covering a period of 2007-12 to examine its role and responsibility in operationalisation of CETPs. Five CETPs i.e. Wazirpur, Badli, Jhimil, Nangloi and Okhla Industrial Area were selected for detail audit.

2.1.7 Audit findings in Delhi Jal Board

2.1.7.1 Utilisation of funds

The DJB prepares its budget in two parts (i) Non-plan/ Revenue budget (ii) Plan/ Capital budget to separate operating expenses from capital expenses. The main items of capital receipts are loan and grants-in-aid from the Department of Urban Development, Government of NCT of Delhi; funding from Central Government schemes like Jawahar Lal Nehru National Urban Renewal Mission (JNNURM) and Yamuna Action Plan (YAP). During the period between April 2007 and March 2012, the Government released ₹ 2952.19 crore to the DJB for creation of sewage treatment facilities, of which, the DJB utilized ₹ 2714.8 crore (91.96 *per cent*). Details of outlay,

actual expenditure and unspent balance for 2007-12 are given in **Table 2.1.**

Table 2.1: Details of outlay, actual expenditure and unspent balance for 2007-12

(₹ in crore)

Year	Outlay				Expenditure			
	Bulk	Construction	Maintenance	Total	Bulk	Construction	Maintenance	Total (%)
2007-08	89.00	183.30	79.15	351.45	128.14	132.09	66.40	326.63 (92.92%)
2008-09	82.63	283.75	138.40	504.78	122.17	221.23	85.68	429.08 (85%)
2009-10	117.25	470.24	47.25	634.74	153.88	460.25	50.67	664.80* (104.74%)
2010-11	123.45	396.81	56.62	576.88	146.03	476.53	54.57	677.13 (117.38%)
GIA*	0	161.48	0	161.48	0	0	0	0
Total 2010-11	123.45	558.29	56.62	738.36	146.03	476.53	54.57	677.13 (91.71%)
2011-12 (Provisional)	133.20	274.33	90.34	497.86	174.79	233.19	98.29	506.27 (101.69%)
GIA*	0	225.00	0	225.00	0	110.89	0	110.89 (49.28%)
Total 2011-12	133.20	499.33	90.34	722.86	174.79	344.08	98.29	617.16 (85.38%)
Total	**545.53**	**1994.91**	**411.76**	**2952.20**	**725.01**	**1634.18**	**355.61**	**2714.8 (91.96%)**

** Grant-in-aid received under JNNURM*

A: Bulk includes the expenditure on maintenance of SPSs and STPs

B: Construction includes expenditure incurred on construction of STPs, SPS and Sewer Lines

C: Maintenance includes the expenditure incurred by the maintenance divisions on sewer lines

The expenditure of ₹ 1634.18 crore during the years 2007-12 was on construction of STPs, SPSs and Sewer lines in MCsD areas. The DJB added only one MGD capacity of STP and 900 Kms of sewer lines between 2007-12.

The DJB's utilization of planned outlay ranged between 85 *per cent and 117 per cent* during 2007-12. The extent of under utilisation of the Grants-in-aid under JNNURM received during 2010-11 and 2011-12 was 100 *per cent* and 51 *per cent* respectively. The budget provision under YAP-II for the year 2009-10 was ₹ 66.19 crore whereas the actual expenditure was ₹ 106.37 crore.

The DJB stated (March 2013) that the scheme wise fund was released by the Government and was re-appropriated in revised estimate on the basis of expenditure likely to be incurred upto the end of the financial year. But in

some cases even after completion of the work, the bills are received in the beginning of next financial year. The reply was not acceptable in terms of Rule 52 (2) of the General Financial Rules which states that a Grant or Appropriation can be utilised only to cover the charges to be paid during the financial year of the Grant or Appropriation and adjusted in the account of the year.

2.1.7.2 Planning

For the proper functioning of any organization, a perspective plan containing proposed activities of the organization in the coming years is of paramount importance to ensure swift and smooth discharge of its mandatory function. A city five year plan for sanitation is a living document that details the steps the civic body needs to undertake to ensure universal access to sanitation for all its citizens. Sanitation involves collection, treatment and disposal of sewage/ sludge in an economic, environmental friendly and sustainable manner. However, no such perspective plan for sewage management was prepared by the DJB for XIth five year plan (2007-12).

(a) Under utilisation of STPs

The location, capacity and actual utilisation of seven test checked STPs for last five years (2007-12) are detailed in **Table 2.2.**

Table 2.2: Location, capacity and actual utilisation of test checked STPs

Sl. No.	Location	No of STP	Installed capacity(MGD)	Sewage actually treated (MGD)	Capacity utilisation (*per cent*)
1.	Okhla	5	170	113.07	66.51
2.	Rithala	2	80	43.01	53.76
3.	Keshopur	3	72	23.10	32.08
4.	Rohini	1	15	0.73	4.87
5.	Yamuna Vihar	2	20	11.53	57.65
6.	Narela	1	10	1.20	12.00
7.	Pappankalan	1	20	13.45	67.25
	Total	**15**	**387**	**206.09**	**53.25**

As can be seen, all these STPs were working below capacity and overall utilisation was only 53 *per cent* of the total capacity. The capacity utilization at Rohini and Narela was as low as five and 12 *per cent* respectively. The DJB spent large amounts in creating treatment capacity in sparsely populated areas while it failed to create necessary treatment facilities and conveyance systems in areas where large quantity of sewage was being generated. Reason for such

low capacity utilization was mismatch between the treatment capacity created and the actual sewage generated in the relevant catchment areas.

A view of Rithala Phase-II, STP



(b) Construction of treatment plants in low sewage load areas

The DJB incurred an expenditure of ₹ 54.46 crore on creation of sewage facility where sewage generation was low as given in **Table 2.3.**

Table 2.3: STPs in low sewage load area

	Ghitorni	Rohini	Narela	Pappankalan	Total
Treatment capacity created (MGD)	5.00	15.00	10.00	20.00	**50.00**
Sewage actually generated/treated (MGD)	Nil	0.75	1.20	13.45	**15.40**
Underutilized treatment capacity (MGD)	5.00	14.25	8.80	6.55	**34.60**
Capital cost of STP (₹ in crore)	6.62	16.85	13.52	17.47	**54.46**

The treatment capacity of 34.60 MGD remained unutilized while the DJB continued to incur recurring expenditure on maintenance and operation of STPs at places where hardly any sewage was generated. Audit observed that:

- The plant at Ghitorni constructed in 1997 at a cost of ₹ 6.62 crore was lying idle since construction due to non availability of sewage in its commanding areas and the DJB was incurring expenditure on watch and ward of the plant.

The DJB accepted (March 2013) audit observation.

- Though the DJB reported sewage treatment of 0.75 MGD at Rohini STP commissioned in 2002, a DPCC report (March 2012) indicated that the plant was actually not in operation. The DJB spent ₹ 1.39 crore on operation and maintenance of the plant from April 2002 to March 2012.

  The DJB while accepting the fact of spending ₹ 1.39 crore on operation and maintenance stated (March 2013) that the underutilization of Rohini STP was for the reason that projected sewage was not being generated as planned and anticipated by DDA in the area. However, the plant remains underutilized.

- The capacity utilization of the plant at Narela commissioned in 2001 was only 12 *per cent.*

(c) Unplanned augmentation of STP capacity

The quantum of actual sewage treated at nine STPs was only 153 MGD against the total treatment capacity of 220 MGD due to failure of the DJB to plan synchronized development of all the activities of sewage collection. Further augmentation in STP capacity was beyond assessment/justification. The details of underutilization of STPs are given in **Table 2.4.**

Table 2.4: Details of under-utilisation of plants

Sl. No.	Name of the plant	Capacity in MGD	Year of commissioning	Actual treatment as on March 2012	Present capacity utilization
1	Yamuna Vihar	10 10	1999 2003	11.53	57.65
2	Nilothi	40	2002	15.00	37.50
3	Pappankalan	20	2000	13.45	67.25
4	Okhla	30 12 37 45 16	1937 1982 1993 1993 2001	113.07	66.51

- Two STPs of 20 MGD commissioned at Yamuna Vihar, were underutilized by 42.35 *percent*, another STP of 25 MGD is being constructed at the same place at a cost of ₹ 62.05 crore, without ensuring full utilization of existing capacity.

- One STP each commissioned at Nilothi and Pappankalan of capacity 40 MGD and 20 MGD respectively were underutilized by 62.5 and 32.75 *percent*. Two more STPs having capacity of 20 MGD each are being constructed at these places at a cost of ₹ 261.50 crore and ₹ 134.5 crore respectively.

- Five STPs having a collective capacity of 140 MGD commissioned at Okhla were underutilized by 33.49 *percent*. Audit noticed that another plant of 30 MGD commissioned at Okhla 2012, was not required at all as the sewage from Delhi Gate, Dr. Sen Nursing Home, Nigambodh, Sewage Pumping Stations No. 1, 2, 4 and Pahari Dheeraj is not coming to this STP.
- It can be fairly concluded that the Detailed Project Report prepared for augmentation of Okhla STP was deficient as projection for treatment for Okhla STP for the year 2006 was 170 MGD but it was treating only 113 MGD in 2012, when it was completed.

  The DJB stated (March 2013) that the under-utilization was due to non-availability of requisite raw sewage for treatment and further added that the issue would be addressed largely after commissioning of interceptor sewer and augmentation of water supply in the command area.

(d) Construction of STPs more than requirement

Audit observed that the DJB constructed STPs having capacity of 543.40 MGD as on November 2012. Since, the DJB could connect 54 *per cent* of the population with sewerage network there was a total requirement of the STPs having a capacity of 367.2 MGD in Delhi. Thus the STPs having a capacity of 176.2 MGD are either underutilized or lying idle.

2.1.7.3 Grading of STPs

A study on Evaluation of Operation and Maintenance of STPs (including 13 STPs of Delhi) in India was conducted by the CPCB, in the year 2007. The study graded seven plants of Delhi as 'Satisfactory[*], five as 'Poor[†] and one was graded as 'Very poor[‡].

The DJB stated (March 2013) that all of the STPs were functioning satisfactorily. The reply was not acceptable as the study of CPCB was based on overall evaluation of operation and maintenance of STPs.

2.1.7.4 Collection of sewage

On the basis of drinking water supplied to the population of Delhi, it is estimated that Delhi produces about 680 MGD of sewage. Out of this, the DJB collects only about 367 MGD of sewage for treatment. The reason for such a shortfall in collection is that only 54 *per cent* population in Delhi is covered through sewage lines which collect sewage and carry it to various STPs and 46 *per cent* of sewage generated in Delhi is flowing into River

[*] (i) Dr. Sen Nursing Home, (ii) Mehrauli, (iii) Okhla, (iv) YamunaVihar, (v) Kondli, (vi) Pappankalan and (vii) Coronation Pillar
[†] (i) Delhi Gate, (ii) Vasantkunj, (iii) Nilothi, (iv) Keshopur and (v) Rithala
[‡] (i) Nazafgarh

Yamuna untreated through storm water drains and continues to pollute Yamuna.

In order to reduce pollution in River Yamuna, a proposal for construction of interceptor sewer system was finalised by the Government of NCT of Delhi and forwarded to the Board for approval. The tendered cost for construction of interceptor sewer systems was ₹ 1395 crore. The DJB decided to award the Project Management Consultancy work to M/s Engineers India Limited (EIL) on nomination basis at the rate of four *per cent* of tendered cost ₹ 55.80 crore. EIL further agreed (June 2007) to undertake construction management of the project on 'Deposit Concept' at the rate of five *per cent* of tendered cost ₹ 69.75 crore. This interceptor sewer system was expected to cover a further 30.36 *per cent* of the population by collecting sewage from three major storm water drains (out of 18) and bringing it to STPs for treatment. Sewage from the remaining 15.64 *per cent* was to be dealt with by the DJB by augmentation of existing capacity of STPs at the mouth of Delhi Gate and Sen Nursing Home drains, rehabilitation of two major trunk sewers to intercept 13 storm water drains falling into Yamuna and also by construction of new STPs after achieving full utilisation of existing ones.

An agreement was signed between the DJB and the EIL for project consultancy services in January 2008. Audit observed that the EIL projected the completion of project by September 2010, whereas the works were awarded only in July 2011 with stipulated completion by July 2014, thus, defeating the early completion of project for which EIL was selected on nomination basis.

Further, since the interceptor sewer collects sewage from storm water drains, during monsoon months when the sewage get mixed with rain water, the STPs will not be able to treat the surplus quantity of sewage and the sewage will flow into Yamuna untreated.

The DJB stated (March 2013) that a proposal to lay sewerage system in 895 unauthorized colonies was under finalization and sewerage system would be laid in these colonies within next 6-7 years and further stated, that the project was delayed due to process of obtaining funding and clearance from the other departments. The mixing of rain water drain would be taken care of by constructing a weir up to such height so that the waste water would not mix with rain water. The reply was not acceptable as EIL took 14 months from May 2010, when all the clearances had been obtained to award the work and at present the construction of weir was not in the scope of works awarded.

2.1.7.5 Maintenance of sewage system

Removal of slime and silt from sewage has the effect of reducing sulphide generation. Therefore, periodic cleaning of sewers by mechanical or chemical means is necessary. Even partial blocking of the sewer by debris results in retardation of flow and consequent anaerobic decomposition of deposited

sludge. Periodic mechanical cleaning and flushing of sewers can reduce average sulphide generation by 50 *per cent*. A good continuing programme of mechanical cleaning is the foundation for controlling these parameters.

Out of selected four maintenance divisions, test check of records of West II division, responsible for the maintenance of sewers of Madipur, Patel Nagar, Rajinder Nagar, Inder Puri and Punjabi Bagh assembly constituencies, revealed that they did not undertake periodical cleaning of sewers. The division had been provided with three Jetting-cum-Suction machines hired by the SDW-VI division, one hired by the division itself and one departmental machine. The sewers were cleaned/ desilted as and when there was a complaint and the complaint register only showed that complaint had been attended. Audit noticed that the division did not maintain proper records like log books, complaint, registers etc. regarding utilization of these machines. In the absence of proper records, it could not be verified in audit whether the available machines were optimally utilised and the cleaning operations were completed as per schedule and the payments made to the party were authorised.

The DJB stated (March 2013) that the work of desilting were being carried out before onset of monsoons every year and average 4-5 complaints were attended to by one jetting machine. The reply was not acceptable as no evidence was furnished in support of their reply and no proper record of log book was maintained.

(a) Inadequate safety equipment

As per the DJB's Safety Code, all necessary personal safety equipment as considered adequate by the Engineer-in-charge are to be made available and maintained in a condition suitable for immediate use of the persons employed on the site and the contractor should ensure proper use of equipment by those concerned. The DJB had constituted a task force team from its Safety and Disaster Management Cell for checking the safety equipment and their utilization at its own and work sites of the contractor.

Audit noticed that the task force team inspected the sewer stores at Pitampura/ Shalimar Bagh, Rampura, Sarawati Vihar, Paschim Vihar, Sakur Pur, Beriwala Bagh, Nimri Colony, Dhandhan Satguru Sewer Store under North West-III in August 2012 and pointed out shortage of safety equipment.

The DJB while accepting the facts stated (March 2013) that the directions had been issued to ensure that all sewer stores were equipped with the required safety equipment.

2.1.7.6 Release of harmful gases into air

In STPs, sludge digesters digest the sludge in the absence of oxygen. During this process, poisonous gases like methane, hydrogen sulphide and carbon dioxide are produced which are collected in the dome of the sludge digester

and, thereafter, transferred to gas holders for further disposal. Audit scrutiny revealed (August 2012) that 37 out of 62 digesters were not working in the selected 15 STPs. Due to this, about 7.27 lakh cubic feet of harmful gases produced at Okhla, Keshopur and Rithala phase-I STPs were escaping into the atmosphere every day. Contrary to this, 3.04 crore cubic feet of gases has been burnt through burner instead of utilising it for generation of electricity at Yamuna Vihar STP during last five years, as the provision of utilizing the gas for generation of power was not made at this plant, in spite of the recommendations of the CPCB (2007).

The DJB, accepting the facts, stated (March 2013) that the supply of biogas to the subscribers in command area of SDW Okhla was disbanded on financial, technical and safety reasons and the production of gas was reduced due to non-functional sludge digesters that would be made functional within three years.

2.1.7.7 Quality of treated sewage

The STPs are required to have a reliable mechanism to measure the quantity of the effluents being discharged into the River Yamuna and ensure adherence to the stipulated quality parameters.

Scrutiny of records revealed that most of the STPs were equipped with in-house laboratories to analyse the samples of effluent collected from different units of the STPs to ensure their conformity with the standards prescribed by the DPCC under the provisions of the Water (Prevention and Control of Pollution) Act, 1974. In addition, the DPCC had conducted analysis of Total Suspended Solids (TSS), Bio-Chemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) monthly to monitor the quality of effluent being discharged from the STPs but they were deficient. Test check of the records of the STPs, DPCC and CPCB revealed deficiencies as discussed below:

As per tests conducted by the DJB, effluent from test checked STPs did not meet the prescribed standards. Though the Rithala STP Phase-II was meeting the prescribed standards (30 BOD & 50 TSS), it was not meeting the standards (15 BOD & 20 TSS) for which it was designed. Further, as per Reports of the DPCC and CPCB during April 2011 to March 2012, STPs with total treatment capacity of 51 MGD out of 206 MGD was not meeting the prescribed standards. The results from Keshopur STP were not analaysed as its rehabilitation work was under progress since May 2008.

The total coliform and faecal coliform shows the presence of faecal coliform bacteria indicating contamination with faecal material of humans or other animals. Contaminated water contains pathogens which are responsible for spread of many contagious diseases. The DJB did not analyse the standard of total coliform and faecal coliform at any of its plants test checked.

The procedure for collecting and testing samples stipulated that the samples should be composite i.e. should be taken at regular intervals during the course of a day so that the test results depict a true picture of the quality of the effluent. However, it was noticed that tests were conducted by the DJB only once a day at Okhla, Keshopur, Rithala Phase-II, Pappankalan, Yamuna Vihar and Narela STPs, while the tests were conducted at Rithala Phase-I, on alternative day and once a week at Rohini STP. Thus, the tests conducted by the DJB do not provide a credible assurance of the quality of treated sewage.

The DJB stated (March 2013) that mode of sample collection was on grab and composite basis at all STP's Labs. and the testing was conducted at Rithala phase I on alternative day due to inadequate sewage and the effluent met the DPCC standards. The reply was not acceptable as mode of sample collection was not composite at the selected STPs and test results made available to audit did not confirm the statement. The DJB further stated that rehabilitation of STPs in the command areas of Kondli STP, Rithala STP and Okhla STP had been proposed in YAP-III and the output parameters would be improved.

2.1.7.8 Other irregularities in construction and maintenance of STPs/SPSs

The DJB was responsible for construction and functioning of the infrastructure created for treatment of sewage in Delhi. To achieve the intended results of economy in construction and minimize the input cost in running the STPs and SPS, the DJB was required to take necessary steps.

(a) Cost escalation of ₹ 81.09 crore due to poor planning and disposal of untreated sewage of 42 MGD

The Detailed Project Report and the block estimates for augmentation of capacity of Okhla STP from 140 MGD to 170 MGD for ₹ 94.37 crore[§] were prepared and technically sanctioned. Planning Cell of the DJB cleared the proposal in September 2002 but the consultant was appointed in 2006 after a gap of three and half years. Tenders for the work were called by January 2007 and the work was awarded to M/S Degramont (India) Ltd. in December 2007 at a tendered cost of ₹ 149.50 crore. The work was awarded at the design parameters of BOD of 20 mg/ L and TSS of 30 mg/ L though the estimates were approved (September 2002) at BOD of 10 mg/ L and TSS of 15 mg/ L. Audit noticed that the DJB took five years to award the work after it was sanctioned. In this time, the cost had risen by ₹ 56.04 crore besides untreated sewage of 30 MGD flowed into river Yamuna during the period.

Similarly, the plant of 12 MGD capacity at Keshopur was not functioning since 1999. The plant required reconstruction for which the consultant was

[§] including cost of up gradation to achieve BOD 10 mg/Ltr and S.S. 15 mg/Ltr. (₹ 25.5 crore), cost of automation (₹ 6.90 crore), operation and maintenance for 10 years (₹ 8.25 crore), consultancy services (₹ 0.91 crore) and contingency (₹ 2.75 crore)

appointed in 2006, after a gap of eight years. The tenders for the said work were called in August 2007 and the work awarded (May 2008) at a tendered cost of Rs 51.20 crore. The award of work after a gap of eight and half years resulted in cost escalation of ₹ 25.05 crore. During the intervening period, 12 MGD of untreated sewage kept flowing into River Yamuna.

The DJB while accepting the facts stated (March 2013) that the construction of both the STPs was put on a slow track due to slow growth of sewerage network in Okhla catchment area and Keshopur STP was not receiving full sewage. The fact remains that due to inordinate delay, the DJB incurred excess expenditure of Rs. 81.09 crore on construction of these two STPs.

(b) Non-imposition of penalty of ₹ 37.14 crore for delay in completion of projects

The DJB tender conditions stipulate that the compensation for delay shall be calculated at the rate of 0.10 *per cent* (one tenth of one *per cent*) of the contract price for every day or part thereof subject to a maximum of 10 *per cent* of the contract price, which will elapse between the stipulated time of completion and the date stated in the taking over certificate.

Audit scrutiny revealed that five works **(Annexure-2.1)**, awarded between September 2005 and May 2008, were to be completed within 24 months of the award. However, only one work was completed (June 2012), that too with the delay of 30 months and remaining four works had not been completed up to December 2012, even after delay of two to four years. There was no delay on the part of the DJB as all the projects were on Design Built and Operate (DBO) basis and contractors were handed over the sites in time. It was observed that the DJB had not even issued notices for delay in progress of constructions, to the contractors. The penalty leviable for delay in completing projects worked out to ₹ 37.14 crore. Delay in completion of the works not only resulted in time and cost overrun but also in non-achievement of the objective of the projects which were part of Yamuna Action Plan (Phase-II).

The DJB stated (March 2013) that delays were on account of seasonal rain, abnormal increase in cost of material, shortage of labour due to crop summer season, Assembly and Parliamentary election and were not attributable to the firms and as such compensation was not levied. The reply was not acceptable as all the reasons stated by the DJB were of foreseen nature and could have been accounted for by the DJB before award of works.

(c) Non-recovery of water charges from CPWD, DDA and PPCL amounting to ₹ 23.81 crore

According to Rule 9 of the General Financial Rules, it is the duty of the Department of the Central Government concerned to ensure that the receipts and dues of the Government are correctly and promptly assessed, collected and duly credited to the Consolidated Fund or Public Account as the case may

be. The DJB charges ₹ 1.25 per kilolitre for supply of effluent water for horticulture purposes and ₹ 4 per kilolitre for commercial purposes.

Scrutiny of the records of STPs at Okhla and Rithala revealed that the DJB was supplying 20 MGD effluent water to the CPWD for gardening purpose from STP Okhla and one MGD to Pragati Power Corporation Limited (PPCL) for commercial purpose and 3 MGD to DDA for horticulture purposes from Rithala STP. However, neither any MOU/ agreement was signed with these agencies nor terms and conditions finalized for supply of this water. The Okhla STP supplied 138.67 lakh kilolitres of effluent water costing ₹17.27 crore to CPWD during 2007-12. Similarly, an amount of ₹ 6.54 crore was also due from DDA and PPCL for the effluent water supplied from Rithala STP. But, neither demand was raised on these agencies by the DJB nor the amount was paid by them. The DJB stated (December 2012) that 40 MGD of Yamuna water, as share of CPWD, was being utilized by it and in lieu, the DJB was supplying 20 MGD of effluent to the CPWD. The reply was not acceptable as documents in support of their reply were not furnished for verification.

The DJB reiterated its earlier contention, and stated (March 2013) that no MOU was available with the DJB or CPWD. It was further stated that the agreement for supply of treated effluent water had been signed between the DJB and PPCL. The fact remains that the amount is still outstanding against these agencies and the reply regarding the release of 20 MGD treated water to CPWD in lieu of 40 MGD was not acceptable as the Member (Finance) of the DJB requested (December 2010) the CPWD to pay the cost of 20 MGD effluent water and maintenance charges of EPH.

(d) Irregular payment of ₹ 17.85 crore on account of Service Tax and VAT

According to Clauses 37 and 38 (1) of the General Conditions of Contract (GCC), all tendered rates shall be inclusive of all taxes and levies (except service tax) payable under respective statutes. In respect of service tax, the same shall be paid by the contractor to the department concerned on demand and it will be reimbursed to him by the Engineer-in-Charge after satisfying that it has been actually and genuinely paid by the contractor. Scrutiny of the records revealed that the DJB did not include the above clauses of general conditions of contract in the agreement.

The DJB paid service tax to the tune of ₹ 4.12 crore to various contractors during the period 2007-12 through running bills. Payment of service tax without ensuring that the same has actually been paid by the contractor to the department concerned was irregular.

Another condition for payment of VAT was accepted by the DJB while awarding the works. Audit is of the view that the VAT was also to be reimbursed to the contractors in the manner in which service tax is to be

reimbursed as the contractors collected this amount, as custodian of government money. The DJB paid VAT to contractors to the tune of ₹ 13.73 crore during 2007-12.

Thus, non-inclusion of relevant clauses of GCC in the contract agreements, resulted in absence of a mechanism for verification of payment of service tax and VAT amounting to ₹ 17.85 crore by the contractors to the department.

The DJB stated (March 2013) that there were no instructions earlier that the service tax would be reimbursed only after deposit. As per VAT provisions the DJB had to deduct the TDS-VAT from the bills of contractor. The reply was not acceptable as clause 37 and 38 of the GCC clearly state that service tax would be reimbursed and the contractor's payment would include all taxes and levies. Despite this, the DJB accepted the condition of payment of VAT and did not ensure its deposit into Government account by the contractors.

(e) Cost escalation of ₹ 11.65 crore due to abnormal delay in award of works by the DJB

As per provisions of the CPWD Manual, the DJB was required to award the works within 90 days of the receipt of the tenders. It was noticed that the construction work of 30 MGD STP at Okhla was awarded by the DJB after one year from the receipt of the tenders. As the contractor was eligible for escalation under the clauses of the tender, the DJB incurred an extra expenditure of ₹ 2.90 crore due to the increase in cost of the project.

Similarly, the tenders for the work of Demolition, Design, Construction, Commissioning and O & M for 10 years at Keshopur STP were called in August 2007 but the work was awarded in May 2008 with the delay of eight months resulting in cost escalation of ₹ 8.75 crore. Thus, abnormal delay in award of works led to the cost overrun by ₹ 11.65 crore apart from delay in execution of the project.

The DJB stated (March 2013) that the works were to be awarded after obtaining NOC from the Japan Bank for International Cooperation (JBIC) and thus the delay occurred. The reply was not acceptable as CPWD Manual prescribed the time limit after considering all such factors and the delay of one year from receipt of tenders to award of the work was abnormal.

(f) Infructuous expenditure of ₹ 10.20 crore on biological treatment

Scrutiny of the records revealed that the DJB proposed 'Biological Treatment of sewage waste water' at suitable points in the collection system/various STPs for elimination of odour and reduction in BOD and TSS of secondary effluent. It was observed that no tests were conducted before award of work to assess whether the proposed treatment is necessary and would be effective. The works of biological treatment was awarded to contractors at a cost of ₹ 10.20 core during April 2007 to April 2010. It was noticed from the records that the treatment was not continuous but intermittent. Biological treatment at

30 MGD plant was done from 2 June 2009 to 8 November 2009 and 31 January 2010 to 20 May 2010 and at 45 MGD plant at Okhla, the treatment was done from 9 September 2009 to 6 January 2010. At Rithala phase-I and Okhla STPs, it was noticed that there was no improvement in the BOD level. The Apex Advisory Committee constituted to study the utility of biological treatment and the Tata Energy and Resources Institute (TERI) appointed as a nodal agency to evaluate the trial Bio-formulations, found that biological treatment was not required as the parameters of the treated effluent at Okhla and other plants were meeting the DPCC norms. Subsequently, the DJB decided that use of such enzymes/bio-formulations in any kind or in any form would not be done at any STP.

Thus, biological treatment of sewage without carrying out any preliminary study to assess its utility or requirement resulted in infructuous expenditure of ₹ 10.20 crore **(Annexure-2.2)**.

The DJB, accepting the facts, stated (March 2013) that the work at Okhla STP was undertaken on pilot basis and there was a reduction of odour and improvement of BOD and COD levels and it had now been stopped after a policy decision. The fact remains that the enzyme was used not only at Okhla STP but at other STPs also and there was no improvement in the BOD and COD levels as per Lab. reports made available to audit.

(g) Loss of ₹ 6.39 crore due to underutilization of STP Okhla

Five STPs with total capacity of 140 MGD were in operation at Okhla which were underutilized by 20 MGD. However, without ensuring optimum utilization of the plant, a new STP of 30 MGD capacity was constructed at a cost of ₹ 149.50 crore including operation and maintenance for 10 years which was commissioned in June 2012. Out of the 120 MGD of sewage generated in catchment area of these STPs, 110 MGD is being treated by the old plants and 10 MGD by new plant. The new plant is under O&M contract for 10 years at a rate of ₹ 2.56 crore per annum. Further, the plant was to be run on the power generated from its by-product i.e. bio-gas from the plant. Thus, due to underutilization of the plant, the DJB suffered a loss of ₹ 6.39 crore on account of cost of O&M and power generation up to November 2012. Further, there is a recurring loss of ₹ 49.13 lakh per month besides two STPs of 10 MGD each are deteriorating with passage of time due to their idleness.

The DJB accepted the facts and stated (March 2013) that efforts would be made to utilize the plant.

(h) Loss of ₹ 6.25 crore on release of interest free mobilization advance

According to Section 32.5 of the CPWD Manual, in respect of certain specialised and capital intensive works costing not less than two crore, mobilization advance limited to a maximum of 10 *per cent* of the estimated cost put to tender or tendered value, at 10 *per cent* simple interest shall be

sanctioned to the contractors on specific request as per terms of the agreement. The CVC had also directed (1997) that in no case interest free mobilization advance to the contractors be given.

Audit noticed that against the provisions of the CPWD Manual and CVC instructions, the DJB released ₹ 50.37 crore as mobilization advance to contractors in six projects as detailed in **Table 2.5.**

Table 2.5: Detail of interest on mobilization advance

(₹ in crore)

Sl. No.	Name of work	Project cost/Contract amount	Amount of mobilization advance	Interest on mob. advance
	Civil work			
1	Constn. of 50 MGD S.P.S. & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shahdra, Delhi.	15.84	0.95	0.14
2	Constn. of 25 MGD S.T.P. & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shahdra., Delhi	44.83	1.51	0.40
3	Design, Construction, Commissioning & Operation & Maintenance of 136.4 MLD (30 MGD) capacity STP at Okhla, under YAP-II	123.87	6.02	0.45
4	Demolition, Design, Construction, Commissioning & Operation & Maintenance of 12 MGD capacity STP & Rehabilitation of 02 existing modules of 20 MGD & 40 MGD capacity STP at Keshopur, under YAP-II	139.34	7.94	0.52
5	Rehabilitation of Ring Road Trunk Sewer-Slice "A" from Red Fort to Pragati Maidan (Exhibition Ground), under YAP-II	43.79	4.37	0.48
6	Rehabilitation of Ring Road Trunk Sewer-Slice "B" from Pragati Maidan (Exhibition Ground) to Ring Road SPS under YAP-II	63.80	6.38	1.22
7	Providing consultancy services for JBIC aided, YAP-II Projects-Physical implementation of works in Delhi	17.51	1.56	0.18
	Electrical & Mechanical (E&M) Work			
8	Constn. of 50 MGD S.P.S. & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shd., Delhi.	15.84	6.38	0.12
9	Constn. of 25 MGD S.T.P. & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shd., Delhi.	44.83	2.98	0.89
10	Design, Construction, commissioning & operation & maintenance of 136.4 MLD (30 MGD) capacity STP at Okhla under YAP-II	123.87	5.80	1.24
11	Demolition, Design, Construction, commissioning & operation & maintenance of 12 MGD capacity STP & Rehabilitation of 02 existing modules of 20 MGD & 40 MGD capacity STP at Keshopur under YAP-II	139.34	8.05	0.60
	Total		**51.93**	**6.25**

The works of E&M were to be started after one year of the release of advance. Audit also noticed that in one case the interest free mobilization advance of ₹ 1.56 crore was paid to the consultant in contravention of the provisions of the Manual leading to loss of interest ₹ 0.19 crore. Though as per agreement, the advance was to be recovered from the contractors within 12 months from the date of payment but it was recovered up to 48 months after the date of advance.

The undue benefit granted to the contractors by way of irregular mobilization advances resulted in loss of ₹ 6.25 crore to the DJB.

The DJB stated (March 2013) that the FIDIC conditions were adopted in two works and in five works, it was mandatory for the DJB to follow the conditions of JBIC's standard documents, which allow the DJB to grant the interest free mobilization advance to the contractors. The reply was not acceptable as there was no documentary evidence to follow the conditions of JBIC standard bidding documents. Moreover, the CVC guidelines issued in 1997 provide that in no case the interest free mobilization advance be given to the contractors.

(i) Non-recovery of ₹ 2.69 crore on account of repair and maintenance charges of Effluent Pump House (EPH) from CPWD

As per policy of the DJB, the effluent water would be supplied by the DJB from STPs and carrying the effluent water would be the responsibility of the buyer. Audit scrutiny of the records of STP Okhla revealed that an EPH at Okhla plant was supplying 20 MGD water to CPWD for horticulture purposes. The electricity and operation of EPH was to be reimbursed by CPWD against the demand raised by the DJB. Scrutiny revealed that the DJB incurred an expenditure of ₹ 2.69 crore on repairs and maintenance of the EPH during 2009-2011 which was to be borne by CPWD. The demand of ₹ 2.69 crore was not raised by the DJB on the CPWD. The Executive Engineer (Division) stated that the cost of repair and maintenance of EPH was being met from DJB's budget and as per agreement, the CPWD was required to pay the electricity and operational charges which was being recovered. In support of their reply, the DJB did not furnish the document.

The DJB further stated (March 2013) that the repair and maintenance charges against the EPH Okhla were not reimbursable by CPWD on the basis of mutual agreement. However, the DJB admitted that no copy of MOU was available with it. The fact remains that the DJB was required to claim the repair and maintenance charges from CPWD in terms of letter of the DJB of July 2004 and Member (Finance) letter of December 2010.

(j) Inadmissible payment of ₹ 1.39 crore on account of VAT

The work of providing 30 vehicle mounted jetting-cum suction sewer cleaning machines (**Annexure-2.3**) including its operation and maintenance was

awarded to M/S City Line Travels Pvt. Ltd. in April 2006 for a period of five years at a cost or ₹ 5.76 crore (at the rate of ₹ 3200 per day per machine). As per terms and conditions of the agreement, the rates included all taxes as applicable to government/semi-government department till the deployment of machines in Delhi, except government levies/taxes on hiring of these machines which were to be paid extra.

According to the VAT Act, VAT on renting of machinery is applicable in case of transfer of right to use. However, in this case, the contractor had provided the services of machine along with its operation and maintenance and therefore, there was no 'transfer of right to use'. Audit observed that while preferring bills, the contractor claimed VAT @ 12.5 *per cent* along with his claims. Machinery/equipment transferred along with the operator should be treated as transfer of goods without transferring right of possession and effective control and hence, levy of VAT was not applicable. However, the DJB paid ₹ 1.39 crore to the contractors during 2007-12 on hiring of jetting cum suction sewer cleaning machines, which was inadmissible and thus, recoverable from the contractors.

The DJB stated (March 2013) that the VAT was paid considering the transfer of right to use and the overall control of the machine remained with it. The reply was not acceptable as in this case the DJB could use the machine only for eight hours in a day and six days in a week. The right to use was applicable only if DJB had acquired the machine for full period of agreement.

(k) Unfruitful expenditure of ₹ 0.17 crore on improvement of power factors at pumping station

According to para 13.3.8 (b) and (c) of General Specifications for electrical works, the Power Factor (PF) should be maintained above 0.8 level or any higher value fixed by the licensee. As per BSES norms, the power factor should be 0.98 in Delhi. Scrutiny of the records revealed that the power factor at Kilokari Pumping Station was 0.86 to 0.94 during April 2008 to May 2010 and at Ring Road Pumping Station, 0.74 to 0.89 during April 2008 to March 2010. To improve the power factor at both the pumping stations, the work of 'Improvement of power factor at Ring Road Pumping Station' and 'Improvement of power factor at Kilokari Pumping Station' were awarded to M/S Rajdhani Enterprises in February 2010 and June 2010 at a cost of ₹ 8.63 lakh and ₹ 7.93 lakh respectively. The works were completed in March 2010 and July 2010 respectively and payments were released to the contractor by the DJB in March 2010 and October 2010. The guarantee period of both the works was one year. However, scrutiny of the records revealed that the power factor at Ring Road pumping station remained at 0.84 to 0.96 after the improvement work and never touched the required level of 0.98 and it reduced to 0.79 in January 2011 and 0.77 in May 2011, below the required level. Similarly, the power factor at Kilokari pumping station remained 0.89 to 0.94 during August 2010 to September 2011 and never touched the required level

of 0.98. It was also noticed that the power factor at Kilokari pumping station remained more or less the same, before and after the improvement work. Thus, the expenditure of ₹ 16.56 lakh did not fulfill the intended purpose and hence was unfruitful.

The DJB stated (March 2013) that the performance of the new capacitors was not upto the mark as these were installed along with the old/damaged capacitors. The reply was not acceptable as contractor was required to maintain the power factor of 0.98 or more during the guarantee period as per the agreement.

2.1.7.9 Monitoring and evaluation

The existence of an effective monitoring system is a pre-requisite for smooth functioning of a scheme. As per guidelines of the Ministry of Environment and Forest, the DJB was required to constitute a Project Monitoring Committee and the Ministry was also required to visit the STPs and Projects to review the progress and monitoring of the STPs. It was noticed that though the Project Monitoring Committee was constituted by the DJB, it was not effective. As a result, planning and budgeting was not meticulously coordinated for the implementation of the programmes/ schemes of sewage treatment. This affected efficient implementation of the sewage treatment in Delhi. Though the STPs were in operation since long, no evaluation study of the STPs was undertaken during 2007-12 to assess the impact of the STPs/ SPS and Sewage Network. No return was being sent by the STPs/ SPSs/ Divisions to the higher authorities except a daily test report of effluent and monthly progress report (physical and financial) of the projects. The CPCB, Ministry of Environment and Forests, while evaluating the operation and maintenance of STPs in India observed (2007) that there was no mechanism for physical monitoring of the performance of STPs constructed and commissioned under National River Conservation Project (NRCP) by the Ministry of Environment and Forests. CPCB in its report of January 2008 had also stated that these were seldom visited by higher officers of National River Conservation Directorate (NRCD) in the Ministry so as to get first-hand information on the status of O&M of STPs by the State Governments/implementing agencies. Moreover, the scope of work of Project Management Consultants (PMC), appointed by the Ministry for implementation of YAP - II, includes monitoring of O&M of all the STPs constructed in Delhi, UP and Haryana under YAP – I. But it is understood that no action has been taken by NRCD in this respect since the appointment of PMC two years back. Regular monitoring of all the STPs for their performance evaluation at central level (CPCB) twice a year, by having own independent sampling/testing of waste water needs to be carried out for bringing improvement in O&M of STPs and get the desired quality of treated effluent.

A few instances of failure of DJB's monitoring are as under:

- A 40 MGD STP was constructed at Rithala phase-I in 1989 and is being operated by the DJB. Another plant at Rithala phase-II of 40 MGD capacity at a cost of ₹ 81.93 crore (including O & M of the plant) was constructed by M/S Degramont (India) Ltd, in 2002. As per terms and conditions of the agreement the firm was required to operate the plant along with minor repairs and lubricants. The costs of replacement of the equipment were to be borne by the DJB for which the firm was to charge 10 *per cent* extra for handling etc. Against the expected life of 30 years of the plant, the plant required rehabilitation within 10 years incurring an expenditure of ₹ 12.74 crore for replacement of equipments whereas the plant at Phase-I was functioning properly since 1989. The reason stated for rehabilitation was failure on the part of the DJB to provide timely budget for replacement of equipment. Thus, the failure of the DJB to monitor the functioning of the plant resulted in avoidable expenditure of ₹ 12.74 crore.
- The bio-gas produced at Okhla STP was being supplied to nearby residents through pipeline at the rate of ₹ 125 per month. However, due to failure of the DJB in monitoring the maintenance of the pipeline and repair of digesters in time, the supply was stopped in January 2010, resulting in escape of harmful gases into the atmosphere.

The DJB, accepting the facts, stated (March 2013) that the Project Monitoring Committee would be constituted for effective monitoring.

2.1.8 Audit findings in DSIIDC for construction of CETPs

2.1.8.1 Industrial sewage

The C&AG of India had earlier reviewed the functioning of Industrial Sewage System of Delhi in its Report for the year ended March 2004 (Vol. II) on 'Measures to Control Water Pollution in River Yamuna' in Delhi. The report highlighted mismanagement in construction as well as operationlisation of Common Effluent Treatment Plants (CETPs). The action taken notes (ATNs) on audit comments on industrial sewage system had not been furnished by the Department of Industries which is the administrative department of the DSIIDC[**].

Audit further examined the records relating to the construction of CETPs by DSIIDC and subsequent operationlisation of plants by various CETPs Societies. The role and responsibility of DSIIDC in this regard was examined and audit findings are detailed in the succeeding paragraphs.

[**]Delhi State Industrial Infrastructure Development Corporation

(a) Plants not constructed

As per Delhi Master Plan 2001, there were 28 approved industrial estates in Delhi. In the year 1996, the Hon'ble Supreme Court directed the Government of NCT of Delhi to study and recommend ways and means to handle water pollution in Delhi. The Government of NCT of Delhi appointed (March 1996) NEERI as consultant through Delhi Pollution Control Committee (DPCC) to prepare detailed project reports including design and specification of CETPs. As per the decision taken by the Delhi Administration, DSIIDC was to undertake construction of CETPs as per technical know-how provided by NEERI.

NEERI, after survey of all the industrial areas in Delhi, recommended (June 1996) construction of 15 CETPs in 21 Industrial Estates with a total treatment capacity of 191.4 Million Litre per day (MLD), i.e.42 MGD. The remaining seven Industrial Estates had either non-polluting industries or their own treatment arrangements. All the CETPs were to be completed by 1998.

Out of these, DSIIDC had constructed and made functional 11 CETPs prior to 2005 with a total capacity of 34.05 MGD at various industrial areas in Delhi. The construction of remaining four CETPs at (i) Mohan Co-operative, Badarpur, (ii) Najafgarh Road, (iii) Anand Parbat and (iv) Okhla Industrial Estates were pending as the matter was under review by DPCC as to whether the CETPs were required or not. The report of DPCC was awaited as of March 2013. Apart from these, DSIIDC had also constructed two more CETPs at Narela and Bawana under Narela scheme and Relocation scheme respectively.

Even after a lapse of 14 years after the stipulated completion time, the whole project to treat the industrial waste water could not be completed. The industrial areas where these four CETPs were proposed had several industries and waste water generated was reaching drains flowing into the river Yamuna. Thus, the purpose of controlling pollution of river Yamuna could not be achieved in full. Further, it was also noticed that DSIIDC had incurred a sum of ₹ 8.88 crore as capital expenditure on the incomplete four CETPs. Thus, there was an unfruitful expenditure to that extent by the Delhi Government **(Annexure-2.4)**.

(b) Delay in handing over of CETPs to Societies

In terms of provision of the Delhi Common Effluent Treatment Plants Act, 2000, CETP Societies were to be formed, which were to be entrusted with the maintenance and operation of the plants after completion. All the CETPs were to be constructed by 1998 and handed over to CETP Societies. However, there

were inordinate delays in completion and handing over of CETPs as detailed in **Table 2.6.**

Table 2.6: Delay in handing over of CETPs

Name of CETP	Year of completion	Date of handing Over
Wazirpur	2001	31.3.2006
Mangolpuri	2001	25.10.2005
Mayapuri	2002	27.10.2005
Jhilmil	2003	2.1.2006
GTK Road	2004	20.10.2005
SMA	2004	17.2.2207
Nangloi	2004	21.10.2005
Badli	2005	16.3.2006
Okhla Industrial Area	2005	1.3.2006
Naraina	2010	1.6.2011
Narela*	2004	15.3.2012
Bawana*	2011	16.4.2012
Lawrence Road	2004	Run by DSIIDC

** Not covered under the Supreme Court orders*

The delay in completion of CETPs ranged between three and 12 years. There were also delays in handing over of these CETPs to various societies for operationlisation ranging between one and eight years. On this being pointed out, the DSIIDC stated (March 2013) that CETP societies were reluctant to take over the Plants initially and it was only after the intervention of the Hon'ble Supreme Court and EPCA, they took over the CETPs.

Audit observed that inordinate delays in completion of the plants eventually delayed treatment of waste water from the industrial estates, allowing it to flow untreated into river Yamuna.

The CETP at Lawrence Road was completed in 2004 but could not be handed over to the CETP society as the Plant was not meeting the desired parameter of BOD. The Plant was designed for treating sewage with only 89 ppm of BOD while the incoming BOD was in the range of more than 200 ppm and as such it could not be treated in the Plant. The matter has not been checked by NEERI, DPCC and DSIIDC so far. The DSIIDC had incurred an amount of ₹ 6.75 crore as of October 2012 in running of this Plant. Had the matter been resolved with the CETP society and the plant been handed over to the society, the expenditure on running of this plant at its own, could have been avoided by the DSIIDC.

The DSIIDC stated (March 2013) that CETP at Lawrence Road, could not be handed over to CETP Society as the Society refused to take over the plant on the plea that it did not have Biological treatment unit to treat the excess BOD. It further added that efforts were being made to improve BOD parameter. Presently, analysis by DPCC indicated that the plant was meeting out the BOD parameters now and efforts were being made to hand over it to the CETP Society, Lawrence Road for its operation and maintenance.

The fact remains that the plant was designed with lower parameters for treating excess BOD.

(c) Industrial areas not covered by CETPs

A CETP in an area is constructed to treat the waste water of all the industrial units in that area. However, as per information provided (October 2012) by the Jhilmil and Friends Colony Industrial area CETP Society, 54 industrial units were not connected to their CETP. Further, as per status report of EPCA on functioning of the CETPs, the industrial drain in Okhla Industrial was not connected to Okhla CETP. This indicated that the industrial waste water from these areas was flowing untreated through drains into river Yamuna.

Thus, there was a need to re-examine the whole project by the Delhi Government to ascertain the position regarding coverage of all the industrial units of Delhi to achieve the purpose of treating water waste being discharged into the nearby drains which finally reaches river Yamuna.

On this being pointed out, DSIIDC stated (March 2013) that 54 industrial units were situated in a non-approved industrial area, hence, were not connected to CETP, Jhilmil. The reply was factually incorrect as Audit noticed that these industrial units were in the list of members of CETP Societies, Jhilmil and Friends Colony Industrial area. It was further stated that all the industries situated in Okhla industrial area were connected to CETP and if any industrial unit was discharging its effluent in Okhla drain, DPCC was the competent authority for taking suitable action on defaulting industries. The reply does not address the issue that the industrial drain in Okhla Industrial area was not connected to Okhla CETP.

(d) Capacity of the plants

As per the recommendation of NEERI, the DSIIDC constructed 13 CETPs of capacities totaling to 211.80 MLD. As per the status report of DPCC, all these plants were collectively treating only 55.48 MLD of waste and none of the plants was working at its full capacity. The usage of plants ranged between five *per cent* and 62.50 *per cent* of their installed capacity. This is indicative of the fact that the capacity of the plants was much higher than requirement reflecting faulty assessment of the production of industrial waste. Thus, CETPs and the amount invested thereon were being underutilized due to defective planning.

The DSIIDC stated (March 2013) that CETPs were constructed as per the design and capacity provided by NEERI. CETPs were treating all the industrial waste being received through the conveyance system. The reply further confirms that defective planning and poor conceptualization of the project led to underutilization of plants of their installed capacity.

(e) Management of sludge from CETPs

As per the survey conducted by the DPCC in 2007, 5769 MT of sludge generated was stored in the premises of various CETPs. Survey also indicated that CETPs were generating 1400 MT sludge per annum. Accordingly, total sludge lying in CETP premises was 12769 MT as of November 2012.

The EPCA in its survey reports of November 2011 directed the Delhi Government to decide the matter regarding disposal of hazardous waste on priority. The EPCA had also asked CPCB and DPCC to explore the possibility of utilisation of suitable hazardous wastes in cement kilns. Despite clear directions of EPCA, the Sludge had been lying in the premises of CETPs posing a threat to the environment and health of the masses.

The DSIIDC stated (March 2013) that DPCC/ Department of Environment, Government of NCT of Delhi was making efforts for identifying a suitable site for proper disposal of sludge.

(f) Non-recovery of CETP costs

In accordance with the directions of the Hon'ble Supreme Court and the Delhi CETPs Societies Act, 2000, the project cost of CETPs was to be apportioned between the Government of India, Government of NCT of Delhi and CETPs Societies in the ratio of 25:25:50 respectively. The recurring cost of CETPs shall be completely borne by the occupiers in the estate. The DSIIDC was to collect the share of the project cost from the Government of India, Government of NCT of Delhi and CETP Societies in the proportionate share.

As of October 2012, an amount of ₹ 222.53 crore has been incurred by the DSIIDC on the construction and running of these 15 CETPs. Audit noted that against the share of ₹ 85.35 crore receivable from the Government of Delhi, the DSIIDC received an amount of ₹ 124.97 crore. Thus, DSIIDC has received an excess amount of ₹ 39.62 crore from the Government of Delhi. Whereas, there was an outstanding amount of ₹ 78.71 crore (₹ 15.02 crore from Government of India and ₹ 63.69 crore from CETP Societies) which needs to be recovered by DSIIDC **(Annexure-2.4).**

The DSIIDC stated (March 2013) that EPCA was directed by the Hon'ble Supreme Court in February 2006 to examine the issue of liability of the cost to be borne by industries and the Government of India but the directions of Supreme Court based on EPCA report was still awaited.

Conclusion

The sewage management in Delhi was found to be deficient in various aspects. It was observed that the DJB was able to collect and treat only 54 *per cent* of the total sewage generated in Delhi whereas remaining 313 MGD of sewage was flowing untreated into river Yamuna through storm water drains. A proposal for construction of interceptor sewage system for trapping 207 MGD of sewage from storm water drains and carrying the same to STPs was finalized in June 2007 but the works were awarded only in July 2011 with date of completion in July 2014. Action to collect and treat the remaining sewage is yet to be initiated. The DJB's failure in collecting and conveying all the sewage generated in Delhi to STPs for treatment also resulted in under utilization of available capacity of existing STPs. The treatment of sewage at seven STPs was not conforming to the prescribed standards. It was also found that the quality checks of treated sewage, carried out by the DJB, do not provide credible assurance. The financial management was not up to the mark as there were instances of cost escalation due to delay in finalization of projects, unfruitful and irregular expenditure, non-imposition of penalty on defaulting contractors and inadmissible payment of taxes.

There were critical gaps in the project for treatment of industrial waste as even after a lapse of 14 years, four out of 15 CETPs were still incomplete. CETPs were constructed with excess capacities than actual requirement and as a result, capacity utilisation ranged from 5 to 62.50 *per cent* only. Further, the whole of industrial area of Delhi has not been connected to CETPs. The sludge generated by CETPs was lying undisposed in its premises creating a health hazard to local population.

Recommendations

- *The DJB may strengthen its initiatives to achieve the GOI bench mark of 100 per cent sewage collection and treatment in a time bound manner.*
- *It may ensure simultaneous execution and completion of all related infrastructure so as to avoid mismatch between collection of sewage and treatment capacities of STPs.*
- *Proposals for creation of treatment capacity must be based on and prioritized with reference to the estimated sewage generation in the relevant catchment areas and availability of facilities to bring the same to STPs.*
- *A policy for disposal of sludge from CETPs, may be devised and timeline fixed for its implementation.*
- *The instructions issued by the EPCA should be complied with and oversight mechanism may be ensured to implement the decisions of EPCA.*
- *Steps need to be initiated to recover the outstanding share of cost of CETPs from the stakeholders.*

2.2 Jawaharlal Nehru National Urban Renewal Mission

Executive Summary

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in December 2005 with the objective of reforms driven and fast track development of cities across the country. The mission period was seven years (up to March 2012), which was extended up to 2013-14, for completion of ongoing projects. The Government of NCT of Delhi had accepted the agenda of reforms, however, it was not implemented fully. State Level Nodal Agency (SLNA) was not fully equipped with manpower to monitor implementation of projects under the mission. Projects were submitted directly to the Central Steering and Monitoring Committee (SLMC) without the approval of State Level Monitoring Committee. No revolving fund was set up for future maintenance of the assets created under this mission. Programme Management Unit and Programme Implementation Unit were not set up to keep a watch on the progress of projects. The Government of NCT of Delhi did not appoint Third Party Inspection and Monitoring Agency for Urban Infrastructure and Governance (UIG). The Government of NCT of Delhi could not utilize ₹ 196.88 crore out of ₹ 2823.18 crore allocated for UIG. State Level Steering Committee and SLNA released ₹ 200 crore without any demand to Delhi Urban Shelter Improvement Board (DUSIB). Though, the main thrust of Basic Services to the Urban Poor (BSUP) was on integrated development of slums through projects for providing shelter, basic services and other related civic amenities, only a few projects of housing for slum dwellers had been taken up. Construction of 44720 Dwelling Units (DUs) had to be dropped due to non- availability of hindrance free sites. Only 85 out of completed 10684 DUs were allotted to the beneficiaries as the policy of allotment of DUs was finalised only in January 2011. The delay in taking decisions by the Government escalated the cost of a bridge on river Yamuna by ₹ 672 crore. In violation of terms and conditions of the contract of this project, the contractor got the fabrication job done in China. The contractor was also paid ₹ 20.60 crore as secured advance for the material procured in China. There were other irregularities noticed in the execution of contracts such as award of consultancy without tendering, undue payment for price variation, extra expenditure of ₹ 70 lakh in designing of the road, unauthorised deduction in the scope of work, irregular expenditure of ₹ 35.03 crore, non-levy of penalty for delay in completion of works etc. Although, the

UIG projects by the Public Works Department (PWD) had been largely completed, other UIG projects undertaken by the Delhi Tourism and Transportation Development Corporation (DTTDC), the Municipal Corporation of Delhi (MCD) and the Delhi Jal Board (DJB) were lagging behind badly. The DJB awarded the consultancy work for the project 'Laying of interceptor sewerage system' on nomination basis to M/s Engineers India Limited and the agreement was deficient on many counts. The MCD incurred an expenditure of ₹ 4.33 crore on improvement of roads, which were not approved by its Working Committee.

2.2.1 Introduction

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in December 2005 with the objective of reforms driven and fast track development of cities across the country. The mission period was seven years i.e. up to 2012. It has been extended up to 2013-14 for completion of ongoing projects sanctioned till March 2012 only. The main objectives of JNNURM were as follows:

(i) Focused attention to integrated development of infrastructural services.

(ii) Ensure adequate funds to meet the deficiencies in urban infrastructural services.

(iii) Scale-up delivery of civic amenities and provision of utilities with emphasis on universal access to the urban poor.

(iv) Special focus on programme in old city area to reduce congestion; and

(v) Provision of basic services to the urban poor.

2.2.1.1 Scope of the mission

JNNURM consists of two sub-missions:

(i) **Urban Infrastructure and Governance (UIG):** The UIG component provides for urban infrastructure projects relating to water supply, sewerage, solid waste management, road network, urban transport and redevelopment of inner (old) city areas etc. in 65 mission cities.

(ii) Basic Services to the Urban Poor (BSUP): The BSUP component covers housing and slum development through projects for providing shelter, basic services and other related civic amenities in 65 mission cities.

There are, in addition, two other components - (a) 'Urban Infrastructure Development Scheme for Small & Medium Towns' (UIDSSMT) and (b) 'Integrated Housing and Slum Development Programme' (IHSDP) applicable to all cities/towns as per 2001 census. Ministry of Urban Development (MoUD) is the nodal Ministry for UIG and UIDSSMT. Ministry of Housing & Urban Poverty Alleviation (MOHUPA) is the nodal Ministry for BSUP and IHSDP.

2.2.1.2 Organizational set up / framework and process

(a) Central level

The JNNURM functions under the overall guidance and supervision of a National Steering Group (NSG), chaired by the Minister of Urban Development and co-chaired by the Minister of State for Housing and Urban Poverty Alleviation. The NSG is to set policies for implementation, monitor and review progress and suggest corrective measures, where necessary. The NSG is supported by a Technical Advisory Group (TAG), whose task is to

appraise proposals, and a Central Sanctioning and Monitoring Committee (CSMC), responsible for further appraising and sanctioning proposals.

(b) State level

At the state level, the JNNURM is to be coordinated by State Level Steering Committee (SLSC), headed by the Chief Minister of States. It also reviews and prioritizes proposals for inclusion in the JNNURM. The SLSC is to be supported by nodal agencies that invite project proposals, appraises them, and manages and monitors the JNNURM.

2.2.2 Implementation of JNNURM in NCT of Delhi

The NCT of Delhi is a Union Territory with Legislative Assembly and has the character of a State as well as of a Metropolitan City. Three Municipal Corporations of Delhi (MCsD), the New Delhi Municipal Council (NDMC), and the Delhi Jal Board (DJB) are the parastatal agencies of the NCT of Delhi. Delhi has been one of the fastest growing cities in the country, clocking over 47 *per cent* decadal growth from 1991-2001, more than double the national rate. According to the 2001 census, the population of Delhi was 1.38 crore and the density of population was on an average 9340 person per sq km which is the highest among all States and Union Territories.

2.2.2.1 Memorandum of Agreement

The Memorandum of Agreement (MOA) between the Ministry of Urban Development and the Ministry of Urban Employment d Poverty Alleviation, Government of India and Urban Development Department, Government of NCT of Delhi and the Municipal Corporation of Delhi, the DJB, the NDMC was signed on 11 September 2007 for seeking financial assistance from the Government of India (GoI).

(a) Funding pattern for JNNURM in Delhi

The funding pattern for JNNURM in Delhi is given in **Table 2.7.**

Table 2.7: Funding pattern for JNNURM

UIG			BSUP	
Central	State	ULB or parastatal share / loan from financial institution	Central Share	State/ULB/ parastatal share
35 *per cent*	15 *per cent*	50 *per cent*	50 *per cent*	50 *per cent*

The Planning Commission has allocated ₹ 4280.58 crore (UIG-₹ 2823 .18 crore, BSUP- ₹ 1457.40 crore) for NCT of Delhi for entire mission period.

(b) State Level Steering Committee and Nodal Agency

The SLSC in Delhi was constituted in February 2006 with the Chief Minister as Chairperson and the Department of Urban Development (the Department) was designated as State Level Nodal Agency (SLNA).

2.2.3 Performance Audit of JNNURM

The performance audit of JNNURM in respect of NCT of Delhi was conducted during the period from April 2011 to December 2011, which was updated during the period from April to June 2012, covering the mission period from December 2005 to May 2012.

2.2.3.1 Audit objectives

The objectives of the performance audit are to assess whether:

- the reform agenda sought to be achieved has been accomplished,
- City Development Plan (CDP) comprehensively outlines the vision and development strategy for sustainable future development of the city and has been properly documented,
- there was a critical assessment of needs in each of the infrastructure areas and the projects were planned appropriately,
- projects were executed efficiently and achieved intended objectives,
- financial management controls were adequately exercised,
- adequate provision for operations and maintenance of created assets had been made, and
- there was a mechanism for adequate and effective monitoring and evaluation.

2.2.3.2 Audit criteria

The Audit findings were benchmarked against the criteria derived from the following sources:

- Guidelines, instructions, circulars, orders issued by the Ministry of Urban Development, Ministry of Housing and Urban Poverty Alleviation, and the Ministry of Finance , GoI,
- Memorandum of Agreements (MoAs) and Detailed Project Reports (DPRs) of selected projects,
- City Development Plans (CDPs) of NCT of Delhi and Toolkits issued by MoUD and MoHUPA for various issues under JNNURM, and
- Guidance for Basic Services for Urban Poor – Minutes of the various meetings of CSMC.

2.2.3.3 Audit methodology

The audit was conducted through examination of records in the Urban Development Department (UDD), parastatal agencies - Municipal

Corporations of Delhi (MCsD), the Delhi Jal Board (DJB), and implementing agencies – the Public Work Department (PWD), the Delhi Urban Shelter Improvement Board (DUSIB), the Delhi State Industrial and Infrastructure Development Corporation Limited (DSIIDC) and the Delhi Tourism and Transportation Development Corporation Limited (DTTDC).

The audit commenced with an entry conference held on 13 May 2011 attended by Secretary (UD), Director (Works) PWD, and the representatives of DJB, DSIIDC, DTTDC, DTC and DUSIB to discuss the objectives, methodology and modalities of the performance audit. A consolidated report was issued to the Government of Delhi in November 2011. An exit conference with the auditee organizations was held on 23 January 2012 to discuss the audit observations. Report was updated up to 31 May 2012 by revisiting the above mentioned offices/units and organizations and updated report was issued to Government of Delhi in October 2012. However, reply of the Government was not received as of March 2013.

2.2.3.4 Acknowledgement

We place on record our sincere appreciation for the co-operation of the UDD, PWD, MCD, DJB, DUSIB, DSIIDC and DTTDC in facilitating the audit.

2.2.4 Implementation of reforms in Delhi

Central assistance under JNNURM was subject to implementation of certain mandatory and optional reforms by the State Government. The main objective of the reforms was to provide an enabling environment for the growth of the cities by enhancing effective urban service delivery and civic infrastructure. State Governments and Urban Local Bodies (ULBs) were thus, required to accept an agenda of reforms to be implemented during the mission period.

(i) Status of Mandatory Reforms in Delhi

Reforms to be implemented		Status
1.	Implementation of the 74th Constitutional Amendment Act	All the functions listed in 12th Schedule have been achieved except- (i) Spatial Planning and Regulation of Land use (ii) Water Supply and Sewerage, and (iii) Fire services.
2.	Integration of City Planning and delivery functions	All the City Planning and delivery functions have been integrated with ULB except land-use, spatial planning and development of new areas, Water supply & Sewerage, Transport services, and Fire services.
3.	Rent Control Reforms	Under the control of GoI.
4.	Rationalization of stamp duty	At present, stamp duty is 6 *per cent* for men and 4 *per cent* for female. The Government of NCT of Delhi has not committed to reduce it to 5 *per cent* for men.
5.	Urban Land Ceiling and Regulation Act	Repealed.
6.	Community Participation Law	Nothing has been decided by the Government of Delhi in this regard.
7.	Public Disclosure Law	Nothing has been decided by the Government of Delhi in this regard.

(ii) Status of mandatory reforms at ULB level

1.	Basic Services to Urban Poor	Achievements in this respect has been insignificant. Mapping of slums and urban poor areas has not been done.
2.	E-Governance	MCsD have initiated e-governance projects to harness the power of Internet Communication & Technology (ICT).
3.	Municipal Accounting	MCsD have adopted Double Entry System.
4.	Property Tax	Self-assessment system for Property Tax has been introduced since 2004. Coverage of property tax collection is not satisfactory.
5.	User Charges	Policy on collection of User Charges is yet to be finalized.
6.	Internal Earmarking of Funds for Services to Urban Poor	MCsD earmark funds for services to urban poor.

(iii) Optional Reforms at State and Urban Local Body Level

Optional Reforms to be implemented		Status
1	Introduction of Property Title Certification System	Listing of the properties has not been done.
2	Revision of Building Bye-Laws to streamline the approval process	Under consideration.
3	Revision of Building Byelaws to make rainwater harvesting mandatory in all Buildings to come up in future and for adoption of water conservation measures	Already adopted.
4	Earmarking at least 20-25 *percent* of developed land in all housing projects for EWS/LIG category with a system of cross subsidization	In NCT of Delhi land matters are with GoI.
5	Simplification of Legal and Procedural Frameworks for conversion of Agricultural Land to Non-Agricultural purposes	Delhi being a Union Territory, this issue pertains to GoI.
6	Introduction of Computerized process of Registration of Land and Property	Under process.
7	Byelaws on reuse of Recycled Water	Do not exist.
8	Administrative Reforms	Yet to be done.
9	Structural Reforms	Yet to be done.
10	Encouraging Public Private Partnership	Nothing significant has been done.

While several reforms initiatives had been taken, reforms initiatives needed to be taken further and articulated by the Delhi Government in order to meet the development objectives and create an investor-friendly environment.

2.2.4.1 Preparatory framework at State and ULB level

The scheme was to address planned urban perspective framework for a period of 20-25 years indicating policies, programmes and strategies of meeting fund

requirements. A perspective plan was to be prepared and followed by preparation of City Development Plan integrating land use with services, urban transport and environment management. Funds from Central and State Government flow directly as Grants-in-Aid to the SLNA. The SLNA disburses funds for identified projects to the ULB/ parastatal agency as a soft loan/ grant or grant-cum-loan.

2.2.4.2 Defunct SLNA

The SLSC was to be supported by the SLNA. This agency was to invite project proposals, appraise them, manage and monitor the physical and financial progress of sanctioned projects. Audit observed that the SLNA in Delhi was not in a position to discharge its functions as it had no mechanism to do so. There was shortage of expert manpower in the SLNA and it was dependent on implementing agencies for all its functions.

The Department stated (October 2011) that SLNA was in process to appoint sufficient number of people. Reply clearly shows that approval of the projects by the SLSC was given without due technical examination of DPRs submitted by the executing agencies at the State Government level.

2.2.4.3 Non- setting up of Community Participation Fund

A Community Participation Fund (CPF) was to be established to engage the community in the progress of JNNURM to encourage innovation at local level. A Community Development Network (CDN), which aims at participation of poor through network of Community Development Security (CDS), Self Help Group (SHG) and other community level organizations for poverty reduction and livelihood development, was to be developed. However, both CPF and CDN were not established.

The Department confirming the facts, assured (October 2011) that CPF would be formed soon. However, position remained same in May 2012.

2.2.4.4 Non-integrated approach in project formulation

Though JNNURM aims at integrated development of infrastructural services in the city, yet 24 projects taken up under UIG, related only to road infrastructure which were initially planned keeping in view the requirement of CWG 2010. In February 2009, on the request of the Government of Delhi, the Planning Commission approved inclusion of these projects under JNNURM mainly for finance purposes. Since these were ongoing projects, there was no evidence that DPRs for these projects were prepared and contained prescribed details. The Department stated (October 2011) that as UIG projects were approved at the time of CWG, prescribed procedures could not be followed.

2.2.4.5 Prior sanction of SLSC for seeking assistance from GoI not obtained

For seeking central assistance under JNNURM, projects are first to be submitted to the SLSC by ULB through SLNA and then sent to CSMC. However, 15 projects of BSUP and one project of UIG were submitted directly to the CSMC by executing agencies/SLNA and after its approval, these were submitted to SLSC, indicating it was bypassed in the project formulation and seeking central assistance.

The Department stated (October 2011) that projects were submitted to the CSMC in anticipation of approval of the SLSC.

2.2.4.6 Non-participation of ULB

The MCsD and the NDMC are the main parastatal agencies in Delhi, however, no city development project was submitted by any of these agencies under BSUP.

The UDD stated (October 2011) that DUSIB has taken approval for four projects and the NDMC has submitted one proposal in BSUP. Reply is not acceptable because these projects were housing projects only and not the city development projects.

2.2.4.7 Non-setting up of Revolving Fund

UIG sub-mission provides that the SLNA should ensure that at least 25 *per cent* of the funds released to the implementing agencies, are recovered and ploughed into a Revolving Fund, maintained by it. This fund will be utilised to leverage market funds for financing further investment in infrastructure projects. At the end of the Mission period, the Revolving Fund may be upgraded to a State Level Urban Infrastructure Fund.

Similarly, a revolving fund was envisaged under sub-mission for BSUP with 10 *per cent* of the funds released. At the end of the Mission period, the Revolving Fund may be upgraded to a State level Basic Services to the Urban Poor Fund. However, it was noticed that no revolving fund was set up by the SLNA.

The Department confirmed (October 2011) the same.

2.2.4.8 Non-setting up of Programme Management Unit and Programme Implementation Unit

With a view to strengthen the capacity of the SLNA to manage and implement the composite array of tasks associated with JNNURM, a Programme Management Unit (PMU) comprising specialists and experts, was designed in the Mission. Similarly, a Programme Implementation Unit (PIU) was to be established at ULB level. However, neither PMU nor PIU was set up by the Government of NCT of Delhi.

The Department stated (October 2011) that these units could not be set up but these would be set up at the earliest. The reply is not convincing as the mission has already been completed.

2.2.4.9 Deficient City Development Plan

The City Development Plan (CDP) was envisaged to be a comprehensive document outlining the vision and development strategy for future development of the city. It was to be prepared in consultation with stakeholders to identify the thrust areas to be developed on priority basis. The primary responsibility for preparing the CDP was on State and ULBs. However, it was noticed that the Department appointed a private firm IL&FS at a cost of ₹ 18 lakh to prepare CDP.

The study of the CDP revealed that this document was not formulated in the manner as described in the tool kit (guidelines issued by the Ministry of Urban Employment and Poverty Alleviation and Ministry of Urban Development, GoI). No critical analysis of the needs of the city was undertaken to prepare this important document.

Scrutiny of CDP prepared by IL&FS revealed that it was merely a collection of data and did not provide any vision and direction for future development of the city. It did not mention:

- strategy for bridging the gap between where the city is and where the city wishes to go,
- strategic options available to achieve the vision,
- aggregate investment needed to implement the plan, and
- further reforms that the city needs.

Thus, it was a deficient document.

2.2.4.10 Non- utilization of CDP as strategic document

DPRs submitted by the executing agencies clearly showed that no use of CDP was made by any of the agencies and proposals submitted by them were planned in isolation. No project suggested in CDP was implemented by any of the ULBs. Thus, CDP was just a formality completed by the Government.

While confirming the facts, the Department stated that priority of projects was rapidly changing in Delhi. Hence, the implementing agencies were submitting the projects as per the current requirements, which might not be available in CDP. The reply shows that the CDP was not used as a strategic document for planning projects in Delhi. No mechanism was devised to keep it relevant in future. It is evident that there is a complete disconnect between the long term vision for Delhi and the proposal for current projects being executed.

2.2.5 Monitoring and evaluation

2.2.5.1 Role of SLSC, SLNA, and ULBs

The SLSC or SLNA did not play any role in monitoring the JNNURM projects being implemented in Delhi and the projects were solely in the hands of the executing agencies. As a result, all UIG and BSUP projects were lagging far behind the schedule. It was noticed that only six meetings of SLSC were held during the entire mission period with a gap of five to 20 months between two consecutive meetings, making the State level monitoring system for the projects actually ineffective.

2.2.5.2 Programme Monitoring Evaluation System (PMES)

PMES was devised at the GoI level to keep a watch on the progress of projects implemented in the States. Through this system, information on progress of the projects was to be submitted on line by the SLNA. However, the Department accepted that PMES did not exist in SLNA. This indicates that very purpose of setting up of PMES i.e. to submit the progress report to the central government has been defeated and in absence of regular reporting by the state government in prescribed manner, the central government was not in a position to monitor the progress of the projects.

2.2.5.3 Non-appointment of Independent Review and Monitoring Agencies

Independent Review and Monitoring Agencies (IRMA) were to be appointed for each project to have a watch on physical and financial progress of the UIG projects. Though 30 mega projects involving ₹ 7878.48 crore were approved by CSMC, the SLNA did not appoint IRMA for any of the projects. The Department stated that since projects were ongoing under CWG Scheme, third party quality audit was conducted in most of the projects, hence, IRMA was not appointed. Reply is not acceptable as role of IRMA was far more comprehensive than that of a third party quality consultant appointed by implementing agencies.

2.2.5.4 Non/Delayed appointment of Third Party Inspection and Monitoring Agency

Third Party Inspection and Monitoring Agency (TPIMA) was to be appointed to keep a watch on the progress of BSUP projects. These agencies were to inspect the site and submit their report to SLNA right from planning stage to completion stage. Audit scrutiny revealed that CSMC entrusted 12 projects for construction of 55120 flats between May 2007 and June 2008. However, SLNA appointed TPIMA as late as in March 2011 at a fee of ₹ 36.13 lakh. By that time, four projects had been dropped, six had been completed or were near completion, one could not be started due to stay order of the Court and

only one project was in progress. Appointing the TPIMA for dropped and completed projects has no relevance. It was also noticed that SLNA had not appointed TIPMA for 12 projects approved between July 2008 and March 2012. Though the TIPMA has submitted 14 reports, SLNA had no expert/specialist to get these reports examined and get the shortcomings rectified.

The Department stated that TPIMA had submitted two reports each of seven projects and that reports were being sent to implementing agencies to take remedial action. The reply indicated that Department did not have an in-house mechanism to examine the report of the TPIMA.

2.2.6 Financial management

CSMC approved 30 UIG projects and 24 BSUP projects, out of which five UIG projects and six BSUP projects have been dropped. As of March 2012 an expenditure of ₹ 3335.80 crore had been incurred by implementing agencies.

2.2.6.1 No control of SLNA on Additional Central Assistance released for UIG

As per guidelines, funds should be released as Additional Central Assistance (ACA) to implementing agencies by SLNA. However, funds have been released by the Finance Department or Urban Development Department directly to the executing agencies without routing them through SLNA. In the absence of the final accounts, proper utilization of the funds by the implementing agencies could not be ensured. SLNA did not keep a track of these funds. The Department stated (October 2011) that due to shortage of time, funds were directly allotted to agencies by the Finance Department.

2.2.6.2 Non-release of Additional Central Assistance

Guidelines provide that first installment of 25 *per cent* of the committed central assistance would be released on signing of the MoA by State Government/parastatal agency. The balance amount would be released in three installments upon receipt of Utilization Certificates and subject to achievement of milestones. GoI committed to provide Additional Central Assistance (ACA) of ₹ 4588.56 crore for UIG projects and BSUP projects in Delhi. But ACA of only ₹ 1416.76 crore was received by the Government of Delhi upto November 2012. No efforts by SLNA were made to get the remaining ACA released by GoI.

2.2.6.3 Non-utilization of allocated funds

It was observed that against the allocation of ₹ 2823.18 crore for UIG projects by the Planning Commission, 30 projects for ₹ 2732.20 crore only were sanctioned. Out of these, five projects having sanctioned value of ₹ 105.88 crore, have been dropped. Hence the SLNA could not utilize allocation of ₹

196.86 crore. While confirming the facts, the Department stated (October 2011) that some more projects would be submitted to GoI to avail approved ACA. However, no new project was submitted by Government of Delhi to utilize remaining allocation as of till the closure of the scheme.

2.2.6.4 Infructuous expenditure of ₹ 0.76 crore

Government of Delhi got approved a UIG project namely- 'construction of clover leaves at Karkari More and widening of existing bridge on trunk drain at Karkardooma More' and the work was entrusted to Delhi Development Authority (DDA). It was observed that the project had been dropped due to non-clearance by Unified Traffic and Transportation Infrastructure (Planning & Engineering) Centre (UTTEPEC). However, DDA had already incurred an expenditure of ₹ 0.76 crore on this project which has become infructuous.

2.2.6.5 Unwarranted release of ₹ 200 crore to DUSIB

The Department released (December 2011) ₹ 200 crore to DUSIB to enable it to repay the loan to DSIIDC. However, it was noticed that DUSIB had no liability to discharge against DSIIDC for any loan. As such, the DUSIB did not pay any amount to DSIIDC but kept the amount with it. Thus, the Department had released ₹ 200 crore to the DUSIB without any demand. Reply of the Department was awaited as of November 2012.

2.2.6.6 Purchase of staff cars out of JNNURM funds

The DUSIB, an implementing agency for BSUP projects, had purchased eight staff cars for ₹ 27.82 lakh out of the funds received by it for housing projects under JNNURM.

2.2.7 Execution of the projects under BSUP

2.2.7.1 Inconsistency in the selection of projects taken up under BSUP

The main thrust of the sub-mission of BSUP was an integrated development of slums through projects for providing shelter, basic services and other related civil amenities with a view to provide utilities to the urban poor.

It was emphasized in 25th meeting of CSMC that there would be a limit of 50 to 60 *per cent* for housing projects and remaining for infrastructure projects under JNNURM. However, it was noticed that the Government of Delhi had undertaken only housing project- 'Houses at affordable costs to slum dwellers'. As estimated by DUSIB, about 47.36 lakh persons were residing in about 4 lakh *jhuggies* scattered in 685 clusters in NCT of Delhi and in slum designated areas. However, no programme for development of JJ clusters by providing civic amenities or any project for old walled city development was undertaken under JNNURM in Delhi.

2.2.7.2 Low cost housing projects under BSUP

The Government of NCT of Delhi fixed a target to construct 4 lakh low cost housing units and got sanctioned only 110584 dwelling units (DUs) from CSMC under JNNURM up to March 2012, as given in **Table 2.8.**

Table 2.8: Status of DUs under BSUP

Implementing agency	No. of projects approved	No. of DUs approved	Project cost (in crore)	DUs dropped	DUs completed
DSIIDC	14	81528	3007.34	40048	9660
DUSIB	8	24076	1102.12	5872	1024
DDA	1	4740	196.00	-	-
NDMC	1	240	22.00	-	-
Total	**24**	**110584**	**4327.46**	**45920**	**10684**

(a) Execution of housing projects by DSIIDC

The DSIIDC was the largest implementing agency for housing projects under BSUP. CSMC approved 81528 DUs to be executed by DSIIDC under 14 projects. Shortcomings noticed during the audit are summarized below:

- In response to invitation of bids for construction of 5552 DUs at Bapraulla, only one bid was received. The cost quoted by the only bidder was almost double of the estimated cost put to tender. However, the DSIIDC did not opt for retendering. When pointed out, DSIIDC stated (January 2012) that they had adopted reasonability of rates in line with the provisions of CPWD Works Manual. However, the DSIIDC did not reply as to why option of retendering was not considered.
- The DSIIDC incurred ₹ 50.59 lakh on projects which were shelved mainly due to failure of the Government of NCT of Delhi to make available the hindrance free land to DSIIDC for the housing projects.
- It was decided in the meeting of CSMC (December 2007) to keep the stipulated period of completion of individual project below 18 months to avoid payment for cost escalation. However, in four projects, the DSIIDC paid ₹ 12.97 crore to the contractor for cost escalation upto 31 March 2012 as stipulated time of completion was not kept below 18 months.
- Though 9660 DUs have been completed, approval for plan of construction of these DUs was not taken by the DSIIDC from local bodies. The matter was referred to the DSIIDC in June 2012 but reply was awaited as of September 2012.

(b) Housing projects by the DUSIB

The CSMC sanctioned eight projects for 24076 DUs to be executed by the DUSIB. Scrutiny of the record revealed the following:

- In two projects, against the approved cost of ₹ 28.45 crore, the DUSIB incurred an expenditure of ₹ 35.46 crore (i.e. ₹ 7 crore in excess of approved cost) while several other items of work remained to be executed. As per the norms of the Mission, expenditure above the project cost approved by CSMC, had to be borne by the Government of NCT of Delhi.
- 1024 DUs under these projects have been completed by December 2011, but arrangement for water for domestic use was not made upto May 2012 in these units.
- Works for 9780 DUs under three projects were stopped soon after their award, because the width of stair case in all the blocks was not in accordance with National Building Code. Projects were lying abandoned (May 2012) for want of final decision regarding revision in the building plan. Mobilization advances of ₹ 38.74 crore have been released, ignoring the fact that works were not progressing. Work for another project for 7400 DUs was not awarded for the same reason.
- The CSMC approved (March 2008) one project for 1200 DUs at ₹ 35.13 crore but the work was not awarded as the DUSIB did not finalise the tender. When the DUSIB submitted revised proposal for 1340 DUs with estimated cost of ₹ 70.40 crore (January 2011), the CSMC did not approve the project as there was increase in the cost. Thus, inaction on the part of the DUSIB resulted in loss of opportunity for 1200 DUs as sanction of new projects under JNNURM scheme has since been closed.

Above facts show that the DUSIB did not complete even a single DU during the mission period, inspite of incurring ₹ 74.20 crore on various projects.

(c) Housing projects by Delhi Development Authority (DDA)

The CSMC approved a project of 4740 DUs (December 2007) at a cost of ₹ 196.06 crore to be executed by the DDA. The DDA split the project into five parts and awarded four contracts for 4060 DUs at the tendered cost of ₹ 176.45 crore in June 2010 i.e. 30 months after the approval of the CSMC. Work for remaining 680 DUs was not awarded as land earmarked for these DUs was in litigation. Audit scrutiny revealed the following:

- In violation of Mission guidelines, the DDA allowed 30 months for each contract and a payment of ₹ 5.33 crore up to 31 May 2012 has already been made on account of cost escalation while the works were yet to be completed.
- The DDA awarded the works for 4060 DUs at ₹ 176.45 crore against the approval of ₹ 196.06 crore for 4740 DUs, leaving only ₹ 19.61 crore for remaining 680 DUs. The cost of remaining DUs works out to

at least ₹ 29.55 crore. It is evident from the above that an additional burden would be loaded on the Government of NCT of Delhi.

(d) Housing projects by NDMC

The CSMC approved (June 2011) one project of 240 DUs for ₹ 21.89 crore to be executed by NDMC. The work was not awarded upto June 2012.

(e) Outcome assessment of sub-mission BSUP

The Government of NCT of Delhi got approval for construction of 110584 DUs, out of which 44720 DUs were dropped due to its failure to provide hindrance free site. One project for 1200 DUs was dropped for inaction on the part of the DUSIB. While the work for 20340 DUs was yet to be awarded, construction of 9780 units had been abandoned midway due to non-observance of norms of National Building Code. Construction of 23860 DUs was in progress and only 10684 DUs out of 109518 DUs approved by the CSMC could be completed. The status of construction of DUs by various agencies in given in **Table 2.9.**

Table 2.9: Status of construction of DUs

Agency	DUs approved	DUs dropped	DUs abandoned	DUs in progress	DUs completed	DUs to be awarded
DSIIDC	81528	40048	-	19800	9660	12020
DUSIB	24076	5872	9780	Nil	1024	7400
DDA	4740	-	-	4060	-	680
NDMC	240	-	-		-	240
Total	**110584**	**45920**	**9780**	**23860**	**10684**	**20340**

It was, however, observed in Audit that only 85 DUs were allotted to slum dwellers in the entire mission period.

It was stressed upon in 42nd meeting of the CSMC to allocate upto 15 *per cent* of targets and outlay under the BSUP, to minorities and priority was to be given to physically challenged, but no such move was initiated by GNCTD.

(f) Delay in finalization of policy for allotment of low cost DUs

Though JNNURM was launched in 2006, the Government of NCT of Delhi finalized the policy and eligibility criteria for allotment of DUs at low cost in February 2010 and modified in January 2011.

(g) Critical analysis of role of DUSIB in allotment of DUs

- The Government of NCT of Delhi declared (February 2010) the DUSIB as 'Nodal Agency' for allotment of DUs constructed under JNNURM to urban poor. Work for identification of the beneficiaries of the scheme and verification of their credentials was also entrusted to

DUSIB. However, in audit it was noticed that DUSIB had neither adequate manpower nor expertise/mechanism to carry out this herculean task.

- The DUSIB did not start the process to identify the urban poor, except those residing in identified slum.
- The Government of NCT of Delhi fixed the beneficiary share at ₹ 60,000 per DU and directed the DUSIB to maintain a separate fund namely State Infrastructure Development Fund in which beneficiary share was to be credited. However, the DUSIB did not create any such fund.
- The DUSIB allotted 85 DUs to slum dwellers for 15 years at the license fee of ₹ 310 per month, but had not recovered any amount of fee so far.
- The Government of NCT of Delhi decided (February 2010) that land owing agency would share the cost of DUs at the rate of ₹ 93000 per DU and that the DUSIB would create a separate account to keep this share. However, the DUSIB kept ₹ 9.60 crore received from land owing agencies upto 14 February 2012, in its regular account instead of creating a separate account,
- The DUSIB had not yet decided as to how the funds received from allottees and land owing agencies would be utilised.

The DUSIB stated (July 2012) that despite of shortage of manpower, expertise and mechanism it had been making its best efforts to identify the beneficiaries of the scheme. It further added that it had no mission to relocate all the JJ clusters, instead it takes action only on the request of the land owning agencies in the clusters prioritized by the department. From the reply, it is clear that projects under the BSUP and work for allotment of DUs constructed under the BSUP were assigned to the DUSIB by the Government of NCT of Delhi without keeping in view the capacity and capability of the DUSIB.

2.2.8 Execution of the projects under UIG

The Government of NCT of Delhi got approved 30 projects (**Annexure-2.5**) at ₹ 8007.68 crore under sub-mission UIG mainly relating to Roads/Flyovers/ ROBs/water supply and sewerage system. Out of these, five projects have been dropped as UTTPEC did not approve them. One project of MCD and one of DMRC was yet to take off. Out of the 25 UIG projects taken up by the Government of NCT of Delhi, 10 projects were selected for scrutiny (**Annexure-2.6**). The irregularities noticed during audit of these works, are discussed in subsequent paragraphs.

2.2.8.1 Project undertaken by DTTDC

(a) Construction of bridge and its approaches over river Yamuna at Wazirabad - construction of Main Bridge – Cable stayed

Due to tremendous increase in population of Trans Yamuna Area, a new bridge was proposed on the downstream of existing bridge cum barrage at Wazirabad to connect NH-1 (Road No. 45) on western Bank and Wazirabad Road (Road No. 59) on eastern bank of the river. Public Works Department entrusted the work to the DTTDC as deposit work in April 2004 for which AA & ES of ₹ 1131 crore was accorded. The DTTDC awarded the work in two packages - one for construction of main cable stayed bridge and the other for its approaches. Some petty contracts were also awarded for shifting of services, construction of office buildings etc.

(b) Escalation of ₹ 672 crore in estimates due to delay in finalisation of estimates and tendering

A chronology of events right from preparation of PE to the award of works of main bridge and its approaches is given in the **Table 2.10.**

Table 2.10: Chronology of events

Sl. No.	Month and Year	Events
1	May 2005	DTTDC submitted PE of ₹ 544 crore (modified to ₹ 464 crore) for seeking AA & ES.
2	June 2005	Design of the bridge changed and finalised.
3	March 2006	GNCTD conveyed AA & ES of ₹459 crore.
4	November 2006	(i) DTTDC invited combined tenders for main bridge and approaches at estimated cost of initially designed bridge of ₹ 421 crore based on initial design. (ii) Lowest tender received was for ₹ 845.97 crore.
5	May 2007	DTTDC submitted revised PE of ₹993.11 crore to Government. Cabinet did not approve the proposal.
6	October 2007	DTTDC submitted revised PE of ₹ 887.29 crore.
7	January 2008	GNCTD approved the PE of ₹ 887.29 crore
8	May 2008	DTTDC awarded the work of 'approaches' to Gammon India Limited at ₹ 348.90 crore against provision of ₹ 322.56 crore in PE.
9	August 2008	DTTDC invited tenders for main bridge at estimated cost of ₹ 372.00 crore. Lowest tender received was for ₹ 697.87 crore. Tenders were rejected.
10	March 2009	DTTDC submitted revised PE for ₹ 1196.40 crore and re-invited tenders. The lowest tender was for ₹ 631.81 crore.
11	October 2009	The PE was again revised to ₹ 1185.00 crore based on actual tendered amount.
12	February 2010	AA & ES for ₹ 1131.00 crore was conveyed.
13	February 2010	The work for main bridge was awarded to M/s. Gammon Construtora Cidade–Tensacciai (JV) at ₹ 631.81 crore.

Thus, the DTTDC revised the estimates six times between May 2005 and October 2009 and took almost six years to award the work. The DTTDC received AA & ES for ₹ 887.29 crore (January 2008), but it took eight months to call the tenders (August 2008) for main bridge, then three months to reject the tender and another 3 months to submit the revised PE for ₹ 1185.00 crore. This situation could have been avoided had the DTTDC prepared and submitted the PE on the basis of modified design of bridge at very first occasion i.e. in November 2006 and then proceed for tendering process.

Delay in taking decision by the Government of NCT of Delhi also contributed to the escalation in the estimated cost of the project as it rejected revised PE for ₹ 993.11 crore in May 2007 when quoted amount was ₹ 845.97 crore only. But, it had to approve the cost of ₹ 1131.00 crore in February 2010 for the same project. Thus, failure of the DTTDC to manage the events increased the estimated cost of the project from ₹ 459.00 crore in March 2006 to ₹ 1131.00 crore in February 2010 (an increase of ₹ 672 crore). Moreover, a project planned to be completed in August 2008, has now been rescheduled to be completed in December 2013.

The DTTDC in its reply stated (January 2012) that cost escalation was predominantly due to increase in price of material and foreign exchange. Reply is not acceptable as cost escalation was due to failure of the DTTDC to manage the events timely and effectively.

(c) Violation of terms and conditions of agreement

The fabrication and assembling of the structural steel for deck and pylon was to be carried out in any of the three Indian fabrication shops specified in the agreement or in equivalent shops approved by Engineer-in-charge. However, it was noticed that:

(a) the contractor was getting fabrication work done in China without formal approval of the Engineer-in-charge in violation of terms and conditions of agreement,

(b) in the agreement, there was another condition to use structural steel manufactured by any of the four shortlisted Indian firms. However, the steel was being procured from China for deck and pylon, and

(c) it was the primary responsibility of the DTTDC to ensure quality of the material being used in the bridge. This aspect was not ensured as the DTTDC had no mechanism of its own to ensure quality of material and work being done in China.

The DTTDC stated (January 2012) that audit had inferred wrongly that only Indian workshops were to be engaged for fabrication work and added that for quality aspect a firm had been deployed by contractor to check quality of the material and fabrication work in China. The said firm reports directly to the DTTDC. The DTTDC further added (July 2012) that contractor had not

proposed any firm shortlisted in NIT. The formal communication was to be issued by the structural consultant.

The reply is not acceptable as the names of the approved fabricator firms were clearly mentioned in NIT and agreement and all these were Indian firms. From the reply of DTTDC (20 July 2012), it is clear that contractor has proposed the name of Chinese firm and that was accepted by consultant who was a private entity. As quality control firm was appointed by contractor himself, it may not function as an independent agency of the DTTDC. The reply was silent on the issue of purchase of steel from China.

(d) Unauthorised and irregular release of ₹ 20.60 crore to contractor

The DTTDC released ₹ 20.60 crore to contractor upto May 2012 as secured advance for the material which was procured and stored in China, in violation of provisions of CPWD Works Manual[††] for payment of secured advance. Audit observed that:

(i) the material was not brought at construction site by the agency,

(ii) the DTTDC has not certified the procurement, availability, quantity, necessity and cost and specification of the material procured in China, and

(iii) the required agreement securing lien over material was also not entered into with the contractor.

The DTTDC stated (August 2012) that payment to the contractor was in accordance with the clause of agreement. Reply is not acceptable as provisions of Manual to grant secured advance applies to all types of contract.

(e) Award of work of ₹ 5.99 crore to consultant without completing codal formalities

(i) For the appointment of consultant for main bridge, DTTDC sent (October 2005) its offer only to M/s Schlaich Bergermann Und Partner (SBP) Germany, requesting them to submit their financial and technical bids. DTTDC awarded (December 2005) the work to the firm at ₹ 5.99 crore. Award of work without inviting tenders was against extant rules. The department stated (August 2012) that as SBP was well conversant with Indian environment and were the main designer of a bridge in Kolkata, consultation work was given to them. Reply is not acceptable as awarding the work without tendering was not justified.

(ii) It was also noticed that the DTTDC allowed the SBP to form a joint venture with Construma Consultancy Pvt. Ltd, Mumbai (CCPL). As per the bid documents and MoU signed between the SBP and the CCPL, the SBP was to work as lead consultant and overview the work of sub-consultants and payment by the DTTDC was to be made to SBP only.

[††] Section 31.4 of CPWD Works Manual

However, it was noticed that drawing and design of all components below deck level were submitted to the DTTDC directly by the CCPL without the approval of SBP and the DTTDC continued to make the payments to the CCPL. Upto March 2012, it made a payment of ₹ 1.54 crore directly to the CCPL for their work.

In the reply, the DTTDC stated (August 2012) that it was correct that an offer for consultancy services for design of main bridge was asked from the SBP. The bid was submitted as Joint-Venture of the SBP and the CCPL in accordance with the provisions of bid document, wherein Joint-Venture was permitted. Both the Joint-Venture partners qualify the eligibility criteria. From the reply, it is clear that the work for the consultancy was awarded to the Indian firm also, whose credentials were not verified and without ensuring fair market competition.

(f) Irregular and undue payment to contractor of ₹ 4 crore in name of price variation

As per the agreement, clause 10 CA of Works Manual was applicable for payment due to variation in price of material. Payment under 10 CA depends upon the base price for cement and steel, issued by Director General (Works), CPWD, on the basis of price indices decided by GoI from time to time. However, it was noticed that the DTTDC paid ₹ 4 crore for the material procured by the contractor in China on the basis of price index decided by DG (Works). As the indices determined by the Director General (Works) CPWD or by GoI are not applicable in China, the payment of ₹ 4 crore for price variation was irregular.

DTTDC stated (August 2012) that the materials might be procured from anywhere and it is not limited to place of construction only. The different materials might be procured from different places. Since the construction site is in Delhi, the base prices and price indices issued under the authority of Director General (Works), CPWD, applicable for Delhi, have been taken in Schedule-F of the agreement. Reply is not acceptable because as per schedule-F of the agreement, the material was to be procured from the firms mentioned in the agreement and price was based on the price index prevailing in Delhi only.

2.2.8.2 Construction of approaches to main bridge

(a) Award of contract without inviting open tenders

Audit observed that for the work of construction of 'Approaches', the DTTDC invited bids only from 10 agencies, short listed by the PWD for works having cost of ₹100 crore and above. The DTTDC added one additional condition in bid document that bidder should have completed at least one work of Flyover/ Bridge/Urban Transport Structure using pre-cast segmental technology construction. It was despite the fact that PWD invited tenders without such

condition for its own work – 'Elevated Corridor flyover at Naraina' with pre cast segmental technology. The work was awarded (May 2008) to M/s Gammon at the tendered cost of ₹348 crore, which was ₹26 crore higher than the justified cost and ₹74 crore more than the estimated cost, both worked out by the DTTDC after allowing 37.5 *per cent* as contractor's profit and overhead expenses. Thus, awarding the work without open tendering was irregular and deprived the Government of competitive rates from other bidders.

(b) Undue burden of ₹ 78.61 lakh on GNCTD

As per agreement, contractor had provided 18 rooms free of cost at construction site for supervisory staff of the DTTDC. However, it was noticed that the DTTDC spent ₹ 78.61 lakh on construction of an office building at Majnu Ka Tilla, Delhi and debited the expenditure to main work.

In its reply the DTTDC stated (January 2012) that building was constructed for centralized coordination of project and record maintenance.

Reply is not acceptable because as per MoU, only ₹ 10 lakh was provided to the DTTDC for construction of office building which was to be adjusted against contingencies.

(c) Other irregularities

- The DTTDC irregularly incurred ₹ 49.66 lakh on construction of office building at Mall Road for Executive Engineer of the PWD and charged the expenditure to main work.
- The DTTDC has paid to the contractor ₹ 225.62 crore through RA Bills (48 bills up to 31 May 2012) for the work 'construction of approaches', in violation of provision contained in *Annexure*-III of the agreement, wherein payment was to be made in 13 stages of the work. Similarly, the DTTDC has paid to the contractor ₹ 50 crore through 29 RA Bills for the work 'Main Cable Stayed Bridge' against the provision wherein payment was to be made at eight stages.

The DTTDC stated (January 2012) that in the instant case the modified CPWD Form 12 was used instead of prescribed lump sum contract. The reply is not acceptable as work was entrusted to the DTTDC with the condition to follow the CPWD Works Manual.

2.2.8.3 Construction of Road Under Bridge & Road Over Bridge at Railway Level Crossing at Road No. 68 near Nand Nagri

The DTTDC constructed Road Under Bridge (RUB) and Road Over Bridge (ROB) at Railway Level Crossing at Road No. 68 near Nand Nagri. The work was done as a deposit work of PWD, GNCTD.

(a) Extra expenditure of ₹ 70 lakh in construction of road

Section 2702.1.2 of MORTH Specifications for Road and Bridges which provides only 50 mm thick DBC as wearing coat. Deck of the flyover was made of pre-cast RCC slab placed on steel girders. The wearing course of the deck as per approved drawing was to be constructed by applying water proof membrane and 50 mm thick bituminous concrete (BC). However, it was noticed that the DTTDC has provided base course of 75 mm thick Dense Bituminous Macadam (DBM) on RCC deck slab followed by one layer of 50 mm thick Dense Bituminous Concrete (DBC) as wearing course on water proof membrane. Thus, over design of pavement of flyover resulted in extra expenditure of ₹ 70 lakh on DBM.

DTTDC stated (January 2012) that the exact slope/level/curvature at every point, was not possible with BC only and so DBM coarse was provided for profile correction. Reply is not acceptable as the required slope/camber was provided in the steel girders as per approved drawings. Moreover, neither changes in drawing nor extra item for providing DBM was approved by the competent authority.

(b) Unauthorized expenditure of ₹ 69.72 lakh

As per general provisions of MoU, cost of consultancy for the work was to be borne by the DTTDC, out of departmental charges. However, it was noticed that the DTTDC made a payment of ₹ 69 .72 lakh up to May 2012 for architectural consultancy and charged the amount to the expenditure sanction for the main work. This was in violation of MoU and resulted in unauthorized expenditure of ₹ 69.72 lakh.

The DTTDC stated (January 2012) that there was a provision for consultancy work in AA & ES. Reply is not acceptable as MoU was signed after AA & ES was approved.

2.2.8.4 Construction of Flyover at (i) Africa Avenue, Aruna Asaf Ali Road and (ii) Vivekanand Marg, Nelson Mandela Marg, Poorvi Marg

The Government of NCT of Delhi approved three flyovers, four underpasses, five FOBs and nine subways to make intersections at corridor from IIT to NH-8 signal free. Audit findings on this project are as under:

(a) Unauthorized reduction in scope of work - irregular expenditure of ₹ 35.03 crore

The Government of NCT of Delhi sanctioned three estimates for ₹ 246.54

crore, as given in **Table 2.11.**

Table 2.11: Break-up of sanctions of projects

(₹ in crore)

9 Subways and 4 underpasses	5 FOBs	3 Flyovers, widening of road and other ancillary works	Electrical	Misc. Head	Total
48.71	4.58	150.63	16.17	26.45	246.54

The Executive Engineer (EE), F-112 awarded (May 2007) the work for construction of three flyovers, nine subways, and four underpasses.

The scope of work was reduced drastically as no subway or underpass could be constructed, but approval of the Government was not obtained for reduced scope of work. The EE stated that due to space constraints, underpasses and subways could not be constructed.

The Government of NCT of Delhi sanctioned ₹ 246 .54 crore for overall project. It included ₹ 54.19 crore for construction of subways, underpasses, rain water harvesting and FOBs. As subways, underpasses and Rain Water Harvesting arrangements were not constructed, only ₹ 196 .93 crore were available for flyovers and other works. But an expenditure of ₹ 225 .28 crore upto May 2012 had already been incurred and work for construction of four FOBs at a tendered cost of ₹ 6.68 crore was in progress. It shows that against the corresponding provision of ₹196.63 crore for the constructed items, the PWD incurred an expenditure of ₹ 225.28 crore upto May 2012, resulting in an excess expenditure of ₹ 35.03 crore.

The PWD stated (January 2012) that due to existence of services at construction site, the underpasses and subways could not be constructed and UTTIPEC[‡‡] had been intimated regarding these changes.

The reply is not acceptable as the PWD should have obtained the approval of the Government for reduction in the scope of work.

(b) Non levy of penalty for delay in completion of work

Total 519 days were allowed for whole of the work of ₹ 234 crore. However, scope of work was reduced by ₹ 49 crore after award of work. Proportionally, the completion time should have been reduced to 411 days only, but the Project Manager did not consider the reduced scope of work and allowed EOT for 604 days without penalty. As a result the contractor had become eligible for payment for cost escalation for this period also.

The PWD stated (July 2012) that EOT cases have been finalized by Project Manager F-11 after detailed scrutiny of hindrances and he was fully

[‡‡] Unified Traffic and Transportation Infrastructure (Planning & Engineering) Centre

competent as per the CPWD Manual and agreement provisions. However, reply is silent on non-reduction in stipulated time for reduced scope of work.

(c) Improper accounting of ₹ 4.19 crore

In the approved PE, heads of expenditure and allocations for item of works have been defined clearly. There was no head for miscellaneous expenditure, but in the statement of expenditure, an expenditure of ₹ 4.19 crore was shown as miscellaneous expenditure, which included ₹ 1.70 crore booked after actual date of completion of work. As no detail of miscellaneous expenditure of ₹ 4.19 crore was provided to audit, proper utilization of this amount could not be verified in audit. In addition, ₹ 7.24 lakh was booked on hiring of vehicles after completion of the work. The EE stated (June 2012) that the expenditure was incurred on testing charges, computer operator, peon, dak messenger, telephone, etc. and might be considered as contingent expenditure. Reply is not acceptable as all these are office contingencies and not the work contingencies.

2.2.8.5 Construction of grade separator at junction of GT Road and Road No. 56, near Apsara Border

The junction of GT Road and Road No. 56 at Apsara Boarder is the main link between ISBT, Kashmere Gate and Ghaziabad. The junction was required to be made signal free by providing grade separator at this crossing. Flyover on G.T. Road, under pass on Road No.62-56, surface rotary for right turning movement, slip road and three FOBs were planned under the project.

(a) Payment of ₹ 1 crore due to injudicious decision

There was a provision of 248 number of soil anchors (agreement rate ₹ 1.25 lakh per piece) for the C/o Underpass at Apsara Boarder. However, a total of 761 soil anchors were used but no justification for three fold increase in quantity was recorded. As per Schedule-F of Clause 12.2 of the Agreement, deviation in quantity upto 30 *per cent* for sub-structure and 100 *per cent* for foundation item was to be executed at agreement rate. The PWD had paid for 457 anchors at the agreement rates and for 304 anchors at market rates. The market rate worked out by the PWD for one soil anchor was ₹ 50028, which is lesser than the agreement rate by ₹ 74972. It was noticed that soil anchor was not considered as a foundation item upto 25th RA Bill. But on the demand of the contractor, the department treated this item partly as foundation item and partly as non-foundation item in 26th RA Bill without giving reasons for the same. As soil anchors were not foundation item, contractor was entitled to be paid for 323 anchors only at agreement rate and remaining 438 anchors at market rate. Thus, injudicious decision of the department to pay for 457 anchors against the eligible 323 anchors at the agreement rate, resulted in extra payment of ₹ 1 crore to the contractor.

The PWD stated (January 2012) that the underpass does have foundation like other structure and the same is below ground and was legitimately categorized as superstructure. The reply is not acceptable as whole of the underpass was constructed below the ground level and soil anchors by the definition under Clause-F, does not qualify to be a foundation item.

(b) Non levy of penalty of ₹ 18 crore for delay

The stipulated date of completion of the project was 9 June 2010 but the work was actually completed on 22 November 2011 with a delay of 532 days. The Project Manager granted EOT for 532 days without levy of penalty. However, scrutiny of record revealed that EOT of 104 days was allowed without levy of penalty for non availability of structural drawings for FOBs. It was not justified, as the construction of FOBs was an independent activity and not interlinked with main work. The work of main flyover was not required to be kept in abeyance till completion of FOBs. Moreover, reference for non-availability of drawings was not mentioned in hindrance register. Similiarly, EOT of 128 days was allowed without levy of penalty for extra work. It is also not justified, as extra works were to be executed simultaneously with other works and in that case overlapping period should have been deducted from 128 days.

Thus, a penalty of ₹ 18 crore for delay of 232 days should have been levied on contractor.

The PWD stated (July 2012) that 104 days were considered for non-availability of structure drawing for FOBs and the consultant who was responsible for delay had already been penalized. The period for extra work has been considered in granting of EOT as per CPWD Works Manual. Reply is not acceptable as PWD did not specify the reasons for not carrying out the work for the underpass and flyover, in absence of drawings for FOB and not considering the overlapping time on account of extra items.

2.2.8.6 Other irregularities

(a) Loss of ₹ 1.54 crore due to inconsistent clause in agreement

A test check of agreements/NITs for all the five works revealed that the PWD/DTTDC introduced a clause 10CCA for price variation. Price variation is paid or recovered only on consumable items. The CPWD Manual does not prescribe any payment on account of variation in price of machinery and machine tools (capital goods). However, under clause 10 CCA, PWD prescribed eight to 18 *per cent* (eight *per cent* -IIT Gate, 18 *per cent* Apsara Border) component of total work for paying price variation on 'machinery and machine tools', resulting in extra expenditure of ₹ 1.54 crore.

The PWD stated (January 2012) that the provision to compensate the contractor for tools and machinery against price escalation was kept with the approval of the competent authority. The fact remains that the introduction of

the clause in the agreement, though with the approval of the competent authority, had resulted in extra expenditure of ₹ 1.54 crore.

2.2.9 Execution of UIG projects by the Delhi Jal Board

2.2.9.1 Laying of interceptor sewerage system along major drains

Under sub-mission UIG, the Delhi Jal Board (DJB) undertook the project of laying of interceptor sewerage system along Najafgarh, Supplementary and Shahadra drains. The DJB appointed M/s Engineers India Ltd (EIL) as consultant and an agreement was signed in January 2008. These projects were approved by the Cabinet Committee on Infrastructure in May 2010 for an approved cost of ₹ 1357.71 crore with an ACA commitment of ₹ 475.20 crore.

Audit observed that the consultancy work was awarded to M/s EIL on nomination basis with consultation fee as four *per cent* against one *per cent* in other projects of the DJB. This was in violation of CVC guidelines and led to an extra financial burden on the DJB of ₹ 34.5 crore (three *per cent* of ₹ 1150 crore).

(a) Deficient consultancy agreement

The scrutiny of the consultancy agreement and related records revealed that the provisions of Rule 204 of the General Financial Rules were not kept in view while framing the agreement as discussed below:

- The cost of investigation and data collection was charged to the project whereas this should have been borne by the consultant out of consultancy fee. In case of consultancy work in respect of 'Rehabilitation of Trunk Sewers' such cost was borne by the consultant.
- As per condition IV of work order, for the release of fees, an ESCROW account should be opened in the nationalized bank and cheques should be signed jointly by the authorised representative of the EIL and the DJB. But as per clause 'C' to *Annexure* II attached to the agreement, the fees for EIL shall be paid directly by the DJB. The clauses were contradictory,
- The EIL has not been made responsible for time and cost overrun of the project. On being pointed out, the DJB stated (July-2011) that the EIL being a Government Organization, such type of clauses are not maintainable. The reply is not acceptable as the work to the EIL was awarded on 'deposit work concept' and the EIL should be held responsible for time and cost overrun.
- As per paragraph 2.3 of Article 7 of Annexure I-2 of the agreement, the EIL has been given the powers to settle the claims of contractors further hired by the EIL against the accounts of the DJB in case of any

litigation/arbitration. It was not justified as litigation/arbitration should be handled / concluded by EIL within their fees.

- As per work order, nine *per cent* fees likely to be paid to the EIL was restricted either to the estimate submitted by the EIL or the actual cost of the project whichever is less but no such mention was made in the agreement. Agreeing with the audit view, the DJB stated that this clause would be considered at the time of finalization of fees of the EIL.

(b) Irregularities in execution and payments

- The DJB paid service tax of ₹ 4.20 crore to the EIL without ensuring its deposit by the EIL into government account.
- The works were awarded to the EIL on nomination basis with a view to ensure that the projects are completed in a time bound manner. The works were scheduled to be completed and commissioned by January 2012. However, the works were awarded by the EIL only in July 2011 with the stipulated date of completion as June 2014. As such the purpose of timely completion of project has already been defeated.
- The EIL claimed ₹ 1.60 crore for construction of six site offices and the amount was withdrawn by the EIL from the ESCROW account. Audit is of the view that this amount should have been borne by the EIL out of its consultancy fee.

2.2.9.2 Refurbishment of Trunk Sewerage System in Delhi

The work of 'Refurbishment of Trunk Sewerage System in Delhi' was undertaken by the DJB under the JNNURM in six packages. 'Refurbishment of West Delhi, Punjabi Bagh, Relieving, University, North Delhi, Jail Road and Ring Road Trunk Sewers to improve their efficiency, life and reduce the pollution of river Yamuna by preventing overflow of sewage into drains. A block estimate amounting to ₹ 370 crore was administratively approved by the DJB. An international consultant M/s TTI was appointed (July 2006) for conducting topography survey, assessment of condition of trunk sewers, design of liners, preparation of detailed estimates and supervision of works.

(a) Delay in execution of project

Work orders for all the six packages were issued to various agencies in January and February 2008 having completion period of 24 months in each case. Scrutiny of records revealed that works could not be completed in stipulated time as discussed below:

- The works namely North Delhi Trunk Sewer, West Delhi Trunk Sewer and University Trunk Sewer were in progress as of March 2012.
- T he work of 'Rehabilitation of Relieving Trunk Sewer' was completed physically in March 2011 after a delay of 389 days. The EOT was

granted (November 2011) by the competent authority up to March 2011 with levy of token penalty of ₹ 18.15 lakh.

- The work of Punjabi Bagh Trunk Sewer was completed in January 2012 with the delay of 724 days. The case of EOT was under process as of May 2012.
- The work of Jail Road Trunk Sewer was physically completed in March 2012 with a delay of 746 days. The case for EOT was yet to be processed.

The reasons for delay stated by the DJB were almost the same in all the cases i.e. delay in getting permission from civic authorities, traffic congestion, buried manholes, execution of work at night and rainy season. All the reasons mentioned were of foreseeable nature and completion time of the works could have been decided considering the said factors.

(b) Wasteful expenditure of ₹ 68.13 lakh

The consultancy services and third party quality assurance work for 'Refurbishment of Trunk Sewerage System in Delhi' was awarded to M/s TTI at the cost of ₹ 11.61 crore in July 2006 to be completed by 31 August 2009. As the civil works were not completed within the stipulated period, the DJB extended (August 2010) the time of contract upto December 2010. These works came under JNNURM from March 2010 and M/s RITES Limited was appointed as consultant by the DJB in May 2010 for one year for supervision of these works at their tendered cost of ₹ 25.92 lakh, in spite of the fact the contract period of M/s TTI was extended up to December 2010. Resultantly, the works were supervised simultaneously by both the agencies from May to December 2010. This resulted in wasteful expenditure of ₹ 68.13 lakh paid to M/s TTI as supervision fee from May to December 2010.

2.2.9.3 Construction of Sewerage Treatment Plants (STPs)

Two STPs at Pappan Kalan and Nilothi (Phase-II) with capacity of 20 MGD each were approved by the DJB in February 2008 at a cost of ₹ 64.4 crore each. M/s STUP was appointed as a consultant for preparation of Detailed Project Report (DPR), tender documents and justification etc. DPRs were finally approved by the Urban Development Department in December 2008.

(a) Cost escalation due to abnormal delay in award of work

The DJB issued NITs for the construction of STPs at Pappan Kalan and Nilothi in October 2009 which were withdrawn with a view to follow the latest guidelines on e-tendering. The DJB reissued NITs on 1 January 2010. After issuing corrigendums for extension of dates and change/modification in tender conditions, technical bids were opened on 26 July 2010. Six firms participated, out of which three firms were broadly technically responsive and two were substantially responsive. However, technical committee decided to re-invite the NITs on the plea that there was need to elaborate in greater detail

the requirement of sludge management system and also that the evaluation criteria needed to be further clarified.

Tenders were again re-invited on 29 March 2011 and the DJB once again issued five corrigendums - three to extend the dates and two for amending tender conditions. The Chief Engineer (SDW) had noted that the consultant lacked vision as he was unable to deliver though the technology was widely known. Finally, the work for STP Nilothi was awarded to M/s Veolia at the negotiated cost of ₹ 261.50 crore and of STP Pappan Kalan was awarded to M/s VA Tech Wabag at a negotiated cost of ₹ 243.50 crore in February 2012. Thus, due to delay in awarding the contract, the works which were estimated at ₹ 128.8 crore in February 2008 were awarded at ₹ 505 crore in February 2012.

2.2.10 Execution of UIG projects by Municipal Corporation of Delhi

2.2.10.1 Development of Multilevel Underground Conventional Car Parking

To improve the facilities for parking in Delhi, the MCD decided to construct underground multilevel parking at various sites in Delhi. The MCD identified 24 sites (February 2008) for development of underground conventional car parking. Subsequently, eight out of 24 sites were dropped due to shortage of funds. The Standing Committee accorded its approval to the expenditure of ₹ 469.80 crore for 16 sites with the condition of completion of work within 21 months.

(a) Loss of revenue of ₹ 35 lakh

The MCD had engaged M/s Stup Consultants Pvt. Ltd as consultant for the work of construction of conventional underground Multilevel Car Parking at four sites (Shiva Market Pitampura, QU Block Pitampura, AL Park Market Shalimar Bagh and Central Market Ashok Vihar) at a cost of ₹ 3.50 crore. Audit observed that the agreement with consultant had been closed by competent authority as consultant had failed to perform his duties according to the terms and conditions of the agreement. Audit further observed that the division failed to forfeit the performance guarantee of ₹ 35 lakh submitted by the contractor, because its validity had already expired on 30 June 2011, i.e. prior to the closure of the agreement. Thus, the failure of the division to get the performance guarantee revalidated in time, has resulted in loss of ₹ 35 lakh.

2.2.10.2 Improvement of roads by providing RMC pavement- unauthorized expenditure of ₹ 4.33 crore

The Works Committee of the MCD approved 'Improvement of roads of 60 ft ROW and above by providing RMC pavement (Phase-I)' on 32 Roads in various Zones, for ₹ 150 crore under JNNURM. The A/A and E/S for 15 out of 32 roads was accorded (December 2009) by the MCD and work was awarded (November 2010) by EE, Project-I, Rohini Zone to M/S Odeon Builders (Pvt.) at ₹ 44.85 crore.

Audit scrutiny revealed that the MCD executed work on four other roads[§§], which were not initially included in the list of 15 roads approved by the Working Committee. Thus, the Division executed the work on these four roads without the approval of Working Committee, resulting in unauthorized expenditure of ₹ 4.33 crore. Matter was referred to the MCD. The MCD informed that matter has been sent to the Working Committee for its approval.

2.2.10.3 Remodeling of SSBL drain from Saboli Extension to Drain No. 2, near Dilshad Garden Metro Station

The work of 'Remodeling of SSBL drain from Saboli Extension to Drain No. 2, near Dilshad Garden Metro Station in Sahadra North Zone' was awarded (June 2011) to M/S Valecha Engineering Ltd. at the cost of ₹ 77.99 crore. The work was scheduled to be completed by 07 October 2012. The division had made a payment of ₹ 1.53 crore (upto 2nd RA bill). It was observed that despite lapse of more than one year, only two *per cent* of work has been completed as of June 2012.

(a) Award of work without performance guarantee of ₹ 3.90 crore

As per section 21.1 of CPWD Manual, the successful tenderer shall deposit an amount equal to five *per cent* of the tendered value of work as performance guarantee and letter of commencement of work shall be issued to the contractor only after he submits the performance guarantee in an acceptable form. However, audit noticed that the division had awarded the work to M/S Valecha Engineering Ltd. for ₹ 77.99 crore without obtaining the performance guarantee of ₹ 3.90 crore.

[§§] (i) Chemalian Road in Ward No. 88, S P Zone, (ii) Road from Bara Tooti Chowk to B G Road in Ward No. 76, S P Zone (iii) Faiz Road from New Rohtak Road to Idgah Road round about in Ward No. 90, S P Zone (iv) Road from R P Chowk to Xing near Delhi Haat in Pitampura, Rohini Zone.

2.2.11 Conclusions and Recommendations

Conclusion

Implementation of the Mission by the Government of NCT of Delhi was not entirely satisfactory. The implementation of mandatory and optional reforms in Delhi needs to be taken further and articulated by the Delhi Government to meet its development objectives. The State Level Nodal Agency (Urban Development Department) was practically ineffective as it had not equipped itself with the qualified manpower or technology to oversee and monitor the projects. As a consequence, the mechanism for monitoring the projects under the Mission was not in place. Although, the UIG projects by PWD have been largely completed, other UIG projects undertaken by DTTDC, MCD and DJB were lagging behind badly. Though, the main thrust of the BSUP was on integrated development of slums through projects for providing shelter, basic services and other related civic amenities, only a few projects of housing for slum dwellers had been taken up. Even, the dwelling units constructed under the BSUP were not allotted for want of verification of eligible beneficiaries, as survey of the urban poor is yet to be started by the DUSIB. Execution of projects was marred by irregularities resulting in cost over run and extra burden on public exchequer.

Recommendations

The Mission is in the extended period only for completion of ongoing and sanctioned projects. Since the extended period is upto 2014, for timely completion of pending projects, the Government may consider taking the following actions:

- *SLNA may strengthen its monitoring mechanism with qualified staff and technology to have a constant watch on the progress of ongoing projects.*
- *The Government may step up its efforts to complete left over projects within the extended period of the Mission.*
- *The DUSIB may start the survey of urban poor and ensure early allotment of completed dwelling units to the identified eligible beneficiaries.*
- *The SLNA (Urban Development Department) may obtain UCs from the implementing agencies and submit them further to the GoI, to claim the balance funds sanctioned under the Mission.*
- *Implementing agencies may be advised to submit the final accounts of the projects executed by them.*

3.1 Thematic Audit of Water Management in Delhi

Executive Summary

A thematic audit of the Delhi Jal Board was conducted with a view to ascertaining the deficiencies in supply of potable water to the population of Delhi. The raw water available in Delhi at present is not sufficient to provide potable water to the whole population of Delhi as per prescribed norms. Two dams were proposed on river Yamuna in 1994 to augment raw water in Delhi, but were not constructed even after a lapse of 18 years after incurring an expenditure of ₹ 214 crore. The production of potable water at WTPs and waste water recycling plants was also found to be below designed capacity. The 8-MGD recycling plant at Chandrawal was commissioned after a delay of more than four years. Due to the absence of proper measurement system, whether the wastage of water during treatment process was within permissible limits at Chandrawal could not be ascertained.

The allocation of jurisdictional areas among divisions was based on Assembly Constituencies and not command areas of different treatment plants, due to which, proper measurement of water supplied to each division was not possible and accountability for loss of water could not be fixed. The drinking water was not being distributed equitably amongst the population due to lack of reliable data on population and water supplied to different areas. Further, 24.8 *per cent* of the households in Delhi were being supplied water through tankers in the absence of pipe lines.The average per capita supply was 3.82 litres per day against a prescribed norm of 172 litres. Metering of water at consumer end was not comprehensive due to which, less than 40 *per cent* of water produced was billed during last three years.

3.1.1 Introduction

The Delhi Jal Board (DJB), constituted under the Delhi Water Board Act, 1998, is responsible for the supply and distribution of potable water in the area under the jurisdiction of the Municipal Corporation of Delhi. The DJB also supplies water in bulk to New Delhi Municipal Council and Delhi Cantonment Board. The sources of water for producing potable water are YamunaRiver, Ganga water from Uttar Pradesh, water from Bhakra through Haryana, Ranney wells and tube wells.

The DJB has nine water treatment plants (WTPs). Six plants are functional with a combined capacity of production of 690 million gallons daily (MGD) of potable water. Apart from this, there are four process waste water recycling plants (total capacity 45 MGD) which produces potable water from waste water of WTP.

3.1.1.1 Organizational set up

The DJB functions under the Chairmanship of the Chief Minister of Delhi and is assisted by a Vice Chairperson, nominated by the Speaker of the Legislature and 16 other members consisting of 10 political/ex-officio members and six administrative/executive members. Member (Water) heads the Engineering Wing for water activities which is under the overall control of Chief Executive Officer (CEO), who is assisted by Chief Engineers, Superintending Engineers and Executive Engineers.

3.1.2 Audit scope and methodology

The thematic audit was conducted from June to November 2012, covering the period from April 2009 to September 2012. Records at DJB Headquarters, WTPs, Booster Pumping Stations, Process Waste Water Recycling Plants, Civil and Electrical and Mechanical (E&M)Divisions, Treatment and Quality Control Wing at Wazirabad and Revenue Wing at the DJB headquarters were examined in audit.An entry conference was held in July 2012 with the DJB to discuss the objectives and scope of audit.

All the 22 civil divisions and nine E&M divisions of the DJB were covered for collection of data. Two out of the six operational WTPs (Chandrawal and Wazirabad) and three ProcessWaste Water Recycling Plants were test checked (Chandrawal, Haiderpur and Wazirabad). A detailed study of the water trails emanating from two WTPs, viz. Chandrawal and Nangloi, their related reservoirs, command areas and distribution lines was conducted.

With a view to assessing public perception about water shortage situation,a questionnaire was sent to randomly selected 584 RWAs out of 1947 registered under the Bhagidari scheme of the Government of NCT of Delhi (GNCTD). Responses were received from 111 RWAs.

An exit conference was held on 06 March 2013 to discuss the audit findings and draw the views of the DJB on the same.

3.1.2.1 Audit objective

The objective of thematic audit was to ascertain whether:

- the raw water available in Delhi was sufficient to provide adequate drinking water to whole of the population in Delhi,
- available raw water was being processed in WTPs in an efficient manner with minimum wastage,
- quality of drinking water produced and supplied conformed to the prescribed standards,
- the system for distribution of water was designed for efficient utilisation of available water and to ensure supply of water to whole of the population as per prescribed norms,
- the system of billing and collection was efficient, and
- complaint redressal system was effective.

Audit findings

Augmentation of raw water availability

As per provisional figures of Census 2011, the population of Delhi in 2011 was 167.53 lakh, growing at the rate of 1.92*per cent* per annum. Accordingly, the projected population of Delhi in 2012 is 170.75 lakh and it would be 202.64 lakh in 2021. Considering per capita requirement of 60 gallons per day, current requirement of potable water in Delhi works out to 1025 MGD and for 2021,it would be 1216 MGD. Against this, the current production is only about 818 MGD due to shortage of raw water, leaving a gap of 207 MGD.

In terms of a Memorandum of Understanding (MoU) signed in May 1994 by five basin States, namely Delhi, Haryana, Uttar Pradesh, Rajasthan and Himachal Pradesh, the tentative allocation of Yamuna surface water to Delhi was 0.724 Billion Cubic Metres (BCM) per year. The seasonal allocation of this water is given in **Table 3.1.**

Table 3.1: Allocation of Yamuna water to Delhi

Sl. No.	Period	Allocation (in BCM)
1	July to October (monsoon season)	0.580
2	November to February	0.068
3	March to June	0.076
Total		**0.724**

As can be seen from the above, 80 *per cent* of the allocation is during monsoon season,when most of the water flows through Delhi untapped. The allocation during the remaining two seasons works out to approximately

20 *per cent*. In order to utilise flow of the river during monsoon, MoU was signed (November 1994) by the basin States to build two dams up the river at Renuka (275 MGD) in Himachal Pradesh and Kishau (372 MGD) in Uttar Pradesh (now in Uttarakhand).The GNCTD had released (October 2008) an amount of ₹ 214 crore to the Government of Himachal Pradesh for construction of Renuka dam for exclusive use of Delhi. However, work on these dams had not started even after a lapse of more than 18 years due to disagreement between the beneficiary States regarding sharing of waters and hydro power. Construction of Renuka dam is pending for forest clearance from the Ministry of Environment and Forest, GoI as the clearance earlier accorded was challenged in the Green Tribunal. Kishau dam in Uttarakhand was yet to be taken up.

The raw water for Haiderpur plant is released by the Government of Haryana at Munak (in Haryana) into Delhi branch channel and it flows to Haiderpur plant. In order to reduce loss of water during transit, Haryana proposed (February 1990) construction of an exclusive parallel Water Carrier System (WCS). The WCS was to be utilised for carrying raw water to Wazirabad Water Treatment Plant also. Accordingly, an MoU was signed (February 1993) between Haryana and Delhi for construction of this WCS at an estimated cost of ₹ 314 crore. Haryana was to maintain and operate this WCS for which annual charges were to be paid by Delhi. Once operational, a saving of 80 MGD of water was expected which would have been sufficient to run three WTPs, one each at Dwarka, Bawana and Okhla. The construction was almost complete in June 2012 and by that time Delhi government had released ₹414 crore. Later, a dispute arose between Delhi and Haryana regarding ownership of the expected savings of 80 MGD of raw water. Delhi Government approached (June 2012) Central Government for resolution of the matter. However, the expenditure of ₹ 414 crore on construction of the WCS, remained unfruitful as Delhi did not receive the additional quantity of raw water of 80 MGD.

It was observed that any significant step towards augmentation of the availability of raw water would take about 6-7 years to realize and by that time the population of Delhi would have increased and so would the demand for water.

3.1.3 Production of potable water

3.1.3.1 Water treatment plants

The DJB has six operational WTPs with acombined capacity of 690 MGD of

potable water. Details are given in **Table 3.2.**

Table 3.2: Operational WTPs

Sl.No.	Name of plant	Capacity (MGD)
1.	Chandrawal I&II	90
2.	Wazirabad I,II,III	120
3.	Haiderpur I&II	200
4.	Nangloi	40
5.	Bhagirathi	100
6.	Sonia Vihar	140
Total		**690**

Audit examined records of two WTPs (Chandrawal and Wazirabad) in detail and audit findings are discussed in succeeding paragraphs.

(a) Absence of measurement of wastage at Chandrawal WTP

Raw water for Chandrawal WTP is drawn from Yamuna at Wazirabad. Prior to construction of a twin pipeline from Wazirabad to Chandrawal in April 2012, raw water was supplied through open channels and there was no reliable data on receipt of raw water at Chandrawal. Thereafter, actual reading of raw water intake could commence only in July 2012, as one of the flow meters was out of order.

Similarly, measurement of potable water produced at Chandrawal was also not found reliable. Two methods of calculations were found recorded in the log sheets maintained at ChandrawalWTP-I, the first one was based on flow meter recordings and the other one on the rated capacity of the pumps used. It was seen during test check that the reading recorded for 24 hours on 26 July 2012 and 28 July 2012, by the flow meter was 36 MGD (on both days), while as per traditional method, water pumped out was 32 and 34.22 MGD respectively. Flow meters are considered to provide accurate and actual measurement of water that flowed through the pipeline, whereas reading based on rate of pumping tends to be higher than actual as pumps do not function technically at their 100 *per cent* efficiency. However, in this case, flow meter reading was more than that calculated on the basis of rate of pumping. On enquiry, the EE (E&M-I), stated (November 2012) that repeated complaints were placed with E&M (HP II) about the unrealistic and erratic readings shown by flow meters at both the works.

In case of Chandrawal-II, log sheets for potable water pumped out from the plant was maintained on the basis of capacity of pumps used and the duration of pumping. Since the pumps were very old and were functioning with decreased efficiency, the quantity of water worked out in the log sheets was not accurate.

In the absence of accurate information regarding raw water intake and potable water produced, audit could not derive assurance that the Chandrawal WTP was working efficiently and the wastage of water during purification process was within the permissible limits of eight to ten *per cent*.

The DJB stated (March 2013) that the flow meters are working properly now and the wastage during production is about eight per cent. However, Audit could not verify that the wastage was within permissible limits as there was no system for measuring wastage during treatment at the time of audit.

(b) Wastage of potable water due to defective valves and sluice gates

During visit to Chandrawal WTP-II on 18 to 21 June 2012 (three days), it was seen that the valves installed in the pipelines carrying potable water into the UGR from the filters were leaking continuously.

It was stated (July 2012) by the Executive Engineer that the valves and sluice gates on the filter beds of the plant were leaking as they were more than 57 years old and remained unrepaired/un-replaced due to budget constraints. Test check of log sheets revealed that the operational staff had recorded the necessity of immediate stoppage of major leakages in the sluice valves which also hampered proper cleaning of filters as the required pressure of potable water was not available. Inaction on the part of DJB in plugging the leakages indicates insensitivity towards wastage of precious potable water.

The DJB replied (March 2013) that replacing the sluice valves and gates without a holistic approach towards maintenance and rehabilitation plan is not advisable as it can result in disruption of services and therefore, the existing system is being maintained by incurring bare minimum expenditure. A complete rehabilitation of Chandrawal WTP and its command area is expected to be taken up by 2015. However, allowing leakage of precious potable water to continue, expecting it to be plugged during rehabilitation to be taken up in 2015 does not appear prudent.

(c) Non-removal of silt from River Yamuna at Wazirabad pond

The pond on Yamuna River bed is the source of raw water for Wazirabad and Chandrawal WTPs. Bhagirathi and Sonia Vihar WTPs also draw raw water from Wazirabad during closure for annual cleaning of Murad Nagar conduits which bring Ganga water from Uttar Pradesh to these plants. Records revealed that the deposit of silt reduces the capacity of pond as depth of water is reduced by three to four feet. Dredging of the pond was last carried out in July 2006. Although a proposal was mooted for de-silting by Executive Engineer (E&M-II) in September 2011, only administrative approval for the same was given by the Board and tender was yet to be called for as of January 2013. Delay in dredging resulted in reduction in capacity of the pond thereby depriving the DJB of any water reserve to meet emergency situations.

In its reply (March 2013), the DJB stated that since dredging is more prevalent in coastal areas, not much expertise exists in Delhi due to which it

took time to develop clarity on methodology and conditions to define scope of work. The reply is not convincing as dredging was carried out earlier also in the year 2006.

(d) Underutilisation of capacity of pumps

As per Energy Audit Report (December 2006) for WTP-I, Chandrawal, the operating capacity of two out of 10 pumps used for pumping potable water, were 57 *per cent* and 63.7 *per cent* respectively, which were below the designed efficiency of 85 *per cent*. The reasons for lower output were- (i) smaller size of delivery pipe due to which velocity of water in these pumps were more than acceptable limits and (ii) operation of the pumps at a higher head than the rated figure. The Energy Auditors recommended modification of delivery pipelines, but no action was taken by the DJB as of October 2012 resulting in underutilisation of the pumps.

The DJB replied (March 2013) that once the rehabilitation of Chandrawal WTP is complete, the issue will be resolved. The reply is not convincing as even after six years, no action was taken on the report that was prepared in 2006.

3.1.3.2 Process waste water recycling plants

During the process of producing potable water, WTPs produce waste water in the form of sludge from clarifiers and backwash from filters (water used to wash the filters). The average permissible wastage of water is eight to ten *per cent*. In order to augment the production of potable water, the DJB constructed four Process Waste Water Recycling Plants (PWWRP)as detailed in **Table 3.3.**

Table 3.3: Details of recycling plants

Sl. No.	Location	Capacity (MGD)
1	Chandrawal	8
2	Wazirabad	11
3	Haiderpur	16
4	Bhagirathi	10
Total		**45**

(a) Delay in commissioning of recycling plant at Chandrawal

DJB entered into an agreement (February 2007) with M/S Gannon Dunkerley& Co. Ltd. for construction of PWWRP with a capacity to produce eight MGD of raw water on turnkey basis at a cost of Rs 12.86 crore, with

stipulated date of commissioning as 30 June 2008 including three months trial run. The raw water produced by this plant was to be fed to the inlet of the main WTP.

The recycling plant was stated to be functional from 28 September 2012 and has been producing raw water since then. However, scrutiny of records revealed that the plant was producing only 4.70 MGD of raw water on an average during the period from September to October 2012 against its designed capacity of eight MGD. The plant was yet to be commissioned as of November 2012.

Thus, delay in commissioning of the recycling plant deprived the people of more than seven MGD of precious potable water for more than four years, considering wastage of eight *per cent* during treatment.

The DJB replied (March 2013) that the delay in commissioning was due to various reasons like extreme site constraints and high ground water table which impeded construction of deep chambers, demolition and reconstruction of chambers necessitated by insufficient space, hindrance in deep excavation due to other underground pipes etc. It was also stated that the plant is now fully commissioned. However, the fact remains that the plant was commissioned after a delay of more than four years. The site constraints and other difficulties could have been foreseen.

(b) Low production of water due to damaged waste water pipelines

The recycling plant at Wazirabad was required to produce 11 MGD of potable water after collecting waste water from the three 40 MGD plants. The plant was commissioned in December 2009. The pipeline carrying waste water from one of the plants was damaged in January 2010 and thereafter, waste water from only the remaining two WTPs was being utilised for production of raw water. Due to this, the average production of water by the recycling plant during January-June 2012 was reduced to 7.34 MGD against full capacity of 11 MGD. Though two years have passed, damaged pipe has not been repaired which resulted in short production of potable water to the extent of 3.66 MGD.

The DJB, in its reply (March 2013), stated that the pipe line bringing waste water from one of the plants crossed another pipeline for supply of water from Haiderpur to Wazirabad and vice-versa in emergency. Therefore, waste water pipeline required re-routing under the other pipeline and the work is likely to be completed within next two months. However, the reply did not explain why repairs/re-routing of a pipeline damaged in January 2010 was taking such a long time.

(c) Short production at recycling plant, Haiderpur

Two WTPs at Haiderpur of 100 MGD capacity each collectively produce about 16 MGD of waste water, for which a recycling plant of 16 MGD

capacity has been constructed by M/s Larson and Toubro Ltd., who was also entrusted with the operation and maintenance of the plant. The plant is in two parts. The first part converts the waste water into raw water and the second produces potable water from this raw water. As per the contract, 97 *per cent* of the waste water was to be converted into potable water.

Audit scrutiny of data of water produced during 12 months for the period from April 2010 to August 2011 (April to May 2010, August to October 2010, December 2010 to February 2011 and May 2011 to August 2011) revealed that during this period, the plant produced 4788 MG of potable water from 5464 MG of waste water. The wastage at the recycling plant was 12.37 *per cent* which was more than four times the permissible wastage of three *per cent*. The short production of potable water due to excessive wastage worked out to 1.4 MGD.

The DJB stated (March 2013) that the recycling plant is required to be operated at the peak efficiency for nine months in a year since during monsoon season, the efficiency will reduce due to increase in turbidity in the raw water which affect recovery of water at the recycling plant. The reply is not correct since the plant was not giving the desired output in any of the months for which data was provided to Audit.

3.1.3.3 Qualityof potable water

The DJB has water testing laboratories at all WTPs, beside six Zonal laboratories to ensure quality of potable water as per BIS norms. The laboratories conduct chemical and bacteriological analysis of water from WTPs, reservoirs, samples from private bodies/individuals, tube wells, Deep Bore Hand Pumps, Ranneywells and other sources.As part of thematic audit, records of Quality Control Laboratory, Wazirabad was examined. Audit findings are discussed in the succeeding paragraphs.

(a) Shortage of manpower

As per information made available to audit, against sanctioned strength of 180 for quality control, only 118 regular staffs beside 16 technicians on contract basis, were available leaving a shortage of 46 staff.

(b) No corrective measures on deficiencies reported in test reports

In addition to its own laboratories, DJB has also engaged the services of National Environmental Engineering Research Institute (NEERI), a government agency, to conduct third party quality checks of potable water. Corrective measures are to be taken by Zonal Engineers on deficiencies pointed out in reports of field laboratories and NEERI. Audit observed delays in taking remedial action by Zonal Engineers on reports forwarded by the Field and Zonal Laboratories and NEERI indicating absence of an effective internal control mechanism within the DJB.Out of 19 cases pertaining to the period from July 2011 to September 2011 test checked, in five cases, no

remedial action was found to have been taken by the Zonal offices on rechecking. As a result, substandard potable water was used by the public.

The DJB replied (March 2013) that since the city has intermittent water supply system, period of physical checking and collection of water samples gets restricted. Due to these reasons, corrective measures to restore water supply becomes time consuming. Steps are being taken to improve upon it.

3.1.4 Distribution of potable water

With a per capita requirement of 60 gallons (274 litres) of water per day including domestic, institutional, industrial and fire service requirement, the total requirement of potable water for Delhi works out to 1025 MGD, against which the DJB produces and distributes about 818 MGD of potable water, the shortage being 20.02 *per cent.* Nevertheless, the management of distribution of water by DJB was found to be deficient on various counts as discussed in the succeeding paragraphs.

3.1.4.1 Irrational assignment of jurisdictional areas to Divisions for supplying potable water

In Delhi, six WTPs cater to the water need of the population of individual command areas. Potable water is initially pumped through transmission lines into Underground Reservoirs (UGRs) located in command areas, from where it is further pumped into smaller UGRs and then distributed to households through distribution lines with the help of booster pumps. Pumping of water into various UGRs and distribution lines is managed by nine E&M divisions of the DJB whereas distribution lines are maintained by 22 civil divisions. Audit observed that the allocation of jurisdictional areas amongst various divisions, E&M as well as Civil, was done on the basis of Assembly Constituencies. Consequently, each division has to cater to two or more constituencies. In this set up, some E&M divisions receive water from two or more WTPs and most of them supply water to more than one civil division making it difficult to track the flow of water from WTPs to the users. Similarly, individual civil division get water supply from more than one E&M division. In some cases, water from one UGR is supplied to areas under more than one civil division. Some time, a single distribution line covers parts of two civil divisions also. In this scenario, water supplied to each division is not measurable, making proper management and distribution of available potable water ineffective and inefficient respectively. Due to the complicated system of distribution, water is not supplied to divisions according to the population of the area under their jurisdiction. As such, the present allocation of distribution work amongst various divisions is not conducive to efficient water management and equitable distribution of potable water to the population of Delhi. A proper distribution of jurisdictional areas will also aid in making individual civil division accountable for water received, distributed, distribution loss, non-revenue water, etc.

In reply, the DJB stated (March 2013) that the management deficiencies were largely because the city had been growing partly in an unplanned manner. It was further stated that the concept of district metering area was being implemented through which it would become possible to account for the water supplied and consumed in the command of specific water facility. It would also help in distributing water more evenly and reduce non-revenue water.

Planning process of DJB should have taken into account the population growth patterns and expansion of the city. Further, as regards implementation of the concept of district metering area, the DJB has not given any time frame for the same.

3.1.4.2 Population not receiving piped water

As per information available from census 2011, 24.8 *per cent* of the households in Delhi were not receiving piped treated water. As per information furnished by 15 out of 22 civil divisions, a population of 32.53 lakh not covered through pipelines, was supplied with 1000.94 MG of water through tankers during the year 2011-12 with average per capita supply of 3.82 litres per day against a prescribed norm of 172 litres per capita per day for domestic use. The details are in **Annexure-3.1**.

The DJB stated (March 2013) that tanker supply is an emergency supply to meet drinking water needs only and for non-potable purposes, water demand is met through ground water resources in the areas. However, the fact remains that DJB failed to supply adequate piped treated water to 24.8 *per cent* of households in Delhi.

3.1.4.3 Short supply/non-availability of water in areas at tail end of distribution lines

Audit observed that DJB was also supplying water through tankers to areas connected by distribution lines. The reason for this was shortage of water in those areas due to installation of online booster pumps by consumers. As per information furnished by 11 civil divisions, more than seven lakh people were affected due to shortage of water in areas covered through distribution lines. On this issue, DJB stated that although installation of on line booster pumps by consumers is not permitted, action is taken only when a specific complaint is received. DJB's approach towards removal of illegal online boosters was not proactive, even though this was affecting proper distribution of potable water.

In reply (March 2013), the DJB stated that three magistrates had been appointed for taking action against those who indulge in installation of online boosters and illegal tappings but this drive needed to be pursued more to address the problem of shortage of water in tail end areas. However, the reply is silent about concrete action plan and time frame for addressing this issue.

3.1.4.4 Non-accountability of water supplied

The distribution of potable water is the responsibility of civil divisions which maintain distribution lines and attend to consumer grievances, complaints relating to short supply, unauthorized connections, installation of meters etc. However, there is no system in DJB to measure the quantity of water received by each division and actually distributed to consumers. Due to this, DJB is not in a position to determine accountability with regard to wastages, leakages, non-revenue water etc.

Although a project for installation of 305 flow meters was launched in July 2007 with scheduled date of completion as 18 July 2009, only 284 meters were installed till May 2012. Further, information from these flow meters is not of much use as it does not give quantity of water supplied to individual divisions.

The DJB stated (March 2013) that once the entire network is divided into district metering areas, it would be possible to account for the water supplied and consumed. However, the DJB has not given any specific details of schedule of implementation.

3.1.4.5 Water trail from Nangloi WTP

The water trail from Nangloi WTP was analysed in detail in audit to illustrate the deficiencies in distribution system. The Nangloi WTP produces approximately 40 MGD of water and supplies to areas under four civil divisions through two E&M Divisions. Water from the WTP is also being supplied to IGI Airport and to DDA.

There are two transmission lines emanating from the WTP, one towards Pappankalan and the other towards Najafgarh. The Pappankalan line supplies water mostly to areas under West III division through three primary UGRs at Hastal village, Bodella and Panchwati. Apart from these, there is one more UGR, Command Tank-2 (CT-2) being maintained by the DDA served by this line. Seven distribution lines also branch out from the transmission lines which supply water directly to Vikas Nagar, Mundka, Nagloi, Dabri, Fish Market, Vishwas Park and MatialaVillage. Further, there are 12 smaller UGRs under Bodella main UGR which supplies water to Vikaspuri area. A map of distribution lines emanating from the WTP is placed at **Annexure-3.2.**

Pumping of water from various UGRs is handled by two E&M divisions viz. West and South West divisions. Apart from water from Nangloi, West Division also handles water from Haiderpur and Wazirabad WTPs. Similarly, South West Division also handles water from Haiderpur and Sonia Vihar. Further, areas under three out of four civil divisions which receive water from Nangloi,also receive water from Haiderpur WTP. This is due to the fact that the jurisdictional areas of civil divisions have been allocated on the basis of Assembly constituencies. One distribution line from Bodella UGR branches

into two and both the branches supply water to areas under both West-I and West III divisions. Similarly, water from CT-2 (DDA UGR) is supplied to areas under West-I, West-III and South West I divisions through a single distribution line which snakes through all these divisions. In this set up, water received by each civil division can not be measured.

As per information furnished by the four civil divisions receiving water from Nangloi WTP, the total population in the command area of WTP Nangloi was 23.47 lakh. Since average production of water at the WTP was 40 MGD, per capita availability of potable water per day works out to 77.36 litres. However, per capita supply of water to different areas under the WTP ranged from 3.36 litres per day to a population of 2.5 lakh under the Daulatpur UGR to 224.61 litres to a population of 1.9 lakh in Nangloi area being fed directly from the transmission line. Areas under Daulatpur and Ujwa UGRs were getting water from WTP only once in two days. Details of area wise population, water supply and per capita supply in the command area of the WTP are given in **Annexure-3.3**. Per capita supply position of potable water to different areas is given in **Table 3.4.**

Table 3.4: Per capita supply position of potable water

Sl. No.	Per capita supply per day	Population
1	Below 20 litres	5.73 lakh
2	20 to 50 litres	8.79 lakh
3	50 to 75 litres	3.32 lakh
4	75 to 100 litres	1.34 lakh
5	100 to 150 litres	0.40 lakh
6	Above 150 litres	3.90 lakh

As can be seen, the distribution of water to the population was far from equitable. It was also observed that the areas which were receiving excess water, i.e. Nangloi and Mundka, were being supplied water directly from the transmission lines near the WTP. This indicates that there is no regulation of water supply in areas where the water is supplied directly from the transmission lines.

Although all the four divisions furnished population served by each UGR/distribution line, these figures were stated to be based on the voters list of the area. Therefore, the population figures are only an approximation and not actual. In the absence of reliable data, the DJB was not in a position to ensure distribution of water according to actual requirement in different areas.

The DJB, in its reply (March 2013), stated that large number of unauthorized growth in unplanned colonies came up in West and South West Delhi due which the water supply in its command area became un-rationalised. Some of the areas presently being fed from Nangloi WTP were to be transferred to command of other WTPs. It was also stated that the DJB had taken up a project under PPP module so that 24 hours water supply at adequate pressure is available in all the households.

The reply gives reasons for deficiencies in distribution and DJB's plans for resolving them. However, no specific time frame has been given as to when the problems of shortage of water and inequitable distribution would be resolved.

3.1.4.6 Deficiencies in water trail from Chandrawal WTP through distribution lines to end users.

There are six civil divisions that receive water from Chandrawal WTP (Central-I, Central-II, North-I, North West-IV, South West-III and West II). They also receive water from Wazirabad WTP and Haiderpur WTP and have 65 UGRs under their control. There are 10 main UGRs receiving water from Chandrawal WTP and supplying to distribution lines. Examination of water trail from Chandrawal WTP revealed the following deficiencies:

(a) Non utilisation of UGR at Palam

Apart from the operational UGR at Palam, there is one more reservoir of 2.4 MG to supply water when the operational UGR is shut down for cleaning etc. This additional reservoir was repaired in 2004-05 at an approximate cost of ₹ 80.00 lakh but was not handed over to E&M Division by Civil wing (October 2012) after repairs, resulting in non-utilisation of this reservoir.

In its reply (March 2013), the DJB stated that the reservoir would be used shortly for NDMC supplies. However, the fact remains that a reservoir repaired at a cost of ₹ 80 lakh remained unused for eight years.

(b) Absence of actual data on population and quantity of water supplied to different areas

In North West-IV, West-II & South West-III divisions, the data on population of their command areas is not maintained while in Central-I, II & North-I divisions, the respective Executive Engineers stated that the methodology of determining the population of the command areas was based on the voters list of area.

Further, in most of the cases, quantity of water supplied from each UGR was calculated on the basis of capacity of booster pumps and the duration of pumping. Even where flow meters were installed, data from such flow meters were not being used by Divisions.

The DJB replied (March 2013) that the issue would be resolved once the proposed rehabilitation of Chandrawal WTP is done. Thus, there is no definite time bound action plan.

Revenue earnings

3.1.5.1 Metering of water supply

In order to keep a watch on consumption patterns and realisation of revenue, proper measurement of supply of water for domestic, commercial and industrial purposes is essential.

As per information furnished by DJB (August 2012), there were 19.64 lakh connections out of which 6.79 lakh were un-metered/without functional meters which constituted about 35 *per cent* of the total connections. Apart from ensuring proper realisation of revenue, metering will also increase efficiency in use of water, detection of leakages in the system and enable high end consumers to be charged for extra consumption. Supply of water to such a large number of consumers without meters/with defective meters is detrimental to optimum utilisation of the available potable water apart from depriving DJB of revenue.

In its reply (March 2013), the DJB stated that it had sanctioned a proposal for procuring and installing eight lakh domestic water meters meeting international standards and tenders for procurement of four lakh water meters had already been received. However, the reply is silent as to when the DJB would be able to achieve metering of remaining water connections.

3.1.5.2 Non-revenue water

Non-revenue water is water which does not earn any revenue. This could be due to different reasons like unauthorised consumption through illegal connections, water theft, metering inaccuracies, authorised consumption not billed such as public taps and also real losses through leakages in the transmission and distribution networks. Reduction in non-revenue water will not only improve financial sustainability of the DJB but also reduce loss of water which can be used to meet currently unsatisfied demand or future demand of potable water.

In terms of Ministry of Urban Development, GoI Handbook on Service Level Benchmarking, the acceptable extent of non-revenue water is considered as 20 *per cent.* However, the extent of non-revenue water in DJB was more than three times the prescribed limit during last three years as shown in **Table 3.5.**

Table 3.5: Extent of non-revenue water

Year	Water produced (MGD)	Water billed (MGD)	Non-revenue water (MGD)	Percentage of non-revenue water
2009-10	800	264.24	535.76	66.97
2010-11	835	293.94	541.06	64.80
2011-12	818	306.00	512.00	62.59

This issue was also highlighted in the Comptroller and Auditor General's Report on Government of NCT of Delhi of 2008 but there was no improvement in the situation as the extent of non-revenue water was pegged at 64.78 *per cent* in 2006-07. This indicates that DJB lacks seriousness in intent to tackle the problem of excessive non-revenue water.

The DJB stated (March 2013) that high non-revenue water in Delhi was largely attributable to unregistered consumers residing in JJ Clusters/Unauthorised/Unplanned areas which were yet to be covered by the planned network. Further, as per Government Policy, water supplied through tankers and from tubewells is not billed. However, the DJB has not provided any data relating to the effect of these factors on non-revenue water. Further, the extent of water supplied through tankers and tubewells was less than 15 *per cent* whereas the extent of non-revenue water was more than 60 *per cent*.

3.1.5.3 Loss of revenue amounting to ₹ 3950.90 crore due to short billing

The details of potable water produced, quantity to be billed (at 80 *per cent* of total production), quantity actually billed, average tariff and revenue loss due to short billing, during last three years were as shown in **Table 3.6.**

Table 3.6: Details of revenue loss

Year	Average production (MGD)	Quantity to be billed as per norms (MGD)	Average quantity billed (MGD)	Billed amount (₹ in crore) per year	Average tariff per MG (₹ in crore)	Revenue loss due to short billing (₹ in crore)
2009-10	800	640	264.24	971.39	3.68	1382.80
2010-11	835	668	293.94	926.17	3.15	1178.29
2011-12	818	654.40	306.00	1217.36	3.98	1389.81
					Total	**3950.90**

As can be seen, high percentage of non-revenue water resulted in loss of revenue of ₹ 3950.90 crore during the last three years.

3.1.5.4 Collection of arrears

Billing should be followed by collection of revenue against bills raised. Inefficient revenue collection results in accumulation of arrears. Year wise details of arrears of revenue at the beginning of the year, bills raised during the year, targeted collection, amount actually collected and arrears at the end

of the year during the years 2009-12 are given in **Table 3.7.**

Table 3.7: Details of arrears of revenue

(₹ in crore)

Year	Opening balance	Addition during year	Revenue target	Revenue collected	Arrears
2009-10	881.66	971.39	470.00	670.11	1182.94
2010-11	1182.94	926.17	805.55	924.86	1184.25
2011-12	1184.25	1217.36	1100.00	1202.47	1199.14

The above table indicates that in spite of achieving the targets fixed for revenue collection every year,the arrears amount has been increasing consistently. Scrutiny of records revealed that DJB arrived at the projected billing amount for 2012-13 by increasing last year's billed amount by 10 *per cent*. The target for revenue collection for 2012-13 was fixed at 75 *per cent* of this projected billing along with 10 *per cent* of arrears (8-10 years old) and 15 *per cent* (remaining arrears). Accordingly, the projected billing for 2012-13 was ₹ 1339.10 crore whereas the target fixed was ₹ 1300.28 crore. Fixing of target for revenue collection including arrears below the projected billing is not realistic since achieving this target would not reduce the arrears of revenue.

3.1.6 Public perception regarding service provided by DJB

3.1.6.1 Public opinion

To ascertain public perception on the quality of services provided by DJB, a questionnaire was sent to randomly selected 584 RWAs out of 1947 registered RWAs in Delhi. The questions sought information onthe duration of availability, sufficiency andquality of water supplied, the complaint redressal mechanism etc. Analysis of responses received from 111 RWAs revealed that:

- *Sixty four RWAs received water for less than two hours a day in summer season and 59 RWAs received water for less than two hours a day in winter season.*
- *Eighty seven RWAs did not receive sufficient water in summer season and 71 out of 87 RWAs did not receive sufficient water in other seasons also.*
- *Fifty nine RWAs felt that the water was unfit for drinking In summer season while 51 RWAs felt the same in winter season.*
- *Seventy eight RWAs were not satisfied with the complaint redressal mechanism of DJB.*

Thus, the outcome of survey strengthens audit conclusions regarding shortage of water and unequal distribution of water discussed in paragraphs 3.1.4.2, 3.1.4.3 and 3.1.4.5.

3.1.6.2 Redressal of public grievances

The Central Control Room (CCR) maintains Register of Complaints to record complaints received from the general public on various issues like no water,request for tanker, dirty water, sewerage blockage, leakage/burst, unauthorized water connection etc. Out of 56,806 complaints received between April 2009 and June 2012, entries in respect of 21698 complaints were test checked in audit. It was noticed that in 62.60 *per cent* of cases, remedial action was not recorded while in 15.39 *per cent* cases, action was either recorded late or no date was recorded. Only in 22.01 *per cent* cases, the entries reflected satisfactory action.

The DJB stated that although the complaints were sent to the Water Emergencies (units functioning under each civil division) concerned, records at CCR remained blank due to non receipt of feedback in most of the cases from them. In the absence of proper entries in the register, audit could not ascertain whether all the complaints were attended to in a timely manner.

3.1.7 Absence of Management Information System

Availability of timely, accurate and reliable data is of paramount importance for efficient functioning of any organization. It was observed that DJB has no management information system in place to collect and analyse data relating to requirement of water, production and distribution of potable water etc. In the absence of real time information, each WTP produces and supplies water to its command area on pre-determined quantities, irrespective of the actual demand. Further, in the absence of data relating to water received and billed by each civil division, the problems of transmission losses, non-revenue water, inequitable distribution of potable water etc. continue to persist.

In its reply, the DJB has stated (March 2013) that it had implemented various IT based projects such as FMS (for budget allocation), PMS (for project monitoring), RMS (for revenue monitoring) etc. and efforts were being made to integrate these through the common monitoring system. The reply does not cover the issue of collection and analysis of data relating to requirement of water, production and distribution of potable water.

Conclusion

The raw water available to Delhi is not sufficient to provide potable water to the whole population of Delhi. Construction of dams up river for augmentation of raw water in Delhi would take 6-7 more years to complete. The production of potable water by WTPs was found to be below the designed capacity. Due to absence of a proper measurement system, it could not be ascertained whether the wastage of water during treatment at Chandrawal was within permissible limits. The eight MGD recycling plant at Chandrawal was commissioned after a delay of more than four years whereas the recycling plant at Wazirabad was working below its capacity due to damage in pipeline.

Production of potable water at Haiderpur recycling plant was also found to be sub-optimal.

The DJB has neither a proper measurement system to measure water supplied to different areas nor reliable data about the population in different areas to regulate supply of water equitably. The allocation of jurisdictional areas among divisions was not conducive to efficient water management and it was not possible to measure water received and distributed by each division. In the absence of proper measurement system, there was no accountability for the water received in each division. Also, the distribution of potable water was not equitable with per capita supply ranging from three litres per capita per day to more than 300 litres per capita per day. Further, 25 *per cent* of the households in Delhi were receiving drinking water through tankers instead of pipes. The per capita supply to this population was only 3.82 litres per day against a prescribed norm of 172 litres. Metering of water supply at consumer end was not comprehensive due to which the non-revenue water, i.e. water which do not fetch any revenue remained more than 60 *per cent* during the last three years.

Recommendations

- *The DJB may pursue the matter of construction of dams up river on Yamuna so that adequate raw water is available to Delhi at the earliest.*
- *The DJB may ensure optimum utilisation of available raw water by optimising production at recycling plants at Wazirabad and Haiderpur.*
- *The DJB may strengthen manpower of its Quality Control Wing to properly monitor quality of drinking water.*
- *The DJB may endeavour to ensure supply of piped water to the whole of Delhi by laying adequate distribution lines.*
- *The DJB may put in place systems for measurement of water at each WTP, UGR and distribution line in order to make measurement of process wastage, equitable distribution of water, controlling of wastage and non revenue water possible so that each division remains accountable for the management of water.*
- *The DJB may endeavour to cover maximum population for fixation of water meter at consumer end so that wastage of water by consumers is minimised and revenue is maximised.*
- *The DJB may put in a place a Management Information System to collect and analyse data relating to production and distribution of potable water.*

3.2 Thematic Audit on Patient Care Facilities in Delhi Government Hospitals

Executive Summary

The thematic audit revealed that budgetary and expenditure control in the hospitals were inadequate leading to persistent savings under the head 'Machinery & Equipment', 'Supplies & Material' and 'Salaries' which indicates insufficient procurement of equipment, medicines and shortage of staff. Due to inadequate number of registration and pharmacy counters and shortcomings in their computerization, hospitals failed to handle large crowds. OPD services were affected due to shortage of medical equipment, medicines, injections, infrastructure and medical support items. The Emergency Departments were not providing required services due to lack of essential equipment, medicines and adequate staff. Numbers of beds, necessary equipment, patient trolleys were not commensurate with the number of patients that the hospitals have to attend daily. Laboratories and Diagnostic Services were found wanting on many counts. Some tests were not being conducted in the hospitals as test equipment were out of order. All five minor hospitals did not have blood banks, whereas the license for blood bank was not renewed in GTB hospital. All the hospitals were lacking in facility for purified and clean drinking water. Scrutiny of records of waste management system in GTB hospital revealed that it failed to rectify the defects in the incinerator and had serious lacunae in waste management system. The GTB and LN hospitals have been using ambulances, mainly for miscellaneous purposes instead of for the patients, and the ambulances were not equipped with essential equipment for basic life support system. In GTB hospital, a CT Scanner costing ₹ 7.17 crore, was procured on emergency basis but installed after a delay of 20 months from the stipulated date of installation. There were many cases where machines and equipment were not functional causing delay in treatment and inconvenience to patients.

3.2.1 Introduction

The Department of Health and Family Welfare (the department) of the Government of NCT of Delhi (GNCTD) is headed by the Principal Secretary who controls the functioning of the Directorate of Health Services, the Directorate of Food Adulteration, Drug Controller, 37 hospitals, Autonomous Bodies* under GNCTD and other National Health Programmes. The department caters to the health needs of nearly 160 lakh population of Delhi and also shares the burden of migratory and floating population from neighboring States, which constitute nearly 33 *per cent* of total intake at major hospitals in Delhi.

3.2.2 Scope of audit and methodology

The thematic audit covered the period 2009-10 to 2011-12 with specific focus on patient care facilities in government hospitals including areas, such as, financial management and manpower resource management.

10 out of 37 government hospitals were selected on the basis of bed strength of hospitals for audit scrutiny as given below:

No. of beds	Total hospitals	Hospital selected	Name of the hospital†
More than 500	5	5	GTBH, LNH, DDUH, BSAH, GB Pant
100 to 500	32	5	LBSH, RTRMH, BJRMH, AAAGH, ASBH

Audit examined the records relating to registration, emergency wards, OPD, laboratory, different wards of hospital, kitchen etc. Other issues which are relevant to patient care like drinking water, cleanliness, air conditioning, air purifier, waste management and ambulance services were also covered in audit. Physical surveys to obtain feedback from the patients were conducted and audio / video recording of the concerned patient care units were made to assess the quality of patient care facilities being provided in the hospitals. Audit observations were issued to the concerned hospital authorities seeking their views. The comments, wherever received, were considered and appropriately incorporated in the Report.

IHBAS, Delhi AIDS Society, CATS.

†*(i)Guru Teg Bahadur Hospital (GTBH), Lok Nayak Hospital (LNH), Deen Dayal Upadhayay Hospital (DDUH), Baba Saheb Ambedkar Hospital (BSAH), Govind Ballabh Pant Hospital (GB Pant) (ii) Lal Bahadur Shastri Hospital (LBSH), Rao Tula Ram Memorial Hospital (RTRMH), Babu Jagjivan Ram Memorial Hospital (BJRMH), Aruna Asaf Ali Government Hospital (AAAGH), Acharyashree Bhikshu Government Hospital (ABGH)*

3.2.2.1 Audit criteria

The patient care facilities in the hospitals were benchmarked against the criteria derived from the following sources:

(i) Budget allotment and expenditure statements provided by the hospitals,

(ii) The status of sanctioned strength and men-in-position provided by the hospitals,

(iii) General Financial Rules, notifications and various orders issued by the Government, the department and hospital authorities,

(iv) The physical visits to the various departments and locations of the selected hospitals, and

(v) Interaction with the hospital authorities, medical as well as paramedical staff, patients and their attendants.

Audit findings

3.2.3 Budget allocation and utilization

The budget allocation, expenditure and savings for the period 2009-10 to 2011-12 in respect of 10 selected hospitals are given in **Annexure-3.4.** There were persistent savings, though not significant, under the heads 'Salaries', 'Material & Supplies' and 'Machinery & Equipment', during the period covered under audit. The position of savings during 2009-12 under these heads in eight hospitals is summarized in the **Table 3.8.**

Table 3.8:Summarized position of savings (2009-12)

(₹ in lakh)

Name of hospital	Savings under 'Material & Supplies' and 'Machinery & Equipment'			Savings under the head 'Salary'		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
LNH	13.45	31.53	192.30	16.91	100.73	200.20
GTBH	30.90	423.27	4.27	25.05	220.20	486.30
BJRMH	16.23	45.52	0.78	6.90	30.09	5.77
LBSH	0.04	97.25	4.34	232.72	78.50	24.52
RTRMH	1.60	4.04	48.64	2.69	40.88	15.46
DDUH	2.45	113.58	2.54	8.42	37.26	11.31
BSAH	5.77	--	79.64	4.40	78.00	21.98
GB Pant	--	--	819.90	--	--	244.60

The status of savings indicates that hospitals failed to utilise the available budget allocation in full, particularly LNH, GTBH and GB Pant. The savings under above mentioned heads adversely affect patient care facilities due to shortage of medical staff, procurement of medicines and equipment. Hospitals stated (December 2012) that the reasons for savings under heads 'Material & Supplies' and 'Machinery & Equipment', were non-approval or non-finalisation of purchase proposals by the Equipment Procurement Cell (EPC) of the department, non-supply of drugs and medicines within the scheduled time, 10 *per cent* cut in non-plan expenditure, and reasons for savings under the head 'Salaries' were resignation of senior and junior resident doctors, non-payment of ACP/MACP[‡] arrears (GTBH) and non filling up of vacant posts (LBSH).

3.2.4 Human resource management

The shortage of medical, para-medical and nursing staff affects adversely the quality and efficiency of medical care that hospitals are expected to provide. The status of sanctioned strength and men-in-position in these cadres during the period 2009-12 in respect of 10 selected hospitals is given in **Annexure-3.5.** The status of percentage shortage in six hospitals is summarized in the **Table3.9**given below:

Table 3.9: Staff shortage (in *per cent*)

Name of hospital	Doctors			Staff Nurses			Pharmacists		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
GTBH	24	35	36	11	11	17	13	13	17
LNH	33	25	33	8	47	37	5	5	5
RTRMH	15	17	8	1	6	2	17	17	–
DDUH	5	5	13	41	38	23	–	–	6
BSAH	17	13	18	2	2	7	–	–	–
GB Pant	--	–	32	–	--	42	–	–	22

The status given in the table points to the fact that despite a continuous overall increase in number of patients, there was a severe shortage in doctor's cadre followed by staff nurses.

The **GTB** hospital stated **(December 2012)** that it conducted interviews every month to fill up the posts of Junior and Senior Residents on adhoc and emergency basis and regular interviews were conducted twice a year to fill up the vacant posts. Regarding shortfall of Staff Nurses and Pharmacists, it was stated that the hospital had already initiated the process of filling up the vacant posts on contract basis. The **LN** hospital and **RTRM** hospital stated that in addition to official procedure for recruitment

[‡] *Assured career progression/ Modified Assured career progression*

of medical/para-medical staff, efforts were being made to recruit Junior and Senior Residents at the level of hospital itself. The **BSA hospital** stated that interviews for selection of Junior and Senior Residents had already been held and doctors were under process of joining.

3.2.5 Registration of patients

It was observed that 3000 to 4000 patients in big hospitals (with > 500 beds) and 1000 to 1500 patients in smaller hospitals (with < 500 beds) visit daily for registration. There are four to 18 counters for registration of patients in selected hospitals where registration is done from 9:00 AM to 12:00 PM. Audit visited the registration counters and observed long queues of patients in front of registration counters. Patients have to wait for one to two hours for registration, and in some cases they have to re-visit the next day for registration. This indicated that the number of counters and the working hours of registration counters were not sufficient to handle the volume of registration work.



Overcrowded registration counters of LBSH

The deficiencies noticed with regard to registration of patients in selected hospitals are discussed below:

3.2.5.1 Inefficient counter services

The registration work in four hospitals (ABGH, LNH, GTBH and AAAGH) had been outsourced. There were long queues of patients in front of registration counters and staff at counters failed to register the patients quickly. It was seen that in ABGH and LNH, patients were going back without registration. Interaction with counter staff at **ABG** hospital and **LN** hospital revealed that they were paid only ₹ 2000-3500 per month. Audit observed that there was a frequent change of staff at the counters and they were unable to handle large number of patients.

The **ABG** hospital in its reply stated **(December 2012)** that there is no complaint by the employees regarding the wages. Penalty was being imposed and deduction from the contractor's bill made for non-functional counters as per clause-9 of the agreement. The **LN** hospital stated that it had procured counter services from contractor at ₹ 9892 per counter per month. The replies are not tenable as hospitals did not ensure a mechanism in place to handle large volume of patients visiting the hospitals everyday.

3.2.5.2 Shortcomings in computerization

Registration services have been computerized in most of the hospitals, however, instances of manual registrations were also observed during visit to the counters. It was observed that two out of four in **ABG** hospital, five out of 18 in **GTB** hospital, four out of 10 in **LN** hospital and five out of eight registration counters in **DDU** hospital were not functioning. In **AAAG** hospital, the registration was being done manually. Non-computerization and break down of computers affects registration of patients. Audit observed that one or two counters always remained out of order. In response to audit observations, hospitals replied as follows:

- **ABG** hospital stated that manual registration provisions exist as and when computer system fails,
- **AAAG** hospital stated that the matter of computerization of registration had been taken up with the DHS , timely payment was not made to the outsourced agency for want of approval of the Finance Department,
- **GTB** hospital stated that the paraphernalia of the agency was not up to the mark and the agency had been directed to rectify the shortcomings, and
- **LN** hospital stated that maintenance of computers was being done by the vendor.

The replies are not tenable as the final responsibility of running the counters smoothly was that of hospital authorities.

3.2.5.3 Lack of Infrastructure

Visits to registration counters at selected hospitals revealed numerous shortcomings which are discussed below:

- Two out of ten ceiling fans, one exhaust fan and PA system were not functional **(ABGH)**,

- The registration counters were in open without any roof causing inconvenience to patients and most of the area at registration counter was occupied by the parked vehicles (**AAAGH**),
- Ten out of 20 fans, one table fan and 17 tube lights were not functional. The chairs and tables were in bad condition (**GTBH**), and
- Registration hall was not spacious for rush of patients and CCTV cameras were non-functional (**DDUH**).

Hospitals stated that PWD had been requested to make all the installations functional (**ABGH**), a small shed had been erected and marking done to make the area reserved for patients' queues (**AAAGH**), and matter for repair had been taken up with PWD (**GTBH**).

3.2.6 OPD services

Visits to OPDs of selected hospitals revealed following shortcomings:

3.2.6.1 Shortage of medical equipment

Interaction with staff revealed that there was shortage of essential medical equipment in OPDs, for example:

- one RVG Machine was under repair since October 2011 (**Dental OPD,ABGH**),
- nine Aneroid Digital BP Instruments (**Medicine OPD,GTBH**), and
- Impedance Audiometry machine was out of order for the last two years and declared beyond repair (**ENT OPD, BSAH**),Laparoscope machine was not available (**Surgical OPD**) and Lumber Traction machine was not working since June 2012 (**Physiotherapy OPD, RTRMH**).

Responses (February 2013) of the hospitals were as follows:

- repair of RVG machine is under process (**ABGH**),
- demand had been sent to the store (**GTBH**), and
- observations of audit were accepted (**RTRMH**).

3.2.6.2 Shortage of medicines and injections

During interaction with staff in Injection Room of **DDU** hospital, it was found that important injections such as Inj. Penidura 12 lac (Benzathin penicillin 12 lac.) Inj. Neurobin, Inj. HCG 5000, 10000 were not available. The ARS (Anti Rabbies Serum) which is used for treating dog-bites was also not available in the hospital since March 2012.

The hospital stated (February 2013) that these injections were not required on regular basis, however, the demand had been sent to CPA and the same would be available at the earliest.

3.2.6.3 Shortage of infrastructure

In Medicine OPD of **GTB** hospital, ACs in three rooms were not available, ceiling fan in one room and most of the tube lights including in OPD verandah were not working. In Gynae OPD, lights on the examination tables were not available. In **RTRM** hospital, tube lights were not functional in Medicine, Child and Ortho OPDs. In Skin OPD of **LN** hospital, centralized AC system was not working. In Gynae OPD of **AAAG** hospital, fans were not working.

Hospitals stated that matter had been taken up with PWD (**GTBH**), fans in Gynae OPD had been installed (**AAAGH**), audit observations were accepted (**RTRMH**) and complaint of AC had been made to PWD (**LNH**).

3.2.6.4 Shortage of medical supporting items

In Eye OPD of **BJRM** hospital, one Slit Lamp Table, one Retinoscope and USG Scan Biometry with probe Biometric was not working, in ENT OPD, three Bulls Lamps were out of order. In Gastro/Cardio OPD of **GB Pant** hospital, weighing machine and X-ray viewing box were not available. In Gynae OPD of **GTB** hospital, there were nine examination tables for 11 rooms with 3-4 doctors attending the patients in each room.

Hospitals stated that in Eye OPD, one Slit Lamp Table was being repaired, two Retinoscopes had been condemned, one USG Scan Biometry and Bulls Lamps were under repair (**BJRMH**), demand for tables and lights had been sent to the store (**GTBH**) and items were provided as per the requisition from the In-charge (**GB Pant**).

3.2.7 Casualty / Emergency

The emergency department is required to render comprehensive services from elementary first aid and general out patient services to sophisticated management of surgical and medical emergencies and full scale trauma care. Visit to Casualty / Emergency departments revealed that adequate facilities like beds, equipment, patient trolleys, ceiling fans, lights and air conditioners did not exist as discussed in succeeding paragraphs:

3.2.7.1 Patient trolley

In **LN, GTB** and **DDU** hospitals, patient trolleys were out of order or not available in the casualty, but some trolleys were kept locked and chained in separate hall.

Hospitals stated that three patient trolleys were now repaired (**GTBH**), five to seven trolleys were available in Casualty entrance along with 2-3 stretcher bearers (**LNH**), and in Casualty, 13 mobile trolleys were available round the clock (**DDUH**). However, on verification in February 2013, it was observed that no mobile trolley/wheel chair was readily available in casualty (DDUH).

3.2.7.2 Equipment and machines

In GTB hospital, all seven wall-mounted BP apparatus were not working and there was shortage of two Glucometers and two ECG machines. In Pediatric Emergency Ward, two ventilators, Vital Sign Monitor SPO2 (BP88) (since June 2011), three Double Syringe Pumps (since August 2011), Phototherapy and Breath Live Ventilator (since July 2011), two Mobile Warmers, three Air Ventilator System (since May, 2010), Resusesitation Trolley (since July 2012), Oxygen Analyzer (since March 2012) and ABG Machine (since May 2012) were not working. BP Cough (Ped. size) small, medium and large, were not available in the emergency. In **BJRM** hospital, SPO2 Oxygen Monitor was not available in the casualty. In **RTRM** hospital there was no ventilator in the casualty.

Hospitals stated (December 2012) that all seven wall-mounted BP apparatus and two ECG machines were currently working (**GTBH**), SPO2 probe and Monitors were in working condition (**BJRMH),** and observations of the audit had been noted and these had been included in the expansion plan (**RTRMH**).

3.2.7.3 Non-functional ceiling fans, lights and ACs

Six spilt ACs, five fans and 10 tube lights were not working and most of the electricity plug-points were broken (GTBH). Three out of five window ACs were not working (AAAGH).

Hospitals stated that split ACs, fans and tube lights were now working. Some electrical plugs had been repaired and others were in the process of repairing (GTBH). The matter regarding ACs had been taken up with the PWD (AAAGH).

3.2.7.4 Shortage of beds

In DDU hospital, the emergency wards had a bed capacity of 50 which would mean availability of 18250 bed days[§] during a year. Against this, annual admissions during 2009-11, ranged from 33920 to 44622 patients, meaning average bed occupancy was 215 *per cent*. Thus at times, two to three patients had to be accommodated on a single bed. In **LN** hospital, there were only 11 beds in main casualty and each bed was occupied by

[§] Number of days in a year

two patients whereas 11 beds in poly trauma were lying vacant. In medicine emergency ward, two beds were found broken.

The LN hospital stated that they follow the policy of non-refusal i.e. hospital cannot refuse admission of patients, therefore, there were more than one patient on a bed in Emergency Ward. The DDU hospital stated (February 2013) that matter was being taken up with the authorities to augment the bed capacity.

3.2.7.5 Miscellaneous shortcomings

(i) Unserviceable and obsolete store items were lying in the Emergency Ward giving a dirty look and covering precious space due to which space left for patients, became insufficient (**GTBH, ABGH and LNH).** The **LN** hospital and ABG hospital stated that the condemnation process for unserviceable items was ongoing and would be completed after obtaining the condemnation certificate.

(ii) Cardiac Defibrillator and refrigerator (**AAAGH**) and two ventilators in poly trauma (**LNH**) were out of order. Air purifiers were not available (**LNH**) and injections/medicines were kept in a window AC, instead of refrigerator (**AAAGH**). Hospitals stated that ventilators were transferred to poly trauma ward for repair (**LNH**) and Cardiac Defibrillator had been recommended for condemnation (**AAAGH**).

3.2.8 Facilities in wards

During the visits to different wards of the hospitals, it was observed that average bed occupancy was well above 100 *per cent*. Admission of more patients than available bed strength causes both stress and discomfort to the patients, besides exposing them to risk of infection. Audit observed following shortcomings in different wards of hospitals:

3.2.8.1 Shortage of beds

The status of beds and patients admitted daily is depicted in the given below:

Name of Hospital	Name of the ward	Available beds	Daily admissions
GTBH	Gynae (PNC)	42	60-70
	Gynae (ANC)	40	80-90
	Pediatric	60	80-90
	Eye	40	55-60
BJRMH	Male General	36	20-25
	Female General	29	30-35
	Gynae	26	45-50
BSAH	Surgical	42	45-50
	Gynae	42	90-95
	Medicine	42	90-95
DDUH	Medicine	42	90-100
	Gynae	45	95-100



Overcrowded Gynae Ward of DDUH

Apart from the above, some beds were laid in open area/verandah (Eye and Ortho ward of **GTBH**). In Cardiac Care Unit, eight beds were available against sanction of 12 beds (**BSAH**). In Gynae ward, bed occupancy was upto 300 *per cent,* as 3-4 patients along with their babies were on a single bed (**LBSH**).

The GTB hospital stated that some time, bed occupancy exceeds because few patients go directly to OT for small surgeries and get discharged the same day. Keeping in view the over-crowding in Gynae ward, a proposal for construction of 50 bedded ward was under consideration (**BJRMH**). Being a government hospital, bed occupancy larger than its capacity was unavoidable (**BSAH**) and growth of population on account of migration from other States and other reasons, led to three times the bed occupancy rate (**LBSH**).

3.2.8.2 Insufficient supply of medicines/injections/equipment

Interaction with the patients and staff nurses revealed that there were shortages of medicines and injections etc. in the wards, forcing patients to purchase medicines and injections from the open market.

In **GTB** hospital, there was shortage of medicines, injections, syringes, needles etc. in Gynae (PNC), Pediatric and Eye Ward. In Pediatric Ward, Portable Pulse Oxymeter and Pediatric Stethoscope were not available. Manual BP apparatus, Ultrasonic Nebulizer, Vol. Infusion Pump and one Syringe Infusion Pump were not working. In Female Ward of **BJRM** hospital, Vital Sign Monitor, Suction Machine, Air Purific System, Pulse Oxymeter, Multiport Nebulizer, Ultrasonic Nebulizer were out of order

since 2006. In Gynae Ward of **LN** hospital, two Cardiac Monitors were lying unserviceable from March, 2012.

Hospitals stated that new equipments were in the process of procurement (**BJRMH**), Cardiac Monitors were under repair and the hospital had been demanding bio-medical engineers for upkeep of sensitive electro medical equipment (**LNH**).

3.2.8.3 Shortage of supporting items

In Pediatric and Gynae Wards (PNC & ANC) **of GTB** hospital, adapter of baby weighing machine, weighing machines and insect killers were not available. In Female Ward of **BJRM** hospital, bed pans and in Male Ward, equipment like refrigerator, desert coolers and I/V stand were not available. In Female Surgery Ward, Gynae Surgery Ward, Eye and ENT (Male) and in Male Ortho Ward of **AAAG** hospital, insect killers were not working.

Hospitals stated that the desert coolers had been provided and there was no shortage of I/V stands (**BJRMH**) and insect killer were working (**AAAGH**).

3.2.8.4 Lights, ceiling fans and ACs not working

It was observed that in wards, lights, ceiling fans and ACs were not working. For instances - one air cooler and nine tube lights in Pediatric Ward and 51 tube lights in Gynae Ward (PNC) (**GTBH**), all the emergency lamps and most of the tube lights in Cardiology Female Ward (**GB Pant**), invertor, bed lamps, one air cooler, four ceiling fans in Gynae Ward and one refrigerator, one X-ray viewing box, 15 tube lights, 24 bed lamps in General Surgery Ward (Ortho/Surgery/Eye/Ent/Medicine) (**ABGH**) were not working.

The **ABG** hospital stated that PWD had been requested to rectify the defects as pointed out by audit.

3.2.8.5 Patient beds, bed mattresses and bed sheets

During visits to various wards, it was observed that bed mattresses, bed sheets and blankets were in bad conditions (dirty and torn) or in short supply in Pediatric Ward of **GTB** hospital, Female General Ward of **BJRM** hospital, Ward-3 (Male & Female), Cardiology Female Ward of **GB Pant** hospital, Female Surgery Ward, Ortho Wards (Male and Female) and Eye / ENT (Male) of **AAAG** hospital, General Surgery Ward of **ABG** hospital and post Surgery and Gynae Ward of **DDU** hospital.

The AAAG hospital stated (December 2012) that torn mattresses had since been changed. The DDU hospital stated (February 2013) that necessary

directions had been issued to HODs to take urgent action for condemnation of these items and submit the demand for their replacement.

3.2.8.6 Idling of machines

One Kertometer Scan, Ultra Sound Biometery with monitor and other equipment related to Ophthalmology remained unutilized as there was no eye specialist since 2008 in Eye Ward of **BJRM** hospital. Endoscopy in CCU and one TMT machine in Dialysis Ward were underutilized due to shortage of staff in **BSA** hospital. The dialysis is done by the hospital's trained technical staff though they are not trained in dialysis. In Medicine-Ward 21 and 22, central oxygen gas supply line, which caters to OT, ICU, CCU and Nursery Wards etc. was out of order for the last eight months **(BSAH)**.

Hospitals stated (December 2012) that no Eye Specialist had been posted though repeated reminders had been sent to the H&FW Department (**BJRMH**), the post of Cardiologist and Gastroenterologist had already been advertised and the central oxygen and compressed air were working but central suction was out of order which was not repaired by the parent firm (**BSAH**).

3.2.9 Laboratories and Diagnostic Services

Timely and expeditious diagnosis is a pre-requisite to early curative treatment. There are different types of laboratories (labs) in hospitals. Visit to different hospitals revealed that some tests were not conducted in labs and in some other cases, patients get their tests done from the market as machines were out of order. The shortcomings are discussed in subsequent paragraphs:

3.2.9.1 Shortage of X-ray films and chemicals

InRadiology lab of **BJRM** hospital, X-ray films of different sizes were not available for last six months (January to June 2012). The hospital stated (December 2012) that X-ray films were now available and there was no shortage of X-ray films. The reply did not contradict the audit observation and confirmed non-availability of films.

3.2.9.2 Break down of equipment

The following equipment were not found working in selected hospitals:

- Electrolyte Analyzer since May 2012. **(AAAGH),**
- one pharmaceutical refrigerator in Histopathology lab, one centrifuge machine, one refrigerator in emergency lab, two incubators **(ABGH),**

- one CT scan machine, one X-ray machine of 1000MA for want of power supply installation (**GTBH**), and
- LFT, KFT, Lipid Profile Testing Machine in Pathology department (**DDUH**).

Hospitals stated (December 2012) that the defects in Electrolyte machine had already been rectified in September 2012 **(AAAGH)**, all non-functioning equipment had been made functional (**ABGH**) and for LFT, KFT etc. the fully auto analyzer was not working and EPC procurement was still underway (**DDUH**). These replies further corroborate audit observations.

3.2.9.3 Shortage of staff

There was no post of Microbiologist in the **ABG** hospital, therefore, all the Microbiological investigations were done from outside. Three ultrasound machines remained unutilized since March 2012 due to non deployment of Radiologist.

The hospital stated that post of Microbiologist had not been sanctioned as it was not included in the norms for a 100 bedded hospital and added that post of Radiologist was vacant and they could not recruit Senior Resident on last four occasions as no candidate applied for the post **(ABGH).**

3.2.9.4 Non-availability of equipment

In Pathology lab of RTRM hospital, MIURA equipment (fully automated bio chemical analyzer), used for blood tests i.e. LFT, KFT and Uria was not working. Accepting the audit observation, the hospital stated that MIURA Auto-analyzer was a closed system and its running cost is high. It was trying to switch over to an open system for which order has been placed.

The hospital further stated (February 2013) that they were using Semi Auto-analyzer to carry out lab services as a stop gap. The MIURA Auto-analyzer can do 20 tests at a time whereas the Semi Auto-analyzer does only one test at a time. The reply is not tenable as neither the existing equipment is working nor the alternate viable arrangement has materialised.

3.2.9.5 Non-availability of facilities for tests

- In Pathology lab, essential items like anti A and B reagents (10ML) for blood grouping and Creatinine Eshmation kit Jaftc Method (400ML) were not available (**BJRMH**).
- In Microbiology department, Widal, HBSAG detection, HCV detection, Typhidot, Malarial Serology, Bid Culture, Swab Culture, ASO and ANF tests were not being done due to non-availability of kits (**BJRMH**).

- Thyroid profile, S.Prolactin, HbA1C and TBEL1SA, I9G, I9H tests were not being done (**AAAGH**).
- Various diagnostic investigations/tests like KFT, LFT, Lipid profile, uric acid were not carried out in the hospital. In Gynae (PNC & ANC) Ward, patients admitted that for various diagnostic investigations like blood tests, ultrasound, LFT and KFT, they are compelled to get them done from private diagnostic centres. In Pediatric Ward, tests like Calicum Phosphate and Alkaline Phosphate were done from outside (**GTBH**).
- The test facilities like Rubella 1gm, Anaerobic culture, T.B. Culture, Viral Culture, Histopathology, Thyroid function test and HB A/c (Glycosylated Hb) were not available in the hospital (**LBSH**).
- CT scan facility was not available and has been outsourced in emergency cases and some cases were referred to other hospitals (**BSAH**).

The **BJRM** hospital stated that all the reagents for blood storage were being made available and blood storage facility had been started in the hospital. A few kits which were not available were being made available. The reply confirms the audit observation that these essential items were not available in the hospital for a long time. The **LBS** hospital stated that for specialized treatment/tests like Rubella 1gm, Anaerobic culture, TB culture, viral culture etc. patients are referred to the tertiary care hospitals where such facilities are available. The reply of the hospital, thus, is in line with the audit observation that these facilities are not available in-house.

3.2.10 Waiting period for various tests and surgeries

Audit observed that there was a long waiting period for certain surgeries and tests in selected hospitals as enumerated below:

- **BSA hospital-** There was waiting period for Ultrasound General (2 months), Colour Doppler (8 months), I.V.P (1½ month), Laparoscopic Surgery (2 to 8 weeks), PCNL, URS, TURP, TURBT, Open Surgery ESWL Cystoscopy etc. (7 to 30 days). The hospital stated that waiting period for various tests and medical procedure was mainly due to shortage of doctors and para medical staff.
- **LBS hospital –** There was long waiting period for operation for the ENT (6 months), Surgery (2 to 3 months), Dental (1 month), Eye (5 to 6 months), Gynae (1 to 2 weeks) and Radiology (1½ month). The hospital stated that due to growth of population, patient load had tremendously increased leading to increased waiting period.

- **DDU hospital -** There was waiting period for conducting TFT (3 weeks to 3 months), Laparoscopic Surgery (3 months), Open Major Surgery (3 months), IVP (3 weeks), C T Scan (2 to 3 weeks) and Ultrasound (3 to 4 weeks). The hospital stated that all patients could not be accommodated for surgery at the time of reporting to OPD. Hence, there was a waiting list for surgeries.
- **RTRM hospital-** There was waiting period for operations/surgeries like general surgery (3 to 4 weeks), Orthopedics (3 to 4 weeks), Gynae (1 month), ENT Ward (3 to 4 weeks) and Ultrasound (2 months). The hospital stated that the waiting time for various services indicated the acceptability and demand for the services being offered by the hospital.

3.2.11 Pharmacy

As per Committee Report (2003) on norms for manpower in hospitals for the Government of NCT of Delhi, a pharmacist can entertain 180 patients, depending upon number of drugs per prescription. Also, all the medicines and injections prescribed by the doctors should be made available free of cost to the patients in the hospital. Scrutiny of records made available to Audit and visit to pharmacy counters revealed the following:

3.2.11.1 Overcrowded pharmacy counters

In DDU and BSA hospitals, the status of number of patients and counters during 2009-11 is shown in **Table 3.10.**

Table 3.10: Status of counters and number of patients

		DDU hospital			BSA hospital		
Sl. No.	Year	Average patients per day in OPD	Nos of counters	Patient counter ratio	Average patients per day in OPD	Nos of Counters	Patient counter ratio
1	2009	2760	6	460:1	3699	7	528:1
2	2010	2446	6	407:1	3799	7	543:1
3	2011	2201	6	367:1	4010	7	573:1

From the above table, it is clearly evident that the pharmacy counters were two to three times overburdened as compared to the norms. It was further observed that due to crowd of patients, it takes one to two hours for getting the medicines in **LBS and LN** hospitals. The **LN** hospital stated that there was acute shortage of staff as some staff was diverted to the DGEHS and Polio clinics. The DDU hospital stated (February 2013) that medical counters were under renovations and now eight of them are functional. The BSA hospital stated that sanctioned posts of pharmacist were inadequate and exercise had been under taken for assessing and creation of

posts. A stop gap arrangement had been made on short term basis by diverting the pharmacists from other hospitals.

3.2.11.2 Shortage of infrastructure

In **GTB hospital**, due to acute shortage of furniture like racks and almirahs, most of the medicine boxes were kept on the floor and only 11 out of 22 fans were working. The hospital stated that the matter had been taken up with PWD.

3.2.11.3 Shortage of medicine

Scrutiny of records and interaction with patients revealed that many essential drugs/life saving drugs, as prescribed by Directorate of Health Services, were not available on many occasions in **DDU** hospital during 2009-10 and 2011-12. In **GTB** hospital, 31 medicines were not available in the pharmacy from 7 to 25 September 2012. In **RTRM** hospital also, patients complained that they had to purchase medicines from outside due to non-availability of prescribed medicines.

Hospitals replied that (i) most of the medicines were procured and made available through CPA only. However, all out efforts are being made for procurement of drugs (**DDUH**), (ii) circular had been issued to all doctors for prescribing generic drugs and demand of medicines were being timely submitted to purchase branch for procurement (**GTBH**), and (iii) Audit had mentioned only a few cases which means more or less the hospital was able to cope up with the demand (**RTRMH**).

3.2.12 Blood Bank

Blood Bank establishment, screening of blood, availability of blood and expiry was examined in **GTB** hospital during audit and following shortcomings were noticed:

3.2.12.1 Non-renewal of license

Validity of license for operation of blood bank/processing of whole human blood for components/manufacture of blood products was valid upto December 2011. The hospital authorities submitted application for renewal of license but certificate of renewal was not received as of October 2012. The hospital stated that it had applied to the licensing authorities well in time for renewal of license for the Blood Bank and it was the responsibility of the Drug Control Department to renew the same. However, fact remains that the Blood Bank was running without a valid license.

3.2.12.2 Shortage of specialists

The hospital has been collecting 32000 units of blood in a year, and it required three faculty/specialist/medical officers, as against this only one senior staff presently posted there. The hospital stated that all efforts were being made to appoint the required faculties.

3.2.12.3 Non-utilization of blood

It was observed that hospital discarded 1.6 to 9.9 *per cent* of Blood from 2008 to September 2012. Particularly in the year 2010, 9.9 *per cent* (3258 units) of blood expired, which was on higher side.

The hospital stated that discard rate of blood, on an average, was about 2 to 5 *per cent*, with an exception of 9.9 *per cent* in September 2011. But discarding, due to expiry, reactive positive samples and leakage etc. up to 10 *per cent* was acceptable as per guidelines. The hospital further stated (February 2013), that there were no written guidelines for wastage of bloods, however, during their routine inspection, the Drug Inspector accepts discard due to expiry reactive and leakage etc., up to 10 *per cent*.

Further, in **BJRM, AAAG**, **ABG** and **RTRM** hospitals, there was no blood bank and they were attached with other big hospitals for their blood requirement. Hospitals stated as follow:

- Blood bank could not be established due to shortage of space (**BJRMH**),
- Their hospital is a 100 bedded hospital having functional Blood Storage Centre (**AAAGH**),
- The hospital has Blood Storage Centre having tie up with the DDU hospital for requirement of Blood (**ABGH**), and
- The hospital has Blood Storage facilities only but a modern blood bank had been planned, the drawings for which had been approved by the statutory bodies (**RTRMH**).

3.2.13 Drinking water

Every hospital should be equipped with modern technique of supplying purified and clean water round the clock. Audit of two selected hospitals revealed the following shortcomings:

3.2.13.1 Non-availability of drinking water

Visit to different locations of **LN, GTB, DDU and BSA** hospitals revealed that drinking water was not available at most of the places and doctors, patients and attendants carry water from their homes or purchase from open market.The **DDU** hospital stated (February 2013) that the matter had been taken up with PWD authorities to augment the water supply. The

BSA hospital stated (February 2013) that 26 water coolers installed at different points in the hospital, are providing regular and sufficient drinking water facility to the patients. Thus, hospitals initiated action only after the deficiencies were pointed out by Audit.

3.2.13.2 Non-functioning of water coolers and aqua guards

There are 85 and 55 water coolers with aqua guards installed for providing drinking water to patients in **GTB** and **LN** hospital respectively. Visit to 10 different locations in both the hospitals, revealed that neither water coolers nor aqua guards were functional (**Annexure-3.6**). This is despite the fact that in both the hospitals, water coolers and aqua guards were on Annual Maintenance Contract.

3.2.13.3 Unhygienic conditions

In four hospitals **(LNH, GTBH, DDUH and BSAH),** water coolers were very dirty and were placed at unhygienic sites. Even, in some places water tanks were not cleaned. On verification (February 2013), no improvement in cleanness was observed.

3.2.13.4 Unsatisfactory test reports of water

In **GB Pant** hospital,most of the water testing reports from various locations of the hospital premises were unsatisfactory/not safe for drinking purpose. To improve the quality of water, the hospital decided in April 2012 to replace all old water pipe lines from its main distribution point. However, the work has not been started as of July 2012.

Hospitals stated (December 2012) that as reported by PWD, drinking water facilities were in working condition (**GTBH**), the water coolers in the hospital were being used by the public visiting the hospital and by even people from nearby localities. As a result of overuse, there was frequent breakdown of the coolers and as and when it occurs, PWD gets them repaired through AMC. The hospital tries to keep the area clean and tidy (**LNH**). The issue has been taken up with PWD officials in all the meetings **(GBPH).** The replies are, thus, acceptance of audit observation without any contradiction.

3.2.14 Cleanliness of toilets, bathrooms and other premises

Audit observed during interaction with staff and visit to various OPDs, wards, diagnostic centres etc., that corridors, passages, staircases and the corners of all these areas were littered with left overs, dirt and waste materials. Shortcomings in maintenance of toilets and bathrooms are as under:

3.2.14.1 Blockage of toilets

Some toilets were found locked (Gynae –PNC of **GTBH,** Casualty Ward of **BSAH,** Cardiology Female Ward of **GBPH**), drainage of toilets of Ortho Ward was blocked **(GTBH and AAAGH**), toilets were in pathetic condition, lacking sanitation and were blocked (**RTRMH** and Neuro Surgery Ward Male and Female of **GBPH**).

Hospitals stated (December 2012) that all blockages had been removed (**AAAGH**), one toilet was locked as it was under repair **(BSAH),** PWD had been asked to change the pipelines and the work had been partly completed (**RTRMH**) and the work of repair of toilets and bathrooms by PWD was under tendering process (**GBPH**).

3.2.14.2 Non-availability of sanitary staff

In Gynae (PNC) Ward of **GTBH,** safai karamchari was not available in the night shift and in Casualty / Emergency Ward of **BSAH**, no sanitary worker was seen on duty. The **BSA** hospital stated that presently hospital housekeeping service was outsourced and the vendor had deployed only 70 workers against the requirement of 108 workers for sanitation.

3.2.14.3 Non-availability of sanitary fittings

- There were no wash basins in toilets of Ortho Ward (**AAAGH**).
- Cisterns were not available in Gynae and Casualty Ward and commodes were broken in Casualty Ward (**ABG** hospital).
- In Neuro Surgery Ward (Male & Female) of **GBPH,** most of the urinals were broken.

Hospitals stated that estimates had been approved for renovation of all toilets and PWD had started the work (**ABGH**) and the work of repair of toilets and bathrooms by PWD is under tendering process (**GBPH**).

- **Bathrooms used as stores –**In Gynae Ward of **ABGH**, bathrooms for patients were being used as stores.
- **Non-availability of separate toilets for male and females –**Males and females were using only one toilet available in Casualty Wards of **AAAG** hospitaland **BSA** hospital.

3.2.15 Management of bio-medical waste

The Ministry of Environment and Forests, GoI notified in July 1998, the Bio-Medical Waste (Management and Handling) Rules, 1998 for regulating the generation, storage, transportation, treatment and disposal of bio-medical waste. Audit of the Department of Bio-Medical Waste Management (BMWM) of **GTB** hospital, revealed that an incinerator plant was installed by the PWD in February 1999 in the hospital, at a cost of ₹

42.98 lakh for processing the bio-medical waste. During an inspection, a team of officials of the Delhi Pollution Control Committee (DPCC), observed (January 2009) that the emission of gases from incinerator was not in accordance with the standards fixed by the DPCC. The DPCC also instructed (June 2010) the hospital not to operate the incinerator without its prior approval and observed that segregation of bio-medical waste was not proper as there was mixing of bio-medical waste with general waste and Effluent Treatment Plant (ETP) had not been provided for the treatment of waste water generated from the hospital. The DPCC instructed that sharp boxes should be provided for proper sharp waste storage and properly trained/qualified personal should be there for operation and maintenance of the incinerator.

The DPCC again inspected the hospital in February 2012 along with an expert from 'Centre for Occupational and Environmental Health' and observed that the segregation of bio-medical waste and labeling of bags was not proper, which may cause infection and injuries to the workers of BMWM by sharp objects. Thus, the **GTB** hospital failed to segregate the bio-medical waste and expenditure incurred on purchase of incinerator amounting to ₹ 42.98 lakh was, therefore, wasteful due to non-operation of the incinerator.

The hospital stated (December 2012) that bio-medical waste was being sent free of cost to M/s Synergy Waste Management Pvt. Ltd. with effect from May 2011 as per the directions of the Directorate of Health Services. The hospital has a Bio-Medical Waste Management Committee to supervise proper management of Bio-Medical Waste. Members of the committee take round of hospital premises regularly to ensure proper BMW Management.

The reply of hospital is not acceptable as it is silent about the observation of DPCC regarding segregation of bio-medical waste and labeling of bags.

3.2.16 Ambulance services

There was a fleet of four ambulances each in **GTB** hospital and **LN** hospital. A test check of records for the period 2009-12 revealed that ambulances remained unutilized most of the time. Hospitals have been using ambulances mainly for bringing medicines from the market, dropping doctors at their residences / hospital, carrying dead bodies to the mortuary and collecting cash from bank etc. instead of carrying the patients. Moreover, the ambulances were not equipped with basic life support equipment, such as, oxygen cylinders, suction pumps, BP instruments, stethoscopes, first aid boxes etc.



Ambulance not equipped with life supporting equipment in LN hospital (DL-1C-G1085)

In **GTB** hospital, only 284 patients were benefited during this period. Four ambulances ran only 2272 kilometers to shift patients to other hospitals in the year 2011-12. Similarly, in **LN** hospital, ambulances ran only 1324 kilometers for shifting patients during three years (**Annexure-3.7).** This showed that ambulances were used rarely. Thus, the expenditure incurred on purchase of ambulances, their maintenance and on salary of eight drivers in both the hospitals, was not utilized properly.

The **GTB** hospital stated that the essential equipment were being carried by the accompanying doctor, as and when, the patient was shifted for investigation/treatment to other hospitals. It was further mentioned that the ambulance is made available in various drills organized by the National Disaster Management Authority / the Delhi Disaster Management Authority also. One of the Advance Life Support ambulance received from CAT after CWG-2010, was stationed at the hospital which was used as and when its services were required. The **LN** hospital stated that one ambulance remained unutilized due to repair work while others were being used. The hospital was using these ambulances for patient care activities and not otherwise. The patient care activities also include sending the samples of the patient for swine flu testing etc. calling doctors from home in the night for the operations of the patients and carrying the dead bodies to the mortuary etc. The ambulances were parked in open space and as there was a possibility of theft, costly medical equipment were not kept in the ambulance. However, these equipment were available round the clock and kept with emergency/casualty staff.

The contentions of hospitals were not tenable as ambulances were scarcely used for the benefit of patients. Most of the time, ambulances were parked idle or used for the purposes other than transferring of patients.

3.2.17 Diet for patients

Diets are provided free of cost to the indoor patients in the hospitals. Some hospitals maintain their own kitchen and some outsource these facilities. Visit to hospitals revealed the following shortcomings:

3.2.17.1 Shortage of dietary staff

In **LN** hospital, there was shortage of one Chief Dietician, one Senior Dietician, seven Assistant Dieticians, and one Store Keeper. 69 posts of Head Cook, Cook, Bearer, Masalchi, Mates and five posts of Safai Karamchari were vacant.

The hospital stated that the matter regarding filling up the vacant posts had already been taken up with the Government.

3.2.17.2 Unhygienic conditions

The sanitation and hygienic conditions in kitchens of hospitals were poor. The food was being cooked in unhygienic conditions. Vegetables, both raw and cut, were stored in a shabby manner. The kitchens and the adjoining areas were badly lit. There was darkness in the kitchen area in **DDU** hospital. Food for 1400 to 1500 patients was cooked daily and served to them. It was seen that the staff were packing breakfast/lunch/dinner for the patients without wearing gloves. Cooked vegetables and cooked rice were kept in open vessels without lids (**LNH**).

The hospital stated that cooking staff and dieticians were overburdened due to shortage of staff. As far as the issue of hygiene is concerned, the shortage of Safai Karamcharis in the kitchen had been brought to the notice of higher authorities. The lighting and infrastructure in the department and up-gradation of the kitchen was being pursued with the PWD (**DDUH**). Serving was done only for new special ward patients with gloves worn by workers which were being procured in limited number since the opening of special wards. Cooked vegetables and rice were never kept in open vessels. Rice was always covered with white sheet once fully cooked (**LNH**).

Reply of the **LN** hospital is not tenable as audit had observed during field visit (October 2012) that kitchen staff were not wearing gloves. Vegetables and cooked rice were kept in open vessels.

3.2.17.3 Other shortcomings

Cooks and supporting staff were not in uniform, did not wear head covers, aprons and gloves (**DDUH**). The chimneys installed for the purpose of ventilation in kitchen, were not serving the purpose as chimneys and LPG ovens were at different locations in the kitchen. The facility of gas pipe line was also not functional and the cooking was done with gas cylinders. The grocery items like Atta, Rice, and Sugar etc. were being stored on the ground (**BSAH)**

Hospitals stated (December 2012) that all the employees were directed to wear neat and tidy uniform while on duty. However, on verification (February 2013), it was observed that the staff serving food was not wearing caps and gloves (DDUH). Sanction to PWD to renovate the kitchen and make it modular has been issued. The hospital had also issued a letter to the kitchen contractor for providing more racks for safe storage of ration immediately (**BSAH**).

3.2.18 Non-availability of essential drugs

As per the norms of the DHS, essential drugs and medicines for its hospitals should not normally be in a position of 'no stock'. Due to non-availability of essential drugs and medicines, patients are compelled to purchase the same from outside. Audit scrutiny revealed that in **BSAH**, 47 essential drugs as prescribed by the DHS were not available on many occasions during the period 2009-12. It was further revealed that four supply orders for 137 medicines and drugs (from November 2011 to August 2012) were placed with suppliers through CPA, but the suppliers did not supply the medicines as per order. The supply of 92 medicines was awaited as of November 2012.

The hospital stated (December 2012) that most of medicines and drugs are procured through CPA. In case of delay or non-supply of medicines and drugs by CPA, the hospital procures them through its own tenders. If medicines were essential for emergency patients, then medicines and drugs are procured through local purchase.

The reply of hospital is not acceptable as it does not address the issue of non-availability of medicines for OPD patients.

3.2.19 Non-functional equipment

- **Non-commissioning of C.T. Scanner -** In **GTB** hospital a supply order for one unit of High End 64 Slice CT Scanner was placed with M/s Siemens Ltd. at a cost of ₹ 7.17 crore in March 2010. The equipment was received in hospital in September 2010 (after 175 days of issue of A/T and after 108 days of opening of LC). The equipment procured on emergency basis, was to be installed by July 2010 as per the terms and

conditions of A/T. However, the CT Scan machine was installed in February 2012, after a delay of 20 months.

The hospital stated that the supply order of CT Scan was on turnkey basis and a separate building was to be constructed.

However, the reply does not address the issue that the proposal for equipment was moved on acute emergency basis and sanctioned by the competent authority.

- **Idle refrigerators –** In **BSA** hospital, five out of 12 refrigerators were not in use. The hospital stated that there were no medicines to be stored in these refrigerators, hence they were lying unused. This shows that refrigerators were procured in excess of actual requirement.
- **Idling of patient trolleys – In DDU** hospital, 10 two-part emergency patient trolleys with trolley for transfer of stretcher were purchased in October 2011 at ₹ 4 2.20 lakh on urgent basis. Five trolleys were issued in February 2012 to Forensic Medicine department and two to Medical Emergency in October 2012. Remaining three trolleys were lying idle (October 2012) in the main store. The hospital stated (February 2013) that out of three patient trolleys, one was issued to Operation Theatre. However the fact remains that two patient trolleys are still lying idle (February 2013).
- **Non-functional Digital X- Ray Machine –** The **DDU** hospital procured (March 2007) one Digital X-Ray machine at a cost of ₹ 1.22 crore which was installed in Casualty. The machine remained out of order since February 2010. In fact the machine has not been functioning properly since its installation and finally went out of order in February 2010. Audit observed that even after incurring an expenditure of ₹ 1.22 crore, patients were not getting services of the X-ray machine in the casualty and were being sent to other wings for X-Ray, causing delay in treatment.

  The hospital stated that the machine was installed in October 2008 and kept under trial for verification of all its features, consequently, the installation certificate was issued on October 2009. The machine went out of order in February 2010 which was partially repaired but went out of order again in March 2012. Due to continuous efforts of the hospital, the comprehensive warranty of machine was extended by two and half years up to April 2017 as penalty and non-comprehensive warranty was extended by five years up to April 2022 (**DDUH**). However, on verification in February 2013, it was found that the machine was still not working.
- **Non-functional medical equipment in different departments -** Scrutiny of records and information furnished by departments revealed that 53 medical equipment in 16 departments were not working

properly or lying idle for last two to three years. Out of these non-functional equipment, some were even under comprehensive maintenance contract. Thus, patients were not getting benefits from these equipment causing delay in treatment and inconvenience to them (**DDUH**). Similarly, 115 medical equipments were not working properly or lying unused (**BSAH**). The **DDU** hospital stated (February 2013) that every efforts would be made to make the equipment functional at earliest. The BSA hospital stated (February 2013) that repairing process of these equipment was under process (BSAH).

3.2.20 Other topics of interest

3.2.20.1 Non-functional fire safety system in G.B.Pant hospital

The Delhi Fire Service conducted (December 2011) an inspection under section 33(1) of Fire Preventive and Safety Measures Act and pointed out that access all around the building, was not available, fire check doors, compartmentation and smoke management system were not provided, fire extinguishers were provided but most of them were empty, internal and yard hydrants couplings and box hose reel nozzles were found missing. Pumps were under maintenance, exit signages were missing at many places, escape routes and stairs were found locked, keys for which were not available and there was no fire protection for the electrical panels.

The hospital stated (December 2012) that all the defects pointed by the Delhi Fire Service had been rectified and fire fighting systems were working. The request for NOC from the Delhi Fire Service had already been made which was awaited.

However, the required NOC from the Delhi Fire Service was not received as of February 2013.

3.2.20.2 Non-availability of ICUfacility

The **BJRM** hospital is a 100 bedded hospital and located in the slum area of the city. The patients with serious problems of Gynae, accident injuries and other ailments are admitted in the hospital but there is no ICU facility available. The hospital stated that four bedded ICU was going to function shortly after completion of renovation work. On verification in February 2013, it was seen that the renovation work had not been completed.

Conclusion

There were shortages in medical, para-medical and nursing staff in all the selected hospitals. Despite a continuous overall increase in patient load, no exercise had been carried out to fill in the critical vacancies and review the adequacy of the sanctioned strength. The casualty and emergency departments did not receive the necessary attention and priority in terms of

infrastructure, supplies of medicines and manpower. Consequently, these were not adequately equipped to ensure proper emergent medical aid to the patients. OPD services were affected due to shortage of medical equipment, medicines, injections, infrastructure and medical support items. Number of beds, necessary equipment, patient trolleys was not commensurate with overall increase in patient load in all the hospitals. Increase in patients load without corresponding increase in bed strength caused both stress and discomfort to the patients, besides exposing them to risk of infection. It was observed that the prescribed procurement procedures were not followed leading to adhocism in assessment of requirement, delay in both placing of orders and non-commissioning of equipment after their receipts. Although infrastructure had been created involving huge expenditure and their maintenance outsourced, the corridors, wards, passages, toilets and bathrooms were not maintained up to the mark.

Recommendations

- *The budgetary and expenditure controls in the hospitals need to be strengthened particularly in case of heads -'Machinery & Equipment' and 'Supplies & Materials'.*
- *The hospitals and departmental authorities may undertake a manpower review to assess the actual requirement of medical and technical staff commensurate with the increasing number of patients hospital-wise and initiate effective steps for filling critical vacancies.*
- *The Department may review the adequacy of infrastructure facilities across all hospitals to reduce the waiting time for patients for various investigations.*
- *Hospitals may ensure availability of essential drugs at all times. The system of procurement of equipment need to be streamlined to cut down delays.*
- *Ambulances in the hospitals may preferably be used only for patients' care and may also be kept fully equipped with essential basic life support system.*
- *The Department may take immediate action to ensure strict adherence to the Bio-Medical Waste (Management of Handling) Rules, 1998.*

Department of Women and Child Development

3.3 Implementation of Ladli Scheme

3.3.1 Introduction

The Government of National Capital Territory of Delhi (Government) had launched a scheme - 'Protection of Girl Child Scheme' in the year 2006, to enhance the social status of the girl child in the society, promote and ensure proper education and all round development to protect her from discrimination and deprivation. The scheme envisaged a deposit of one time lump sum amount of ₹ 5000 in the name of each girl child born in a government or local body hospital. The deposit along with accrued interest was to be redeemed to the girl child,who attended the school up toX^{th} class as a regular student and attained the age of 18 years.

In June 2007, the Government considered it appropriate to streamline and simplify the procedure, enhance the existing benefits and also make available a consolidated one window delivery system for the benefit of the girl child. Accordingly, the earlier scheme 'Protection of Girl Child' was modified with the approval of the Cabinet(October 2007) and a new scheme - 'Delhi Ladli Scheme' was launched with effect from 01 January 2008 and from the academic session 2008-09 (for girls born earlier to 01 January 2008), by the Department of Women and Child Development (the Department), of the Government. The children getting the benefit under the scheme 'Protection of Girl Child' had to be treated as part of this new scheme. The new scheme aims at enhancing the social status of girl child in the family as well as in the society as a whole by ensuring economic security and proper education to make her self-reliant.

The main features of the 'Delhi Ladli Scheme' are:

(i) The girls born on or after 01 January 2008, would get scheme benefits immediately after their birth and other benefits for education were to be implemented from the academic session 2008-2009 on their admission to the I^{st}, VI^{th}, IX^{th}, XII^{th} and on passing of X^{th} class in the government recognized schools in Delhi.

(ii) The Government will make periodic payments in the name of girl child, which would be kept as fixed deposits at her credit and redeemed along with accrued interest, after attaining the age of 18 years and passing X^{th}class as a regular student from a government recognized school or her taking admission in XII^{th}class.

(iii) Payment will be deposited at the following milestones:

- ₹ 11000, if the girl child is born in a hospital/nursing home/institutions in the NCT of Delhi, or
- ₹10000, if born at any other place,
- ₹ 5000,on admission of the child in class I,
- ₹ 5000, on admission of the child in class VI,
- ₹ 5000, on admission of the child in class IX,
- ₹ 5000, on the child's passing the class X, and
- ₹ 5000, on admission of the child in class XII.

(iv) Financial arrangements for the scheme have been made with the SBI Life Insurance Company Ltd. (SBIL) and the State Bank of India, providing the front services for accounting purposes.

(v) The eligibility criteria prescribed for the scheme are as follows:

- the applicant must be a bonafide resident of NCT of Delhi, for at least three years preceding the date of application,
- the girl child must have been born in Delhi as shown by the birth certificate, issued by the Registrar (Births and Deaths),
- the annual income of parents of the child should not exceed ₹ one lakh, and
- the financial assistance is restricted to two girls in a family.

Audit findings

Audit was conducted during August to October 2012 by selecting headquarters office, district offices and 30 schools (20 out of 398 schools for girls only, and 10 out of 184 co-educational schools were selected on random basis for conducting a survey) for the period 2008-09 to 2011-12, to assess the effectiveness of the implementation of the scheme. The deficiencies noticed in the implementation of the scheme are discussed below:

3.3.2 Financial management

Budget provision and actual expenditure for the scheme during the period

2008-09 to 2011-12 are given in **Table 3.11.**

Table 3.11: Budget provision and actual expenditure

(₹ in crore)

Sl. No.	Year	Budget provision	Actual expenditure	Saving(-) Excess(+)	No. of beneficiaries
1	2008-09	86.38	86.44	(+)0.06	129495
2	2009-10	87.00	86.97	(-)0.03	140006
3	2010-11	110.00	89.26	(-)20.74	105737
4	2011-12	93.00	92.90	(-)0.10	106585
	Total	**376.38**	**355.57**	**(-)20.81**	**481823**

(Source: departmental figures)

The above table shows that there was an abnormal increase in the budget provision as well as savings during the year 2010-11. The reasons for abnormal increase in budget provision and the consequential savings were called for, but were awaited as of February 2013.

3.3.3 Planning

The scheme was launched by the Department without having data of intended beneficiaries to be covered under the scheme and without fixing any annual target, financial or physical. Even the roles of stake holders *viz.* Department of Education, Department of Social Welfare and Department of Health were not spelt out clearly in the scheme notification or guidelines. Audit observed that the details of the modalities for the implementation of the scheme have not been spelt out.

3.3.4 Formulation of guidelines

The Department did not formulate any guidelines for hospitals and schools to register the girl child under the scheme on birth and renewals at subsequent stages, while she is admitted for studying.

3.3.5 Selection of Bank/Financial Institution for managing the scheme fund

Audit scrutiny revealed that SBIL made a presentation to the Department in December 2007 (before the notification and launching of the scheme) on investment of scheme funds and expressed their views on modalities of implementation, projected rate of interest, maturity value, service charges etc. The Department again held a meeting with representatives of other

five Scheduled Banks[**] (January 2008), who presented their views on same aspects of the scheme, as were discussed with SBIL earlier. In the meeting (January 2008), the rate of interest offered by these banks ranged from 8 *per cent* (Bank of Baroda) to 9 *per cent* (Syndicate Bank and Union Bank of India). As per the minutes of this meeting with scheduled banks, the presentation made by SBIL (December 2007), was also discussed in the meeting, wherein it was mentioned that SBIL offered a fund management solution in which the tentative maturity amount, against the deposit of ₹ 30,000, would work out to ₹ 84,552 at the interest rate of 10.5 *per cent* and redeemed to girl child after she attained the age of 18 years.

However, in the note submitted to the Cabinet for approval of the financial arrangement for implementation of the scheme, the Department mentioned that there was general consensus among the officers present[††] in the meetings, that a combination of banking institution and insurance company like that of State Bank of India and SBIL would be ideal for the successful implementation of the scheme. It was also mentioned that (i) banks cannot have a lock-in-period of more than 10 years for deposits, as a result, they cannot receive fixed term deposits for a period of 18 years, (ii) an insurance company is not restricted by such condition, and (iii) a comparison of rates of interest offered by all banks and SBIL, given in the Note, showed rate of interest offered by SBIL as 10.50 *per cent,* which was the maximum. The Cabinet, on the recommendation of the Department, approved (February 2008) that funds of the 'Ladli Scheme' be invested with the SBIL. However, the Cabinet decision did not mention the rate of interest for investment of 'Ladli Funds'.

Audit observed following shortcomings in the decision of selection of SBIL:

- On this proposed Cabinet Note, the Finance Department observed that it was not advisable to resort to fund management approach, which might give higher returns but would involve risk of fluctuations of market, therefore, option of fixed deposits may be preferred, because they are bound to give contracted rate of interest on fixed deposits. Furthermore, the scheme would be simple, more transparent and easy to administer for the Department as well as the beneficiaries. The Law Department also endorsed the opinion of the Finance Department. However, audit observed that the Department

[**] Bank of Baroda, Corporation Bank, State Bank of India, Syndicate Bank and Union Bank of India

[††] Chief Secretary, Pr. Secretary (H & F W), Pr. Secretary (Finance), Secretary (Education), Director (Social Welfare), Director (Planning), Dy. Director (Education) and other officers

did not consider the observations/suggestions of the Finance Department and the Law Department.

- SBIL did not make any assurance of 10.50 *per cent* rate of interest, which it clarified in February 2011, saying that achieving 10.50 *per cent* interest per annum was extremely difficult in long run i.e. 20 years. The rate of interest was not mentioned in MoU, signed between the Department and SBIL.
- The Department had not explored other insurance companies like LIC, to earn the maximum return on investments. As a consequence of the Cabinet decision for opting the SBIL, beneficiaries had suffered a loss of interest @ 1 *per cent* to 2.5 *per cent*.

3.3.6 Financial returns not accrued as envisaged in the scheme

The Cabinet Note for the approval of the scheme projected annual interest rate of 10.5 *per cent* on investments. However, Audit observed that SBIL gave only 6.5 and 7 *per cent* interest rate for the years 2008-09 and 2009-10 respectively. A Committee of Group of Ministers discussed the matter and decided (May 2011) that the Department should take up the issue of low return on investments, with SBIL and should also invite proposal from Nationalized Banks for a guaranteed rate of interest. However, the decision to select the Nationalized Bank had not been taken as of October 2012.

The Government contributes ₹11000 or ₹10000 at initial stage and ₹ 5000 at subsequent milestones, whereas SBIL credits the amount in accounts of beneficiaries after deducting a premium for insured amount @ ₹ 0.65 to ₹ 2.10 for different age groups and the service charges applicable from time to time. However, there is no benefit to the girl child against the deduction of premium from the contribution as the assured amount would go to the Government in the event of death of beneficiary. Audit observed that payment of compensation to the girl child for any disability due to accident or otherwise has not been taken into account while selecting SBIL for making investment.

3.3.7 Renewal of cases

The scheme envisages that the beneficiaries should get their policy renewed at every milestone after registration at birth level. In case renewal is not done at any of the milestones, the girl child would be out of the scheme, without any monetary benefit.

Audit scrutiny of renewal cases for the period 2010-11 to 2011-12, revealed that out of 125808 cases due for renewal, only 73108 (58.11

per cent) were renewed (as of October 2012) as given in **Table 3.12.**

Table 3.12: Renewal of beneficiaries

Sl. No.	Year	Cases due for renewal	Cases renewed	Shortfall	Percentage
1	2010-11	45307	20140	25167	55.55
2	2011-12	80501	52968	27533	34.20
Total		**125808**	**73108**	**52700**	**41.89**

The above figures indicate that at the end of 2011-12, 42 *per cent* of beneficiaries have gone out of the scheme due to non-renewal of their cases at some stage and the amount due at that stage was not available to them, resulting in monetary loss to the girl child.

The beneficiary being a child cannot understand the procedure of renewal and even their parents are not so educated. Hence, the responsibility rests with the teacher or the Department, for renewal of the scheme at different milestones, for the success of the scheme. The Department failed to monitor the renewal at different stages in an effective manner.

3.3.8 Delay in finalisation of maturity claims

Audit observed that the Department took undue time to disburse the maturity claim to the beneficiaries. Audit analysis revealed that 51835 cases matured during 2009-12, whereas only 29800 (57 *per cent*) were finalized, as given in **Table 3.13.**

Table 3.13: Maturity cases finalised

Sl.No.	Year	Cases due for maturity	Cases finalized and sent to SBIL	Shortfall	Percentage of cases finalized
1.	2009-10	6908	1065	5843	15.42
2.	2010-11	18535	16378	2157	88.36
3.	2011-12	26392	12357	14035	46.82
Total		**51835**	**29800**	**22035**	**57.49**

It is evident from the above figures that the Department finalized only 15 to 88 *per cent* of cases, which matured during 2009-10 to 2011-12. In all, 43 *per cent* of cases were not finalized during the last three years. This was mainly due to the Department's failure in reconciling the data with SBIL and tracing the remaining beneficiaries. As a result, the maturity amount in

respect of untraced beneficiaries was lying unclaimed with SBIL. The Department was not even aware of the quantum of amount lying with SBIL. Thus, 43 *per cent* of the beneficiaries who were registered under the scheme since April 2008 were deprived of the benefits.

3.3.9 Management of advertisement and publicity

The Department incurred an expenditure of ₹ 27.02 crore on advertisements and publicity of the scheme during the period 2008-09 to 2011-12, as given in **Table 3.14.**

Table 3.14:Expenditure on advertisements

(₹ in crore)

Year	Total expenditure	Expenditure on advertisements	Expenditure on advertisements (in *per cent*)	Change in expenditure on advertisements (in *per cent*)	Beneficiaries	Change *(in per cent)*
2008-09	86.44	3.83	4.43	-	129495	
2009-10	86.97	2.40	2.75	(-)37.33	140006	8.12
2010-11	89.26	5.94	6.66	147.50	105737	(-)24.48
2011-12	92.90	14.85	15.98	150.00	106585	0.80
Total	**355.57**	**27.02**	**7.60**		**481823**	

(Source: departmental figures)

Audit analysis revealed that during 2009-10, the expenditure on advertisement decreased by 37.33 *per cent,* whereas the number of beneficiaries increased by 8.12 *per cent.* On the other hand, during 2010-11, it increased by 147.50 *per cent* whereas the number of beneficiaries decreased by 24.48 *per cent.* In 2011-12, expenditure on advertisement further increased by 150 *per cent* but beneficiaries increased by only 0.80 *per cent*. This indicated that the expenditure on advertisement neither had any correlation with the number of beneficiaries, nor had resulted in expected increase in the number of beneficiaries.

This was further corroborated by the outcome of a survey conducted by Audit in 30 schools, where only 13 out of 518 girls students (2.51 *per cent*), stated that they came to know about the scheme, through advertisements.

3.3.10 Publicity through 'Smile Cards Campaign'

To create awareness among the intended beneficiaries and to popularize the scheme, on the recommendation of the Bhagidari Cell of Government of NCT of Delhi, the Department launched a 'Smile Cards' campaign. In this, a person is randomly selected and photographed and his photo is pasted on the envelope with the signature of the Hon'ble Chief Minister,

Government of NCT of Delhi. The envelope is then posted at the address of selected person with a request to help the eligible girl child in registering at the nearest Anganwadi Centre. With a view to getting a report about the utility and for further expansion of the publicity campaign, the Department placed an order (January 2008) with a firm for printing of 10000 'Smile Cards' for the publicity of 'Ladli Scheme', on single tender basis, one month prior to the notification (February 2008) of the scheme. However, even before assessing the outcome of the campaign, the number of cards was increased to 36963.Thus, the Department incurred an expenditure of ₹ 22.43 lakh on printing of these 'Smile Cards' without following any codal provision of the General Financial Rules.

The Department stated (September 2012) that job order for printing of 10000 'Smile Cards', was awarded to the firm, but subsequent to low registration of girls under the scheme, it was decided by the Bhagidari Cell to dispatch more such cards. It was also stated that it being a new scheme and due to shortage of staff, feedback could not be collected.

The reply is not appropriate as the number of Smile Cards was increased without assessing the usefulness of the campaign. The Department's plea of shortage of staff to get a feedback or utility report on the campaign is also not appropriate as it was known to the Department at the time of launching of the campaign.

3.3.11 Survey of beneficiaries by Audit

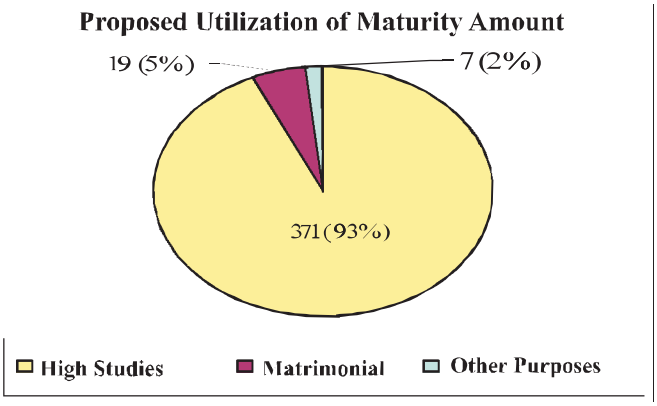
A survey was conducted by Audit to find out the status of registration and renewal of girl child/beneficiary and to know the opinion of teachers and students about the scheme. Out of total 968 schools, there are 398 schools for girls only, 184 co-educational schools and the remaining, boys' schools. Out of 398 schools for girls only, 20 schools and out of 184 co-educational schools, 10 schools were selected on random basis for survey. The year-wise total number of girl students, beneficiaries under the scheme and their renewal at prescribed stages are given in **Table 3.15.**

Table 3.15: Survey by Audit

Year	Total No. of girls students	Beneficiaries under the scheme	Percentage of beneficiaries	Renewal cases due	Cases actually renewed	Percentage of renewal cases
2008-09	14798	3765	25.44	-	-	-
2009-10	17062	4635	27.17	-	-	-
2010-11	19535	4087	20.92	3674	1322	35.98
2011-12	20796	3806	18.30.	5721	2616	45.73
Total	**72191**	**16293**	**22.57**	**9395**	**3938**	**41.92**

The analysis of data shows that number of beneficiaries declined from 27.17 *per cent* in 2009-10 to 20.92 *per cent*in2010-11 and further to 18.30 *per cent* in 2011-12. It further revealed that only 41.92 *per cent* of cases were renewed during 2010-11 and 2011-12. Therefore, 58.08 *per cent* girls were out of the scheme due to non-renewal of their cases.

Survey in 30 schools also revealed that there were 12511[‡‡] girl students studying in classes IXth to XIIth. Out of these 2655 (21 *per cent*) were beneficiaries. The survey covered 397 (15 *per cent*), out of 2655 beneficiaries to ascertain about intention of beneficiaries as regard to utilisation of maturity amount. The outcome of survey is given below in the pie chart:



The above chart shows that 93 *per cent* beneficiaries were interested in higher studies, which was a healthy trend. Whereas, five *per cent* beneficiaries were interested to utilise the maturity amount for the marriage purpose and only two *per cent* intended to utilise the money for other purposes such as, helping parents, purchase of durable assets etc.

Survey also revealed that the teachers suggested for relaxation of the eligibility conditions of the scheme, e.g., parent income, birth certificate and the proof of the residence, in case the girl is studying in a school for last three years.

During the survey, teachers and beneficiaries expressed that eligibility criteria for the scheme are stringent and the renewal procedure cumbersome, which need to be relaxed and simplified, so that more girls may join the scheme.

[‡‡] Average of last four years i.e. 2008-09 to 2011-12

3.3.12 Monitoring mechanism

In order to ensure the effective implementation of the scheme, it was necessary to have an effective monitoring mechanism at every stage. However, monitoring mechanism of the 'Ladli Scheme' had the following deficiencies:

(i) a well defined monitoring structure was not framed for the implementation of the scheme, (ii) a mechanism to get feedback from the beneficiaries was not evolved, (iii) validation of data of the scheme was not done, (iv) no system was in place to verify the amount at maturity or renewal stage,(v) the only source of data is SBIL, and (vi) the shortcomings, pointed out **(Annexure 3.8)** by the consultant engaged by the Government in 2009 for the evaluation of the scheme, were not removed.

Conclusion

The Department had neither details of beneficiaries to be covered nor the financial mechanism to ensure availability of expected amount of ₹ one lakh, at maturity of the policy. The financial arrangement with SBIL was not yielding the expected returns on investments. The payment of compensation to the girl child for any disability due to accident or otherwise has not been taken into account while selecting SBIL for making investment. Guidelines were not formulated for implementation of the scheme, to help the hospitals and schools in registering and renewal of beneficiaries at birth and different levels of school. The monitoring mechanism was ineffective as finalization of renewal and matured cases were not prompt. 22035 matured cases could not be finalized due to non-reconciliation of data or beneficiaries being untraceable. The Department was not aware about the amount at the credit of untraced beneficiaries, which was lying with SBIL. The stipulated evaluation of the scheme was not being done every two years.

Recommendations

The Government may consider to:

- *have a proper monitoring mechanism along with a set of guidelines to ensure registration and renewal of the beneficiaries in time and periodical evaluation of the scheme,*
- *take necessary steps to develop better co-ordination among various Departments i.e. Health, Education, MCD and NDMC for smooth implementation of the scheme, and*
- *review its plan of investment to get maximum rate of interest and maturity value after 18 years.*

3.4 Audit of Delhi Building and Other Construction Workers Welfare Board

Executive Summary

A thematic audit of the Delhi Building and Other Construction Workers Welfare Board was conducted to evaluate the functional efficiency of the Board in providing welfare measures to the building and other construction workers in Delhi.

The Board has not mapped all the construction workers in Delhi, as only 87273 construction workers have been registered up to 31 March 2012, against census figure of 2001 at 352830, the strength of workers. Out of fifteen welfare schemes prescribed under the Act, benefits of only seven schemes were availed by members, indicating lack of spread of awareness.

The Board incurred administrative expenditure in excess of prescribed limit of five *per cent* of total expenditure, in six financial years. ₹ 13 .20 crore and ₹ 4 .24 crore were released in lump sum to the Directorate of Education and the Directorate of Health Services respectively, out of which ₹ 6.99 crore is lying unutilised. The decision of the Government to set up 25 *Chalta - Firta* Schools at construction sites for the children of construction workers, was not implemented even after release of ₹ 7 .50 crore by the Board to the Universal Elementary Education Mission depriving children of education and interest loss of ₹ 1 .75 crore. Imprudent financial decisions resulted in further loss of interest amounting to ₹ 4.24 crore.

The Board has no mechanism in place to assess and monitor the collection of cess from the local bodies like MCD, DDA etc. In two cases, MCD did not credit, ₹ 2.66 crore and ₹ 1.46 crore collected by it as cess, in Board's Account.

The Board spent ₹ 0.98 crore on publicity campaign of Rashtriya Swasthya Bima Yojana, though the responsibility for publicity rested with the insurance company as per the scheme's parameters.

The functioning of the Board was suffering due to lack of adequate man power and provisions of the Act governing budget, annual report, registration of workers, meetings of the Board, submission of Accounts to the C&AG of India etc. were not being adhered to or complied with.

3.4.1 Introduction

With a view to providing and monitoring social security schemes and welfare measures for the benefit of the building and other construction workers, the Central Government considered it necessary to constitute Welfare Boards in every State. It was also considered necessary to levy a cess on the cost of construction of the buildings and other construction works for ensuring sufficient funds for the Boards. With this vision, the Central Government enacted the Building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 (the Act) and notified on 14 July 2000. Accordingly, the Delhi Government framed (January 2002) 'the Delhi building and other construction workers (Regulation of Employment and Condition of Service) Rules, 2002 under the Act. The Lieutenant Governor, National Capital Territory of Delhi constituted the Delhi Building and Other Construction Workers' Welfare Board (the Board) on 2 September 2002.

3.4.1.1 Organizational set up

The Board is headed by a Chairman who is assisted by the Secretary, an Additional Labour Commissioner and a Joint Labour Commissioner. The Joint Labour Commissioner is assisted by two Assistant Labour Commissioners and one Accounts Officer. There are nine Deputy Labour Commissioners, notified as cess assessing officers, each heading a district office. An organizational chart of the Board is given in **Annexure-3.9**.

3.4.2 Audit scope and methodology

The thematic audit covers the period 2002-03 to 2011-12 with specific focus on extending the benefits available under welfare schemes to the registered building and construction workers by the Board. The audit was conducted at Board's headquarters and five selected districts[§§]. Audit memos were issued for collection of information and audit findings were communicated to the Board and its district offices for confirmation of audit observations and comments of the audited entity.

3.4.3 Audit objectives

The broad objectives of the audit were to assess whether:

- the Board had effectively and efficiently exercised its powers to discharge its functions and duties according to the Act and Rules made there under,
- planning, implementation and management of schemes were effective to achieve the targets, and

[§§](i) East, (ii) North, (iii) North West, (iv) South, and (v) South West

- the fund management was effective, efficient and economical.

3.4.4 Audit criteria

The performance of the Board was benchmarked against criteria derived from the following sources:

- The Delhi Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996,
- The Delhi Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2002,
- The General Financial Rules, and
- Relevant orders and notifications issued by the Government and the Board.

Audit findings

3.4.5 Registration of construction workers

Section 11 of the Act stipulates that every building worker registered as a beneficiary under the Act, shall be entitled to benefits provided by the Board from its fund. In order to ensure availability of various benefits to all the construction workers, it is imperative that the Board possess accurate and reliable information with regard to the number of construction workers in Delhi and ensure registration of all the genuine construction workers with it. As per census 2001, there were 352830 construction workers in Delhi whereas the numbers of registered construction workers were 87273 (cumulative) as on 31 March 2012. Year wise details of registration is given in **Table3.16.**

Table 3.16: Year wise details of registered construction workers

Sl. No.	Year	No. of workers registered during the year	Cumulative figure
1	Upto 31.03.2007	1558	1558
2	2007-08	5831	7389
3	2008-09	10433	17822
4	2009-10	7860	25682
5	2010-11	24860	50542
6	2011-12	36731	87273

Source: data supplied by the Board

It is evident from the table above that the Board had a cumulative figure of 87273 members as on 31 March 2012 which includes 36731 members

registered during 2011-12. As per information provided by the Board, there were only 41910 live members with it, as on 31 March 2012. Live members are the members registered during the current year along with the previous members, who got their registration renewed during the year. Audit analysis revealed that only a nominal fraction of previously registered workers renewed their registration under the scheme.

The Board has not evolved any mechanism for mapping the construction workers and did not have complete data base of construction workers in Delhi.

In its reply, the Board attributed the reasons for lesser number of renewals to the migratory nature of the construction workers. The Board's contention is not acceptable as it did not provide relevant data to support its contention. The records made available to Audit, did not show adequate efforts made by the Board to get workers' memberships renewed.

3.4.5.1 Deficiencies in registration of construction workers

Registration of construction workers is the most important function of the Board and as such, it should be very careful and vigilant while registering the construction workers as beneficiaries of the fund, because all benefits are provided to beneficiary only after due verification of the claim filed. Rule 266 specifies following conditions for the building and other construction workers to be registered as beneficiary of the fund:

(i) age should be between 18 and 60 years with proof as required under the Rules,

(ii) should not be a member of any other welfare fund under any law in force, and

(iii) should have completed 90 days of service as a building worker in the year immediately preceding, as certified by the employer or contractor, Workers Union or Assistant Labour Commissioner of the concerned area.

However, test check of 938 applications for registration of construction workers at selected District Offices, revealed following deficiencies in registration of construction workers:

- 472 applications did not have date on which application was submitted in the district offices,
- 683 applications did not have date of certification by the employer that the applicant was a construction worker, and
- 196 construction workers had not completed the required period of 90 days of service as a building worker in the year preceding the year of registration as required under the Act.

In its reply, the Board accepted (March 2013) audit observation regarding deficiencies in applications, such as absence of date of registration and certification by the employer. As regards response of the Board that there was no such case of registration of worker without completing 90 days of work, the reply is factually incorrect as the Audit observation is based on records provided by the Board.

3.4.5.2 Delay in issue of identity cards

As per Rule 266 and an advisory issued by the Board, Identity Cards to the construction workers should be issued within a period of 30 days of receipt of application as a confirmation of his/her becoming a member of the fund.

However, Audit observed in selected districts, that in a number of cases, identity cards were issued with considerable delays. The district wise status of delay in test checked cases is given in **Table 3.17.**

Table 3.17: Delay in issue of identity cards

Sl. No.	Name of the District	No. of applications checked	Delay in issue
1	East	1249	1 to18 months
2	North	1342	1week to 2 months
3	North West	1427	1 to 9 months
4	South	1110	1 to11 months

Note: South West district did not provide records

Thus, identity cards were not issued within the prescribed time frame which deprived the construction workers of due benefits to the extent of delay.

In its reply, the board stated (March 2013) that prior to March 2011 no such time limit was prescribed. The Identity Cards/ Pass books have now been issued within 30 days. The Board's contention is not acceptable as there were delays in issuance of Identity Cards/ Pass books even after March 2011.

3.4.5.3 Implementation of welfare schemes

(a) Expenditure on welfare schemes

In terms of provisions of Section 24 of the Act, administrative expenses of the Board should not exceed five *per cent* of its total expenditure in a financial year. However, audit analysis revealed that utilisation of funds by the Board on administrative activities was not in compliance with the prescribed provisions. Since its inception in September 2002 to March 2012, the Board received ₹ 923.04 crore as cess and incurred a total expenditure of ₹ 29.99 crore during the same period. The expenditure included expenditure of ₹ 2.38 crore (7.94 *per cent*) on administration and

₹ 27.61 crore (92.06 *per cent)* on welfare of construction workers. Year wise details of expenditure up to 31 March 2012 are given in **Table 3.18.**

Table 3.18: Year wise details of expenditure incurred by the Board

(₹ in lakh)

Year	Total expenditure	Expenditure on administration	Expenditure on welfare activities	Percentage expenditure on administration	Percentage expenditure on welfare activities
2002-03	-nil-	-nil-	-nil-	-nil-	-nil-
2003-04	0.58	0.09	0.49	16	84
2004-05	-nil-	-nil-	-nil-	-nil-	-nil-
2005-06	3.40	0.37	3.03	11	89
2006-07	0.73	0.27	0.46	37	63
2007-08	15.88	0.68	15.19	04	96
2008-09	50.21	5.63	44.58	11	89
2009-10	2572.37	21.26	2551.11	01	99
2010-11	90.36	63.49	26.87	70	30
2011-12	265.02	145.84	119.17	55	45
Total	**2998.55**	**237.63**	**2760.91**	**-**	**-**

The above table indicates that the Board did not adhere to the prescribed provision as expenditure on administration was more than five *per cent* of the total expenditure in six out of 10 financial years. The expenditure on administration in these six years ranged from 11 to 70 *per cent.* It was also observed that there was abnormal increase in the expenditure on welfare activities during 2009-10. This was due to lump sum release of ₹ 20.72 crore and ₹ 4.24 crore by the Board to the Directorate of Education (DoE) and Directorate of Health Services (DHS) respectively and the amount had been incorrectly booked as expenditure on welfare expenditure. The irregularities noticed in release of funds by the Board are discussed in the subsequent sub-paragraph.

In reply, the Board accepted the audit observation for 2010-11 and 2011-12. For previous years, it stated that excess expenditure on administrative activities was due to expenditure on office equipment, publicity, providing furniture and other office equipment etc. The reply is not tenable as the expenditure in excess of prescribed limit was in violation of provisions of the Act.

3.4.5.4 Release of grant to Government agencies/ NGOs

Section 22 (3) of the Act stipulates that the Board may pay annually grant-in-aid to a local authority who provides to the satisfaction of the Board,

welfare measures and facilities of the standard specified by the Board for the benefits of the building and other construction workers and their families.

(a) Release of ₹ 4.24 crore as grant to DHS

To provide the medical facilities at construction sites to the construction workers and their families who often get injured and are in need of on the spot medical care, the Board released ₹ 4.24 crore as grant (July 2009) to the DHS under the Mobile Health Scheme. Audit observed that the Board did not finalise the terms and conditions of utilisation of grants by the DHS. Moreover, the Board neither ensured nor conducted supervision and monitoring of the scheme. As per utilisation certificate submitted by the DHS, only ₹ 0.99 crore were utilised till March 2011. Thus, releasing grant in lump sum, instead of annually, resulted in ₹ 3.25 crore lying unutilised with the DHS.

In its reply, the Board stated that the amount was released as advance and not as grant. It further stated that the DHS was requested to implement the scheme effectively. The reply is not acceptable as under the Act, the Board can release only grant, loan or subsidy to local bodies or employers for welfare of construction workers. Further, the Board had incurred this amount as expenditure in Accounts.

3.4.5.5 Non -release of ₹ 1.10 crore to Delhi Arogya Nidhi

The section 22 (f) of the Act provides that the Board may meet medical expenses for treatment of major ailments of a beneficiary or such dependent, as may be prescribed. In view of this provision, the Board approved (May 2009) provision of medical facility for major ailments of the beneficiaries and considered collaboration with the Delhi Arogya Nidhi, an organization of the DHS. Audit observed that the Board issued (June 2009) a cheque of ₹ 1.10 crore (₹ 1.00 crore for medical facilities plus 10 *per cent* as administrative cost) to the DHS for treatment of major ailments of beneficiaries. But the scheme was not started by the Delhi Arogya Nidhi. The Audit noticed that the cheque was returned to the Board by the DHS as it was not issued in favour of the Delhi Arogya Nidhi and thereafter, no amount was released on this account.

Thus, the Board failed to implement its own decision to provide medical facility for treatment of major ailments of the beneficiaries.

The Board in its reply admitted the fact and stated that it had not made any payment to the Delhi Arogya Nidhi as the scheme was shelved by the Board since construction workers and their family members were covered under Rashtriya Swasthya Bima Yojana (RSBY) scheme. Board's reply is not tenable as the benefit of RSBY scheme was already available since

2008. Moreover, the new scheme was envisioned to provide medical facilities for major ailments which were not covered under RSBY.

3.4.5.6 Release of grant to Universal Elementary Education Mission (UEEM) and loss of interest of ₹ 1.75 crore

The Board released (July 2009) an amount of ₹ 7.50 crore as grant to the UEEM for setting up of 25 *Chalta – Firta* Schools for educating the children of the building and other construction workers at site. Audit observed that the UEEM has not started the project even after a lapse of more than three years. This has not only deprived the beneficiary children of intended education but also grant of ₹ 7.50 crore remained blocked with UEEM. The Board neither pursued the UEEM to start the project nor made efforts to recover the amount. This has resulted in loss of interest of ₹ 1.75 crore[***].

The Board accepted the audit observation and stated (March 2013) that the matter was being taken up with the Directorate of Education.

3.4.5.7 Release of ₹ 13.20 crore as grant to DoE

As per decision taken in a meeting held on 23 May 2009 under the Chairmanship of the Chief Minister, the Board released ₹ 13.20 crore (including 10 *per cent* administrative expenditure) in June 2009 to the DoE for providing financial incentive to approximately one lakh children of building and other construction workers.

Audit observed that the grant was released to DoE without considering the modalities of payment to children, mode of transfer of benefit etc. As per information provided by the Board, the DoE disbursed ₹ 9.46 crore to only 37391 children up to March 2012 as detailed in **Table 3.19.**

Table 3.19: Disbursement of financial incentive to the children of workers

(₹ in crore)

Sl. No.	Year	No. of children	Amount disbursed	Balance
1	2009-2010	10916	2.49	10.71
2	2010-2011	10300	2.54	8.17
3	2011-2012	16175	4.43	3.74
Total		**37391**	**9.46**	**3.74**

The Audit analysis revealed that 63 *per cent* of targeted children were left out of the scheme's benefits even after a lapse of 33 months (March 2012). The release of grant of ₹ 13.20 crore in lump sum instead of annually, was also in violation of Section 22(3) of the Act. Terms and conditions governing the utilisation of the grant to the DoE were also not framed.

[***] The interest loss of ₹ 1.75 crore has been calculated on ₹ 7.50 crore for three years at SBI's domestic interest rate of 7.25 per cent per annum.

Moreover, the Board did not have the data regarding beneficiary students' name, registration number of their parents and date of registration with the Board. In the absence of such vital data, the disbursement of ₹ 9.46 crore as financial incentives to the children of workers could not be vouched safe in audit.

The Board, in its reply, stated (March 2013) that amount released to the DoE was not a grant and details of data regarding beneficiaries were already sent to the DoE. The reply is not acceptable as funds were released in lump sum instead of annually. However, the Board did not provide the data regarding beneficiary student's name, registration number of their parents and date of registration etc. to Audit.

3.4.5.8 Non-receipt of benefits under Jan Shree BimaYojana (JSBY)

Under Section 22(d) of Act, the Board may pay the prescribed amount in connection with premium for Group Insurance Scheme of the beneficiaries. The Board opted for JSBY of the Life Insurance Corporation of India (LIC) during 2007-08 to motivate the construction workers to become beneficiary of the Fund and decided to cover all registered construction workers. Nine term insurance policies (yearly renewable) were finalised by the Board from November 2009 to March 2010 covering the period from 01 December 2007 to 30 June 2010 and ₹ 15.92 lakh was paid as premium on these policies. These polices could not be renewed as the Board did not furnish the data of the JSBY beneficiaries to LIC.

Further, under Shiksha Sahyog Yojna part of JSBY, a scholarship of ₹ 300 per quarter per child (maximum up to two children per family) was payable by the LIC to the children of the JSBY beneficiaries studying in classes IX to XII for a maximum period of four years. Audit observed that only one beneficiary could get the benefit under the scheme/policy, out of four applicants who had applied for it. The reason being that the required data of the three applicants could not be forwarded to LIC by the Board due to non-receipt of data from respective District Offices.

Therefore, as the Board failed to maintain and furnish the required data to LIC, benefits were not available to beneficiaries despite the payment of premium of ₹ 15.92 lakh. This resulted in depriving children of workers of benefits under JSBY, thereby defeating the very purpose of providing social security to the registered construction workers.

The Board accepted the audit finding and stated (March 2013) that matter had been taken with LIC to release the due payment to remaining three claimants.

3.4.5.9 Avoidable expenditure of ₹ 0.98 crore on publicity

The Rashtriya Swasthya Bima Yojana (RSBY) of GoI was started in NCT of Delhi in 2008-09 for providing health cover to all BPL families through Oriental Insurance Company Ltd (OICL). Subsequently, the GoI decided (September 2008) to include the registered construction workers also in the RSBY. As per the Cabinet decision of March 2009 and scheme's parameters, the responsibility for publicity of the scheme, rested with the Insurance Company. However, Audit observed that the Board incurred an expenditure of ₹ 0.98 crore on publicity of RSBY, as discussed below:

(i) The Board incurred an expenditure of ₹ 0.76 crore on publicity for creating awareness about the RSBY scheme, among the registered workers through radio jingles for 30 days w.e.f 23 December 2010.

(ii) The Board released an amount of ₹ 8.25 lakh (October 2010) to the Mission Convergence for undertaking publicity-cum-media campaign for RSBY. An amount of ₹ two lakh (March 2012) was further released to the Mission Convergence despite the fact that utilisation certificate of previous grant was pending.

(iii) The Labour Department of the Government of NCT of Delhi released advertisements for the publicity of RSBY scheme in 10 newspapers on 6 December 2010 and the expenditure of ₹ 12.10 lakh was borne by the Board on these advertisements.

Thus, the Board incurred an avoidable expenditure of ₹ 0.98 crore on publicity of RSBY which should have been borne by the OICL as per the scheme's parameters.

In its reply, the Board stated (March 2013) that the RSBY was a National Scheme which was extended to registered construction worker of Delhi in 2008 and 100 *per cent* premium of the scheme was to be borne by the Board from cess fund. Therefore, publicity regarding RSBY scheme was to be undertaken by the Board from cess fund.

The Board's reply is not acceptable as the responsibility for publicity of the scheme, was of the OICL in terms of Cabinet decision of March 2009 and the parameters of scheme.

3.4.5.10 Benefits extended under welfare schemes

The Board was constituted in September 2002 for providing and monitoring the benefits under various welfare schemes to the construction workers. The status of benefits extended to the workers up to February

2013 since inception of the Board, is given in **Table 3.20.**

Table 3.20: Status of benefits provided to beneficiaries by the Board

Sl. No.	Name of scheme	Period	No. of applications received	Rejected	Finalised	Pending (as of 25 Feb. 2013)
1.	Medical assistance to workers	2007-12	8	2	5	1
2.	Maternity benefits	2009-12	6	-	4	2
3.	Funeral assistance	2011-12	4	-	3	1
4.	Financial assistance for education	2009-12	164	4	126	34
5	Death benefits to nominee	2007-12	27	2	22	3
6.	Marriage benefits	2007-12	4	4	-	-
7.	Pension benefits	2010-12	11	-	7	4
Total			**224**	**12**	**167**	**45**

The table above is indicative of the fact that only few applications were received by the Board from the registered members seeking benefits during the period up to February 2013. Audit observed that there were 15 welfare schemes prescribed under the Act, however, benefits were availed by members under only seven schemes during entire period up to 31 March 2012. Thus, it is imperative on the part of the Board to familiarize the construction workers about their rights to benefits being provided by the Government to enable them to avail the same.

In its reply, the Board stated (March 2013) that efforts had been made from time to time for creating awareness regarding welfare scheme through pamphlets, banners, advertisement in news paper and broadcasting of jingles on FM Radio. However, it was up to the workers to apply for claiming benefits and various schemes.

The reply is not tenable as it is the responsibility of the Board to cover all workers and spread the awareness about the scheme.

3.4.6 Expenditure of ₹ 0.49 crore on non-mandated activities

Scrutiny of the records revealed that the Board had incurred an expenditure of ₹ 0.49 crore on activities which are not covered under the Act. Such cases are discussed in subsequent paragraphs.

3.4.6.1 Development of temporary accommodation for construction workers

The scheme for 'Developing Holding Areas' in NCT of Delhi for providing temporary accommodation for construction workers was

envisaged by the department of labour in 2008 and four sites were also identified for the scheme. The Board paid ₹ 35.96 lakh (June 2009) to M/s Delhi Integrated Multi-Modal Transits System Limited (DIMTS) for submitting the preliminary survey report of proposed four sites. The preliminary survey report was submitted by M/s DIMTS in August 2009. However, the project was abandoned abruptly as the scheme was not in accordance with the provisions of the Act. Thus, the expenditure of ₹ 35.96 lakh on preliminary survey became infructuous.

The Board accepted the audit finding (March 2013) and stated that the DIMTS was asked to refund the amount of ₹ 35.96 lakh paid for the preliminary survey report, as it did not submit report. The reply is factually incorrect as DIMTS had submitted preliminary survey report in August, 2009.

3.4.6.2 Avoidable expenditure of ₹ 12.70 lakh for Mobile Crèches

The Board entered into an agreement with the Mobile Crèches for working mothers for a period of one year in August 2008 on single offer basis and released ₹ 12.70 lakh for this purpose. Section 35 of the Act, clearly states that facilities for crèches are to be provided by the employer. As such, the Board was not mandated to provide these facilities to the construction workers. Thus, the expenditure of ₹ 12.70 lakh could have been avoided.

The Board accepted the audit finding (March 2013).

3.4.7 Financial management

3.4.7.1 Loss of interest

The Board had not laid down any policy for investment of cess funds. Absence of investment policy and imprudent decisions resulted in loss of interest amounting to ₹ 4.24 crore. Such cases are discussed in succeeding paragraphs.

(a) Injudicious investment of funds and loss of interest of ₹ 3.48 crore

The Board invested an amount of ₹ 222.10 crore out of Cess Fund in various fixed deposits in banks, though the rate of interest on these fixed deposits was lower as compared to the domestic term deposit rate of SBI during the period of investment (2009-10). The decision of the Board to invest funds at lower interest rate than the domestic term deposits rate, was not financially prudent and resulted in loss of ₹ 3.48 crore to the Board.

In its reply, the Board stated that the Act being comparatively new and due to non availability of Accounts functionary in Board, funds were deposited in Current Account. After maintaining a minimum balance of ₹ 50 lakh, excess amount was diverted to Multiple Option Deposit (MOD) Account,

fetching higher returns and after accumulation of ₹ 50 crore in MOD, the same was invested as per recommendation of the Funds Investment Management Committee. However, the fact remains that the Board incurred a loss of interest of ₹ 3.48 crore.

(b) Loss of ₹ 0.76 crore due to inefficient cash management

Considering that the Board had a balance of ₹ 407.75 crore in Current Account as on 12 November 2010, the Special Commissioner (Labour) directed (25 November 2010) that funds available in Current Account should immediately be invested after retaining an amount required for meeting committed liabilities. Accordingly, a Savings Account was opened and an amount of ₹ 421.96 crore was deposited in it on 14 February 2011. Thus, the Board took two and half months to transfer the amount from Current Account to Savings Account. Even at this stage, funds were not invested in term deposit schemes to fetch higher rate of interest. The Board incurred interest loss amounting to ₹ 0.76[†††] crore for the period from 15 February 2011 to 31 March 2011.

In its reply, the Board stated (March 2013) that the process of completing the formalities and investment of funds took around 40 days and it was not possible for the Board to invest in Term Deposit scheme. Each and every decision of the Board is implemented in due course.

The reply is not acceptable as funds were transferred to Saving Account after 80 days of direction of the Special Commissioner (25 November 2010) and surplus funds were not invested in Term Deposit Scheme.

3.4.8 Levy and collection of cess

3.4.8.1 Improper maintenance of accounts relating to collection of cess

Under the provision of the Act, a cess at the rate of one *per cent* of the total cost of construction is to be levied on the employer. The primary responsibility of payment of cess lies with the employer who is required to pay the cess due to the cess collector within 30 days of the completion of construction or within 30 days of the date on which assessment of cess payable is finalized, whichever is earlier. In case of buildings and other construction work of the Government or a Public Sector Undertaking (PSU), the Government or the PSU, as the case may be, is required to deduct the cess payable from the bills paid for such works. In cases where prior approval for a construction work from a local authority is required,

[†††] The interest loss of ₹ 0.76 crore has been calculated on ₹ 421.96 crore for 44 days with the difference in rate of interest in Savings Bank and rate of interest on Term Deposit for 15 to 45 days, i.e. 3.5 *per cent* and 5 *per cent*

every application for such approval is to be accompanied by a crossed demand draft in favour of the Board for the amount of cess calculated on the basis of estimated cost of construction. The amount so collected by the Government or PSU or cess collector or local authority is to be transferred to the Board within 30 days of its collection.

Audit Scrutiny of records revealed that the Board has no mechanism to assess the details of construction activities being carried out in Delhi on which cess is payable. The local bodies like MCD, DDA etc. which are to collect cess on constructions carried out by individual contractors, do not send any information regarding the total cess collected by them and actually remitted to the Board. The Board also has no mechanism in place to obtain such information from these agencies. Two cases noticed by Audit, are enumerated below:

A test of the records in the office of the Deputy Labour Commissioner (East) (DLC), revealed that the MCD collected an amount of ₹ 2.66 crore as cess on private Building Plans sanctioned by it during the period from May 2006 to November 2008. Similarly, it was observed in the office of Deputy Labour Commissioner (North), that the MCD collected an amount of ₹ 1.46 crore as cess during 2009-10. However, MCD did not credit the amount of cess collected, in Board's Account till date. The other Districts Authorities had no information regarding collection of cess by local bodies. In the absence of proper mechanism, the actual cess due and collected by these agencies could not be ascertained in audit.

The Board in its reply accepted the audit observation and stated (March 2013) that cases were being monitored and the concerned agencies/persons were being pursued through correspondence and notices.

3.4.9 Human resource management in the Board

Adequate staff in an organisation, is of paramount importance in carrying out its responsibilities in an efficient and effective manner. As per information furnished by the Board, it has a sanctioned strength of 179 in various cadres, however, no regular staff has been recruited since its inception.

The Government of NCT of Delhi appointed (August 2000) Assistant Labour Commissioners and Labour Officers as registering officers. Thereafter, in July 2005, the Inspecting Officers and Labour Officers were appointed as Cess Collectors and the Deputy Labour Commissioners of nine Zones as Assessing Officers to perform the functions provided under the Act. The Labour Commissioner, Government of NCT of Delhi was appointed as Appellate Authority in July 2005.

Therefore, though the Board was constituted in September 2002, the cess collectors, assessing officers, and appellate authority were appointed only

in July 2005. The Board had neither formulated any Recruitment Rules nor had taken any action to fill the posts sanctioned by it, for its smooth functioning. The Board had contractual staff strength of 89 to carry out its regular functions besides two officials on deputation as on October 2012. The shortage of staff was of particular significance as the officers of Labour Department appointed for various functions of the Board under the Act, were already pre occupied with their own work. Due to such a severe shortage of staff, the Board was not in a position to ensure satisfactory discharge of its statutory responsibilities.

In its reply, the Board stated (March 2013) that steps would be initiated for regular appointment of vacant posts in future.

3.4.10 Internal control mechanism

Internal control is the process designed to ensure reliable financial reporting, effective and efficient operations and compliance with applicable laws and regulations. Therefore, to obtain reasonable assurance about its functioning, an organization is required to establish an independent and effective internal audit, an integral part of internal control mechanism. The Board had neither an internal audit wing of its own nor any other Government agency conducted its internal audit.

In its reply, the Board accepted that there was no full time Accounts functionary during 2002-2012. However, internal audit of Books of Accounts was conducted by the empanelled Chartered Accountants.

The contention of the Board that internal audit was conducted by empanelled Chartered Accountant is not tenable as it had not furnished any internal audit report to Audit.

3.4.10.1 Other shortcomings

Various provisions have been provided in the Act and Rules framed there under, to guide and govern the activities of the Board such as budget, annual report, assessment and collection of cess, registration of workers etc. The examination of records, however, revealed that many of these provisions were not being adhered to or complied with. The deficiencies noticed in this regard are given as under:

- Section 25 and 26 of the Act require the Board to submit its annual budget and annual report to the Government for sanction every year. However, it had not submitted these budgets and reports to the Government up to 2011-12 since inception.
- Rule 253 specifies that the Board shall ordinarily meet once in two months. Accordingly, the Board should have conducted a minimum of 58 meetings from September 2002 to 31 March 2012, but only 22 meetings were held.

- Section 4 of the Act provides for constitution of a State Building and Other Construction Workers Advisory Committee (the State Advisory Committee) to advise the State Government on such matters arising out of the administration of the Act, as may be referred to it. The first Delhi Advisory Committee (DAC) was constituted (October 2002) for a period of three years i.e. after a delay of two years from the issue of notification of Act. The tenure of the Committee was over in 2005, but the same was not reconstituted thereafter. The Board in its reply attributed the same to administrative reasons.
- Rule 267 specifies that a beneficiary of the fund shall contribute ₹ 20 per mensem to the welfare fund and Rule 285 provides that on the death of a member, the amount of contribution standing in his credit shall be given to his nominee or legal heir. However, it was observed that the Board had not been collecting the contribution from the registered workers.
- Section 27 of the Act provides that the Board shall maintain proper Accounts and other relevant records and prepare an Annual Statement of Accounts in such a form, as may be prescribed, in consultation with the Comptroller and Auditor General of India. Section 27(3) and 27(4) further specify that the Accounts of the Board shall be audited by the Comptroller and Auditor General of India annually and the Board shall furnish to the State Government before such date, as may be prescribed, its audited copy of Accounts together with the Auditor's Report.

The Board accepted (March 2013) the audit observations.

The Audit scrutiny revealed that the Annual Accounts of the Board for the years 2002-03 to 2009-10 were approved by the Board in its 23rd meeting in July 2012. However, these accounts have not been furnished to the Comptroller and Auditor General of India for audit. The Annual Accounts for the years 2010-11 and 2011-12 were yet to be prepared and approved by the Board (December 2012).

Conclusion

The Board, established in 2002, was entrusted with the task of providing welfare measures to the building and other construction workers as envisaged in the central legislation. The Board did not fulfill most of its mandated objectives due to absence of any perspective planning. Registration of workers is one of the most primary and important functions of the Board, which facilitates these workers, to avail benefits under various welfare schemes. However, the Board had no system in place for identifying and registering all the eligible construction workers and as a result, only a miniscule percentage of these workers were benefited.

Efforts taken by the Board to reach out to these workers through various awareness programmes were not adequate. Actual benefits delivered to a small fraction of construction workers through various welfare schemes were insignificant as compared to the total amount of cess collected by the Board. The Board had no mechanism in place to monitor the collection of cess by parastatal agencies. The functioning of the Board was suffering due to lack of human resources.

Recommendations

The Board may:

- *adopt a comprehensive human resource policy, as it has to cater to the most marginalized section of the society. It should be equipped with a qualified workforce for its effective and efficient working.*
- *put in place a system for proper assessment and collection of cess in coordination with all concerned agencies responsible for approval of building plans.*
- *initiate steps for maintaining proper accounts and audit thereof, besides creating a sound internal control mechanism.*
- *ensure that an awareness campaign is launched so as to make the maximum number of construction workers aware about their rights to welfare measures available under the Act.*

Chapter 4

Audit of transactions

Audit of transactions of Government departments under Social Sector, their field formations as well as that of autonomous bodies brought out several instances of lapses in management of resources and failure in the observance of the norms of regularity, propriety and economy. These have been presented in the succeeding paragraphs under broad objective heads.

4.1 Audit against propriety/expenditure without justification

Authorisation of expenditure from public funds has to be guided by the principles of propriety and efficiency of public expenditure. Authorities empowered to incur expenditure are expected to enforce the same vigilance as a person of ordinary prudence would exercise in respect of his own money and should enforce financial order and strict economy at every step. Audit has detected the following instances of impropriety and extra expenditure.

Department of Health and Family Welfare

4.1.1 Avoidable expenditure of ₹ 65.84 lakh

Purchase of 1100 pallets of higher specifications than actual requirement, at higher rate of ₹ 8500 resulted in avoidable expenditure of ₹ 65.84 lakh.

Rule 137 of General Financial Rules stipulates that every authority delegated with the financial powers of procuring goods in public interest should have the responsibility and accountability to ensure efficiency, economy, and transparency in matters relating to public procurement and fair, equitable treatment of suppliers and promotion of competition in public procurement. The specifications in terms of quality, type and quantity of goods to be procured should be clearly spelt out keeping in view the specific needs of the procuring organisation. The specifications so worked out should meet the basic needs of the organisation without including superfluous and non essential features which may result in unwarranted expenditure.

Audit scrutiny for the year 2009-10 revealed that the Lok Nayak Hospital (the Hospital) floated an open tender in September 2009 for the rate contract for various store items including plastic pallets (specifications- 1200x800x140mm, fungus, termite and chemical resistant with rotomoulding PU foam inside, light weight, 1000 kg static load capacity) with date of opening as 30 September 2009. Comparative statement of rates was approved by purchase committee on 30 August 2010 and M/s Grabner International Ltd.

was L-1 for plastic pallets at the rate of ₹ 2800 per pallet. The rate contract was valid upto August 2011.

Further scrutiny of records revealed that as the process of finalisation of hospital's own tender was in its final stage, the Procurement Officer of the Hospital requested 22 other government hospitals on 10 August 2010 to provide their approved contracted rates for plastic pallets of specifications-1000x1000 mm. No other specification relating to material, density, load capacity etc. was mentioned in the letter. In response, only one hospital - Shri Dada Dev Matri Avum Shishu Chiktsalaya, Dabri, sent (13 August 2010) its contracted rate of M/s Searocks Enterprises for the item at ₹ 8500 per unit, without giving any specification. After receiving the rate from only Hospital, the Procurement Officer moved (16 August 2010) a proposal for procurement of 500 pallets (1000x850mm) from M/s Searocks on the plea that the rates of pallets were not available in the Hospital Open Tender (HOT) and the finalization of fresh tender might take 2-3 months. The supply order was placed with M/s Searock Enterprises Ltd. on 31 August 2010 who supplied 500 pallets in October 2010. The Purchase Officer moved another proposal (30 November 2010) for the procurement of 600 (1000x850mm) pallets from the same firm on similar ground. The supply order was issued on 08 December 2010 and items were supplied by the firm on 20 December 2010. The Hospital paid ₹ 98.18 lakh (October and December 2010) to M/s Searock Enterprises Ltd for 1100 pallets. On third occasion, the Hospital purchased 800 pallets (June 2011) from M/s Grabner International Ltd, the successful bidder of its own HOT, at the rate of ₹ 2800 per pallet.

This indicated that purchase of 1100 pallets on first two occasions from M/s Searocks at the rate of ₹ 8500 per pallet was unwarranted and procedurally wrong. Instead of going for the rate contract of other Hospitals, the Hospital should have speeded up the finalization of its own HOT and placed the order with M/s Grabner at the rate of ₹ 2800 as the comparative statement of rates for the pallets had already been approved on 30 August 2010 and the rates were valid upto August 2011. Not only this, the Hospital also violated the financial norms on specifications of the items to be procured. The specifications of pallets in the Hospital's own HOT were - 1200x800x140mm, fungus, termite and chemical resistant with rotomoulding PU foam inside, light weight, 1000 kg static load capacity. While requesting other hospitals to provide their contract rates, the specifications were mentioned as 1000x1000 mm, whereas the supply orders were placed with M/s Searocks with specifications of 1000x850mm. Thus, there was no symmetry in the specifications of pallets ordered with the supplier and the one required by the Hospital. The laid down procedure was not followed and the hospital, purchased whatever was offered by the supplier (M/s Searocks). The very purpose of pallets would have been well served by the pallets of M/s Grabner as these were as per the approved specifications.

Thus, purchase of 1100 pallets at higher rate of ₹ 8500 resulted in avoidable expenditure of ₹ 65.84 lakh*.

The Hospital in its reply stated (September 2011) that intention was to have a long lasting storage system and that the requirement of the item was duly calculated and collected after a survey was done. It further added that there was a vast difference in the specifications of two types of pallets in respect of density and weight leading to difference in the prices. The plastic pallet of M/s Searock was of high density full plastic body whereas the other one was a moulded plastic frame.

The reply of the Hospital is not acceptable as the pallets of M/s Grabner were finalised by the Hospital itself keeping in view its requirements and after technical assessment. Pallets of M/s Grabner met the requirement of the Hospital fully and the fact that these were not of any sub-standard quality is also established by the fact that the Hospital had purchased 800 pallets from M/s Grabner International at the rate of ₹ 2800 in June 2011.

4.1.2 Idle investment of ₹ 45.10 lakh on procurement of equipment

The Directorate of Prevention of Food Adulteration procured equipment without having a proper plan in place for ensuring the availability of required technical staff for its operation. As a result, equipment worth ₹ 45.10 lakh was rendered idle for 48 months

The Directorate of Prevention of Food Adulteration (PFA) sent a proposal (November 2006) to the Equipment Procurement Cell (EPC), Department of Health & Family Welfare, GNCT of Delhi, for procurement of a 'Gas Chromatograph with Mass Spectrometer (GCMS)'. PFA justified its purchase proposal that it needed an in-house facility for specialised analysis of pesticide residue in all food stuff, specially in mineral water and cold drinks and that the limits of pesticide in mineral water being very low, it could only be confirmed by GCMS†. The equipment is used for analysis of pesticide residue in food stuff by molecular mass determination in Food Laboratory. EPC issued Acceptence of Tender (A/T) in March 2007 in favour of M/s Varian India Pvt. Ltd. (firm) for supply, installation and commissioning for a value of USD 90425. The firm supplied the GCMS in August 2008 at a total cost of ₹ 45 .06 lakh. The terms and conditions of A/T provided for a

* (₹ 8500 - ₹ 2800 = ₹ 5700), (₹ 5700 + ₹ 5700 x 5%) x1100 = ₹ 6583500)

† **Gas chromatograph–mass spectrometer (GC-MS)** is an equipment that combines the features of gas-liquid chromatograph and mass spectrometer to identify different substances within a test sample. It can identify trace elements in materials that were previously thought to have disintegrated beyond identification.

warranty of 60 months from the date of installation/ commissioning and free AMC (labour only) for 60 months after expiry of warranty.

We observed that the Directorate did not conduct any feasibilty study before going for the procurement of the equipment and had no plan to arrange for the required manpower to operate the equipment after its purchase. Consequently, the equipment was not put to use since its installation (August 2008) and the Directorate continued to get its samples tested for pesticide residue from another Delhi Government laboratory, i.e. State Grading Laboratory. Since the procurement of the GCMS, the Directorate had sent 57 samples to the State Grading Lab for testing.

The Directorate in accepting the facts stated (October 2011 and June 2012) that the equipment could not be utilised for want of trained technial staff. It added that the matter of non-availability of technical staff had been taken up with the higher authorities but to no avail as the recruitment rules for chemists were under consideration of the Government.

Thus, the Directorate procured the equipment without having a proper plan in place for ensuring the availability of required technical staff for its operation. As a result, the investment of ₹ 45.10 lakh on the equipment was rendered idle for 48 months (upto August 2012). Apart from this, the available warranty of 60 months is also getting lapsed.

The matter was referred to the Department in December 2011, their reply was awaited (July 2012).

4.1.3 Blockade of fund of ₹ 42.87 lakh

Injudicious procurement by Hospital of consumables/ non-consumables without assessing its actual requirements resulted in blockade of funds to the extent of ₹ 42.87 lakh for more than three years.

Rao Tula Ram Hospital, Jaffarpur, Delhi (Hospital) forwarded a proposal for the procurement of an Arthroscope[‡] Set (June 2006) to Equipment Procurement Cell (EPC), Department of Health & Family Welfare, Government of NCT of Delhi.

Audit scrutiny of records (November 2011) revealed that, as EPC did not finalise the procurement of the equipment, Head of the Department (Orthopedics) again submitted (January 2009) a proposal for procurement of

[‡] *Arthroscope: A thin flexible fiberoptic scope which is introduced into a joint space through a small incision in order to carry out diagnostic and treatment procedures within the joint. An arthroscope is about the diameter of a drinking straw. It is fitted with a miniature camera, a light source and precision tools at the end of flexible tubes. An arthroscope can be used not only for diagnostic procedures but a wide range of surgical repairs.*

Arthroscope alongwith all instruments and ACL[§]/ PCL[**] reconstruction kit to the Medical Superintendent (MS) who accorded the administrative approval.

Having received the Administrative Approval, a proposal was submitted (28 March 2009) for purchase of consumables and non-consumables items only without any proposal for purchase of the main equipment- Arthroscope. The procurement proposal indicated that these items were available on rate contract of Deen Dayal Upadhyay Hospital (DDU Hospital), which was valid upto 31 March 2009. MS referred the proposal to a Technical Committee, constituted to evaluate the proposal. Head of Department (Orthopedics), who was a member of Technical Committee too, justified the purchase of consumables and non-consumables[††], without Hospital having an Arthroscope, on the ground that the supplier of these items in DDU Hospital had given an undertaking to arrange Arthroscope, as and when surgery was to be done. Other two members of the Committee also agreed with the proposal. Expenditure sanction was obtained on 30 March 2009 and supply order for non-consumable and consumable items amounting to ₹ 47.23 lakh was placed with M/s Universal Ortho on 31 March 2009. The firm supplied the items on 29 June 2009 and a payment of ₹ 44.58 lakh was made.

Our scrutiny further revealed that the Hospital conducted first surgery only in December 2010 after 18 months of purchase of these items. The Hospital conducted only five more surgeries from January to June 2012. These are indicative of the fact that the items were purchased in excess of actual requirement, which is also established by the fact that consumables amounting to ₹ 1.71 lakh out of stock of ₹ 24.77 lakh only could be utilized in these six surgeries carried out by the Hospital. This also confirms the fact that non-consumable items were also under utilized to that extent.

Thus, Hospital purchased items (consumables/ non-consumables) without assessing its actual requirements in violation of Rule 137(i) of General Financial Rules which stipulates that the quantity of goods to be procured should be clearly spelt out keeping in view the specific needs of the procuring organisations.

This injudicious procurement resulted in blockade of funds to the extent of ₹ 42.87 lakh for more than three years (upto June 2012).

In accepting the facts and figures, the Hospital stated (February 2012) that these implants would not go waste, as they could be re-used after sterilization. It further added that measures had been taken not to repeat such instances in future. However, fact remains that the Hospital purchased stores more than necessary, leading to blockade of public funds.

[§] *Anterior Cruciate Ligament*

[**] *Posterior Cruciate Ligament*

[††] *Small instruments such as Adapter drill guide C-Ring, Graft Prep Station Base, Drill Guide Assembly for Transfix II, Graft Prep Station Sterilization case etc.*

The matter was referred to the Department in July 2012, their reply is awaited.

4.2 Failure of Oversight/Governance

The Government has an obligation to improve the quality of life of the people for which it works towards fulfillment of certain goals in the area of health, education, development and up gradation of infrastructure and public service. However, Audit noticed instances where the funds released by Government for creating public assets for the benefit of the community remained unutilized/ blocked and/or proved unfruitful/ unproductive due to indecisiveness, lack of administrative oversight and concerted action at various levels. A few such cases have been discussed as follows.

Department of Urban Development

4.2.1 Blockade of funds of ₹ 6.28 crore due to non – monitoring of implementation of works

The Urban Development Department had been releasing funds for works of street lights and high mast lights under the MLALAD Scheme to private electricity distribution companies. However, it did not have a monitoring mechanism in place to monitor the implementation of projects by these companies. As a result, an amount of ₹ 6.28 crore was blocked with these companies, resulting in loss of interest.

The Urban Development Department (the Department) is the implementing agency for the Scheme "Member of Legislative Assembly Local Area Development Scheme (MLALADS)". Under the scheme, each MLA can suggest to the UD Department, petty works of capital nature, to be done in their constituencies. The works under the scheme should conform to the general pattern of the programme and projects being implemented by the local bodies/ departments of Government of NCT of Delhi. An amount up to ₹ 2 crore is released in a year for each constituency for works recommended by concerned MLA, with individual project not exceeding ₹ 70 lakh. However, this limit can be relaxed in special cases but not more than ₹ 70 lakh per year for one project, can be released during a year and remaining liability could be spilled over to next year as per the financial requirement of the project.

As per guidelines of this scheme, it is mandatory to get the work done through Government departments/agencies identified by Government of NCT of Delhi. However, there is an exception regarding the work of electrification of roads. In this case, the requisition for undertaking work relating to street lights and high mast lights are required to be placed before the road owning agency. In case no comments are received within 10 days of the receipt of the requisition, a Distribution Company (DISCOM) would be asked to get the

work initiated. The payment would be made directly to the DISCOM under intimation to the road owning agency.

Under the scheme, the senior officers of the implementing department/ agencies should regularly inspect the works being undertaken and submit quarterly reports to the Department. A report on the physical and financial progress in respect of each work is also required to be submitted to the Department at the time of request for release of funds.

Audit noticed that the Department had been releasing funds for works of street lights and high mast lights under the scheme to DISCOMs. It was further noticed that the Department did not follow-up the release of funds by monitoring, as it did not maintain any record regarding proper utilisation of funds on the projects. DISCOMs also did not submit to the Department, physical or financial progress reports and final accounts in respect of works being implemented by them. At the same time, the Department also did not ask DISCOMs to submit such reports and accounts of the works. In the absence of any monitoring mechanism, the Department was not in a position to supply information on total number of works assigned to the DISCOMs, total funds released and utilised, status of works whether completed or not and unspent funds lying with DISCOMs, etc.

In the absence of these vital information, audit could not quantify the unspent amount lying with DISCOMs. However, with reference to a complaint forwarded by the Central Information Commission to the Department under the Right to Information Act, DISCOMs supplied (July and August 2011) to the Department, details of works assigned and funds released to them during 2008-11.

Audit scrutiny of the statements supplied by DISCOMs, revealed that the funds to the tune of ₹ 15.04 crore were released to DISCOMs for 104 works of electrification of roads during 2008-11. Out of ₹ 15.04 crore released, ₹ 6.28 crore were lying unspent with DISCOMs as of August 2011. However, the correctness of the unspent amount of ₹ 6.28 crore could not be verified in audit as the Department did not provide any records relating to the release and utilisation of funds. The reasons for funds lying unutilised were non-execution of some works due to non-finalisation of location, and in some cases, the expenditure was less than the amount released.

Thus, due to absence of a monitoring mechanism in the Department, an amount of ₹ 6.28 crore was not only lying blocked with the private firms, but also there was a loss of interest on these funds.

In its reply, the Department accepted (July 2012) that there was no monitoring cell for monitoring of such funds under MLALAD Scheme and added that all electrical companies involved in execution of electrical works were being pursued for refund of unspent amount. It further intimated that as suggested

by Audit, a proposal for setting up of the monitoring cell was under consideration.

Department of Health & Family Welfare

4.2.2 Idle Investment of ₹ 1.29 crore in acquisition of land

The investment of ₹ 1.29 crore on acquisition of land remained blocked for a period of over 96 months (upto August 2012) apart from non-achieving of objective of up gradation of the Hospital, which continues to operate at 250 *per cent* of its actual capacity.

In a meeting held on 30 July 2002 under the chairmanship of the Minister of Health and Family Welfare, it was decided to upgrade Lal Bahadur Shastri Hospital (Hospital) from 100 bedded to 250 bedded hospital as it was not able to cope up with the patient load. In pursuance thereof, Directorate of Health Services requested (September 2002) Vice Chairman, Delhi Development Authority (DDA) for allotment of additional land measuring around two acres, which was adjacent to the Hospital. DDA allotted (April 2004) the land measuring 7703 square meters to the Hospital, on payment of ₹ 1.09 crore in August 2004 and the Hospital took physical possession of land in June 2005. The Hospital further incurred an expenditure of ₹ 20.00 lakh on landfilling and raising a boundary wall on the plot in September 2006.

Audit scrutiny revealed that a multistoried building was not possible on the plot as a High Tension transmission line (HT line) belonging to UP Electricity Board was passing diagonally over the plot. As such, the Hospital proposed (August 2007) that the HT line be placed underground and a 500 bedded hospital be built on the site to increase the bed strength of all specialties including Trauma cases. The Hospital again changed this proposal (December 2008) and proposed to relocate the residential complex situated in the campus in the new plot in an L shaped manner, develop a green belt under the HT line and utilize the area that would be available after shifting the present residential complex for the expansion of the Hospital. Even this proposal was changed (January 2010) and it was decided to build an MCH[1] & Trauma blocks. However, the Hospital could not finalise any of the proposals upto June 2012 and construction could not be started on the additional land. This indicates that the Hospital or the Department did not have a concrete plan for utilization of land which was acquired for up gradation of the Hospital and enhanced medical facilities to the general public of the area, predominantly populated by JJ clusters and resettlement colonies.

[1] Maternity and children Hospital

In its reply, the Hospital stated (December 2011) that the Minister of Health and Family Welfare, GNCT of Delhi visited the site in May 2011 and directed to work out the possibility of underground cables or shifting of HT lines so that high rise buildings could be constructed on the allotted land. Accordingly, hospital sanctioned an amount of ₹ 50000 to Building Project Division (E), PWD for feasibility study of shifting of HT line from the additional land.

Thus, inspite of an investment of ₹ 1.29 crore, the Hospital could not be upgraded due to indecision of the Government. While the Hospital continues to operate at 250 *per cent* of its actual capacity, the investment remained blocked for 96 months (upto August 2012).

The matter was referred to the Department in September 2011; their reply was awaited.

5.1 Chief Controlling Officer based audit of the Directorate of Health Services

Executive Summary

A Chief Controlling Officer (CCO) based audit of the Directorate of Health Services (Directorate) was conducted by examining records of 12 Drawing and Disbursing Officers including 50 dispensaries covering the period from 2007-08 to 2011-12. The audit covered areas of financial management, human resource management, Drug Policy of Delhi, procurement policies, procedures and practices followed in the Directorate.

No construction work had started at any of the land sites (August 2012), allotted at the cost of ₹13.13 crore between 1997 and 2008 for construction of 10 hospitals with proposed bed capacity ranging from 60 to 700.

The Directorate had not documented procedures and practices for procurement of materials and supplies. Assessment of requirements was based on assumptions. As the rates quoted by the suppliers were directly linked with the estimated quantities to be supplied, Central Procurement Agency (CPA) could not take advantage of competitive rates for bulk quantities of drugs and surgical items to achieve economies of scale as envisaged in drug policy. Purchases of medicines/drugs were made much in advance of the actual requirements,resulting in significant unused balances at the end of the year.

There was no mechanism in place to analyse the market rates of drugs during the extended period of rate contracts. This resulted in financial benefit to suppliers as the rates of drugs reduced in this period, resulting in an avoidable loss of ₹ 1.46 crore in purchase of drugs made by the Central Store alone.

Testing of CPA drugs and surgical items were carried out in a routine manner and there was no tracking of supplies at CPA and the Central Store level to ensure that testing of all batches was carried out. Further, in case of non-CPA procurement, the indenting units were relying only on the in-house test reports of the drugs submitted by the supplier which is an anomaly.

No Management Information System, either manual or computerized, was devised at the Directorate, CPA and Central Store level for planning and managing procurements and supplies.

There was an abrupt variation in consumption of medicines with reference to the number of patients attended to under the jurisdiction of the Directorate.

Public Health Standards approved by the Delhi Cabinet in 2010 to address the confusion caused by existence of heterogeneous primary healthcare facilities provided by multiple agencies have not yet been implemented.

No post for pathologist/lab technician was ever sanctioned by the Department for any of the 39 mother labs. Moreover, the *percentage* of referral cases in all the mother labs was as low as 8.43 *per cent* of the total cases.

To run the mobile clinics, 18 to 24 *per cent* of staff was arranged from the Government hospitals and dispensaries, besides using the services of NGOs to the extent of 34 to 48 *per cent*. Further, it did not have any alternative arrangement in place to make up for the absence of departmental doctors. Insufficient monitoring and diversion of mobile clinics were also noticed.

5.1 Introduction

The Department of Health and Family Welfare (the Department) of the Government of NCT of Delhi (Government) caters to health needs of population of Delhi and neighbouring states. The Directorate of Health Services (Directorate) of the Government of Delhi is the major agency with the Department, responsible for health care facilities at primary and secondary level through various types of health outlets, spread all over Delhi like Dispensaries and Health Centres, School Health Clinics and Mobile Health Clinics.

5.1.1 Organizational set up and functions

The Directorate is headed by the Director (Health Services), Government of Delhi, who is assisted by an Additional Director (Administration), an Additional Director (Medical) and Programme Officers. The organizational set up of the Directorate is given at **Annexure-5.1**. To streamline the functioning of the dispensaries and other public health activities under the Directorate, Delhi has been divided into eight districts which are headed by Chief District Medical Officers (CDMOs). Central Procurement Agency (CPA) is responsible for procurement of essential drugs and surgical items through tendering for all institutions/hospitals of the Government of Delhi. The Store and Purchase Branch (Central Store) at the Directorate (Hqrs) carries out procurement of medicines which are not covered under the rate contract of CPA and is also responsible for storage and distribution of equipment, medicines and consumables for its subordinate offices, health centers and dispensaries.

5.2 Scope and methodology of audit

The Directoratecoordinates implementation of various National and State health programmes through a network of 247 dispensaries and regulates the health services provided by registered private nursing homes. The CCO based audit coveredthe Drug Policy, 1994 of theGovernment of Delhi, procurement policies, procedures and practices followed in the Directorate and its subordinate offices i.e. CPA and Central Store for the period from 2007-08 to 2011-12. All the 12 Drawing and Disbursing Officers were selected for test check. In addition, 50 out of 247 dispensaries were also selected for test check on the basis of random sampling. An entry conference was held (22 May2012) with the Director, DHS to explain and discuss audit objectives and criteria. Audit findings, conclusion and recommendations were communicated to the Department and also discussed in an exit conference (28.2.2013).

5.2.1 Audit criteria

The audit criteria adopted as benchmarks to assess the performance of the Directorate was derived from the following:

- Bio Medical Waste Management (BMW) Act, 1998,
- Cigarette and Tobacco Products - Prohibition of Advertisement and Regulation Act, 2003,
- Nursing Home Registration Act, 1953,
- Government policies, directives, orders and guidelines on health in Delhi, and
- Guidelines, strategic goals, objectives and the targets to be achieved for various plan schemes.

5.2.2 Human Resources Management of the Directorate

Health is a field where availability of adequate qualified staff is of paramount importance. The staff position of the Directorate as on 31 March 2012 is given in **Table 5.1.**

Table 5.1: Staff position of the Directorate as on 31 March 2012

Sl. No	Category	Sanctioned posts	Filled	Vacant posts	*Percentage*
1.	Medical Staff	718	522	196	27.30
2.	Nursing Staff	569	471	98	17.22
3.	Paramedical Staff	933	849	84	9.00
4.	Administrative Staff	307	224	83	27.04
5.	Group – D staff	1477	1171	306	20.72
	Total	**4004**	**3237**	**767**	**19.16**

Source: Information provided by the Directorate

As can be seen from the above table, there were shortages of staff in every cadre, ranging from nine to 27.30 *per cent*. The shortage in medical and nursing cadre was particularly of concern as it adversely affected the working of the department in discharging its mandated responsibilities.

5.2.3 Overall Internal Control Mechanism of the Directorate

5.2.3.1 System of internal control procedure and internal audit system

To achieve the objectives, Directorate needs to devise a Management Information System (MIS) either in manual or computerized environment for receiving returns/reports from indenting units for tracking status of supply orders, performance of equipments, inventory, stock-outs of essential drugs, performance of suppliers, quality assurance by testing

laboratories and enforcing penalty clauses in case of non-performance of rate contract at any level. However, it was noticed that due to lack of effective internal control mechanism, the objectives were not achieved optimally as brought out in succeeding paragraphs.

Further, internal audit is an integral part of Internal Control Mechanism. To obtain reasonable assurance about its functioning, the Directorate is required to establish a free and independent internal audit. The Directorate did not have an internal audit wing of its own, but the Directorate of Audit, Government of Delhi conducts internal audit of the Department. It was noticed that 44 inspection reports containing 449 audit paragraphs were outstanding as of March 2012.

5.2.3.2 Other issues under Internal Control

Directorate undertakes various activities at each level of hierarchy in order to discharge its responsibility with regard to the primary health which inter-alia entail functional knowledge at every stage, i.e. procurement, storage and distribution of medicines/drugs, equipments, etc. Audit noticed that no laid down procurement procedures, guidelines were being maintained.

5.2.3.3 Accountability mechanism

A three tier system viz. Head office, Chief District Medical Officers and Dispensaries exists in the Directorate for implementing and monitoring the activities relating to the provision of primary health care. However, lack of coordination among the aforesaid three levels was noticed as elaborated in the subsequent paragraphs of the report.

5.2.3.4 Response to statutory Audit

The Comptroller and Auditor General of India conducts audit of the Drawing and Disbursing Officer (DDO) at the Directorate (Hqrs) as well as 11 other DDOs under its jurisdiction. No mechanism had been developed by the Directorate to monitor the compliance on the audit observations. It was noticed that 37 Inspection Reports containing 145 paragraphs covering the period 1999-00 to 2011-12 were outstanding as of December 2012.

A Performance Audit Report of the Directorate was printed in the Report of the Comptroller and Auditor General of India for the year ended March 2008. However, Action Taken Note (ATN) was awaited as of November 2012.

5.2.3.5 Vulnerability to fraud and corruption

Directorate is responsible for the primary level health activities for the population of Delhi through its network of 247 dispensaries and

implementation of different schemes like Mobile Health Scheme, School Health Clinics, etc. Audit noticed that the large quantum of procurement of medicines/surgical items, absence of documented procedures for procurement and lack of effective internal control, makes the Directorate vulnerable to fraud and corruption with the risk of undue benefits to the suppliers, procurement at higher prices, and pilferage of medicines/drugs in the distribution system.

5.2.4 Overall monitoring mechanism

Audit observed that:

- No effective monitoring mechanism was in place as reflected by poor budgetary control in terms of unrealistic budget projection, rush of expenditure in the month of March, non-settlement of Abstract contingent advances and proper utilisation of the grants given to other agencies/hospitals etc., and
- No periodical returns for ensuring regular and timely supply of essential drugs/surgical items and its stock out position were submitted to CPA/Central Store. There was no computerized system for monitoring the performance of suppliers, inventory of essential drugs/surgical items and status of functional equipments.

Audit findings

5.3 Financial management

Year-wise budget allocation and expenditure incurred by the Directorate during 2007-08 to 2011-12 is given in **Table 5.2.**

Table 5.2: Budget provision and actual expenditure

(₹ in crore)

Year	Plan		Non Plan		Total	
	Budget Allocation	Actual expenditure	Budget allocation	Actual Expenditure	Budget allocation	Actual Expenditure
2007-08	48.82	46.44	77.69	67.45	126.51	113.89
2008-09	58.87	53.90	98.23	93.35	157.10	147.25
2009-10	68.19	64.92	130.28	125.58	198.47	190.50
2010-11	100.50	91.50	150.88	147.25	251.38	238.75
2011-12	203.65	186.24	174.20	151.86	377.85	338.10

Source: - figures provided by the Directorate

From the above table, it is evident that the expenditure fell short of original budget allocation resulting in savings.

The Directorate stated (January 2013) that the reasons for the savings were non-approval of competent authority for inserting advertisements due to

MCD elections and finalisation of tenders for procurement of general items only in March 2012.This indicates absence of proper planning for timely procurement of medicines and other items.

5.3.1 Rush of expenditure

According to Rule 56 (3) of General Financial Rules, rush of expenditure, particularly in the closing months of the financial year, shall be regarded as a breach of financial propriety and shall be avoided. Scrutiny revealed that major expenditure of the Directorate was on 'Material and Supplies' followed by expenditure on schemes.The details of the expenditure under the head-'Material and Supplies' in the month of March of last five years is given in **Table 5.3.**

Table 5.3: Details of expenditure in the month of March

(₹ in crore)

Year	Total expenditure	Expenditure in March	Percentage of expenditure in March
2007-08	10.74	1.56	14.53
2008-09	12.75	2.61	20.47
2009-10	20.00	5.00	25.00
2010-11	25.98	11.00	42.34
2011-12	19.67	2.45	12.46

Source: Figures provided by Directorate of Health Services

From the above table, it is clear that the percentage of expenditure incurred during March under the head 'Material and Supplies' ranged between 12.46 and 42.34 *per cent*.

The Department in its reply (March 2013), stated that the approvals as well as sanctions were received in the month of March, for the period 2007-08 to 2011-12, due to which bills were drawn on 31March during the above said period. Facts remain that provisions of the GFR were not followed.

5.4 Directorate of Health Services (Hqrs.)

5.4.1 Non compliance of mandatory provisions on the website as per the Right to Information Act, 2005 (RTI Act)

Except the particulars of the organisation, functions, duties and the details of the dispensaries along with the introduction of some schemes, no information regarding the policies, budget, purchases, availability of medicines, subsidy programmes, etc. were available on the website of the Directorate which are mandatory under Section 4 of RTI Act, 2005. Thus,

citizens of the Delhi were deprived of their right to information due to non availability of such basic information on the website of the Directorate.

The Department had accepted the facts in its reply (March 2013) and noted for compliance.

5.4.2 Improper accounting treatment of penalties

Rule 9 of the General Financial Rules (GFR), 2005 states that it is the duty of the Department concerned to ensure that the receipts and dues of the Government are correctly and promptly assessed, collected and duly credited to the Consolidated Fund or Public Account as the case may be.

Audit scrutiny revealed that during 2007-12, the Directorate imposed penalty of `96.46 lakh on suppliers for delayed supplies. While making payment to the suppliers, the amount of penalty was deducted from the gross amount of the bills, instead of depositing the amount in the government account.

The Department accepted (March 2013) the facts and assured that penalties would be booked as departmental receipt from the year 2012-13.

5.4.3 Irregular payment of conveyance allowance of ₹ 3.79 crore to medical officers

Audit scrutiny revealed that all the doctors had claimed conveyance allowance for (i) visiting the hospital outside normal duty hours,(ii) visiting the patients at their residences, and (iii) performing other official duties as per prescribed rates. As per the clarification given by the Department of Health and Family Welfare, it was the responsibility of the supervisory officer who is, counter signing the certificate regarding visits made, to ensure that the claims are made on factual basis. However, it was noted that claims amounting to ₹ 3.79 crore were passed on the self certification of individual doctors without the counter signature of the supervisory officer. This resulted in irregular payment to the tune of ₹3.79 crore.

The Department admitted (March 2013) this as procedural lapse and ensured that the bills would be passed only after verification of the supervising officer.

5.4.4 Non-adjustment of Abstract Contingent (AC) advances of ₹ 1.90 crore

Rule 118 of Receipt and Payment Rules stipulates that money drawn on abstract contingent bills for payment of advances to suppliers should be adjusted within one month from the date of drawal. During the scrutiny of records, it was revealed that an amount of ₹1.90 crore (**Annexure-5.2**) of

contingent advances given to different officials/suppliers during the years 2010-11 and 2011-12 was not adjusted as of October 2012.

The Department stated (March 2013) that out of ₹1.90 crore, ₹ 1.31 crore of AC bill had been settled and for the rest of the amount, reminders had been issued for early action. The Directorate may take timely action to adjust the outstanding amount of AC advances.

5.4.5 Inadequate monitoring of receipt of Utilisation Certificates

Scrutiny of records revealed that 78 Utilization Certificates amounting to ₹447.40 crore due in respect of grants paid up to 2010-11were outstanding as of March 2012. Year wise position of outstanding utilization certificates is given in **Table 5.4.**

Table 5.4:Outstanding Utilization Certificates

(₹in crore)

Year	Utilization certificate due		Utilization certificates outstanding	
	No.	Amount	No	Amount
Up to 2008-09	50	8.28	50	8.28
2009-10	1	13.01	1	13.01
2010-11	27	426.11	27	426.11
Total	**78**	**447.40**	**78**	**447.40**

Source:Figures provided by Directorate of Health Services

The above table shows that an amount of ₹447.40 crore was still outstanding.

The outstanding balances ofutilisation certificates worth ₹ 447.40 crore showed that the internal control mechanism for monitoring the utilization of grants was inadequate in the Directorate.

The Department stated (March 2013) that utilisation certificates amounting to ₹ 201.44 crore had been settled and for remaining utilization certificates, reminders had been issued. The system of monitoring of timely receipt of utilization certificates may be improved.

5.4.6 Blockade of funds to the tune of ₹ 13.13 crore

The Directorate is responsible for establishment of new hospitals and dispensaries in Delhi. Scrutiny of records of construction of new hospitals and dispensaries revealed that the land at various places was allotted between 1997 and 2008 for construction of 10 hospitals with proposed bed capacity ranging from 60 to 700. An amount of ₹13.13 crore has been spent on account of purchase of land and construction of boundary walls.

The work was entrusted to various agencies. However, the records available with DHS revealed that no construction work had started on any of the sites (August 2012), except construction of boundary walls in some cases. Consequently, while funds of ₹ 13.13 crore remained blocked ,the people of Delhi were deprived of intended health services.

The Department stated (March 2013) that facts and figures were correct. The construction was delayed because of involvement of multiple-agencies. Further, with the passage of time, appreciation of cost of land was actually a gainful investment in capital assets by the Government. Reply is not acceptable as the prime objective of the Government was to provide health services to the targeted population of Delhi, instead of capital gain investment.

5.4.7 Ineffective monitoring at the Directorate (Hqrs)

The Directorate has not devised any Management Information System (MIS) either in manual or in computerized form for monitoring and tracking the status of supply orders, performance of equipments, inventory, stock-outs of essential drugs, performance of suppliers, quality assurance by testing laboratories and enforcing penalty clauses in cases of non-performance of rate contract at any level. It was observed that dispensaries were sending manual reports and returns to the Directorate (Hqrs.) through CDMOs about OPD attendance, staff strength, stock-outs, status of lab equipments, etc. The Directorate (Hqrs.) was neither analysing these returns nor sending them to the Central Store and CPA, which were responsible for procurement of drugs and awarding maintenance contracts for lab equipments in dispensaries. As such, they were not kept informed about stock-outs of essential drugs and status of lab equipments. Audit observed that absence of an effective monitoring system for drugs and equipments resulted in stock outs of essential drugs ranging from 58 days to 390 days at Central Stores **(Annexure- 5.3**).

The Department stated (March 2013) that the MIS was likely to be established by April 2013, whichwould enable proper monitoring of the supply at various levels. Further, CDMOs had also been advised to monitor the stock outs, functioning of lab equipment, etc.

5.5 Central Procurement Agency

In pursuant to the Drug Policy of the Government of Delhi, Central Procurement Agency (CPA) was established in 1994, with the objective of procuring high quality drugs and other medical store items at affordable prices in all Delhi Government hospitals and health centres through a pooled procurement programme.

5.5.1 Goal not achieved due to low performance

The pooled procurement programme by the CPA is to be implemented in three phases. In the first phase, preparation of a rate contract of different drugs for procurement is to be undertaken. In the second phase, order for all drugs required in various hospitals is to be placed centrally but delivered directly to the hospitals. In the third phase, drugs are to be ordered by the CPA, procured, stored and distributed to different hospitals in the State by the CPA only. Further, as per the programme, modern techniques of drug storage and inventory control would be introduced so that at any point of time, the Central Unit is aware of the availability of different drugs at different hospitals and health care facilities.

Audit noticed that CPA is currently in second phase of implementation. As a result, any imbalance such as shortage of a particular drug, at any hospital, and availability of unused stocks at another hospital, cannot be identified. Further, no corrective measures can be taken and probability of pitfalls of multi-point purchasing of drugs can also not be overruled.

The Department accepted the facts and stated (March 2013) that now the computerization of supplies was being done through a software programme called 'Nirantar', which was effective in monitoring the supply and demand position. However, the Department assured that 'Nirantar' was likely to be fully functional from the year 2013-14.

5.5.2 Essential Drug List (EDL)

As per the Drug Policy EDL is to be prepared annually by a special committee, consisting of eminent experts from different hospitals in the state and other leading specialists to ensure proper and rational use of drugs, for decreasing unnecessary expenditure on medicines.EDL represents a list of minimum generic drugs needed for a basic health care system, listing the most efficacious, safe and cost-effective drugs for priority conditions with the objective of providing drugs to maximum number of patients. Audit scrutiny of records revealed that EDL was prepared in 2007 and again in 2011, after a gap of four years instead of every year. Records such as minutes of the meeting of the committee, justification for the addition or deletion of medicines, criteria for finalisation of EDL and approval of the competent authority were not provided to audit.

The Department stated (March 2013) that EDL committee now would have a mandatory meeting every January to take a stock of developments in pharmaceuticals and medical practices and the revisions of EDL, if required.

5.5.3 Procurement manual and guidelines not documented/ prepared

As per the Rule 135 of GFR, all department and organizations are required to prepare codified purchase manuals and instructions containing detailed purchase procedures, guidelines and also proper delegation of financial powers so that there is a transparent, systematic and uniform approach in decision-making. Audit noticed that Directorate had not documented written procedures and practices on procurement of materials and supplies. There were no guidelines for preparing estimated requirements of emergency procurement either. Due to absence of guidelines, supply orders for non-CPA drugs were placed directly with the suppliers of rate contracts, finalized by the hospitals and Central Store. There was no mechanism in place to ensure that procurement of these drugs was done economically by the Central Store by ascertaining and comparing the rate contracts of all hospitals. Hence, ad-hoc procurement system was being followed by these two procurement agencies of the Directorate.

The Department stated (March 2013) that preparation of procurement manual and guidelines started three years back but could not be finalised as various options available in supply chain management module of Nirantarhad not yet been selected.

5.5.4 Expenditure on non-CPA procurement exceeded the prescribed limit

As per the Drug Policy of the Delhi Government, only 10 *per cent* of total budget for 'Material and Supplies' can be spent on procurement of non-CPA drugs. Audit scrutiny of the Central Store records, however, revealed that expenditure incurred on non-CPA drugs was ranging from 23.09 to 37.12*per cent* as given in **Table 5.5.**

Table 5.5: Expenditure on procurement of non-CPA drugs

(₹ in crore)

Year	Total Budget of Material and Supplies	Total expenditure	Expenditure on non- CPA procurement	%age of non-CPA exp. against total expenditure
2007-08	10.74	10.74	2.48	23.09
2008-09	13.80	12.75	4.34	31.45
2009-10	20.00	20.00	5.54	27.70
2010-11	26.00	25.98	9.65	37.12
2011-12	25.00	19.67	2.47	9.88

Source: figures from the stock register of Central Store

The Department accepted the facts and stated (March 2013) that now efforts were being made to increase the coverage of drugs in rate contract and limit the non- CPA procurement within the range of 10 per cent.

5.5.5 Purchase of medicines short of permissible shelf life

To guard against loss in potency of medicines before the actual date of expiry, the terms and conditions of purchase of medicines stipulate that supplier should ensure that not more than 1/6 of shelf life had passed from the date of manufacturing at the time of supply, which is considered to be permissible shelf life. Audit observed that Central Store failed to enforce this provision, as it had accepted 64 supplies of various medicines/vaccines beyond permissible shelf life during the last five years **(Annexure-5.4)**.

The Department stated (February 2013) that in case of emergency and sometimes for smooth functioning of Central Store, drugs/medicines were received with impermissible shelf life. Further, due care was being taken for future, to avoid such a situation. The reply was not acceptable as timely action for procurement of drugs/medicines was lacking.

5.5.6 Inadequate estimation of quantities

Rule 137 of General Financial Rules stipulates that purchases should be made in the most economical manner in accordance with the definite requirement of the public service and care should be taken not to purchase stores much in advance of actual requirement. In order to achieve economies of scale, there was a need to assess the requirement properly after getting feedback from all the indenting units.

- Audit analysis of NITs 2007, 2008 and 2011 for procurement of drugs indicated that assessment of requirements was based on assumptions as CPA was not maintaining any database/details of quantities of drugs and surgical items procured, and actually consumed. Scrutiny of drug tender documents revealed that quantities for 426 and 377 drug codes were given against 622 and 709 drug codes, for2007 and 2008 respectively. Column for quantity of 196 drug codes in tender- 2007 and 332 drug codes in tender-2008 were left blank. As the rates quoted by the supplier firms were directly linked with the estimated quantity to be supplied, CPA could not take advantage of competitive rates for bulk quantities of drugs and surgical items, to achieve economies of scale as envisaged in the Drug Policy.
- Test check of records of the Central Store revealed that purchase of medicines/drugs was made much in advance of the actual requirements, resulting in huge balances at the end of the year.

The Department stated (March 2013) that Directorate had already initiated reforms in tender process in 2011.Reply of the Department was not acceptable as documentary evidence in support of the reforms stated to have been initiated in the tender process was neither been given to audit nor attached with the reply.

5.5.7 Variation in consumption of medicines with reference to number of patients attended

As per the Drug Policy, it is the objective of the CPA that all the necessary checks, counter checks (through computerized inventory system, modern accounting procedures) and surprise checks will be initiated to ensure that losses due to illegitimate activity are kept at the bare minimum. To see whether this objective was achieved, audit analysedthe consumption pattern of medicines of four groups* and compared this with the number of patients attendedto in the dispensaries during the period 2007-08 to 2011-12. As the selected four groups comprise of medicines of very general nature, which are used for common diseases, their consumption can be compared to the total number of patients attending the dispensaries **(Annexure.-5.5)**. Audit analysis revealed that :

- Treatment of patients declined by 3.34 *per cent* in 2009-10 from 2008-09, but the consumption of Group-I medicines decreased by 22.38 *per cent*. But the trend of consumption of medicines of group-II, III and IV was in reverse direction, as it increased by 67.11 *per cent*, 31.90 *per cent* and 24.80 *per cent* respectively.
- Though the treatment of patients in 2010-11, declined further by 0.01 *per cent* in comparison to 2009-10, consumption of medicines decreased at a comparatively steeper rate of 19.48 *per cent*, 10.74 *per cent*, 38.64 *per cent* and 21.94 *per cent,* for group-I, II, III and IV respectively.
- In 2011-12 number of patients decreased further by 7.22 *per cent* compared to 2010-11, however, the consumption of drugs indicated a mixed trend. While the medicines of group-I and IV were consumed less by 13.29 *per cent* and 20.38*per cent* respectively, the consumption of group-II and III increased by 11.78 *per cent* and 25.69 *per cent* respectively.

Thus, in comparison to decrease in patient numbers, there was an abrupt variation in consumption of medicines.

The Department stated (March 2013) that morbidity pattern of various diseases vary from year to year and season to season,therefore, thedisease

*1. Analgesics, Antipyretics and drugs for GOUT 2. Anti Protozoal drugs, 3. Antibacterial and 4. Antacid and other Anti ulcer drugs

profile could not be statistically compared with the consumption of medicines.

5.5.8 Deficiencies in rate contract management

5.5.8.1 Award of rate contract for drugs without obtaining competitive bids

Audit scrutiny revealed that rate contracts were finalised on single bid as detailed in **Table 5.6.**

Table 5.6: Details of medicines under rate contract

Particulars	Rate Contracts		
	2007	2008	2011
Total number of drugs for which tender invited	622	709	735
Total number of drugs for which rate contract awarded during a contract year	431	422	175
Total number of drugs for which rate contract could not be finalised	191	287	560
Total number of drugs for which rate contract awarded on the basis of single bid	98	162	Nil
%age of drugs for which rate contract awarded on the basis of single price bid	23	38	
Turnover criteria for eligibility of firm to submit a tender (₹ in crore)	35	35	40 to 80

Source: Figures provided by Central Procurement Agency

The rate contracts were awarded in case of 98 drugs in 2007 and 162 drugs in 2008, on single bid basis. Drug tender for the year 2011 was under process (October 2012).No study was conducted by the Directorate as to why CPA was not getting offers from more manufacturers for the supply of these drugs.

The Department stated (March 2013) that to study the poor participation in CPA tenders, meetings between prominent manufacturers and members of Special Purchase Committee in July 2012 and January 2013 were organised to address the issue. However, the outcome of these meeting was not provided to Audit.

5.5.8.2 Failure of CPA to initiate the process of next tender in time resulted in loss of ₹1.28 crore

Para 14.16 of chapter 14 of the Manual on 'Policies and Procedures for purchase of goods' stipulates that it should be ensured that new rate contracts are made operative right after the expiry of the existing rate contracts without any gap. In case, however, it is not possible to conclude new rate contracts due to some special reasons, timely steps should be taken to extend the existing rate contracts with same terms and conditions

etc. for a suitable period, not being more than three months. Also, while extending the existing rate contract, it should be ensured that the price trend is not on lower side.Audit scrutiny revealed that CPA finalised three tenders (2007, 2008 and 2011) for procurement of drugs and that period for finalization of these tenders ranged from 5 to 21 months. As CPA failed to initiate process of new tenders in time before completion of the validity of the existing contract, the existing rate contracts had to be extended frequently. Since the Directorate did not have any mechanism to analyse the market rates of drugs, extension of rate contracts by CPA resulted in financial benefit to suppliers, as the rates of drugs reduced in the intervening period (i.e., February 2007 to September 2007 and May 2011 to September 2011). Consequently, the Directorate suffered an avoidable loss of ₹ 1.28 crore in purchase of drugs made by the Central Store alone, during the period of extension ofcontracts as detailed below in **Table 5.7.**

Table5.7:Medicines procured at higher than market price

Year	No. of medicines procured	No. of medicines procured at higher price than market price	No. of medicines procured at lower price than market price	Net loss incurred (in ₹)
2005-07	91	60	31	6257765
2008-11	88	56	32	6534740
Total	**179**	**116**	**63**	**12792505**

Further, since all health institutions in Delhi were bound to procure drugs on the rate contracts finalised by the CPA, real loss would be much more which could not be quantified.

The Department stated (March 2013) that tender was floated timely in 2010, but had to be scraped owing to some complaints. In subsequent tender, prices of many drugs had gone up/down and, therefore, it was difficult to say that there was a loss to the Government because of extention of the tender. Reply was not acceptable as audit had taken a net figure by including all medicines procured during this period, irrespective of rates, for calculating the loss.

5.5.8.3 Non-enforcement of clause of extension of the contract

Clause-8 of the standard terms and conditions of the agreement stipulates that the tender may be extended for a further period as per the requirement or till the next tender is finalized, whichever is later. Audit scrutiny of agreements entered into between the Directorate and suppliers on supply of drugs, it was found that during 2007-08 to 2011-12, every time the existing contract was extended, decision was left to the discretion of the supplier, whether or not to supply the drugs. During the intervening period,

the suppliers supplied only those medicines to which they gave their consent and supply of remaining medicines were stopped till the finalization of next tender.

The Department stated (March 2013) that terms and conditions of the agreement were not clear as to whether purchaser could unilaterally extend the contract. Therefore, according to the Purchase Manual of Central Government, consent was sought before extension. Reply was not acceptable as it was clearly mentioned in the agreement that tender might be extended for a further period as per the requirement or till the next tender was finalized, whichever was later.

5.5.8.4 Non-issue of rate contract to eligible firms resulting in avoidable loss of ₹ 41.13 lakh

Audit scrutiny revealed that despite M/s M.J. Bio Pharma being declared as L1 out of four participating firms, the rate contract for Inj. Meropenem was issued to M/s Astra Zeneca on 28 April 2006. On representation made by M/s M J Bio Pharma, the rate contract of M/S Astra Zeneca was kept in abeyance and the matter was referred to an Enquiry Committee formed by the Directorate, which also declared M/S M.J.Pharma as L1. However, Special Purchase Committee decided that the clinical trial report of the drug might be asked from all the participating firms. None of the firms submitted the clinical trial report since it was not the pre-tender condition. In a meeting of Special Purchase Committee held in September 2006, it was suggested that samples of drug should be lifted from the open market. The vials should be coded, blinded and then sent for testing for (i) concentration of inj. Meropenum/ml of vials and its purity by laboratory analytical methods from the government approved labs and (ii) Microbiological opinion as regards testing of drug on bacterial growth. The Directorate could not conduct any such test as samples were neither provided by the firms nor lifted from the open market. During this period the injections were procured from the open market instead of placing order through rate contract. Audit collected the information relating to purchase of Meropenam Inj. from April 2006 to September 2007 from three hospitals and observed that due to non issue of rate contract to M/S M.J.Bio Pharma the Directorate suffered an avoidable loss of ₹ 37.13 lakh.

Similarly, in another case of rate contract of Injection-Enoxaparin (20mg and 40mg), the L-1 firm was not awarded the contract on flimsy ground of a complaint that was later found to be untrue. As a consequence, purchases were made from the previous supplier leading to avoidable loss of ₹ 4.00 lakh.

Thus, non-issue of rate contract to above two eligible firms resulted in avoidable loss of ₹41.13 lakh. Reasons for not issuing the rate contract to the lowest bidder were not furnished to audit.

5.5.8.5 Non-compliance of the fall clause of the agreement

As per CPA tender conditions, bidder is required to declare in its tender that rates quoted are not higher than rates quoted to other government/semi-government/autonomous/public sector hospitals/ institutions/organizations and that, if at any time during the execution of the contract, the controlled price becomes lower or the contractor reduces the sale price or sells or offers to sell such stores, as are covered under the contract, to any person/organisation including the purchaser or any organization including department of the Central Government or any department of the NCT Delhi, at lower price compared with rate in the contract, he was to notify such reduction to the purchaser and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale or offer of sale shall stand correspondingly reduced. During test check of records audit noted that compliance to this clause was not being monitored by CPA. As an illustration, M/S Biodeal Laboratories Pvt. Ltd. was supplying Salbutamol Solution for Neubilizer (5mg/ml) at ₹13.80 against the rate of ₹6.76 fixed by 'National Pharmaceutical Pricing Authority', an organisation of the Government of India to enforce prices of medicines in the country under the Drugs (Price Control) Order,1995.

The Department accepted the facts and stated (March 2013) that M/s Bio Deal had deposited the excess amount.

5.5.8.6 Non enforcement of security deposit clause

As per the terms and conditions of the tender agreement, contractor should furnish a performance security deposit at the prescribed rate at the time of agreement with the CPA. It was noticed by audit that there was no centralized database for monitoring the security deposit in CPA. Audit test checked supply orders of six bulk drug supplying firms for rate contract for the year 2008 and observed that CPA was not enforcing this clause and failed to get deposits of ₹ 22.08 lakh **(Annexure-5.6)**.

The Directorate accepted the facts and stated (August 2012) that at present CPA was taking security deposit at the time of placing the supply order.

5.5.9 Improper maintenance of records of sample testing

During the scrutiny of records, it was noticed that CPA finalized two rate contracts with five NABL approved labs each for the years 2005 (extended up to December 2008) and 2008 (extended up to March 2012) to ensure testing of drugs/surgical items supplied to hospitals and the Central Store. However, no mechanism/system was evolved by CPA to ensure that sample of each batch of supply was tested before their distribution to patients. It was left to the Central Store, hospitals and institutes to send samples of the batches of drugs supply received in their stores.

The Directorate accepted the facts and stated (March 2013) that now each batch of the supply was getting tested. However, the Directorate did not produce any record to substantiate that samples of all batches of supply were tested before their distribution to patients.

5.5.9.1 No provision for penalising labs for incorrect reporting

During test check of records, audit observed that two drugs, namely Syp. Paracetamol IP and Syrup Promethazine, failed during the subsequent test of the same batch. The details are given in **Table 5.8** below.

Table 5.8: Details of lab test reports

Sl. No.	Name of drug	Name of Lab who conducted first test	Result of test and date of report	Name of Lab for subsequent test	Result of test and date of report
1.	Paracetamol Syp IP 125mg/5ml Batch No. WMS-1002	M/S ARBRO Pharmaceutical Ltd	Standard Quality 28.7.2006	M/S Sophisticated Industrial Materials Analytic Labs P. Ltd.	Not of standard quality 4.12.2006
2.	Promethazine Syp IP Batch No. PZS-1017	M/S Ashco Analytical Services	Standard Quality 19.5.2007	-do-	Not of standard quality 9.9.2007

Source: Information provided by Central Procurement Agency

In case of Syp. Paracetamol, the Directorate asked the firm to refund full payment of entire consignment, whereas in case of Syp. Promethazine, the firm was asked either to replace the drug or pay the full amount of the consignment. Thus, there was no uniform norm whether the failed drug is to be replaced or the cost of the drug is to be recovered from the suppliers, in case a drug failed in the test. There was no justification to arrive at the conclusion as to which of the two tests was correct, since one of the two test reports has to be incorrect. Enormity of impact of such drugs on health of patients, released on the basis of wrong test report cannot be quantified.

Further, there was no penalty clause incorporated in agreements signed with the labs, for furnishing incorrect test reports. Had there been a penalty clause, the Directorate could have, to some extent, ensured receipt of quality test reports and the instances of ambiguity in testing could have been avoided.

The Department accepted the facts and stated (March 2013) that penalty clause would be incorporated in future tenders.

5.5.10 Irregular expenditure of ₹ 1.62 crore on testing of samples of drug/surgical consumable items

As per Delegation of Financial Powers, Heads of the Department are empowered to incur recurring expenditure (not coming under the specified category) upto ₹ 2.00 lakh per annum. The expenditure under the head

"testing of drugs/medicines/surgical items samples" is of recurring nature and does not come under the specified category. Audit scrutiny of records revealed that during the last five years, an amount of ₹176.13 lakh was incurred on lab testing charges. However, expenditure sanction of ₹ 14.57 lakh had been obtained from the Finance Department for the period from December 2010 to March 2011. Thus, remaining expenditure of ₹161.56 lakh incurred by the CPA, beyond the competency of the Head of the Department, was irregular.

The Department accepted the facts and stated (March 2013) that this was being processed for regularization by the Finance Department.

5.6 Chief District Medical Offices

To streamline the functioning of the dispensaries and other public health activities under the Directorate, Delhi has been divided into eight districts which are the hub of all health related activities.

5.6.1 Non-implementation of Public Health Standards in Primary Urban Health Centers(PUHC)

In 2010, Public Health Standards were approved by the Delhi Cabinet to address the confusion caused by existence of multiple agencies providing primary healthcare with their respective units which are heterogeneous both in structure as well as services. Scrutiny of records vis-à-vis the standards revealed the following:

(i) Facility survey of the Primary Health Care Units

Facility survey of the Primary Health Centers belonging to different agencies was conducted in the year 2010 under National Rural Health Mission (NRHM) to identify existing facilities which can be upgraded to PUHC level. The Directorate surveyed 217 and 211 Allopathic dispensaries for infrastructure and services respectively. The detailed survey showed that even the basic services and infrastructure were not available in dispensaries **(Annexure-5.7)**. It was noticed in audit that no action was taken by the Directorate to remove the deficiency highlighted in the survey.

The Department stated (March 2013) that facility survey was conducted to objectively assess the gaps and several actions had been taken to rectify the gaps. The Reply was not acceptable as details of action taken by the authorities were not included in the reply.

(ii) Up gradation of identified units to the standards laid down

Once a PUHC has been identified, it should be upgraded to the standards laid down and recognized as such by a common insignia/board recognizing it as PUHC for the linked 50,000 population. However, it was observed in

audit that not even a single dispensary had been upgraded as of February 2013.

The Department stated (March 2013) that the process of up gradation to PUHC standards was not a onetime affair, and therefore, could not be implemented in one go, but was a continuous process, wherein the gaps were addressed in phases as per feasibility. The Reply was not acceptable as no document prepared by the Directorate in support of up gradation of dispensary was provided to justify their contention.

(iii) Facility wise population linkages

As per standards, the upgraded unit has to be mapped and linked to the assigned population through family health cards, which was not done (November 2012). These activities were to be carried out to strengthen all the identified units in terms of infrastructure/manpower. During the course of audit, it was noticed that no action was taken by the Directorate in this regard.

The Department stated (March 2013) that the task would be completed in near future with the cooperation from the Municipal Corporation of Delhi.

(iv) Referral services

As per the standards, maternity homes/hospitals for obstetric services/secondary/tertiary care centers should have been interlinked and displayed as such in the dispensaries as well as in the linked centre to ensure that the subsequent follow up of the referred cases and care as per the plan of action outlined by the consultant is possible. During audit it was noticed that no clear referral guidelines/protocols were available in the dispensaries.

The Department stated (March 2013) that the referral linkages had been established for provision of adequate mother and child health care, wherein dispensaries had been linked to higher centre for provision of maternal health care. Reply was not corroborated with the supporting documents.

(v) Community participation

(a) Rogi Kalyan Samiti

To ensure community participation in planning, implementation and monitoring of the activities in the dispensaries to make it more sensitive and responsive to the community needs and implementation of local level activities required for optimal functionalisation of the centre, the Rogi Kalyan Samitis were to be constituted. Audit scrutiny revealed that this objective has not yet been met.

The Department stated (March 2013)that this activity was exclusively being dealt by the Delhi State Health Mission and it was informed that the action to establish Jan Swasthaya Samiti in different dispensaries was in advance stage.

(b) Citizen charter

The Citizen Charter of a health organisation should have details to inform the beneficiaries about the health facility, its structure, its mandate, the services available in the centre, the entitlements of the beneficiary and the responsibilities of the beneficiaries. However, Citizen Charter of the Directorate does not contain the above information.

The Department in its reply (March 2013) stated that it was available in the dispensaries for public view and also available on the web site. However, the audit contention was that it lacked vital information to which the department did not reply.

5.6.2 Requirement of staff as per the standards of Primary Urban Health Centre

In April 2010, Public Health Standards were approved by the Cabinet. As per these standards, requirement of staff had been defined for providing health services, laboratory services, convergence with related sectors, referral linkages, prevention, etc. Accordingly, 6768 officials of different categories were required in the Primary Urban Health Centres (PUHCs) against which only 2858 officials were available **(Annexure-5.8)**. There was a shortage of 3910 officials (58 per cent) which had an impact on the working of the Directorate in discharging its mandated responsibilities.

The Department stated (March 2013) that the matter was under consideration of Administrative Reforms (AR) Department for creation of various posts.

5.6.3 Improper maintenance of OPD Register

As per the guidelines issued by the Directorate, the Medical Officer Incharge and the medical officers of the dispensary/Mobile Health unit should maintain the OPD register and should write clearly the name, sex, age and address of the patient.

Audit scrutiny of records related to the 50 selected dispensaries, however, revealed that the address of the patient was not entered in any of the dispensaries due to which the genuineness of the entries made in the register could not be verified in audit. In the absence of such details, follow up on the case and future investigation to control spread of diseases, if the need arises, would become difficult.

The Department accepted the facts and stated (March 2013) that the instructions had been issued to maintain OPD register and other relevant data, according to the guidelines.

5.6.4 Discrepancies in stock registers

(i) Audit scrutiny of records at 50 selected dispensaries revealed that stock register did not contain the batch number/lot number of the medicines received from the Central Store. Similarly, dates of manufacture and expiry were also not mentioned in the stock register. Though, the physical verification of stores had been done regularly, it was not clear as to how the same was done in the absence of basic information.

The Directorate accepted the facts and stated (February 2013) that it had issued necessary instructions in this regard.

(ii) During the audit of Baljeet Nagar Dispensary, it was noticed that the indents for medicines were given by OPD pharmacist and the same were recorded in the balance register. The daily consumption and balance of various medicines received from the dispensary store was to be recorded in the balance register, which was not being maintained by the dispensary since last ten years. As the dispensary did not maintain the actual consumption record, consumption of medicines could not be verified in audit.

The Department accepted the facts and stated (March 2013) that indent books and consumption registers for the period January 2007 to March 2012 had been prepared.

(iii) During the test check of records of Sagarpur Dispensary, it was revealed that instead of calculating the daily consumption of the medicines, only weekly totals of medicines were mentioned in the stock register during the period April 2007 to January 2009. Moreover, the medicines consumed were shown in the stock register as more than 119 to 420 *per cent* of actual consumption arrived on the basis of daily consumption register.

The Department stated (March 2013) that it was an inadvertent mistake of arithmetic calculation by pharmacist and all concerned have been advised, to be careful in future. The Reply was not acceptable as these mistakes were not pointed out even in the physical verification report.

5.6.5 Unauthorized destruction of government records

During audit of the dispensary at BholaNath Nagar it was observed that the records i.e. stock register, vouchers, indent books, balance register and distribution/consumption register for the period April 2005 to March 2010 had been destroyed due to termite infestation. However, the information

about the termite infestation and subsequent destruction of records was not given to the office of the CDMO (E). Thus, all records relating to the functioning of the dispensary were destroyed without the prior approval /proper authorization of the competent authority. As such, audit was not able to verify the receipt and consumption of medicines during this period.

The Department accepted the facts and stated (March 2013) that necessary instructions had been issued.

5.6.6 Anti Quackery Scheme

The Directorate in a meeting(March 2012) directed all the CDMOs to constitute teams for taking intensive tours of their respective districts to identify quacks, for immediate necessary action to be taken by referring the matter to the respective Council and also the police. An awareness campaign was also to be launched in slum areas to educate people about the threats posed by the quacks and also the implications of taking treatment from them. During the audit, it was noticed that no team was formed for the identification of quacks and no awareness campaign was launched.

The Department stated (March 2013) that Anti Quackery cell was unaware of such a meeting and no minutes of the meeting in this regard were traceable either in this cell or in DHS office. Reply is not acceptable as the meeting was held on 22 March 2012, under the chairmanship of Pr. Secretary of the Department, wherein all the CDMOs were directed to constitute the teams for taking intense tour of their respective district to identify the quacks and thereafter,necessary action.

5.6.7 Opening of Mother Laboratories without the requisite specialised staff

All primary health facilities should be able to provide diagnostic services, especially which can be managed at the dispensary level. Laboratories (Labs.) and mother laboratories were established by the Directorate in the year 2006. Audit scrutiny of records of 24 mother labs revealed that the basic requirements, essential to run these labs,were deficient. Details are:

No post of pathologist/lab technicians was ever sanctioned for any of these 39 Laboratories by the Directorate. The authenticity of the diagnostic tests conducted by Lab Assistant in these mother labs could not be ascertained in audit. Opening of mother labs without sanctioning/making available pathologist and lab technicians defeats the very purpose of the intended diagnostic services to the people.

The Department stated (March 2013) that a consolidated proposal for creation of various posts under DHS including that for mother labs, had

been moved and was under consideration of the Administrative Reforms Department.

(ii) The basic kits in mother labs were not available for a period ranging from four to 60 months during the period 2007-08 to 2011-12 as these were not available in Central Store.

The Department admitted the facts and stated (March 2013) that the problem of irregular supply of kits had been addressed by the Directorate.

5.6.8 Under utilization of facilities at mother labs

As per PUHC standard, all primary health facilities should be able to provide diagnostic services especially for conditions which can be managed at the PUHC level to avoid patients being referred to higher level facility centre. The mother labs were established with the purpose of providing doorstep delivery of the lab facilities for special investigations to public so that their visits to various government hospitals, which are already overburdened, could be restricted. These mother labs provide various diagnostic investigations like Haemoglobin (HB), Total Leucocytes Count (TLC), Differential Leucocytes Count (DLC), Erythrocyte Sedimentation Rate (ESR), Serum Widal, Urine Pregnancy Test (UPT), Blood Grouping, Blood Sugar, HIV Testrom, etc.

Audit analysis of the data of lab tests for the period 2011-12 revealed that the number of cases referred by doctors of dispensaries coming under the jurisdiction of a Mother lab of each district ranged from 0.80 to 17.63 *per cent*. The percentage of referral cases in all the mother labs was 8.43 *per cent* of total cases. In view of the poor per cent of referral cases, the Directorate should have ensured that all investigation cases are referred to mother labs by the dispensaries under the jurisdiction of an individual mother lab.

Therefore, the objective of establishing mother labs, to ensure decongestion of overburdened hospitals could not be fulfilled.

The Department stated (March 2013) that the matter was discussed for better utilization of diagnostic services and was hopeful that the patients would be motivated to use these services.

5.7 Mobile Health Scheme (MHS)

To provide basic health care to the residents at their door-step, it was decided to start the Mobile Health Scheme in the year 1989 in which a fleet of 20 mobile dispensaries was launched to cover different Jhuggi Jhopari clusters all over Delhi on weekly basis. Due to paucity of resources and keen interest shown by some NGOs, MHS invited NGOs to participate in the scheme and as a result, a fleet of 89 mobile dispensaries

started providing health care to Jhuggi Jhopari clusters/construction sites. One mobile dispensary visits two clusters in a day.

5.7.1 Manpower management in Mobile Health Scheme

The Directorate of Health Services hired vehicles from external agencies for running the scheme. The details of number of vehicles hired, along with the details of their deputation in NGOs and departmental zones (four zones) in Mobile Health Scheme are given in **Table 5.9.**

Table 5.9: Details of vans hired for MHS

Year	No. of vehicles hired	Mobile Van run by zones	Mobile Vans run by NGOs	Mobile Vans run by Govt.hospitals & dispensaries	Percentage of vans run by NGOs	Percentage of vans run by Govt. hospitals &dispensaries
2007-08	68	29	23	16	34	24
2008-09	74	29	29	16	39	22
2009-10	87	29	42	16	48	18
2010-11	86	29	41	16	48	19
2011-12	89	28	43	16	48	18

Source: Information provided by Mobile Health Scheme

Audit noticed that MHS was using the services of staff of other Government hospitals and dispensaries to run is mobile vans (18 to 24 *per cent*) at the cost of services to be offered in these hospitals and dispensaries. This further showed that the services in the hospitals and dispensaries were also compromised with to that extent.

Against sanctioned posts of 35, availability of doctors in MHS during the period of 2007-12 is given in **Table 5.10.**

Table 5.10:Availability of doctors against sanctioned posts

Year	Sanctioned post	Filled	Vacant	Posted at Hqrs (in charge)	Posted in field (mobile vans)	Mobile Van deputed at zones
2007-08	35	27	8	1	26	29
2008-09	35	24	11	1	23	29
2009-10	35	23	12	1	22	29
2010-11	35	23	12	1	22	29
2011-12	35	29	6	1	28	28

Source: Information provided by Mobile Health Scheme

A comparison of the doctors posted in the field with number of vans deputed in the zones clearly shows that three, six, seven, seven vehicles during the year 2007-11 respectively were in the field without doctors.

Further, scrutiny of Service books of 19 doctors revealed that there was an absence of doctors for 366, 279, 338, 248, and 239 days on account of leave during the year 2007-12.

MHS did not have any alternative arrangement in place to make up for absence of doctors; as a result, patient care was directly affected.

The Department accepted the facts and stated (March 2013) that besides routine services, the mobile vans also catered to the services like preventive services, family planning services and health education and promotions despite shortage of doctors.

5.7.2 Diversion of Mobile Vans

The services of mobile health clinics/vans along with the entire medical team were diverted on a large scale and on regular basis to other places/programmes like Sant Nirankari Samagam, Kawars camps, etc. for which no financial sanctions were issued by the Government of Delhi to MHS. The frequent diversions of mobile vans not only resulted in diversion of funds of MHS but also deprived the Jhuggi Jhopari (JJ) clusters of the services of the mobile vans.

5.7.3 Non-accountal of unutilised medicines during different events ranging from 43 to 78 *per cent*

During the course of audit in the West district, it was observed that for each public event separate records were maintained for receipt and distribution of medicines, surgical and non-surgical consumables (in the area under jurisdiction of the district) where services of mobile vans were utilised. All India Congress Committee convention was held from 15 December 2010 to 20 December 2010 in Burari Ground, Delhi. Scrutiny of OPD distribution registers revealed that out of 400 crepe bandages received from main store, only 33 were distributed during the event. The balance stock of 367 crepe bandages was neither carried forward to the stock register maintained for the next event nor shown as balance/stock in hand in the next and subsequent indents for requisition of medicine/non-surgical consumables from the Central Store.

Similarly, scrutiny of the records maintained for Nirankari Satsang held in November 2010 in Burari Ground, Delhi, revealed that huge balances of medicines which remained unutilized after the event were not accounted for,in the subsequent events. Furthermore, 43 to 78 per cent of the medicines indented remained unutilized which points to the projection of inflated requirement of medicines by the district.

Moreover, the expenditure on medicines/surgical items for such events, tantamount to diversion of funds from the budget allocated for MHS, as the objective of the scheme is to provide medical facilities at Jhuggi Jhopari clusters and construction sites.

The Department stated (March 2013) that as regard to crepe bandage, remaining balance was distributed to the WZ-I and WZ-III teams and was consumed in the allotted area. The reply was not acceptable as no documentary evidence to this effect was furnished with reply. No reply in respect of unutilized medicines in Nirankari Satsang event was furnished.

5.7.4 Difference in number of OPD slips issued and number of patients attended under Mobile Health Scheme

Guidelines issued by the Directorate state that after examination and diagnosis of the patients, the doctor should give the necessary medical advise on prescription slips. As per the information provided to audit, 121.01 lakh patients were attended to under the scheme, whereas only 27.12 lakh blank OPD slips were issued by the store to the Mobile Vans during the period 2007-08 to 2011-12. It is evident that either OPD slips were not issued to 93.88 lakh patients (77.6 *per cent*) or figures for patient attendance have been inflated.

The Departmentstated (March 2013) that the difference in the OPD slips was due to reasons that OPD slips were used for the first time and thereafter the prescriptions continued in old OPD slip. It further stated that in large gathering, they were unable to issue OPD slips to each and every person. Moreover, in view of the other preventive/promotive health education activities, prescription slips were not required. It was also stated that in the absence of OPD slips, cyclostyle slips were issued as an alternative. The reply was not tenable as the essentiality envisaged in the guidelines was not met, defeating the intended purpose of issuing prescription slip. Further, as per stock register, the stock of OPD slips had never been 'Nil' at any point of time.

5.7.5 Irregularities in the selection of NGOs for running Mobile Health Vans

Rule 206 (b) of GFRs clearly state that the voluntary organizations or non government organisations carrying out activities which promote the welfare schemes and programmes of the Government, should be selected on the basis of well defined criteria regarding financial and other resources, credibility and type of activities undertaken. The MHS invites applications on prescribed proforma from registered voluntary organisation/NGOs/private hospitals to participate in MHS to provide basic health care including immunization and family planning services to residents of Jhuggi Jhopari clusters and construction sites all over Delhi.

Audit scrutiny revealed that three NGO's were selected for running the mobile dispensaries for the period 2011-13 despite all the three NGOs were not found suitable. But, on subsequent physical verification, they were declared suitable and mobile units were allotted to them. Moreover, one NGO was selected inspite of expressing its inability to disburse the salary of staff.

From the above, it is clear that MHS did not fix well defined criteria for selection of NGOs giving scope for arbitrary selection.

The Department stated (March 2013) that the deficiencies noticed by Audit would be incorporated in terms and conditions for the selection of the NGOs in future.

5.7.6 Purchase of medicines with less permissible shelf life

Scrutiny of records in respect of Mobile Health Scheme revealed that the relevant entry regarding date of manufacture of drug/medicine was not made in the stock register. Thus, it was difficult to ascertain whether the medicines were purchased with permissible shelf life.

The Department stated (March 2013) that now such entries were being made on online programme 'Nirantar'.

5.7.7 Monitoring

Zonal in-charges of all four zones of Mobile Health Scheme are required to conduct inspections of mobile vans deputed in their respective zones and submit the inspection reports at MHS (Hqrs). However, there were no benchmarks set for the inspection of mobile clinics by the zonal incharges. It was noticed that only 138 inspections in four zones were conducted during April 2009 to May 2012. Audit scrutiny of inspection reports revealed that:

- Targets for inspection were not fixed,
- In six cases, the registration numbers of vehicles inspected, as per the monitoring report, were different from those for which the claim was raised by the service provider,
- In three cases, the Jhuggi Jhopari clusters shown as inspected by the zonal in-charge was different from the cluster covered by the mobile van dispensary as recorded in the vehicle log book and verified by the controlling officer, and
- In six cases, the mobile van dispensaries (NGOs) were found absent and in seven cases (NGOs), the team/doctors were unavailable in the mobile van dispensary. In some cases memoranda were issued by the Directorate but no concrete actions was taken.

Though, there was no benchmark, an average of 3.6 inspections per month for 4576[†] available sites, can fairly be termed as insufficient monitoring for ensuring desired services to general public by these mobile van dispensaries

The Directorate stated (February 2013) that sometimes the vehicle was out of order, therefore, the vehicle number mentioned in the monitoring report did not match with the number mentioned in the bill. The reply was not acceptable as the bills were verified on the basis of log book of the particular vehicle by the competent authority.

5.8 School Health Scheme (SHS)

School Health Scheme provides comprehensive Integrated Health Care Services to school children. The services provided to school children include routine health checkup, immunization against Tetanus, health education, counseling and advising the school authorities for maintenance of healthy and safe environment.

5.8.1 Targets not achieved

As per records, there was a steady increase in the number of schools and students, but there was no corresponding increase in the number of School Health Clinics. The targets and achievements there against under the scheme are given in **Table 5.11.**

Table 5.11: Targets and achievement of SHS

Data	2007-08	2008-09	2009-10	2010-11	2011-12
No. of SHS clinics	15	23	28	30	48
No. of teams	14	23	28	-	93
No. of schools allotted	140	190	208	-	939
No. of students enrolled	148574	225539	258434	-	1408500
No. of students covered	75869	119918	148824	-	196800
Percentage of students covered	51.06	53.16	57.58	-	13.97
Immunization (T.T.)	7413	36877	27046	-	0
Magic shows	0	0	122	-	0

Source: Information provided by the SHS

Audit analysis revealed that as per above table the School Health Scheme was not achieving its target. In 2007-08, the percentage of students covered under SHS was 51.06 per cent but in 2011-12, it decreased to

[†] (88 vans x 2 sites per day x 26 days in a month = 4576)

13.97 *per cent*, though there was a significant increase in the number of teams from 14 to 93 during 2007-08 to 2011-12. Immunization against Tetanus decreased by 26.65 *per cent* in 2009-10, whereas it came to zero *per cent* for the years 2010-11 and 2011-12.

The Department stated (March 2013) that earlier, the target was number of students enrolled in schools, catered by the School Health Clinics. In 2011-12, the target was the total number of students enrolled in all Delhi Government Schools. Thus, the percentage of students actually covered changed drastically. Thereply of the Department was not convincing as the average number of students covered by each team also reduced from 5419 to 2116 students, during the period from 2007-08 to 2011-12.

5.9 Bio-medical waste scheme

Delhi generates approximately 7000 metric tons of waste per day, out of which 70 tons are bio medical waste from various hospitals, clinics, and clinical laboratories. The treatment of bio medical waste and its disposal is of paramount importance for prevention of environmental pollution and hazardous diseases arising out of these substances. The government hospitals and some private hospitals have their own arrangement for treatment of bio medical waste, but small government dispensaries, private nursing homes/clinics cannot make their own arrangement for treating of bio medical waste due to high cost involved. Keeping in view the difficulties faced by these smaller health institutions, Government established two centralized bio-medical waste treatment facilities at Okhla and Nilothi in Delhi. The genuineness of the selection procedure for awarding the contract of the treatment plants could not be verified in audit as the Directorate expressed its inability to trace the records.

5.9.1 Non recovery of ₹ 1.41 crore from private contractor as monthly rent

Possession of land at Gazipur was taken over by the Directorate in June 2005 for a centralised bio-medical waste treatment plant. The Directorate entered into two agreements with M/s SMSL-Water Grace Products, the highest bidder, on 21 July 2006 and 7 August 2006 (the latter being part of

first agreement) for installation of centralized bio-medical waste treatment plant. The Delhi Pollution Control Committee (DPCC) inspected the site and the case was submitted to the Bio-Medical Waste Committee. This Committee in its meeting held on 31 May 2007, decided to refuse its consent for establishing the facility and the same was intimated to the contractor on 25 June 2007. Subsequently, the Directorate gave another site at Nilothi and entered into an Addendum Agreement with the same contractor on 4 November 2009 with the terms and conditions of previous agreements. Audit analysis revealed that:

a) No preliminary feasibility study was conducted before installation of new project with respect to technology to be used, the minimum waste to be disposed of and increase of quantum of waste during the project period, etc,

b) As per the condition 13 of the Addendum Agreement, all terms and conditions of the Agreements dated 21 July 2006 and 7 August 2006, other than those amended by this Addendum Agreement, together with all rights and obligations of the parties there under, shall continue to remain in full force and effect and shall be binding on both the parties, as before. In the Addendum Agreement, it was not mentioned that the period of agreement starts from the date of Addendum Agreement i.e. 4 November 2009, and M/s SMS Water Grace (Pvt.) Ltd would not pay the monthly rent as the land of Gazipur was declared unfit for establishing centralized bio medical waste treatment plant,

c) The contractor was to pay monthly charges of ₹4.32 lakh to GNCTD from the date of commencement of the facility or six months from the date of handing over/taking over of the land, whichever is earlier. The land at Gazipur was handed over to contractor on 7 August 2006 and the payment of monthly charges became due after six months i.e. from 7 February 2007 and was to be paid upto October 2009, the month after which land at Nilothi

was allotted. However, the Directorate did not recover the amount of ₹1.41[‡] crore against monthly charges, due from contractor.

The Department accepted the facts and stated (March 2013)that the then Principal Secretary(H&FW) gave directions to recover the due amount from the contractor.

5.9.2 Irregular Purchase of Bioster amounting to ₹62.92 lakh

BMW generated by dispensaries/hospitals is collected by M/s Synergy Waste Management and M/s SMW Water Grace Products. It was the responsibility of the contractors to collect, transport and dispose of the BMW after treating the same. Audit scrutiny revealed that the Directorate purchased Biosters amounting to ₹ 62.92 lakh for disinfection of bio-medical waste with the justification to disinfect the BMW generated in dispensaries /hospitals as there was a chance of infection during transit, whereas, the same activity was to be carried out by the agencies as an integral part of the agreement. Hence, the amount spent on purchase of Biosters to the tune of ₹62.92 lakh was unwarranted and unjustified because the BMW generated in Delhi by its dispensaries and the government hospitals was already less than the quantity treated free by the agencies.

The Departmentstated (February 2013) that no burn technology was preferred world over, therefore, Biosters were purchased as it used non-burn technology (High Frequency Microwave Disinfection) which cause less pollution, easy to use and cost effective etc.The reply was not acceptable as it was the responsibility of the contractor to collect, transport and dispose the waste as per the agreement and, thus, the Directorate incurred unwarranted expenditure.

Conclusion

In the absence of documented procurement procedures and instructions the Directorate resorted to procurement of drugs and medical equipment on adhoc basis. Improper assessment of actual requirements resulted in stock

[‡] (432000 x 32=1,3824000 and penalties for first 90 days@ ₹ 1000= 90000 and thereafter another 90 days @ ₹ 2000= 180000)

outs of essential life saving drugs and overstocking of few other medicines. This had adverse impact on delivery of health services in Delhi.

No system has been put in place for monitoring quality of drugs being supplied to hospitals and dispensaries. Testing of CPA drugs and surgical items were carried out in a routine manner. There was no tracking at CPA or the Central Store level to ensure that testing of all batches was carried out. Further, in the case of non-CPA procurement, the indenting units were only relying on in-house test reports of the drugs, submitted by the supplier, which was an anomaly, as there wereno testing reports of the drugs by CPA.

No Management Information System, either manual or computerized, was devised at the Directorate, CPA and Central Store level for planning and managing procurements and supplies.

Despite creation of infrastructure by the Directorate, for providing best health care facilities to population of the city, the objective of health care for the under-privileged has not been achieved.

Recommendations

- *Management Information System and monitoring mechanism need to be strengthened at all levels for effective decision making like assessment of actual requirements, monitoring of supplies and conforming with terms and conditions of agreements.*
- *In order to ensure operationalisation of good procurement practices, it is necessary that the Department, the Directorate, CPA, the Central Store and all indenting hospitals/institutes prepare detailed guidelines and procedures, in standardised forms. Such documentation would also facilitate transparency in the procurement process.*
- *An effective mechanism to capture fluctuations in the price trend of medicines/drugs in the open market may be developed to achieve maximum benefit in procurement of medicines.*

- *The Directorate needs to standardize clauses in standard bidding documents and agreements to ensure compliance to the Drug and Cosmetics Act, 1940.*
- *Procurement needs of all indenting hospitals/institutes need to be properly planned, consolidated and coordinated after properly assessing requirements in order to take advantage of bulk purchase discounts and to avoid stock out of essential and life saving drugs.*
- *Rate contract of all hospitals may be displayed on the Directorate's website for ensuring procurement of drugs economically and maintaining transparency.*
- *In order to make the system transparent, hospitals and dispensaries might consider displaying availability of drugs and surgical item on daily basis for convenience of patients.*

New Delhi
Dated:

(DOLLY CHAKRABARTY)
Principal Accountant General (Audit), Delhi

Countersigned

New Delhi
Dated:

(VINOD RAI)
Comptroller and Auditor General of India

Annexure–1.1

Position of outstanding ATNs as on 31.12.2012

(Referred to in paragraph 1.11)

Sl. No.	Year of Report	Chapter of the Report	Para No.	Pertains to	Brief subject
1.	Ended 31 March 1995	V	5.4	Delhi Jal Board	Construction of Water Treatment Plant at Nangloi
2.	Ended 31 March 2001	III	3.11	Medical and Public Health Department	Irregular expenditure incurred by Delhi State AIDS Control Society
3.	Ended 31 March 2002	III	3.2	Welfare of SC/ST/OBC Department	National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents
4.	Ended 31 March 2004	III	3.3	Education Department	Irregular payment of Transport Allowance
5.	Ended 31 March 2004	IV	4	Municipal Corporation of Delhi	Development of Rural and Urban Villages
6.	Ended 31 March 2005	III	3.8	Medical and Public Health Department	Undue liability due to non-revision of water charges
7.	Ended 31 March 2005	V	5.16	Delhi SC/ST/OBC/Minorities and Handicapped Financial and Development Corporation Limited	Ineffective implementation of schemes for upliftment of weaker sections
8.	Ended 31 March 2005	Vol.II Ch.III		Medical and Public Health Department	Performance Audit of the Directorate of Indian Systems of Medicine and Homoeopathy
9.	Ended 31 March 2006	Vol.II Ch I		H&FW, MCD &NDMC	Performance audit of Four Major Public Hospitals in Delhi
10.	Ended 31 March 2006	Ch II		Dept. for the Welfare of SC/ST/OBC/Minorities	Performance audit .of Educational Development of SC/ST
11.	Ended 31 March 2007	III	3.2	Health and Family Welfare Department	Delay in installation of Medical Equipment
12.	Ended 31 March 2007	III	3.3	Health and Family Welfare Department	Wasteful expenditure on procurement of an incinerator
13.	Ended 31 March 2007	III	3.4	Health and Family Welfare Department	Unfruitful expenditure on purchase of infant ventilators
14.	Ended 31 March 2007	V	5.11	Delhi SC/ST/OBC/ Minorities/Handicapped Financial & Development Corporation	Construction of building without assessing requirement
15.	Ended 31 March 2007	Vol. II Ch.I		Dept. of Labour	Implementation of Industrial Disputes Act,1947 and Contract

					Labour (Regulation and Abolition) Act, 1970
16.	Ended 31 March 2007	Vol. II Ch.II		Directorate of Education	Information Technology Audit of the Directorate of Education
17.	Ended 31 March 2008	III		Health and Family Welfare Department	Performance Audit on procurement of drugs and medical equipment and its impact on delivery of health services in Delhi
18.	Ended 31 March 2008	IV	4.2	Health and Family Welfare Department	Excess payment of service tax amounting to ₹ 40.27 lakh
19.	Ended 31 March 2008	IV	4.4	Department of Social Welfare	Loss of ₹ 13.93 lakh on purchase of foodgrains
20.	Ended 31 March 2008	IV	4.5	Department of Social Welfare	Idle investment of ₹ 1.03 crore in allotment of land
21.	Ended 31 March 2008	IV	4.10	Delhi Jal Board	Unintended benefit to a contractor
22.	Ended 31 March 2008	VI	6.13	Delhi SC/ST/OBC/Minorities/Handicapped Financial and Development Corporation Limited	Misplacement of loan files/record
23.	Ended 31 March 2008	VI	6.14	Delhi SC/ST/OBC/Minorities/Handicapped Financial and Development Corporation Limited	Failure of TCPC Scheme
24.	Ended 31 March 2008	VI	6.15	Delhi SC/ST/OBC/ Minorities/Handicapped Financial and Development Corporation Limited	Poor recovery of loans due to inadequate recovery follow up
25.	Ended March 2009	II	2.2	Department of Urban Development	Development works in regularized-unauthorised colonies undertaken by the DJB and MCD
26.	Ended March 2009	II	2.3	Delhi Health Mission	National Rural Health Mission
27.	Ended March 2009	III	3.1.1	Delhi Jal Board	Irregular payment of escalation charges
28.	Ended March 2009	III	3.3.5	Department of Women and Child Development	Excess payment of fixed electricity charges
29.	Ended March 2009	III	3.3.6	Department of Labour	Unfruitful expenditure on running of Holiday Homes
30.	Ended March 2009	III	3.4.1	Department of Training and Technical Education	Avoidable payment of water charges at abnormally high rates
31.	Ended March 2010	III	3.2.2	Department of Health and Family Welfare	Excess purchase of surgical instrument costing ₹ 75.00 lakh,

					stents for cancer patients amounting to ₹ 14.88 lakh and unfruitful expenditure of ₹ 57.23 lakh in lakh in Lok Nayak Hospital.
32.	Ended March 2010	IV	4		Member of Parliament Local Area Development Scheme
33.	Ended March 2011 (Report No.3)	2	2.2	Municipal Corporation of Delhi	Manpower Audit of MCD
34.	Ended March 2011 (Report No.3)	3	3.2.1	Directorate of Information and Publicity	Extra expenditure of ₹ 1.06 crore due to fixation of unreasonable rates for advertisement on Bus Queue Shelters (BQSs)
35.	Ended March 2011 (Report No.3)	4		Department of Education	Report of audit of Directorate of Education Government of NCT of Delhi

Annexure-2.1
Details of penalty imposed on delay
(Referred to in paragraph 2.1.7.8(b))

(₹ in crore)

Sl. No.	Name of the work	Tendered amount	Stipulated date of completion	Actual date of completion	Amount of penalty
1	Constn. of 50 MGD SPS & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shahadra, Delhi.	15.84	March 2009	In progress	1.58
2	Constn. of 25 MGD STP & related associated/allied appurtenant works on Design, Build & Operate basis at Yamuna Vihar, Shahadra, Delhi	44.83	March 2009	In progress	4.48
3	Design, Construction, Commissioning and Operation & Maintenance of 136.4 MLD (30 MGD) capacity STP at Okhla, under YAP-II	123.87	December 2009	June 2012	12.39
4	Demolition, Design, Construction, Commissioning and Operation & Maintenance of 12 MGD capacity STP and Rehabilitation of 02 existing modules of 20 MGD and 40 MGD capacity STP at Keshopur, under YAP-II	139.34	May 2010	2 parts completed	13.93
5	Construction 0f 90 MGD EPS at Yamuna Vihar, , Delhi	47.76	March 2007	In progress	4.76
	Total				**37.14**

Annexure-2.2
Details of expenditure on Biological Treatment
(Referred to in paragraph 2.1.7.8(f))

(₹ in crore)

Sl. No.	Name of division	Expenditure
1	SDW II, STP, Okhla	6.54
2	SDW IX, STP, Rithala Ph.-I	0.53
3	SDW XII, STP, Rithala Ph.-II	0.01
4	SDW VI, STP, Keshopur	2.09
5	SDW I, SPS, Kilokari	0.29
6	SDW III, STP, Yamuna Vihar	0.74
	Total	**10.2**

Annexure –2.3
Details of Jetting cum Suction Machines hired by SDW-VI, Keshopur
(Referred to in Paragraph 2.1.7.8(j))

Sl. No.	Name of division	No. of machines
1.	EE, South-I	1
2.	EE, South-II	1
3.	EE, South-III	1
4.	EE, South-IV	1
5.	EE, South West-I	2
6.	EE, South West-III	2
7.	EE, West-I	1
8.	EE, West-II	3
9.	EE, West-III	1
10.	EE, North West-I	2
11.	EE, North West-II	2
12.	EE, North West-III	1
13.	EE, North West-IV	2
14.	EE, East-I	2
15.	EE, East-II	1
16.	EE, North East-I	1
17.	EE, North East-II	2
18.	EE, North East-III	1
19.	EE, Central-I	1
20.	EE, Central-II	1
21.	EE, North	1
	Total	**30**

Annexure-2.4
Details of expenditure on CETPs as on 31 October 2012
(Referred to in paragraph 2.1.8.1 (a) & (f))

(₹ in lakh)

Sl. No.	Name of CETP	Capital exp. excluding land, DJB & DVB	O&M exp.	Land cost	DJB cost	DVB cost	Infrastructure cost	Total exp.
1.	Wazirpur	2,284.10	347.63	133.91		164.82	298.73	2,930.46
2.	Mangolpuri	647.76	123.89	24.65		21.74	46.39	818.04
3.	Maya Puri	1,246.89	244.69	40.84		184.25	225.09	1,716.67
4.	Jhilmil	1,366.57	156.90	6.18		61.61	67.79	1,591.26
5.	G.T.K	830.15	28.90	39.20		85.47	124.67	983.72
6.	S.M.A	1,324.52	105.90	43.36		152.72	196.08	1,626.50
7.	Lawrence Road	1,030.02	674.70	36.65		121.53	158.18	1,892.90
8.	Nangloi	1,419.42	11.75	80.34		66.78	147.12	1,578.29
9.	Badli	989.30	57.34	133.73		55.49	189.22	1,235.86
10.	Okhla Indl. Area	2,266.46	244.74	102.94		221.86	324.80	2,836.00
11.	Naraina	1,347.20	465.46	43.25			43.25	1,855.91
12.	Najafgarh Road	218.67	-	50.31			50.31	268.98
13.	Mohan Co-Op.	11.19	-	34.54			34.54	45.73
14.	Okhla Indl. Estate	6.84	-	-			0.00	6.84
15.	Anand Parbat	19.12	-	548.29			548.29	567.41
					2,328.37		2,328.37	
	Total	**15,008.21**	**2,461.90**	**1,318.19**	**2,328.37**	**1,136.27**	**4,782.83**	**22,252.94**

Balance share

(₹ in crore)

	Share	Receipt	Balance
Govt. of India	37.52	22.50	15.02
Govt. of Delhi	85.35	124.97	39.63 (Excess)
CETP Societies	99.66	35.97	63.69
Total	**222.53**	**183.44**	-

Annexure 2.5
List of on-going projects approved for funding under UIG of JNNURM
(Referred to in paragraph 2.2.8)

(₹ in crore)

Sl. No.	Name of Projects	Modified cost	Executing Agency	Cost Approved under JNNURM by CSMC	ACA committed	ACA released up to 31.03.12	Exp. (in crore)
	A	B	C	D (B-C)	E (35% OF D)	F (25% OF E)	
1*	Construction of Clover leaves at Karkari more (Intersection of Vikas Marg and Road No. 57) and widening of existing bridge on Trunk drain No. 1)	86.77	PWD	86.17	30.16	7.54	0.0
2	C/o Grade Separator on Road No. 56 ISBT Anand Vihar, Delhi	163.00	PWD	96.00	53.60	8.40	206.14
3	C/o 3 additional clover leaves at NOIDA More Flyover i/c slip road, bridges, footpath, cycle track and underpass	88.68	PWD	88.18	30.87	7.72	20.46
4	RUB & ROB at Railway Level Crossing at Road No. 68, near Nand Nagari	106.86	PWD	102.86	36.00	14.04	116.18
5	Development of multilevel underground unconvential parking at various locations under the jurisdiction of MCD (AL-Block, Shalimar Bagh, Shiv Market Pitampura, QU Pitampura, Central Market Ashok Vihar, Mohammadpur Village, Malviya Nagar Market, PVR BasantLok, PVR Saket, G-8 Rajouri Garden, Block-10 Subhash Nagar, C-4 Janakpuri, Ajmal Khan Park Karol Bagh, Krishna Market Kalkaji, Hauzrani, New Friends Colony, Janpura Bhogal).	469.80	MCD	469.80	164.43	41.11	57.76
6	Improvement and strengthening of roads of Okhla Industrial Area Phase I & II, Central Zone	148.61	MCD	148.61	52.01	13.00	6.73
7	Covering of Nallah in Nauroji Nagar from Africa Avenue to Ring Road for providing	51.20	MCD	51.20	17.92	4.48	0.64

	parking/ road cum parking under the jurisdiction of MCD						
8	Covering of Nallah from Press Enclave road passing through Sheikh Sarai, Chiragh Delhi, Panchsheel Enclave, Greater Kailash-I, Andrews Ganj upto Ring Road behind Police Station, Defence Colony for providing Parking/Road cum parking under the jurisdiction of MCD	233.00	MCD	233.00	81.55	20.39	15.65
9	Improvement of road of 60 ft. ROW and above by providing RMC Pavement (Phase-I) in various zones of MCD	165.10	MCD	165.10	57.79	14.45	36.93
10*	Construction of Grade Separator at Intersection of Shankar Road and Upper Ring Road	71.77	MCD	71.77	25.12	6.28	-
11*	Construction of Grade Separator at Intersection of Pusa Road, Dr. K.K. Krishnan Marg and Patel Road	71.64	MCD	71.64	25.07	6.27	-
12*	Construction of 25 Nos. Foot Over Bridges at different location in Delhi City	17.50	MCD	17.50	6.13	1.53	-
13	Re-modeling of SSBL (Saharpur Shamli Branch Line) drains in Shah (N) Zone	152.26	MCD	152.26	53.29	13.32	6.50
14*	Construction of Grade Separator/Underpass at Intersection of Pusa Road, Arya Samaj Road, Faiz Road, Upper Ridge Road and Panchkuian Road	55.44	MCD	55.44	19.40	4.85	-
15	Rehabilitation of Trunk Sewer	281.01	DJB	253.37	88.68	22.17	256.80
16	Flyover at Africa Avenue and Arun Asaf Ali Road	127.33	PWD	253.22	88.62	17.72	225
17	Flyover at Vivekanand Marg, Nelson Mandela Marg, PoorviMarg	127.33	PWD				
18	Construction of Grade Separator at Raja Ram Kohli Marg, Intersection on Marginal Bund Road Geeta Colony, Delhi	230.00		5.00	1.75	0.70	280

19	Construction of Grade Separator for free flow traffic at T-Junction of Marginal Bund Road and Master Plan Road over Disused Canal near Shastri Nagar in East Delhi		PWD				
20	Construction of Grade Separator at the junction of G.T. Road and Road No. 56 near Apsara Border	226.47	PWD	141.47	49.51	19.80	220
21	Construction of Bridge and its approaches over River Yamuna Down stream of existing Bridge at Wazirabad, Delhi	1196.40	PWD/ DTTDC	1087.40	380.59	153.33	381.45
22	Alignment over Barapulla Nallah	1202.00	232.00	970.00	339.50	84.88	561.94
23	Ring Road Bye-pass from Salimgarh Fort to Velodrom Road Package-I Velodrom Road to back of Rajghat Power Station Package-II Back of Rajghat Power Station to Salimgarh Fort	654.00	185.00	469.00	164.15	65.66	499.59
24	Corridor improvement of U.P. Link Road from NH-24 Crossing (NOIDA More) to Chilla Regulator	334.00	PWD	254.00	88.90	35.56	269.22
25	Traffic Management plan for area around Civic centre near Minto Road	97.6	MCD	-	34.0	8.5	10.28
26	Interceptor Sewerage at three major drains		DJB	1357.71	475.20	118.86	56.07
27	Setting up of 20 mgd STP at Pappan Kalan		DJB	245.44	85.90	21.48	12.16
28	Redevelopment of Cannaught Place		NDMC	253.78	88.82	22.20	239.98
29	Purchase of 1500 DTC Buses		DTC	765	267.75	383.27	591.32
30	Purchase of 100 feeder Buses		DMRC	25.60	-	-	
Total				**8007**	**2787.06**	**944.96**	**4072.21**

* Project dropped

Annexure – 2.6
Projects selected for audit scrutiny
(Referred to in paragraph 2.2.8)

Sl. No.	Name of the Project	Implementing Agency
1	Bridge and its approaches over River Yamuna Downstream of existing Bridge at Wazirabad, Delhi	DTTDC
2	RUB & ROB at Railway Level Crossing at Road No. 68 near Nand Nagri	DTTDC
3	Flyover at Africa Avenue and Aruna Asaf Ali Road [EC = Rs.8270]	PWD
4	Flyover at Vivekanand Marg, Nelson Mandela Marg, Poorvi Marg [EC = Rs.10475]	PWD
5	Grade Separator at the junction of GT Road and Road No. 56 near Apsara Border	PWD
6	Development of multilevel underground conventional car parking at various locations under the jurisdiction of MCD.	MCD
7	Improvement of roads of 60 ft ROW and above by providing RMC pavement (phase–I) in various Zones of MCD.	MCD
8	Construction of 20 MGD STP (Phase-II) at Pappan Kalan and Nilothi.	DJB
9	Laying of interceptor sewerage in River Yamuna	DJB
10	Refurbishment of Trunk Sewerage System in Delhi	DJB

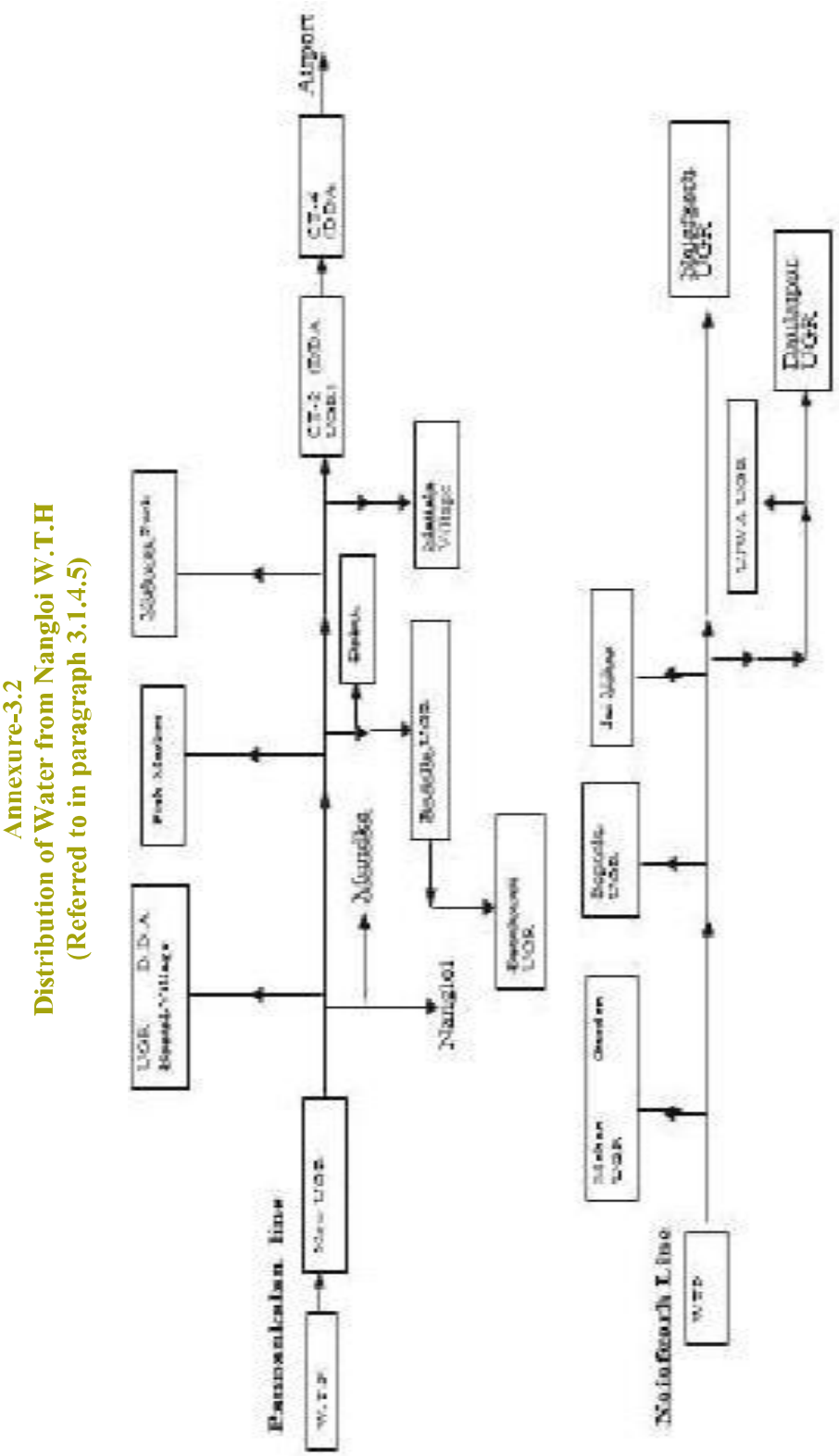
Annexure-3.1

Division wise details of population not covered through pipelines, water supplied to such population etc.

(Referred to in paragraph 3.1.4.2)

Sl. No.	Division	Quantum of Water supplied in (MG)			Population			Per capita availability per day in litres		
		2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
1.	Central II	10.64	15.54	21.51	45000	45000	45000	2.94	4.30	5.95
2.	North West I	131.4	131.4	146	425000	450000	475000	3.85	3.63	3.82
3.	North West II	200.29	165.27	171.72	99653	82230	85437	25.00	25.00	25.00
4.	North West III	5.07	5.27	5.71	50000	50000	50000	1.26	1.31	1.42
5.	North East I	51.82	48.97	48.15	98000	95000	90000	6.58	6.41	6.65
6.	North East II	49.52	51.41	53.56	56000	60000	62000	11.00	10.66	10.75
7.	North East III	14.85	13.55	12.22	100000	100000	100000	1.85	1.69	1.52
8.	East I	15.41	15.45	15.41	66000	66000	66000	2.90	2.91	2.90
9.	East II	10.78	9.8	10.08	52400	52400	52400	2.56	2.33	2.39
10.	South I	70.44	60.19	80.79	310000	310000	310000	2.83	2.42	3.24
11.	South III	36.84	46.74	50.36	676000	676000	676000	0.68	0.86	0.93
12.	South IV	130	130	130	500000	500000	500000	3.23	3.23	3.23
13.	South West I	90	90	100	270000	270000	27000	4.15	4.15	46.07
14.	West III	106.93	106.93	106.93	215000	215000	215000	6.19	6.19	6.19
15.	North	3.5	46	48.5	400000	450000	500000	0.11	1.27	1.21
		927.49	936.52	1000.94	3373553	3430630	3262837	3.42	3.40	3.82

Annexure-3.2
Distribution of Water from Nangloi W.T.H
(Referred to in paragraph 3.1.4.5)



Annexure – 3.3
Water supply position of water from WTP Nangloi
(Referred to in paragraph 3.1.4.5)

Source	UGR	Civil Division	Population	Quantity of Water supplied from the UGR in 2011-12 (in MG)	Per capita supply in 2011-12 (in litres)
E&M Division West					
WTP	Hasthal Village	West III	3000	11.6	48.09
WTP	Baprolla Village	West III	4000	21.7	67.48
WTP	Bakkarwala village	West III	5000	5.2	12.94
WTP	Bakkarwala JJC	West III	8000	45.9	71.37
WTP	Mohan Garder, Uttam Nagar	West III	170000	440	32.19
WTP	Y Block, Nangloi Ph.I	West III	12000	34.6	35.86
WTP	GHS Panchwati	West III	30000	295	122.31
WTP	Bodella Vikas Puri (Primary UGR)				
Bodella UGR	AG-I, Vikas puri	West III	4000	8.39	26.09
Bodella UGR	1112/1632, Janata Flats, Hasthal	West III	8500	67.16	98.28
Bodella UGR	DG-I, Vikas Puri	West III	1000	17.15	213.32
Bodella UGR	DG-II Vikas Prui	West III	6500	57.67	110.36
Bodella UGR	DG-III, Vikas Puri	West III	3500	11.68	41.51
Bodella UGR	112 SFS Bodella Extn.	West III	700	17.15	304.74
Bodella UGR	996 LIG, Hasthal	West III	5000	27.37	68.09

Source	UGR	Civil Division	Population	Quantity of Water supplied from the UGR in 2011-12 (in MG)	Per capita supply in 2011-12 (in litres)
Bodella UGR	Local Shopping Complex-E Block Vikas Puri	West III	0	1.095	
Bodella UGR	Local Shopping Complex-C Block Vikas Puri	West III	0	0.365	
Bodella UGR	Local Shopping Complex-M Block, Vikas Puri	West III	0	0.365	
Bodella UGR	F Block Vikas Puri	West III	3000	57.67	239.11
Bodella UGR	KG-I, Vikas Prui	West III	2000	17.15	106.66
Bodella UGR	KG-I New Vikas Prui	West III	2000	17.15	106.66
Bodella UGR	Direct line	West I and West III	270000	1533	70.62
Tankers	Hirankudna	West III	8000	6.1	9.48
WTP	Vikas Nagar (Direct line)	West III	25000	182.5	90.80
WTP	Mundka (Direct line)	West III	195000	2558.65	163.21
WTP	Nangloi (Direct line)	West III	190000	3431	224.61
WTP	Dabri (Direct line)	South West I		91.25	
WTP	Matiala Village (Direct line) and Vishwas Park (Direct line)	South West I	100000	788.4	98.06

Source	UGR	Civil Division	Population	Quantity of Water supplied from the UGR in 2011-12 (in MG)	Per capita supply in 2011-12 (in litres)
WTP	CT-2, Dwarka (to DDA)	West I, West III and South West I	266000	547.5	25.60
	CT-2, Dwarka (to DDA)	Airport		6.11	
	CT-2, Dwarka (to DDA)	DDA		1204.5	
WTP	Fish Market (direct on line BPS)	West I	25000	140.15	69.73
		West III	20000	91.25	56.75
E&M Division South West					
WTP	Najafgarh	South West I	100000	91.25	11.35
		South West II	420000	1168.75	34.61
WTP	Ujwa	South West I	85000	54.75	8.01
		South West II	125000	100.85	10.04
WTP	Daulatpur	Soutjh West I	250000	67.5	3.36
		Total	2347200	13217.88	70.04

Note: Population under Dabri line, Airport and DDA areas were not available

Annexure-3.4
Budget allocation and utilization
(Referred to in paragraph 3.2.3)

(₹ in lakh)

Year	Plan			Non-Plan			Savings under 'Machinery & Equipment' and 'Material & Supply'	Savings under the head – 'Salary'
	Allocation	Expenditure	Excess (+) Savings (-)	Allocation	Expenditure	Excess (+) Savings (-)		
Lok Nayak hospital								
2009-10	5743.50	5695.44	48.06	15469.00	13766.23	1702.77	13.45	16.91
2010-11	7150.00	7073.25	76.75	14827.85	14686.74	141.11	31.53	100.73
2011-12	7297.00	7100.23	196.77	16190.50	15971.57	218.93	192.30	200.20
Guru Teg Bahadur hospital								
2009-10	7622.00	7494.15	127.85	10504.20	10470.22	33.98	30.90	25.05
2010-11	8490.00	7816.87	673.13	10817.00	10778.94	38.06	423.27	220.20
2011-12	10550.00	10448.34	101.66	11990.10	11477.81	512.29	4.27	486.30
Acharyashree Bhikshu Government. hospital								
2011-12	1970.00	1955.64	14.36	418.75	411.94	6.81	20.15	--
Aruna Asaf Ali Government hospital								
2011-12	1940.00	1803.86	136.14	907.50	906.33	1.17	93.60	1.06
Babu Jagjivan Ram Memorial hospital								
2009-10	850.00	830.02	19.98	1612.00	1604.62	7.38	16.23	6.90
2010-11	900.00	820.51	79.49	1554.25	1553.34	0.91	45.52	30.09
2011-12	550.00	518.68	31.32	1762.70	1756.07	6.63	0.78	5.77

Govind Ballabh Pant hospital								
2011-12	7500.00	6708.14	791.86	11971.50	11663.58	307.92	819.90	244.60
Lal Bahadur Shastri hospital								
2009-10	2009.83	2006.63	3.20	1810.00	1579.12	230.88	0.04	232.71
2010-11	2500.00	2324.55	175.45	1571.70	1568.61	3.09	106.26	78.50
2011-12	2370.00	2167.38	202.62	1766.70	1757.39	9.31	4.33	24.51
Rao Tula Ram Memorial hospital								
2009-10	1400.00	1397.61	2.39	1556.00	1553.00	3.00	1.61	2.70
2010-11	1800.00	1756.67	43.33	1568.00	1564.00	4.00	4.04	40.28
2011-12	1800.00	1733.00	67.00	1652.00	1642.00	10.00	48.64	15.46
Deen Dayal Upadhayay hospital								
2009-10	5430.00	5421.04	8.96	8195.00	8184.16	10.84	2.46	8.41
2010-11	5600.00	5396.25	203.75	7646.65	7627.10	19.55	113.58	37.27
2011-12	7500.00	7477.74	22.26	8591.60	8577.74	13.86	1.95	11.31
Baba Saheb Ambedkar hospital								
2009-10	4000.00	3987.65	12.35	3687.50	3417.18	270.32	5.77	4.41
2010-11	4000.00	3868.24	131.76	3532.21	3472.62	59.59	--	78.00
2011-12	4240.00	3621.24	618.76	3730.28	3719.81	10.47	79.64	21.99

Annexure –3.5
Human Resource Management
(Referred to in paragraph 3.2.4)

Year	Doctors				Staff Nurses				Pharmacists			
	Sanctioned strength	Men-in-position	Shortfall	%age of shortfall	Sanctioned strength	Men-in-position	Shortfall	%age of shortfall	Sanctioned strength	Men-in-position	Shortfall	%age of shortfall
GTB hospital												
2009-10	421	320	101	**24**	1099	977	122	**11**	30	26	4	**13**
2010-11	490	320	170	**35**	1108	986	122	**11**	30	26	4	**13**
2011-12	489	312	177	**36**	1107	916	191	**17**	30	25	5	**17**
L.N. hospital												
2009-10	488	329	159	**33**	1229	1135	94	**8**	41	39	2	**5**
2010-11	540	403	137	**25**	1606	837	769	**47**	40	38	2	**5**
2011-12	623	419	204	**33**	1621	1024	597	**37**	40	38	2	**5**
RTRM hospital												
2009-10	101	86	15	**15**	88	87	1	**1**	6	5	1	**16**
2010-11	101	84	17	**17**	88	83	5	**6**	6	5	1	**16**

2011-12	101	93	8	**8**	88	86	2	**2**	6	6	--	--
DDU hospital												
2009-10	453	430	23	**5**	707	415	281	**40**	17	17	--	--
2010-11	453	430	23	**5**	707	441	266	**38**	17	17	--	--
2011-12	453	396	57	**13**	707	543	164	**23**	17	16	1	**6**
BSA hospital												
2009-10	328	272	56	**17**	--	--	--	--	8	8	--	--
2010-11	328	285	43	**13**	292	288	4	**2**	8	8	--	--
2011-12	328	269	59	**18**	292	272	20	**7**	8	8	--	--
ABG hospital												
2011-12	201	193	8	**4**	162	137	25	**18**	10	10	--	--

Annexure-3.6
GTB hospital
Locations where Water coolers and Aqua-Guards were non-functional
(Referred to in paragraph: 3.2.13.2)

Sl. No.	Location visited	Shortcomings noticed
1	Near Psychiatry OPD	Water cooler installed at Psychiatry OPD was shut down due to short circuit in the water cooler and electric current was felt in the body of the cooler. There was no water and one tap of the cooler was missing.
2	Near Ortho OPD	There was no water supply and Water cooler was locked.
3	Near ARTC (Room No.9)	Water cooler was out of order.
4	near Registration counter of OPD	One water cooler was out of order and water supply was stopped. Outside the registration counter, Aqua Guard was available but not connected to the water line.
5	Near Dispensary	A water tank for drinking water was installed without any Water cooler and Aqua-Guard. The patients were using untreated water.
6	Inside Pharmacy	In dispensary, water was not drinkable as the water was not properly purified through Aqua-Guard.
7	In Gynae OPD (Room No.712)	Water cooler was working but Aqua Guard was out of order.
8	In Gole Canteen	There were two water coolers in the Canteen. Aqua-Guard was not attached with one water cooler and second cooler was out of order.
9	Water tank at the entrance of main Casualty	There was one water tank installed for drinking water for patients. Water cooler and Aqua-Guard were not attached with the water tank.
10	Inside the casualty (near Room No.46)	No water cooler was provided in the casualty. Patients were using water from washrooms for drinking purpose also.

Annexure-3.7
Details of running of Ambulances (LN hospital)
(Referred to in paragraph: 3.2.16)

(in kms)

Ambulance No.	Year	For shifting patients	Used for other purposes	Total kilometer covered
DL-1A-1073	2009-10	748	3406	4154
DL-1CG-1084	2009-10	461	2482	2943
DL-1A-1219	2010-11	1602	5794	7396
DL-1A-1219	2011-12	2324	3588	5912
DL-1A-1217	2010-11	990	1621	2611
DL-1A-1217	2011-12	1324	3021	4345

Details of running of Ambulances (GTB hospital during 2011-12)

(in kms)

Ambulance No.	For shifting patients	Used for doctors	Used for other purposes	Total kilometer covered
DL-1A-1984	786	94	96	976
DL-1A-1985	64	77	134	275
DL-1A-1986	1366	538	76	1980
DL-1A-1296	56	4	280	340
Total	**2272**	**713**	**586**	**3571**

GTB hospital (Shifting of patients)

Ambulance No.	Year			No. of trips made
	2009-10	2010-11	2011-12	
DL-1A-1984	37	18	27	82
DL-1A-1985	49	31	3	83
DL-1A-1986	25	24	39	88
DL-1A-1296	13	16	2	31
Total	**124**	**89**	**71**	**284**

Annexure – 3.8
Evaluation of the scheme by consultant
(Referred to in paragraph – 3.3.12)

As per the Cabinet decision of February 2008, review of the scheme should be conducted every two years, in order to monitor its progress. However, it was observed that the scheme was evaluated only once during the year 2009, by engaging a consultant on nomination basis. The evaluation report submitted by the consultant, revealed the following shortcomings in the implementation of the scheme:

(i) 3750 cases of domiciliary birth registered were not verified,

(ii) verification of beneficiaries of the scheme was not conducted,

(iii) the impact of the scheme was not assessed,

(iv) there were ample evidences that more vulnerable population finds it difficult to access the scheme,

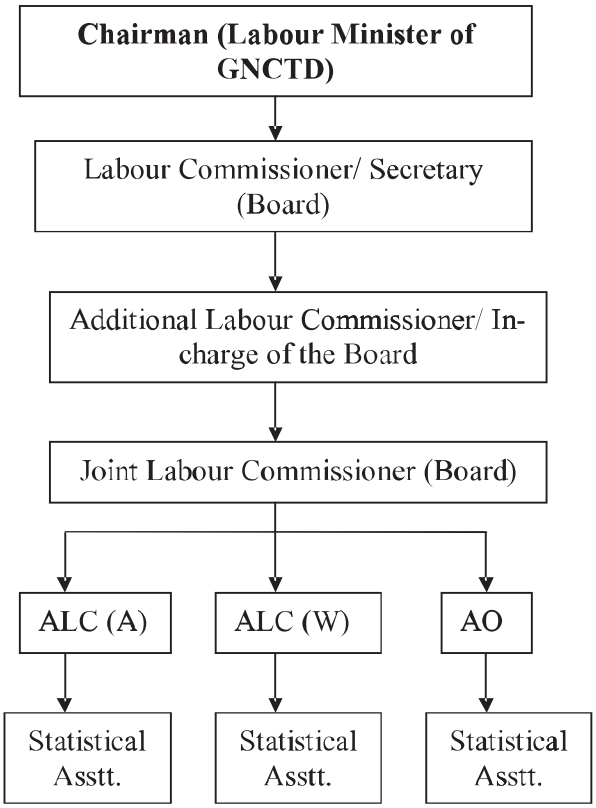
(v) most of the recipients of the scheme were in the Above Poverty Line (APL) segment,

(vi) girls living in *Jhuggis* were at high risk of missing the Ladli enrolment and were four times less likely to get benefits, as compared to those living in better localities,

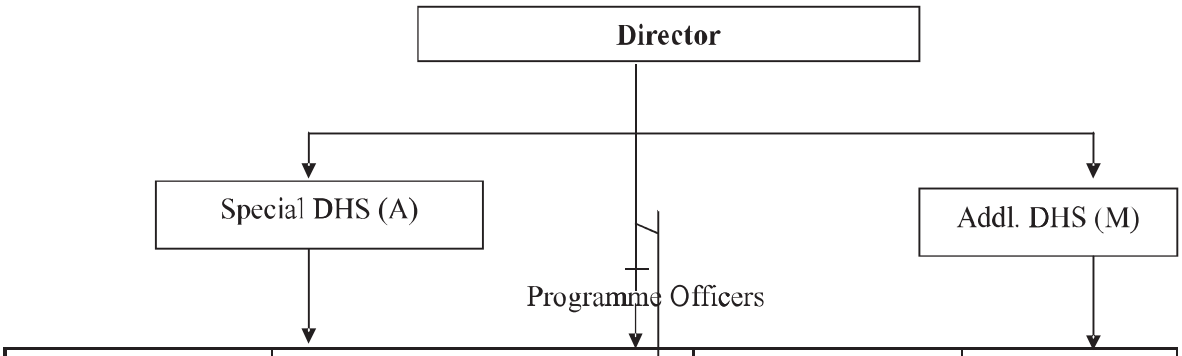
(vii) the families who live in rented houses are almost twice unlikely to get their girls enrolled under the Scheme, and

(viii) 42 *per cent* of girls did not get benefits of the scheme due to non-renewal of their cases during 2010-11 to 2011-12.

Annexure-3.9
Organisational Chart
(Referred to in Paragraph 3.4.1.1)



Annexure-5.1
Organisational Structure of Directorate of Health Services
(Referred to in paragraph 5.1.1)



Administrations	DGEHS		Distt. CDMOS
Planning	**Public Health Wing I** - TB, IDSP, Water & Vector bone diseases, HINI and others, -Tabacco control & anti smoking	School Health Scheme	Dispensaries
SHIB		Mobile Health Scheme	
Computer		Central Procurement Agency	
Central Store			
Accounts	**Public Health Wing II** Disaster Management, Cancer Control, Diabetes Control, Thalasemia Control Non-communicable disease.	**ABBREVIATION:** SHIB:-State Health Intelligence Bureau RTI:-Right to Information Cell CME:-Continons Medical Education MR Cell:-Medical Reimbursement Cell DGEHS Cell:-Delhi Govt. Employee Health Scheme Cell CWG:-Common Wealth Games Cell PG:-Public Grievance Cell NGO:-Non Govt. Organisation HOTA:-Human Organs Transplantation Act. DAN:-Delhi Arogya Nidhi GIN:-Grant-in-Aid NPCB:-National Programme for Control Blindness	
Vigilance			
Court Case			
RTI			
Care Taking	**Public Health Wing III** Laprocy control, BMW, Flurosis, Silicosis, Deafness, Health Melas		
Anti Quackery	- Nursing Home Cell		
	- CME, Delhi State Nursing Cell		
	-DAN, NPCB		
	- HOTA		
	- GIA, PG Cell, NGO		

Annexure –5.2
Details of abstract contingent advances
(Referred to in paragraph 5.4.4)

Sl. No.	Year	Bill no. & date	Sanction order no.	Amount (₹)
1.	2010-11	ACB-600 31-8-10	F-25(111)/CWG/DHS/87/10-11/46358-361 dt.31-8-10	1869260
2.	-do-	ACB-639 13-9-10	F-25(111)/CWG/92/DHS/10-11/48389-93 dt.10-9-10	100000
3.	-do-	ACB-688 27-9-10	F-5(42)/DHS/HR/SCP/10-11/1295-98 dt.22-9-10	10986800
4.	-do-	ACB-689 29-9-10	F-25(iii)/CWG/DHS/10-11/1843 dt.24-9-10	100000
5.	-do-	ACB-716 1-10-10	F-25(111)/CWG/92/DHS/2003 dt.30-9-10	100000
6.	-do-	ACB-724 4-10-10	F25(111)/CWG/92/DHS/2010/2116 Dt.4.10.10	100000
			F25(111)/CWG/92/DHS/2010/2111 Dt.4.10.10	100000
7.	-do-	ACB-736 6-10-10	F25(111)/CWG/99/DHS/2010/2173 Dt.6.10.10	500000
8.	-do-	ACB-783 8-10-10	F25(111)/CWG/99/DHS/2010/2263 Dt.8.10.10	500000
9.	-do-	ACB-791 11-10-10	F25(111)/CWG/99/DHS/2010/2327 Dt.11.10.10	500000
10.	-do-	ACB-805 12-10-10	F-DSZCS/01/SSS/DHS/LEP/2009/33210-18 Dt.12.10.10	3666
11.	2011-12	ACB-99 2-5-11	F-2(13)2010/DHS/Estt./HQ/22170 dt.29-4-11	19500
12	-do-	ACB-105 3-5-11	F-24/26/DHS/CME/2011/21832 dt.28-4-11	22500
13.	-do-	ACB-372 26-7-11	F.17(8)/(14)/Med/DHS/08-09/36235-239 dt.25.7.11	108000
14.	-do-	ACB-665 3-11-11	F.No.8/13/2008/DHS/Estt/HQ/ED/51993-98 dt.3-11-11	146430
15.	-do-	ACB-1022 7-3-12	F25/3/2011/16/DHS/Floorosis/2011/11987-92 dt. 2-3-12	60000
16.	-do-	ACB-1023 7-3-12	F-DSLCS/01/299/DHS/LEP/2012/11981-86 dt. 2-3-12	80000
17.	-do-	ACB-1085 20-3-12	9146HQ/CT/DHS/2000/Part-III/1977-80 dt. 20-3-12	130000
18.	-do-	ACB-1112 26-3-12	F-25/3/11/DHS/Award/15817-22 dt.26-3-12	3429900
19.	-do-	ACB-989 24-2-12	F9/146/DHS//CT/HQ/2000 Part-III/1765-68 dt.21-2-12	153000
20.	-do-	ACB-705 17-11-11	F3(2)12000/S-III-Pt.file/2008/2821 dt.5-8-11	7110

Annexure-5.3
Details of stockout of essential drug/medicines during 2007-12
(Referred to in paragraph 5.4.7)

Sl. No.	Name of medicine	No. of days of stock outs
1.	Syp. Paracetamol	155
2.	Tab. Diclofenac	87
3.	Tab Cetrizine	88
4.	Cap Amoxycillin	127
5.	Syp. Amoxycillin	352
6.	Ferrous Sulphate and folic acid	70
7.	Enalapril	390
8.	Tab Metformin	161
9.	Oint. Clotrimazole	63
10.	Tetanus Toxoid	552
11.	Salbutamol for Nebuliser	58
12.	Tab Peracetamol	----

Annexure-5.4
Procurement of medicines beyond permissible shelf life
(Referred to in paragraph 5.5.5)

Sl. No.	Name of the medicine/drug	Date of receipt	Date of manufacture	Date of expiry	1/6 shelf life upto	Delay in months	Quantity received
2007-08							
vol-7	Syp. Chloroquene	24.03.08	Aug-07	Jan-09	Oct-07	5	4000
	Syp. Furazoladine	18.06.07	Nov-06	Oct-08	Feb-07	4	17361
	do	17.03.08	Jul-07	Jun-09	Oct-07	5	20445
	Syp Noscapine	23.05.07	Mar-06	Feb-09	Aug-06	9	38350
2008-09							
vol-I	Tab cefuroxime	17.03.09	Jul-08	Jun-10	Oct-08	5	171600
vol-III	Permethrin	30.09.08	Apr-08	Jun-10	Jul-08	2	90040
	Eye drop Ciprofloxacin	29.07.08	Jan-08	Dec-09	Apr-08	3	32216
	Eye drop Gentamycin	29.07.08	Feb-08	Jan-10	May-08	3	27510
	Eye drop Sulphacetamide	26.08.08	Apr-08	Mar-10	Jul-08	1	8623
	do	12.09.08	Apr-08	Mar-10	Jul-08	1	11973
	Eye drop lubricating	07.08.08	Mar-08	Feb-10	Jun-08	1	26000
	Deriphyllin	07.08.08	Dec-07	Nov-10	May-08	2	4290
vol-VII	Syp. Cloxycellin	27.07.08	Jan-08	Dec-09	Apr-08	3	14000
	do	24.10.08	Jan-08	Dec-09	Apr-08	6	14000
	Syp. Noscopin	05.01.09	Aug-08	Jul-10	Nov-08	1	12000
	do	09.02.09	Aug-08	Jul-10	Nov-08	2	3000
	Syp Dextromethorphen	16.09.08	Feb-08	Jan-10	May-08	4	66000
	Syp Domperidom	17.07.08	Dec-07	Nov-09	Mar-08	4	24000
	do	10.09.08	Dec-07	Nov-09	Mar-08	5	24000

	Antispar drops	16.07.08	Feb-08	Feb-10	May-08	2	7000
	do	18.09.08	Feb-08	Jan-10	May-08	4	475
	B complex	01.12.08	Jul-08	Dec-09	Sep-08	2	20000
	Syp Pheniramine maleate	21.07.08	Jan-08	Dec-09	Apr-08	3	27000
	do	18.09.08	Feb-08	Jan-10	May-08	4	27000
	Alkaline diuretec	09.01.09	Jul-08	Jun-10	Oct-08	2	19933
	MNZ	12.01.09	Jul-08	Jun-10	Oct-08	2	1200
	Syp. Antacid	30.07.08	Jan-08	Dec-09	Apr-08	3	10000
2009-10							
vol-II	Vitamin A	02.02.10	Mar-09	Feb-11	Jun-09	7	490000
	Norflox DT	02.02.10	Jul-09	Jun-11	Oct-09	3	138000
	Tab Oflox	04.03.10	Jul-09	Jun-11	Oct-09	4	80000
	Tab paracetamol	02.02.10	Jul-09	Aug-11	Oct-09	3	342000
	Tab Enalapril	02.02.10	Apr-09	Mar-12	Sep-09	4	950000
	do	04.03.10	Apr-09	Mar-12	Sep-09	5	500000
	Tab Cetrizine	16.02.10	May-09	Apr-12	Oct-09	4	18000
	Tab Cephalexin kid	02.02.10	Jul-09	Jun-11	Oct-09	3	739000
	Clotrimazole	02.02.10	Mar-09	Feb-11	Jun-09	7	115500
vol-III	Annovate	31.07.09	Mar-09	Feb-11	Jun-09	1	13500
	Ciflox eye drop	24.08.09	Mar-09	Feb-11	Jun-09	2	70050
	Crepe bandage (3 years)	08.09.09	Dec-08	Dec-11	May-08	3	22150
	Electric adh. Bandage	29.09.09	Oct-08	Sep-11	Mar-09	6	6471
	Gentamycin eye drop	29.07.09	Mar-09	Feb-11	Jun-09	1	59170
vol-VII	Syp Ampicillin	30.07.09	Mar-09	Aug-10	May-09	2	20000
	Syp Cephalexin	01.02.10	Jul-09	Dec-10	Sep-09	4	31222
	Syp Pheniramine	30.07.09	Mar-09	Feb-11	Jun-09	1	29000

	do	31.08.09	Mar-09	Feb-11	Jun-09	2	24150
2010-11							
vol-I	Tab. Norflox	31.08.10	Mar-10	Feb-12	Jun-09	2	244100
	Cap. Clexacillin	31.08.10	Apr-10	Mar-12	Jul-10	1	288700
	Cap. Gynae cvp	05.04.10	Sep-09	Feb-11	Nov-09	4	13000
	Tab. Perindepril	28.06.10	Sep-09	Aug-11	Dec-09	6	200000
	Tab Roxithromycin	31.08.10	Mar-10	Feb-12	Jun-10	2	295100
	Tab Enalapril	31.08.10	Apr-09	Mar-12	Sep-09	11	372750
	Atenolol	01.09.10	Mar-10	Jun-12	Jul-10	1	2534
	Tab Etoricoxib	08.09.10	Mar-10	Feb-12	Jun-10	2	40000
2011-12							
vol-I	Tab Alprazolam	22.06.11	Sep-10	Aug-13	Feb-11	4	151900
	Cap. Cephalexin	08.11.11	May-10	Aug-12	Sep-10	13	185600
	do	08.11.11	Aug-10	Jan-13	Dec-10	10	6400
	Tab. Chloroquin	08.11.11	Dec-09	Sep-13	Jul-10	3	9500
	Tab. Ciprofloxacin	08.11.11	Apr-10	Jan-14	Nov-10	11	42900
	Cap. Chloraphenicol	01.06.11	Jun-10	May-12	Sep-10	8	8000
	Tab. Cefuroxime	08.11.11	Sep-10	Dec-12	Jan-11	9	6600
	do	12.10.11	Feb-11	Jan-14	Jul-11	2	66000
	Tab. Norfloxacin	03.10.11	Mar-11	May-13	Jun-11	3	512000
	Tab. Norethisterone	25.11.11	Mar-11	Sep-14	Sep-11	2	114600
	Cap. Vitamin A	23.06.11	Dec-10	Nov-12	Mar-11	3	17000

Annexure-5.5
Consumption Pattern (2007-08 to 2011-12) of Directorate of Health Services
(Referred to in paragraph 5.5.7)

Name of Medicine	2007-08	2008-09	2009-10	2010-11	2011-12	2008-09 with 2011-12 (%)
No. of patients attended percentage		10301865	9958499 (-)3.34	9958417 (-)0.01	9239715 (-)7.22	-10.31
Analgesics, Antipyretics and Drugs for GOUT						
Acetyl Salicylic Acid (Disprin)	NA	500292	404218	376850	1144982	128.86
Nimesulide	-do-	4142260	2921850	511500	-----	
Tab. Paracetamol 500mg	-do-	22894550	15742200	16625780	11659440	-49.07
Tab.Ibuprofen 400mg	-do-	2278860	2592640	1578190	2497500	9.59
Tab. Diclofenic Sodium 75mg	-do-	4609080	5053100	2749850	3252620	-29.43
Tab. Diclofenic Sodium 50mg	-do-	1477580	1154320	598240	904260	-38.80
Total Consumption percentage		**35902622**	**27868328 (-)22.38**	**22440410 (-)19.48**	**19458802 (-)13.29**	**-45.80**
Anti Protozoal Drugs						
Tab. Metronidezole 200mg, 400mg	-do-	937500	2170480	1057940	894480	-4.59
Tab.Tinidazole 300mg, 500mg	-do-	535760	404560	1241900	1676460	212.91
Tab. Diloxanide furoate 500mg	-do-	68500	1500	-nil-	-nil-	
Total Consumption percentage		**1541760**	**2576540 (+)67.11**	**2299840 (-)10.74**	**2570940 (+)11.78**	**66.75**
Antibacterial						
Tab. Norfloxin 400mg	-do-	751520	1102920	870650	1152850	53.40
Amoxicillin 250, 500mg	-do-	6173520	5919720	4507650	3731920	-39.55
Cloxacillin 250, 500mg	-do-	1786220	1659120	1157780	2505430	40.26
Cephalexin 125, 250, 500mg	-do-	1615320	3131220	1079240	3501680	116.78
Ethromycin 250	-do-	1800980	1491680	-----	539420	-70.05
Doxycycline	-do-	1302460	715360	150000	871550	-33.08
Tab Chlopheniramine Maleate (CPM)	-do-	9782640	16599180	11024220	11507830	17.64
Total Consumption percentage		**23212660**	**30619200 (+)31.90**	**18789540 (-)38.64**	**23618040 (+)25.69**	**1.75**
Antacid and other Anti ulcer Drugs						
Cap. Omeparazole 20mg	-do-	2055100	3094280	2567510	2100750	2.22
Tab. Ranitidine 150mg	-do-	2946380	5150720	3871680	2664380	-9.57
Tab Antacid	-do-	5177700	3633090	2643880	2905290	-43.89
Tab. Cetrizine 10mg.	-do-	1949960	3259460	2733550	1738920	-10.83
Total Consumption percentage		**12129140**	**15137550 (+)24.80**	**11816620 (-)21.94**	**9409340 (-)20.38**	**(-)22.43%**

Annexure-5.6
Performance Security Deposits
(Referred to in paragraph 5.5.8.6)

(Amount in ₹)

Sl. No.	Name of the firm	Amount to be deposited	Amount deposited	Difference
1	**2**	**3**	**4**	**5 (3-4)**
1.	AstraZeneca Pharma India	140403	-nil-	140403
2.	Lincoln Pharmaceuticals	1286566	570000	716566
3.	Galpha Lab	1484596	800000	684596
4.	Midas-care	283169	-nil-	283169
5.	Biodeal Lab	479825	200000	279825
6.	Sarvotham	104167	-nil-	104167
			Total	**2208726**

Annexure – 5.7
Under-equipped dispensaries in terms of infrastructure and services
(Referred to in paragraph 5.6.1)

Sl. No.	Facilities	No. of dispensaries where facilities are not available
Infrastructure		
1.	Proper Board on the Premises	70
2.	Display regarding services available	76
3.	Name of M.O.,I/C	137
4.	Suggestion/complaint box available in accessible area	107
5.	Waiting area for patients	27
6.	Fans available in waiting area	62
7.	Separate Registration Counter	109
8.	Separate OPD rooms for 2MOs	99
9.	Separate room for internal checkup/CuT	141
10.	Separate room for immunization	30
11.	Separate dressing/minor procedure room	66
12.	Continuously water supply	69
13.	Pump & Overhead tank available	59
14.	Drinking water available	207
15.	Separate toilets for male/Female	167
16.	Availability of water in toilets	66
Services		
1.	Curative services available for common diseases	37
2.	Standard treatment protocol	93
3.	Are minor surgery done	120
4.	Is suturing of superficial wounds done	171
5.	New Born care available	99
6.	Babies regularly weighted on immunization day	119
Geriatric Care Initiative		
1.	Ramp	155
2.	Stretcher	166
3.	Wheelchair	164
4.	Separate line	79

Annexure-5.8
Staff position as per new standards of PUHC
(Referred to in paragraph 5.6.2)

Sl. No.	Name of post	I*	II*	III*	IV*	15% leave reserve	Total	Sanctioned post	Additional requirement
1.	SAG/CMO	24	-	-	-	3	27	13	14
2.	Medical Officer	-	70	719	4	119	912	540	372
3.	Mobilization Officer	-	-	287	1	43	331	-	331
4.	Pharmacist	13	18	635	4	100	770	604	166
5.	PHN	2	-	287	1	44	334	83	251
6.	ANM	-	-	1723	9	260	1992	334	1658
7.	Lab. Tech	-	-	287	1	43	331	2	329
8.	Projectionist	1	-	-	-	-	1	-	1
9.	Lecture Theatre Assistant	1	-	-	-	-	1	-	1
10.	CDEO	15	-	291	2	46	354	-	354
11.	Dresser	-	-	287	3	44	334	242	92
12	NO/Peon	41	-	291	3	50	385	348+25(OS)	12
13	SCC	-	-	860	6	130	996	570+97(OS)	329
	Total	**97**	**88**	**5667**	**34**	**882**	**6768**	**2858**	**3910**

**I the Directorate (Hqrs.) level*
**II CDMO Office Level in Districts*
**III Delhi Government Health Centre*
** IV New Lahore Shastri Nagar(ED) & Emergency Unit at saket*