

HOME DEPARTMENT

2.6 Long Paragraph on ‘Crime and Criminal Tracking Network and System -CCTNS’

2.6.1 Introduction

The Ministry of Home Affairs, Government of India conceptualised (June 2009) the Crime and Criminals Tracking Network and Systems (CCTNS) project to modernise the police force under the National e-Governance Plan (NeGP). The CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing at all levels especially at the Police Station level through adoption of principles of e-Governance and creation of a nationwide networked infrastructure for evolution of Information Technology (IT) enabled state-of-the-art tracking system.

The CCTNS project includes linking police units at various levels within the State through State Headquarters and State Crime Record Bureau (SCRB) to National Crime Record Bureau (NCRB) at GoI level and linking police functions at State and Central level to external entities. The CCTNS also provides for a citizen’s interface to provide basic services to citizens.

2.6.2 Audit Objective

The audit objectives were to examine whether:

- Enhanced IT tools for investigation, crime prevention, law and order maintenance and other functions like traffic management, emergency response etc. were provided and utilised;
- increase in operational efficiency was achieved by reducing manual and repetitive tasks;
- sharing of crime and criminals database across the country at the State and Central level was achieved on real-time basis; and
- improvement in service delivery to the public and other stakeholders was accomplished.

2.6.3 Scope and methodology

The long paragraph on CCTNS covered the activities under the scheme during the period 2009-14. During audit, records of the Home Department (Department) Government of Bihar (GoB), Nodal Officer, CCTNS-cum-Inspector General of Police, SCRB, State Designated Agency (SDA), System Integrator (SI) and two districts¹ (where the scheme was being implemented as pilot project in the State) were test checked. The audit was conducted from May to July 2014. After completion of audit, an exit conference was held in September 2014 with the Principal Secretary of the Department and his views were incorporated at appropriate places for balanced reporting.

2.6.4 Coverage of Project

A Memorandum of Understanding (MoU) was signed (September 2009) between MHA, GoI and GoB for implementation of CCTNS project in the

State. As per MoU, GoB was responsible for the successful and time bound implementation of CCTNS in the State and its interface with external agencies. To this extent, GoB agreed and assured to discharge responsibilities effectively by allocating the required manpower and resources and formulate CCTNS governance structure as per implementation guidelines provided by MHA, GoI. The CCTNS project for State of Bihar spans all 887 police stations, 192 circles, 122 sub divisions, 44 police districts (**Appendix-2.6.1**), 12 ranges, five zones, SCRB, Bihar Police Academy and the Police Headquarters. Other interfaces include citizens, external offices such as jails, courts and Forensic Science Laboratory.

The CCTNS project was to be completed within 55 weeks from the date of agreement (17 October 2012) and components of project include site preparation, setting up of infrastructure at Data Centre (DC) and Disaster Recovery Centre (DRC), hardware delivery, customisation of Core Application Software (CAS), data Digitisation and Migration of old data, Capacity Building network connectivity and monitoring and assessment of performance.

Scrutiny of records revealed that none of the components of CCTNS (**Appendix-2.6.2**) was completed as of September 2014. The reasons for non-completion of the project is discussed in succeeding paragraphs:

2.6.5 Audit findings

2.6.5.1 Financial Management

The CCTNS being a fully Centrally Sponsored Project, GoI was to provide the State with the required funding to run the programme i.e. building cost, civil infrastructure, manpower costs, recurring and operational costs. Further, capital and recurring cost beyond plan period of 2011-12 was to be borne by the State. Release of funds to the State was linked to the progress of implementation and achievement of predefined milestones. The SDA was to serve as a channel for release of funds.

- **Allotments and utilisation of funds**

Allotment and utilisation of funds under the CCTNS during 2009-14 is given in the **Table 2.6.1** below:

Table 2.6.1: Allotment of funds and utilisation

(₹ in crore)

Year	Opening balance	Funds released by GoI	Other receipts (interest/tender fee etc.)	Total funds available	Expenditure	Balance funds
2009-10	0	4.90	00.00	4.90	0.00	4.90
2010-11	4.90	9.69	0.42	15.01	0.00	15.01
2011-12	15.01	6.03	1.10	22.14	2.44	19.70
2012-13	19.70	5.23	1.52	26.45	3.04	23.41
2013-14	23.41	00.00	1.25	24.66	0.90	23.76
	TOTAL	25.85	4.29		6.38	

(Source: Information furnished by the SDA)

Only one-fourth of available funds could be utilised and 80 per cent of the remaining funds were being kept in fixed and saving accounts

As evident from the table above, only one fourth of the funds available under the scheme could be utilised. The Department had parked 84 per cent of the balance funds (i.e. ₹ 20.02 crore out of the available balance funds of ₹ 23.76 crore up to 2013-14) in fixed deposits and saving accounts in contravention of the directives issued by GoI. As a result, GoI did not release remaining funds² of ₹ 33.81 crore as requisite Utilisation Certificates (UCs) for each activity was mandatory for release of subsequent funds to the State.

In reply, the SDA stated (September 2014) that UCs for ₹ 6.38 crore only was sent to the Home Department.

• **Irregular payment on project handling charges**

As per implementation guidelines to the States from MHA, GoI, the State Mission Team would be responsible for operational, issues, formulating project proposals, hardware rollout and commissioning, co-ordination with various agencies, resolution of all software related issues including customisation, resolution of all the other issues hindering the project progress and any other decision to ensure speedy implementation of the project. District Mission Team would be responsible for site preparation and availability of all utilities, training of all police personnel in the district, installation of hardware and software and operationalisation of the project and should ensure proper rollout of the project in each selected police station.

The SDA would serve as a channel for transfer of funds from GoI to state and from State Governments to the vendors implementing the CCTNS Project. Home Department, GoB constituted State Mission Team and District Mission Team (October 2009)³ and nominated Bihar State Electronic Development Corporation (M/s BSEDC) as the SDA for implementation of the CCTNS Project.

Approval of ₹ 4.85 crore as project handling charges to the SDA against the norms of the scheme guidelines

It was observed that, as per decision of the State Empowered Committee meeting held in September 2012, instead of the State Mission Team, M/s BSEDC was authorised to sign an agreement with SI i.e M/s ITI Ltd (in consortium with M/s Vayam Technologies Limited) for implementation of the Project. Accordingly, the agreement was signed in October 2012 with M/s BSEDC (SDA) instead of the State Mission Team, ignoring the implementation guidelines of MHA. For this, SDA demanded ₹ 4.85 crore (seven per cent of the total project cost) as project handling charges and the GoB approved the amount.

In reply (August 2014) Nodal Officer, CCTNS-cum-Inspector General of Police stated that the responsibility of implementation of project was entrusted to the SDA by GoB. However, the SDA admitted (September 2014) that there was no provision for service charges in the implementation guidelines issued by MHA, GoI. However, the service charges were approved by GoB.

2.6.6 Implementation of Project

2.6.6.1 Non-commissioning of CCTNS sites

As per Request for Proposal (RFP) for implementation of the CCTNS, the SI

² (Sanctioned amount: ₹ 59.66 crore) – (Released amount: ₹ 25.85 crore) = ₹ 33.81 crore
³ Resolution No. 6792

would prepare the CCTNS sites to cover all the activities necessary to enable the client site locations to setup the infrastructure of the CCTNS. The client, site location includes police stations, circle office, zones, range offices, SCRB, Sub-Divisional Police Offices, District Headquarters, State Headquarters and training centres. The SI was to make client sites infrastructure fully functional in pilot districts within 25 weeks (7 April 2013) and in all the sites within 55 weeks (5 November 2013) from the date of signing (17 October 2012) of the agreement.

The CCTNS sites could not be commissioned by the SI even after giving several time extensions

During test check, it was observed that the SDA signed (October 2012) an agreement with SI for the above said works. The Department made an advance payment of ₹ 2.77 crore and gave several extensions (six times) to the SI for commissioning of sites, but the SI could prepare (October 2013) only 251 sites partially. During verification, State Project Management Unit (SPMU) appointed for monitoring of the CCTNS Project by GoB found these sites were not prepared as per agreement. Therefore, SI was instructed to expedite the implementation of the Project, but the SI had not taken any action in this regard. Ultimately, the SDA terminated (July 2014) the contract with SI. Resultantly, the work of the CCTNS could not be started as all the operations of the CCTNS were based on site preparation.

In reply (August 2014), Nodal Officer CCTNS-cum-Inspector General of Police admitted that in view of poor performance of SI, their contract was terminated.

Recommendation: Department should expedite the infrastructure works at the CCTNS sites without further delay.

2.6.6.2 Non-commissioning of State Data Centre and Disaster Recovery Centre

As per RFP, the State was to provide the premises of Primary Data Centre (DC) to SI for hosting the solution as well as the Disaster Recovery Centre (DRC). The DC was to be co-located with Bihar State Data Centre (SDC) and DRC at National Information Centre (NIC) at different seismic zones.

The expected time of commissioning of the SDC was 31 December 2011 and if the commissioning was delayed for more than six months, the SI would have to make an interim arrangement for setting up the deployment infrastructure at SCRB or at any other identified location in Patna, approved by the Government to make it functional for the pilot project. The implementation of the project completely depended on the set-up of DC and DRC.

Due to non-commissioning of DC and DRC, the hardware procured for the centres were lying idle

During test check, it was observed that the SDC was completed in December 2013. However, interim arrangement for setting up of Data Centre at SCRB or at any other identified location was not provided to the SI for deployment of full server stack by the SDA. Resultantly, the hardware procured for DC and DRC were lying idle.

In reply (August 2014) Nodal Officer, CCTNS-cum-Inspector General of Police stated that the matter is concerned with the SDA. The SDA accepted (September 2014) the fact and stated that SDC was ready (December 2013) but, due to non supply of router, Enterprise and Network Management System

(EMS) by SI, DC was not possible to be commissioned and utilised for project purpose. Although State Mission Team was constituted for resolution of all issues hindering the project progress and decision to ensure speedy implementation of the project, it failed to co-ordinate with concerned agencies to sort out the issues.

Recommendation: *The Department should initiate steps for installation of full server stack at SDC.*

2.6.6.3 Hardware and software delivery

• *Excess/irregular expenditure on procurement of Hardware*

As per Capacity Building Guidelines, funds were to be released for strengthening existing Police Training Centres and Institutes by enhancing the training infrastructure⁴ which was to be created at district headquarters. Further, as per directives of GoI (February 2011), no additional funds was to be given for Antivirus, Operating System and office suite etc. as they were already included in the assigned cost of ₹ 25000 per Personal Computer (PC).

Irregular/excess expenditure of ₹ 97.01 lakh on procurement of PCs and Laptops

During test check, it was noticed that SDA procured 460 PCs worth ₹ 1.52 crore for 45 District Training Centres. Out of this, 415 PCs were purchased at ₹ 33287 per PC and remaining 45 PCs were purchased at ₹ 31325 per PC. Further, SDA also procured MS office 2013 software costing ₹ 42.20 lakh and 46 Laptops costing ₹ 17.57 lakh. Thus, in contravention of the directives of GoI, the SDA incurred excess/irregular expenditure of ₹ 79.44 lakh⁵ on purchase of PCs and software and irregular expenditure of ₹ 17.57 lakh on laptops.

In reply, the SDA accepted the facts and stated (September 2014) that procurement was made on the directives of State Empowered Committee.

The reply is not tenable as the SEC was not authorised to incur expenditure beyond the directives issued by GoI.

• *Procurement of MS Office Software*

As per Project Implementation and Monitoring (PIM) Report of the CCTNS Project approved by MHA, GoI accorded (February 2011) sanction for procurement of computer at the rate of ₹ 25000 per Computer (including Operating System, Antivirus and office suite). Further, as per conditions of MoU, a System Integrator was to be engaged for 'bundle of services'⁶. As per RFP for implementation of CCTNS, the bidder was to supply the minimum technical specification requirement of components for the CCTNS sites.

MS Office software worth ₹ 2.38 crore was procured despite termination of contract with SI

During test check it was noticed that the SDA amended the RFP in January 2012 and instructed not to quote the price of MS Office in the financial bid. Accordingly, SI agreed (October 2012) to supply computers at ₹ 26000 without MS Office. Subsequently, despite taking the decision to terminate

⁴ Training infrastructure comprised of one server with 10 clients, one UPS and other peripherals as provided at Police Stations including Site preparation, Furniture, LCD projector etc.

⁵ (₹152.24 lakh for 415 PCs + ₹42.20 lakh for 45 PCs including MS Office) – ₹115.00 lakh for 460 pc at ₹25000 = ₹ 79.44 lakh

⁶ Bundle of services include project planning and management services, application development and management services, hardware (computers, peripherals, etc.)

(4 March 2014) the contract with SI, the SDA purchased (28 March 2014) 2600 numbers of MS office software for ₹ 2.38 crore at ₹ 9151 per license. The MS Office software so purchased could not be installed at any CCTNS sites across the State due to non-completion of sites by SI.

In reply (September 2014) the SDA, admitted that as per direction of State Empowered Committee, 2600 MS Office licenses were purchased.

Reply was not in consonance with the conditions of MoU, as GoB assured MHA, GoI to engage System Integrator for bundle of services which includes MS Office software. Further, the decision of the SDA to procure MS Office software without ensuring the completion of sites resulted in idle investment of ₹ 2.38 crore.

2.6.6.4 Non-customisation of Core Application Software (CAS)

As per RFP, the CCTNS application software would contain a 'core' for the States/Union Territory that would be common across all 35 States and UTs. Each State/UT would customise the CAS according to their unique requirements and thereafter commission the same. The States and UTs also had an option to develop and deploy additional applications over and above the customised CAS. The customisation of CAS was to be completed by SI as on 6 March 2013⁷.

During test check, it was noticed that CAS was not customised due to non preparation of System Requirement Specification (SRS), Functional Requirement Specification (FRS), System Design Documents (SDD) and other solution designs in the State by the SI despite multiple notices. This resulted in non-functioning of registration, investigation, prosecution, records management, search and basic reporting etc. under CAS.

In reply (August 2014), Nodal officer accepted the audit observation.

2.6.6.5 Non-digitisation of data

As per RFP, the SI would migrate the data from other system/manual operations to the new system which would include identification of data migration requirements, collection and migration of user data, collection and migration of master data, closing or migration of open transactions, collection and migration of documentary information and migration of data from the legacy system.

For digitisation, approximately one crore legacy data i.e. FIR, Case Diary, final form, Inventory register, Personal register and Accounts register were to be digitised within 50 weeks from date⁸ of agreement.

During test check, it was observed that the SI had digitised 16018 records only. Further, due to incorrectness and lack of ownership of data, these were scrapped by SI. The Department directed the SI to ensure validation of the records on case file approach basis as without this, the data may be considered as garbage. In this regard, the SI confirmed (December 2013) that the activities would commence by 16 December 2013. However, no progress was

CAS was not customised for functioning of Registration, Investigation, Prosecution, Records management, Search and Basic Reporting

Legacy data were not digitised

⁷ Within 20 weeks from the date of agreement.

⁸ 2 October 2013

made and contract with SI was terminated (July 2014). Thus, legacy data could not be digitised.

In reply (August 2014), Nodal Officer CCTNS-cum-Inspector General of Police accepted the facts and stated that the State Mission Team had done sample inspection of the digitised data and found that it was incorrect and incomplete. Hence, they were re-directed to make correction, which was not done till date.

Recommendation: The Department should ensure data digitisation and migration of old data on time bound basis.

2.6.6.6 Capacity Building

- ***Training programmes for police personnel***

The SI holds the responsibility for creation of training material, designing the training programmes and their delivery to the target group. In cases where the training material was to be made available by the MHA/NCRB, it was the SI's responsibility to ensure the relevance of the material to the state, customise, if necessary and own up the delivery and effectiveness. The training programmes were to cover general/basic computer awareness programmes and CCTNS specific programs in order to ensure adoption of the system at the police station level.

During test check, it was noticed that District Training Centre was set-up by concerned Superintendent of Police (SP) whereas hardware and software for training was to be supplied by the M/s BSEDC. GoB had planned that 35878 police personnel of different groups were to be trained by November 2013 at the Centres. Out of available 35878 police personnel of different groups, only 10456 police personnel were trained (29 *per cent*) and an amount of ₹ 4.40 crore was spent till March 2014. It was also noticed that only basic computer training was imparted and the SDA did not keep any records regarding training of police personal at the District level. Therefore, functioning of the CCTNS Project was susceptible without CCTNS specific trained police personnel to use and operate the software.

Further, it was also noticed that the SDA conducted (December 2010 and January 2011) training at Bihar Knowledge Centre, Patna for 49 police personnel as trainers for training and paid ₹ 3.24 lakh (at ₹ 6618 per person) ignoring the instruction and against approved rate of training (₹ 1000 per person) of the MHA (December 2011). Resultantly, an excess amount of ₹ 2.75 lakh was paid for conducting the 'trainers for training course'.

In reply (August 2014), Nodal Officer stated that the matter was concerned with the SDA. However, the SDA stated (September 2014) that its responsibility was limited to arrangement of funds only and inadequate utilisation of training facilities was not in the scope of the SDA. This was indicative of lack of co-ordination between SDA and the Department.

Recommendation: The Department should focus on providing more trained manpower to ensure implementation of the CCTNS-specific programmes.

2.6.6.7 Non-providing of the connectivity by BSNL

As per Service Level Agreement (SLA) signed (May 2012) between the Department, GoB and Bharat Sanchar Nigam Limited (BSNL) Bihar Telecom Circle, BSNL was to provide:

- The required bandwidth to all Police Stations (PS) and Higher Offices (HO) including the State Headquarters, District Police Offices, Commissionerate, Range Offices, Circles, SCRB etc. of Bihar through different networks that include connectivity on the State Wide Area Network (SWAN) via Point to Point Leased Line (P2PLL) from the SWAN Point of Presence (PoP);
- The connectivity on BSNL network for the locations which was not feasible on SWAN was via BSNL's VPNoBB⁹, WiMAX¹⁰ and VSAT¹¹ technologies;
- Multiprotocol Label Switching (MPLS) connectivity at SDCs, DRC and National Data Centre (NDC).

Further, BSNL was to provide network connectivity to 1234 sites situated in 1046 police premises across the State of Bihar by February 2013.

BSNL did not provide network connectivity to all CCTNS sites

Scrutiny of records disclosed that BSNL provided network connectivity to 743 premises only. Out of these, only 514 premises gave ping¹² report. However, an advance payment of ₹ 89.80 lakh was released (September 2012) to BSNL according to the terms of SLA. It was also noticed that 66 CCTNS sites which were co-located alongwith SWAN was also not connected with the SWAN PoPs.

The BSNL replied (November 2014) that connectivity was stopped on request of Nodal Officer (May 2014) to keep the commissioned sites in safe custody. However, the SDA stated (September 2014) that a letter regarding connecting of 66 co-located sites from SWAN, PoPs had been submitted to the Department of IT, GoB for approval.

The reply of BSNL was contrary to the facts, as BSNL had to provide connectivity to all sites by February 2013. Thus, the network connectivity to the identified sites could not be provided even after 16 months of stipulated date of completion.

2.6.6.8 Monitoring and assessment of performance

As per RFP, SI was to design, implement/customise the Enterprise and Network Management System (EMS) and was to develop any additional tools required to monitor the performance indicators listed under the SLA. Further, EMS was to provide end to end performance, availability, fault and event and impact management for all enterprise resources that encompasses the heterogeneous networks, systems, applications, desktops and databases present in the system.

⁹ Virtual Private Network over Broadband

¹⁰ World Wide Interoperability for Microwave Access

¹¹ Very Small Aperture Terminal

¹² Ping (networking utility), is a computer network tool used to test whether a particular host is reachable across an IP network.

EMS was not installed to monitor the performance indicators listed under SLA

During test check, it was observed that the EMS system which was critical component of the project was not installed by the SI. In the absence of EMS, the Department was not in a position to measure the response time of Portal, transaction handling capacity of application server in terms of number of concurrent connects, uptime of data centre/Servers, meantime for restoration of Data Centre Services etc. and also unable to charge liquidated damages for lesser network availability, if any.

In reply (August 2014), Nodal Officer stated that the matter was concerned with the SDA. The SDA accepted (September 2014) that EMS was not installed by the SI.

2.6.7 Conclusion

- The CCTNS project could not get launching pad in the State due to delay in creation of infrastructure and the objective of the project to share crime and criminal's database across the country at the State and Central level on real-time basis was not achieved;
- Core Application Software was not customised and Digitisation of legacy data was not done;
- Instead of comprehensive training to all, only basic training was provided to limited number of police personnel;
- Network connectivity envisioned from police station to NCRB level is yet to be materialised.

URBAN DEVELOPMENT AND HOUSING DEPARTMENT

2.7 Long Paragraph on 'Patna Municipal Corporation-Solid Waste Management and Approval of Building Plans'

2.7.1 Introduction

The Patna Municipal Corporation (PMC), Patna was established on 15 August 1952. It covers an area of 109.218 sq. km. with a population of 1683200 (Census 2011) and the area is divided into four circles consisting of 72 wards. The statutory function of the PMC is to provide civic amenities under its jurisdictional area (*Appendix-2.7.1*). For carrying out these functions, the PMC is empowered to impose various taxes and fees on holdings, water connection, profession, advertisement etc., as per Section 126 to 136 of the Bihar Municipal Act (BMA), 2007. Section 65 and 66 of BMA, 2007 empowers the State Government to call for records and depute officers to make inspection of the records of PMC.

The long paragraph covered activities under two core functions of the PMC viz. Solid Waste Management (SWM) and approval of Building Plans for the period 2009-14. The audit was conducted during May to September 2013 and July 2014.

2.7.2 Organisational set-up

The PMC is governed by a council of Councillors headed by the Mayor and assisted by the Commissioner who is the Chief Executive Officer. The organisational set-up of the PMC is given in *Appendix-2.7.2*.

2.7.3 Constraints

The PMC did not maintain key records as required under the BMA, 2007 and Bihar Municipal Accounts Rules, 1928 (*Appendix-2.7.3*) and provided replies to 74 audit memos only out of 209 issued. Of the total 7865 building plans sanctioned during January 2009 to December 2013, records of only 700 sanctioned plans were produced for audit despite several reminders.

Audit findings

2.7.4 Solid Waste Management

Solid Waste Management (SWM) is the collection, storage, segregation, transportation, processing and disposal of municipal solid waste. The management of municipal waste is governed by Municipal Solid Waste (Management and Handling) Rules 2000 (MSW Rules) which entrusts the responsibility of managing solid waste with municipal authorities, State Pollution Control Board (SPCB) and the State Government.

2.7.4.1 Financial Management under SWM

The resource base of the PMC was the grants released by the State Government, Central Finance Commission (CFC) grants, grants under Centrally Sponsored Scheme (CSS) and revenue from its own resources. During 2009-14, PMC received ₹ 56.82 crore¹ under XII Finance Commission

¹ TFC- ₹2.98 crore and ThFC- ₹53.84 crore.

(TFC) and XIII Finance Commission (ThFC) for SWM while PMC had ₹ 36.01 crore as opening balance in 2009-10. Against this, PMC incurred an expenditure of ₹ 53.83 crore during 2009-14. The expenditure incurred by the PMC for SWM from other sources could not be ascertained in audit, as accounts were not maintained.

PMC could not utilise the available funds and spent negligible amount as capital expenditure

It was, however, observed in audit that out of total expenditure incurred for SWM, ₹ 0.59 crore² (one *per cent*) only was incurred for expenditure of a capital nature and the balance amount was spent on revenue expenditure. Further, the grants received from GoB (₹ 19.35 crore) and GoI (₹ 4.62 crore) during the year 2006 to 2008 with interest (₹ 12.04 crore) on the unutilised funds reflected as opening balance of ₹ 36.01 crore were also not utilised till September 2014.

As a result, PMC failed to provide infrastructure facilities at land filling sites and purchase processing plant, vehicles etc. for SWM.

• ***Diversion of funds earmarked for SWM***

PMC diverted the earmarked funds of SWM for other expenditure

Scrutiny revealed that New Capital Circle (NCC) of the PMC spent ₹ 64.42 lakh out of the ThFC grant earmarked for SWM during December 2011 to October 2013 which included expenditure on purchase of High Speed Diesel (₹ 52.58 lakh) and petrol (₹ 10.80 lakh) for fogging³ and running the fogging machine apart from expenditure (₹ 1.04 lakh) on the vehicles for administrative purposes. This expenditure was not covered under SWM and should have been incurred out of the municipal funds. As the entire expenditure was booked under the head 'SWM', this resulted into diversion of funds to the extent of ₹ 64.42 lakh (***Appendix- 2.7.4***). This apart, ₹ 38.82 lakh⁴ earmarked for SWM out of the TFC grant was diverted for purchase of Walky-Talky and Biometric Attendance Machine.

On this being pointed out, the Executive Officer, NCC replied (January 2014) that amount would be recouped from the municipal funds. The Additional Municipal Commissioner (AMC) also stated in the exit conference (October 2014) that the diverted amounts would be recouped.

2.7.4.2 Assessment, collection, segregation and storage of municipal solid wastes

In pursuance of the MSW Rules, the PMC was required to ensure that all the generated solid wastes were collected. Further, to curb littering and facilitate compliance, the PMC was required to arrange house-to-house collection of municipal solid wastes through any of the methods like community bin collection (central bin) and collection on regular/pre-informed timings. As per the MSW Rules, the municipal authority was to organise awareness programmes for segregation of wastes and promotion of their recycling and reuse in phased manner ensuring community participation. The municipal authorities were also required to establish and maintain storage facilities of

² Construction of road and culvert- ₹0.29crore; and ₹0.30 crore for purchase of hand cart

³ It is spreading of smoke of mixture of diesel and Malatheaon for removing mosquitoes.

⁴ Walky-Talky- ₹18.09 lakh; Biometric Attendance Machine- ₹20.73 lakh

House to house collection and segregation of wastes was not done by PMC

waste in such a manner that they do not create unhygienic and insanitary conditions around it.

Scrutiny disclosed that house-to-house collection and segregation of wastes was not being done and most of the wastes were collected from road side only by the PMC. The PMC did not organise any awareness programme ensuring community participation for segregation of waste during 2009-14. It was also seen that the PMC did not have records of generation of solid waste during the period. On being asked, the PMC furnished assessment of generation of 1230 tonnes⁵ of waste per day in the city which was almost twice the estimation of 623 tonnes⁶ on the basis of the Central Pollution Control Board (CPCB) norms⁷. However, the PMC did not come up with any supporting documents or basis of estimation of 1230 tonnes wastes (July 2014) being generated daily.

It was further noticed that against requirement of 3075 bins of capacity of 0.4 tonnes each, a meagre 100 bins were provided by the Corporation for all the 72 wards (November 2012) which was not adequate for the estimated quantity of 1230 tonnes wastes being generated each day. Thus, despite availability of funds as discussed in earlier paragraph, required numbers of bins were not procured and all types of solid wastes lay un-segregated on ground in open place creating unhygienic and filthy environment.

In exit conference (October 2014), the AMC agreed with the audit observation and stated that process was on to outsource the sanitation works for better management. He further added that adequate number of dustbins would be procured soon and installed in wards.

Recommendation: The PMC should ensure collection, segregation, storage and recycling of wastes in accordance with the MSW Rules.

2.7.4.3 Transportation of solid wastes to unauthorised landfill sites

The MSW Rules envisage that covered vehicles should be used for transportation of wastes. Wastes should not be visible to public, nor exposed to open environment. Transportation vehicles should be so designed that multiple handling of wastes, prior to their final disposal, is avoided. The Rules further provide that landfill site should be away from habitation clusters, forest areas, water bodies, National Parks etc. and should be authorised by the State Pollution Control Board (SPCB). Dumping grounds must contain essential facilities viz., fencing, gate and office to keep records, fire fighting tools, weighing bridge to weigh the garbage, drinking water and lighting arrangement.

Scrutiny of records disclosed that the PMC purchased covers for 103 vehicles only though 154 vehicles were plying for transportation of waste in May 2012. Thus, 51 vehicles were still running without cover in contravention of the MSW Rules. It was also observed that of the total 81 vehicles owned by the PMC, 44 vehicles were plying without registration. It was further observed

⁵ New Capital Circle-440 tonnes, Patna City Circle-240 tonnes, Bankipur Circle-360 tonnes, Kankarbagh Circle-190 tonnes

⁶ $1683200 \times 0.37 \text{ Kg} = 622783 \text{ Kg}$ or say 623 tonnes

⁷ Central Pollution Control Board (CPCB) assessed (2004-05) the generation of waste per day per capita in Patna as 0.37 kg in a survey.

The generated wastes were dumped at other than identified land fill sites

that the identified landfill site at Ramachak Bairia of PMC was a habitation cluster and lacked all essential facilities stipulated for a dumping ground. Besides, the said landfill site was being operated without authorisation from the SPCB till November 2013.

Audit scrutiny further revealed that the PMC was transporting 1129 tonnes⁸ against 1230 tonnes wastes being generated per day and dumping solid wastes at five other sites⁹ than the identified landfill site which were habitation clusters. Thus, 101 tonnes wastes per day were not being lifted/transported from the residential areas. Resultantly, the PMC failed to maintain hygienic and sanitary conditions in the residential areas.

In the exit conference (October 2014), the AMC assured that dumping of wastes at unauthorised places would be stopped. The AMC also stated that necessary steps would be taken soon to ensure essential facilities at dumping grounds. However, no reply was provided for non-clearance of 101 tonnes of wastes per day from residential areas.

2.7.4.4 Non-establishment of processing unit for waste treatment

The MSW Rules provide that municipal authorities shall adopt suitable technology or a combination of such technologies to make use of wastes so as to minimise burden on landfill. Mixed waste containing recoverable resources should be recycled.

PMC did not establish processing unit for treatment of wastes despite availability of funds

Audit noticed that the PMC did not establish processing unit for treatment of waste despite availability of funds¹⁰. Though the SPCB had authorised the PMC (December 2013) for setting up and operating waste processing and disposal facilities under MSW Rules, no processing unit was set-up till July 2014 and amount of ₹ 23.10 crore available for the purpose remained unutilised. As a result, solid wastes were being dumped at open places without any treatment which could prove hazardous to human beings as well as entire ecosystem. A research published (2011) in 'International Journal of Environmental Technology and Management' stated that Methane, Hydrogen sulphide and Dioxin were much beyond the limits at dumping sites in Patna.

In the exit conference (October 2014), the AMC assured that necessary steps would be taken in this regard.

2.7.4.5 Irregular payment on account of supply of fuel / hire charges

The PMC released funds to its four Circles to meet expenditure on SWM. These Circles issued oil coupons, duly signed by the Health Officer/Chief Sanitary Inspector, daily to the drivers in duplicate (one for petrol pumps and other for official records) for supply of fuel to the vehicles used for transportation of wastes and other sanitation purposes. For private vehicles, hire charges were paid as per rate fixed by the PMC. At the end of the month, payments were made to the owner of petrol pumps and owners of private

⁸ Bankipur Circle-355 tonnes, Kankarbagh Circle-180 tonnes, New Capital Circle-374 tonnes and Patna City Circle-220 tonnes

⁹ 70 feet By-Pass road, LCT Ghat (water bodies), Digha Aam Bagicha (park), Betaura and Digha Nepali Nagar (cluster)

¹⁰ Received ₹23.10 crore in January 2008

vehicles based on bills submitted by them by the Executive Officer of the Circles after verifying the bills.

As per records made available in audit, a total sum of ₹ 20.76 crore, ₹ 22.33 crore and ₹ 7.56 crore were spent for wages, fuel and hiring of vehicles respectively during 2009-14. Test check of payment bills of petrol pump and hiring of vehicles disclosed the following irregularities:

- An amount of ₹ 1.02 lakh was paid to three drivers against claims of hiring/fuel charges for different vehicles driven by them on the same day and time in the same Circle (*Appendix-2.7.5*).
- Fuel charges of ₹ 5.91 lakh was paid for the vehicles that were neither hired nor owned by the PMC (*Appendix-2.7.6A*). On this being pointed out in audit, the PMC furnished a fresh list of vehicles bearing new registration numbers stating them as the correct ones. But the registration numbers of these vehicles also did not match with the hired/owned vehicles of the PMC (*Appendix-2.7.6B*).
- Fuel bill of ₹ 0.20 lakh pertaining to the period from 26 August to 25 September 2012 was shown as paid for a vehicle parked in the New Capital Circle office compound since May 2012.
- Hire and fuel charges amounting to ₹ 4.13 lakh was paid for six vehicles during 27 December 2012 to 10 January 2013, though no loaders were engaged for loading wastes during this period. Of the six vehicles, two were also shown as engaged in Bankipur Circle during January 2013 for which ₹ 4.13 lakh was paid (*Appendix-2.7.7*).
- As per log book of 12 vehicles, 21555 litres of diesel were consumed during April 2012 to January 2013 whereas fuel payments were made for 36115 litres. This resulted in excess payment of ₹ 6.42 lakh (*Appendix-2.7.8*).
- Payments for diesel were made for the same vehicle through different serial numbers in the same bill for the same period which resulted in excess payment of ₹ 4.32 lakh to petrol pumps for purchase of diesel (*Appendix-2.7.9*).
- Two Hivas¹¹ and one JCB¹² were shown carrying solid wastes from Secondary Dumping Ground (Biscoman, Agamkuan) to Primary Dumping Ground (Ramachak Bairiya) in Patna City Circle during October 2012 to July 2013 and ₹ 41.66 lakh was paid for plying of these vehicles for 298 days. However, the log book of vehicles revealed that only 5305 trips of tractors containing solid wastes were dumped by two to 12 tractors only at Biscoman during this period. These wastes could have been disposed of by one Hiva and one JCB at

¹¹ NL02G 4869 and BR1GB 1217

¹² BR1GA 8004 (October 2012 to June 2013), 3DX-1718517 (22 June 2013 to 31 July 2013).

a cost of a ₹ 32.21 lakh only and an excess amount of ₹ 9.45 lakh¹³ was paid for the Hiva/JCBs.

- The vehicles engaged in New Capital Circle were shown plying 680 km to 1120 km in the city within eight hours (from 6 AM to 2 PM) for collection and disposal of wastes and were supplied fuels ranging from 85 to 140 litres per day. However, the hired vehicles engaged by the PMC for the same period were plying 120 Km only and were being supplied fuel at 40 litres per day on an average basis. Thus, excess quantities of fuel were supplied to 21 vehicles during August 2011 to March 2013 (*Appendix- 2.7.10*).

During exit conference (October 2014), the AMC replied that the matter would be investigated soon by constituting a Committee and outcome would be intimated. The AMC subsequently communicated (November 2014) that responses from the Executive Officer of the concerned Circles were still awaited.

Recommendation: PMC should set-up an effective monitoring and internal control mechanism over the expenditure incurred under SWM.

2.7.5 Approval of Building Plans

As per Section 314 of the BMA, 2007, no person shall construct or commence to construct, any building or structure of permanent nature or execute any work relating to construction of building or undertake any alteration, addition or modification of an existing building unless the building plan is approved by a certified Architect registered under Architects Act 1972. However, no Architect shall sanction any building plan unless it is in conformity with the Building Bye-laws (BBL) framed by the State Government/Municipality.

The cases of violations of the BBL, loss of revenue and other irregularities noticed in course of test check of 700, out of total 7865 building plans (sanctioned during January 2009 to December 2013) are discussed in succeeding paragraphs.

2.7.5.1 Loss of revenue

- ***Non realisation of Development Permit Fee***

Bye-laws no. 6.1 of the BBL incorporates that no application for development permit as required under the Bye-laws 4.1 shall be deemed valid unless and until the applicant pays fees as per scale given in the Bye-laws (₹ 1500-₹ 5000 as per development area) and an attested copy of the receipt of such payment is attached with the application.

Audit scrutiny revealed that 7865 number of building plans for development of area up to one hectare were sanctioned (January 2009 to December 2013) by the PMC/Architects. However, neither the PMC nor the Architects recovered the development permit fee while approving the building plans.

PMC did not realise Development Permit fee while approving Building Plans during January 2009 to December 2013

¹³ Expenditure incurred on one Hiva bearing no. NL02 4869 amounted to ₹ 9.45 lakh.

This resulted in PMC sustaining loss of revenue of ₹ 1.18 crore¹⁴ during January 2009 to December 2013.

On this being pointed out, the PMC did not furnish any reply.

- **Loss of mutation fee**

Rule 20 of Patna Regional Development Authority (PRDA), Disposal of Land Rules, 1978 stipulates that no plot or part thereof leased by the Authority shall be transferred by sale or gift within a period of 10 years from the date of lease without the permission of the Authority. Further, it is provided that the intention to transfer of land along with the conditions of lease shall be indicated in writing to the Authority well in time before the transfer of the land takes place even in cases where the period of 10 years have expired. Provided further that the Authority shall have the first right to resume the land after reimbursing the premium paid by the allottee together with an interest of six *per cent* per annum or the allottee shall pay a mutation fee equal to 50 *per cent* of excess of sale price over the premium. The transferred plots were to be used for residential purpose only.

Scrutiny of records of building plans revealed that in six cases, where plots were leased by the PRDA (dissolved and now under the PMC), the lessee executed agreements (October 2008 to June 2011) with private developers without permission of the Authority for construction of multi-storey buildings.

The PMC neither exercised its first right to resume the land after reimbursement of premium and interest thereon nor realised mutation fee from the lessee as provided under the rules. This resulted in loss of revenue of ₹ 2.04 crore (*Appendix-2.7.11*).

In exit conference, the AMC replied that the matter would be investigated and action would be taken accordingly.

2.7.5.2 Violation of Building Bye Laws

Bye-laws of the BBL provides that the height of the building shall be governed by the limitations of Floor Area Ratio (FAR)¹⁵ (BBL 21.1), open spaces and the width of street fronting the plot. Rule 19 (Note 10 and 11) of the BBL provides that any building more than 15 meters in height shall face a minimum 12 meters wide existing road and building with more than 11 meters and upto 15 meters in height shall face minimum six meters wide existing road. The BBL requires that the exterior open space shall be provided within the plot boundaries at the front, rear and sides of residential building with different plot widths and heights as per the minimum requirement specified.

Bihar State Housing Board (BSHB) Regulation, 1982 envisages that no person shall erect, re-erect, construct, add to or alter any building or wall or commence to do so either on land or building owned by him or allotted to him

¹⁴ Loss worked out by considering minimum rate of development fee ₹ 1500 up to one hectare plot

¹⁵ Floor Area Ratio (FAR)-The quotient obtained by dividing the total covered area (plinth area) on all floors by the area of plot is termed as Floor Area Ratio (BBL 2.32). Considering the factors like density of population, state of availability of infrastructure, potential for development etc., the FAR for different use group has been fixed in the Bye-law no.21.1 of BBL

by the Board without prior sanction of the Managing Director by submitting a plan showing the proposed construction and provided that the proposed construction is in conformity with rules, regulations and bye-laws framed under the provisions of this Act.”

Audit noticed the following discrepancies in sanctioning the building plans by the PMC:

Building bye-laws were violated during approval of Building Plans

- In 17 cases, building plans were sanctioned with FAR in excess of admissible limit which resulted in reduction of the open area prescribed in the BBL (*Appendix- 2.7.12*);
- In 22 cases, plans were sanctioned for construction of buildings with height more than 15 metres although the width of street in front of the plots was less than 12 metres. Three plans were sanctioned with building height of 11 to 15 meters but width of the road was less than six meters (*Appendix-2.7.13*).
- In 15 cases, plans were sanctioned in violation of provisions of the BBL without ensuring minimum required set back ranging from 0.18 to 3.5 meter (*Appendix- 2.7.14*).
- In 30 cases, building plans were sanctioned by the Architects of the PMC without obtaining ‘No Objection Certificate’ (NOC) from the BSHB resulting in construction of multi-storeyed building over BSHB plots (*Appendix-2.7.15*).

In exit conference (October 2014), it was replied by the AMC that the matter would be investigated and action would be taken accordingly.

2.7.5.3 Other Issues

Certified Architects of PMC did not conduct required inspection of the sanctioned 6797 Building Plans

- ***Inspection of buildings under construction not done***

Section 318 of the BMA, 2007 stipulates that every registered Architect, who has approved building construction plan, shall periodically inspect construction of such building or structure of permanent nature approved by him and if he is satisfied that construction of building is in breach or violation of building construction plan approved by him, he shall immediately report to the Chief Municipal Officer about such violation. Specific directives were also issued by the State Government (July 2009) for inspection of buildings under construction, wherein it was mandated that Certified Architects should inspect the work site.

Audit scrutiny revealed that the required inspection was not carried out in respect of 6796 plans sanctioned by the certified Architects during July 2009 to December 2013. In the absence of periodical inspection reports, the PMC failed to ensure that buildings were being constructed as per plans sanctioned by the Architects.

- ***Completion and Occupancy Certificate***

Provisions contained in the BBL envisage that on completion of the work, the registered technical person shall give notice to the Authority regarding status of completion of the building in prescribed form and no building erected, re-erected or altered materially shall be occupied in whole or in part until the issue of an occupancy certificate by the Authority (the Commissioner) affirming that such building is fit for occupation (Bye-laws no. 13.1).

Audit scrutiny revealed that in none of the cases, neither the completion certificates were submitted by the technical personnel undertaking preparation of plans nor the occupancy certificates were issued by the PMC.

- ***Sanction of plan by unauthorised Architects***

The BBL provides that the qualified technical personnel or group shall be licensed by the Authority as Architect, Engineer, Town Planner and Draftsman and the licence shall be valid for one year after which it shall be renewed annually.

Audit scrutiny revealed that 40 and 11 Architects were registered by the State Government and the PMC respectively during the year 2009 for the sanction of building plans within the jurisdiction. However, licences of these Architects were not renewed since 2010 and they were allowed to sanction plans till December 2013.

In exit conference (October 2014), the AMC replied that the matter would be investigated and action will be taken accordingly.

Recommendations: PMC should ensure that Development permit fee and Mutation fee is recovered and Building bye-laws should be strictly adhered to while sanctioning the building plans.

2.7.6 Conclusion

- The PMC did not have an adequate solid waste management system as house to house collection, segregation and recycling of wastes were not being done. Processing plant was not set-up and garbage was being dumped at unauthorised landfills.
- The monitoring of expenditure under SWM was inadequate as several cases of irregular payment of fuel bills and hire charges were noticed in audit.
- Building Bye-laws were not followed while approving the building plans as plans for inadmissible Floor Area Ratio/multi-storey buildings were approved without considering width of public roads.
- Development permit fee and Mutation fee were not realised by PMC while approving the building plans.