

CHAPTER II
PERFORMANCE
AUDIT

CHAPTER-II

PERFORMANCE AUDIT

ENVIRONMENT AND FOREST DEPARTMENT

2.1 *Working of the Bihar State Pollution Control Board*

Executive summary

Introduction

The Bihar State Pollution Control Board (BSPCB) is the main agency in the State for enforcement of environmental law and responsible for formulation of policy for prevention, control or abatement of pollution. The BSPCB, like other State Boards has been performing its functions enumerated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

(Paragraph 2.1.1)

Survey and planning

The BSPCB did not conduct any survey to identify the polluting industries in the State. Consequently, the BSPCB could not inventorise the polluting industries and failed to draw up any comprehensive plan for preventing or controlling water and air pollution.

(Paragraph 2.1.6)

Financial Management

BSPCB could utilise only 23 to 40 *per cent* of its available funds while its capital expenditure ranged between 0.1 to 29 *per cent* of the total expenditure. Neither the local authorities, entrusted with the duty of supplying water, furnished the water consumption report nor did the Board assess the Water Cess payable by them (except 11 Municipal Corporations for the period April 1978 to March 2014).

(Paragraph 2.1.7 & 2.1.8.2)

Consent Management

BSPCB had not maintained Consent Register. Resultantly the information relating to total number of consents granted by the BSPCB in the State could not be scrutinised in audit.

(Paragraph 2.1.9.1)

Implementation of pollution control measures

Out of 140 local bodies, only four local bodies in four districts had Sewage Treatment Plants (STPs) and BSPCB did not initiate any action according to the provisions of Acts to treat the flow of sewage water in remaining 34 districts of the State. Further, out of existing seven STPs, two were non-functional and five were not working according to their potential. Almost all the municipal authorities in the State were not complying with the provisions of Municipal Solid Wastes Rules, 2000 and BSPCB failed to issue directions to all of them. Out of identified Health Care Establishments (HCEs), 1209

HCEs and all veterinary institutions in the State were not authorised by the BSPCB. The BSPCB had also not conducted survey or approached concerned departments to get the information about total number of industries generating hazardous waste in the State.

(Paragraph 2.1.11, 2.1.12, 2.1.13 and 2.1.14)

Environmental Laboratory

The Central Laboratory, Patna was functioning without accreditation. The equipment/instruments required for analysis of samples of waste and water/air pollutants were also not available in the Laboratory.

(Paragraph 2.1.15)

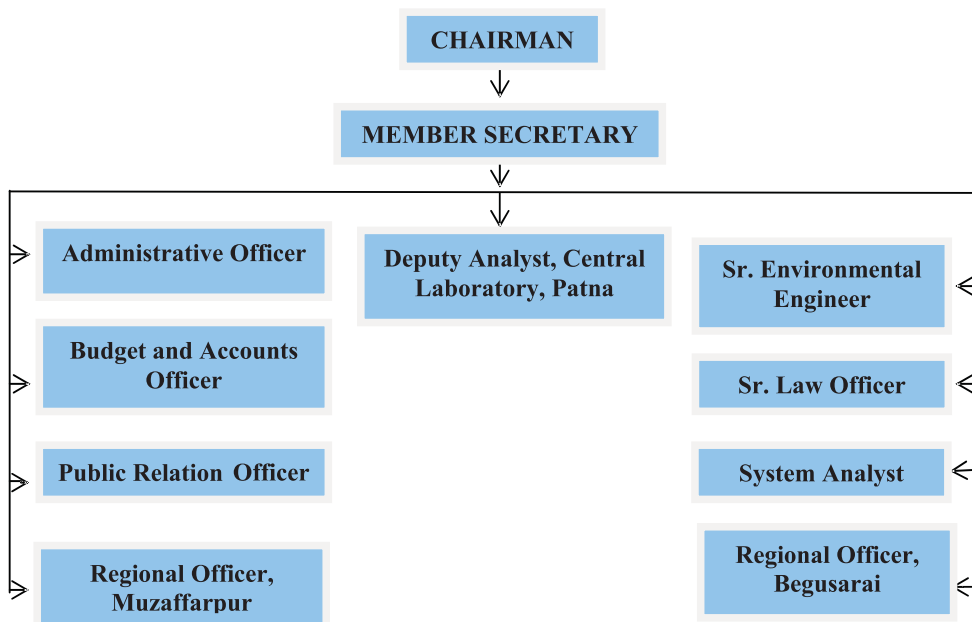
2.1.1 Introduction

The Bihar State Pollution Control Board (BSPCB) was constituted (November 1974) under Section 4 of the Water (Prevention and Control of Pollution) Act, 1974 enacted by the Parliament. The objectives of the Act included prevention and control of water pollution and maintaining or restoring of wholesomeness of water. In 1981, the BSPCB was entrusted with the responsibility of control of air pollution under the provisions of Air (Prevention and Control of Pollution) Act, 1981. The Environment (Protection) Act, 1986 enacted by the Parliament further widened the scope of the activities of the BSPCB. The above Acts empowered the State Board to grant or refuse consent to establish an industrial unit and also to inspect any premises, plant, equipment, machinery etc. for prevention, control and abatement of environmental pollution. With a view to augment the resources of the Central Board and the State Boards for prevention and control of water pollution, the Water (Prevention and Control of Pollution) Cess Act, 1977 was enacted (December 1977) by the Parliament to provide for the levy and collection of a cess on water.

2.1.2 Organisational set-up

The BSPCB is headed by the Chairman who is assisted by a Member Secretary. There are two regional offices located at Muzaffarpur and Begusarai headed by Regional Officers who report to Member Secretary. The Central Laboratory in Patna and two laboratories in the Regional Offices are responsible for analysis of samples collected from industrial units and sites. The Research and Development (R and D) wing in Central Laboratory, Patna assists the industries in solving the problems associated with the environmental pollution. The organogram of the BSPCB is given in **Chart no. 2.1.1** below:

Chart no: 2.1.1
Organogram of the BSPCB



(Source: - Information provided by the BSPCB)

2.1.3 Audit objectives

The audit objectives aimed to assess and evaluate whether:

- The Bihar State Pollution Control Board had planned a comprehensive programme for the prevention, control and abatement of pollution in the State;
- Funds/grants made available were adequate to the requirement and were utilised efficiently and effectively;
- Pollution control measures as envisaged in different Pollution Control Acts were implemented economically, efficiently and effectively;
- Effective monitoring mechanism was in place to enforce control of pollution, and
- Adequate manpower was available to monitor the prevention and control of all types of pollution in Bihar.

2.1.4 Audit criteria

The performance audit on Working of the BSPCB was benchmarked against the criteria derived from the following sources:

- The Water (Prevention and Control of Pollution) Act, 1974 and Rules framed thereunder;
- The Water (Prevention and Control of Pollution) Cess Act, 1977 and Rules framed thereunder;
- The Air (Prevention and Control of Pollution) Act, 1981 and Rules framed thereunder;

- The Environment (Protection) Act, 1986 and Rules framed thereunder;
- Biomedical Waste (Management and Handling) Rules, 1998;
- The Central Motor Vehicles Rules, 1999 notified under the Motor Vehicles Act, 1988; and
- Bihar Financial Rules, 2005 (Revised), Bihar Treasury Code, 2011 and General Financial Rules, 2005 (Revised).

2.1.5 Scope and methodology of audit

During the performance audit, records of the BSPCB, Patna and Central Laboratory at headquarters' level along with two Regional Offices cum laboratories at Begusarai and Muzaffarpur for the period 2009-14 were test checked during April to September 2014. Besides, information was also collected from Ministry of Environment and Forest, Government of India (GoI), the Animal and Fisheries Resources Department, Government of Bihar (GoB), the Urban Development and Housing Department, GoB, Bihar Rajya Jal Parshad, Bhagalpur and Common Bio-medical Waste Treatment Facility operators of Patna, Bhagalpur and Muzaffarpur.

Audit methodology included examination and analysis of records, issuance of questionnaire, queries, interaction with officers of the BSPCB and consideration of replies to the audit memos issued etc. In this regard an entry conference was held in April 2014 with the Member Secretary, BSPCB. The exit conference was held in December 2014 with the Additional Secretary, Environment and Forest Department, GoB and the Member Secretary, BSPCB. The replies and views expressed in the exit conference were incorporated at appropriate places for balanced reporting.

Audit Findings:

2.1.6 Survey and planning

As per Water (Prevention and Control of Pollution) Act, 1974 (Water Act) and the Air (Prevention and Control of Pollution) Act, 1981 (Air Act), the BSPCB was required to plan comprehensive programmes for prevention and control of water and air pollution and secure the execution thereof. For this purpose, identification of the polluting sources and the type and quantity of pollutants discharged into environment was to be done. The resultant inventory was to form the basis for planning pollution prevention/abatement programmes.

Scrutiny (July 2014) revealed that the BSPCB neither prepared any comprehensive plan nor conducted any survey to identify the polluting industries to prevent, control and abate water and air pollution as envisaged under Water and Air Acts during the period 2009-14. The BSPCB was also not maintaining any inventory of polluting industries for planning programmes to prevent and control pollution in the State.

Similarly, the identification of hospitals and other health care establishments under Biomedical Waste (Management and Handling) Rules, 1998 were not done. As the BSPCB did not identify the industries operating in the State, they could not prepare a state-wide inventory of industries under Plastic Manufacture, Sale and Usage Rules, 1999, Battery (Management and Handling) Rules, 2001, Hazardous Waste (Management, Handling and

The BSPCB neither prepared any comprehensive plan nor conducted any survey during the period 2009-14 to identify polluting industries including health care establishments to prevent, control and abate water and air pollution

Transboundary Movement) Rules, 2008 (Hazardous Waste Rules) and e-Waste (Management and Handling) Rules, 2011.

The Member Secretary agreed (October 2014) with the audit observation and stated that the BSPCB has initiated the tendering process for survey and inventorisation of industries as well as Health Care Establishments (HCEs) in 2014-15.

Recommendation: The BSPCB should conduct a survey of industries and plan a comprehensive programme for prevention, control and abatement of pollution.

2.1.7 Financial Management

Financial resources of the BSPCB comprised of financial assistance from the Central Pollution Control Board (CPCB), GoI, GoB, reimbursement of Water Cess by GoI, consent fee and authorisation fee etc. as given in **Table 2.1.1** below:

Table 2.1.1: Statement of financial resources of the BSPCB

(₹ in crore)

Year	Opening balance	Assistance from CPCB and GoI	Reimbursement of water cess	Assistance from GoB	Internal resources of BSPCB			Total available funds
					Consent Fee	Authorisation Fee	Other resources ¹	
2009-10	13.22	2.43	0.65	5.40	2.76	0.03	2.38	26.87
2010-11	19.43	2.43	0.72	0.00	3.31	0.04	2.98	28.91
2011-12	18.85	2.43	0.59	0.97	5.31	0.06	6.98	35.19
2012-13	21.26	0.06	0.00	2.00	8.65	0.05	4.87	36.89
2013-14	28.23	2.36	2.54	4.50	10.27	0.03	6.27	54.20
Total		9.71	4.50	12.87	30.30	0.21	23.48	

(Source: Information provided by the BSPCB)

Note: Figures from 2010-11 to 2013-14 are unaudited

The utilisation of available funds of the BSPCB is provided in **Table 2.1.2** below:

Table 2.1.2: Statement of utilisation of available funds

(₹ in crore)

Year	Total available funds	Project Expenditure	Capital Expenditure	Revenue Expenditure	Total Expenditure	Closing Balance	Percentage of utilisation of funds with total available funds
2009-10	26.87	3.04	0.01	4.39	7.44	19.43	28
2010-11	28.91	4.59	0.01	5.46	10.06	18.85	35
2011-12	35.19	4.91	1.03	7.99	13.93	21.26	40
2012-13	36.89	0.70	0.67	7.29	8.66	28.23	23
2013-14	54.20	2.98	5.57	10.46	19.01	35.19	35
Total		16.22	7.29	35.59	59.10		

(Source: Information provided by the BSPCB)

- From the **Table 2.1.2**, it was evident that the BSPCB utilised only 23 to 40 *per cent* of available funds despite its failure to provide infrastructure facilities for setting up of air quality monitoring stations as discussed in **paragraph 2.1.10.2**.

¹ Calibration fee, Interest on deposits and sale of application forms etc.

- The capital expenditure ranged between 0.1 and 29 *per cent* of the total expenditure resulting in non-availability of basic/specific equipment to analyse the samples as discussed in the succeeding paragraph.
- It was noticed that GoB sanctioned ₹ 57.75 lakh (2009-10) for creation of facilities for analysis of municipal solid waste (MSW) and hazardous waste (HW). However, the equipment was not procured by the BSPCB due to technical reasons and funds were surrendered. In absence of required equipment, the analysis of MSW and HW were not being done. The Chairman while accepting the facts replied that due to single eligible bidder, the CPCB was requested for guidelines in this regard and amount was refunded to the GoB.
- It was further observed that unspent balances were kept in fixed deposits and current accounts of bank. The details of year-wise amount kept in the fixed/current account of bank are given in **Table 2.1.3** below:

Table 2.1.3: Amount kept in fixed /current account

(₹ in crore)

Year	Unspent balances during the year	Investment in fixed deposits	Amount kept in current accounts
2009-10	19.43	11.88	7.43
2010-11	18.85	12.63	4.92
2011-12	21.26	14.10	6.24
2012-13	28.23	19.34	8.08
2013-14	35.19	23.76	10.58

(Source: Information provided by the BSPCB)

In absence of any investment policy, the BSPCB kept a portion of the funds in current accounts bearing no interest

Audit scrutiny revealed that in the absence of any investment policy, the BSPCB kept a portion of the funds in current accounts bearing no interest. This resulted in loss of interest of ₹ 68.50 lakh² (*Appendix-2.1.1*) as funds under Fixed Deposits attract interest.

In exit conference (December 2014), the Additional Secretary stated that the BSPCB had issued orders (September 2014) to transfer unspent balances in excess of ₹ 70 lakh from current/savings accounts to Fixed Deposits.

Recommendation: The BSPCB should initiate steps to utilise available funds for strengthening infrastructure facilities.

2.1.8 Water (Prevention and Control of Pollution) Cess Act, 1977

Under Water (Prevention and Control of Pollution) Cess Act, 1977 (Cess Act) and rules framed thereunder, every person carrying any industry and local authority (entrusted with the duty of supplying water) liable to pay Cess under the Act *ibid*, shall furnish a return showing the quantity of water consumed in the previous month on or before fifth of every calendar month to the assessing authority. However, no definite timeframe for assessment was fixed by the

² Interest calculated on fixed deposit's interest rate (minimum for 90 days) on minimum balance during the year 2009-14.

BSPCB. Scrutiny revealed that the BSPCB had collected ₹ 4.71 crore as Water Cess (out of which ₹ 4.50 crore was reimbursed by GoI) during 2009-14 which was nine *per cent* of its collection from internal resources.

The irregularities noticed in assessment of Water Cess are discussed in the succeeding paragraphs:

2.1.8.1 Assessment of Water Cess

During scrutiny of water consumption returns of eight out of 32 Industries paying Water Cess to the BSPCB during 2009-14, it was noticed that out of 363 returns submitted, only 32 were on due date while there were delays ranging between one and 10 months in respect of 75 cases (*Appendix- 2.1.2*). However, the BSPCB issued notices in only six cases pertaining to two defaulting Industries. Further, 192 out of 363 assessments during 2009-14 were done within 30 days of receipt of return while there were delays of one to seven months in remaining 171 cases (*Appendix- 2.1.3*). Test check also revealed that seven Industries failed to pay Water Cess to the BSPCB within the specified period of assessment.

In exit conference (December 2014), the Additional Secretary stated that efforts were being made in this regard and notices would be issued to Industries and local authorities for submission of water consumption report.

2.1.8.2 Water Cess from Local Bodies

It was noticed that neither the local bodies entrusted with the duty of supplying water furnished the water consumption report under the Cess Act nor the BSPCB assessed the Water Cess payable by them (except 11 municipal corporations³ for the period April 1978 to March 2014).

Neither the Local Bodies furnished the water consumption report to the BSPCB nor did the BSPCB assess the Water Cess payable by them (except 11 municipal corporations)

In respect of 11 municipal corporations for the period April 1978 to March 2014, the BSPCB assessed Water Cess of ₹ 8.70 crore (*Appendix-2.1.4*). However, none of these municipal corporations paid the assessed Cess nor any action was taken by the BSPCB against these defaulters. Further, in respect of the remaining 129 local bodies, no action was so far initiated by the BSPCB either to obtain the water consumption reports or to assess the Water Cess payable by them.

In exit conference (December 2014), the Additional Secretary assured that legal action would be taken against the defaulting local bodies for recovery of Water Cess.

Recommendation: The BSPCB should take steps to recover the outstanding Water Cess from the local bodies.

2.1.9 Consent management

Under Section 25 and 21 of the Water and Air Acts respectively, Consent of the Board was required to establish or take any step to establish any industry, operation or process which was likely to discharge sewage or trade effluent into a stream, well, sewer or on land and to pollute the air by process/emission. These Acts empowered the BSPCB to issue Consents for

³ Ara, Begusarai, Bhagalpur, Darbhanga, Gaya, Katihar, Munger, Muzaffarpur, Nalanda, Patna and Purnea

establishment and operation of industries and their periodical renewal.

2.1.9.1 Maintenance of Register of Consents

According to Section 51 of the Air Act, read with Section 25 of the Water Act, every State Board should maintain a register containing particulars of the persons to whom consent has been granted and the register is open for inspection by any person interested in, or affected by such outlet, land or premises.

Since the BSPCB had not maintained Consent Register, the information relating to total number of consent granted by the BSPCB in the State could not be scrutinised in audit

Scrutiny of records revealed that BSPCB had not maintained Consent Register. It was further observed that out of total internal receipt of ₹ 53.99 crore, the Consent fee amounted to ₹ 30.30 crore (56 *per cent*). However, according to Economic Survey 2013-14, there was 194953 industrial units registered in the State upto September 2013. In absence of Consent Register, the information relating to total number of consents granted by the BSPCB in the State could not be scrutinised in audit.

The Chairman accepted (October 2014) the audit observation and stated that the BSPCB had decided to maintain online Register of Consents.

2.1.9.2 Delay in grant of Consent to industries

According to the Water and Air Acts, prior consent was essential from the BSPCB to establish any industry, operation or process which was likely to discharge sewage or trade effluent into a stream, well, sewer or on land in the State. The consent was to be granted within four months from the date of application, failing which, it would be treated as a deemed consent.

Test check of records revealed that out of 99 test checked cases in which consent was granted by the BSPCB during 2009-14, in 50 cases, consent orders were issued after the stipulated time of four months (*Appendix- 2.1.5*).

In exit conference (December 2014), the Additional Secretary stated that the BSPCB would ensure to issue consents within the stipulated time.

2.1.9.3 Testing of samples

Audit selected files of 381 industries, out of which 180 files were produced to audit. During scrutiny (October 2014), it was noticed that these 180 industries deposited the requisite fee for testing of samples for pollution, but samples of only 35 of them were checked and their reports were submitted after one to 34 months of receipt of the fee. In remaining 145 cases, tests were not necessary in 34 cases whereas no test was conducted in 111 cases though necessary. The statement regarding R and D services rendered in BSPCB during 2009-14 is detailed in **Table 2.1.4**:

Table 2.1.4: Details regarding R & D services rendered by BSPCB

Year	No. of units applied for R and D service	No. of units from whom sample collected	Shortfall
2009-10	869	675	194
2010-11	852	408	444
2011-12	962	489	473
2012-13	1308	276	1032
2013-14	1182	244	938
Total	5173	2092	3081

(Source: Information provided by the BSPCB)

From the above table, it was evident that out of 5173 applications for R & D services from units, samples of only 2092 units were collected by the BSPCB. Further, it was revealed that no inward register for recording details of the pollution samples received was maintained in R & D section. The shortfall in collection of samples and the delay in testing them may harm the environment as the pollution causing emissions of the industries remain undetected.

In reply, the Member Secretary accepted (October 2014) that due to paucity of staff, tests were not conducted. Further, in exit conference (December 2014), the Additional Secretary stated that recruitment process was being expedited to ensure that such events do not occur in future.

2.1.9.4 Submission of Environmental Statement

According to the Environment (Protection) Rules, 1986, every person carrying on an industry, operation or process requiring consent under Section 21 of the Air Act, shall submit an environmental statement for the financial year ending the 31st March to the concerned State Pollution Control Board on or before the 30th day of September every year.

It was found that the BSPCB did not maintain a consolidated data and it could not provide the status of number of industries required to submit environmental statement and actual submission of the environmental statement by industries.

The Member Secretary replied (October 2014) that environment statement was being taken from large and medium industries and now it would be taken from all industries.

Recommendation: *The BSPCB should maintain a Consent Register for keeping details of industries discharging sewage into a water body or polluting air in the State and other related issues.*

Implementation of pollution control measures

2.1.10 Air quality monitoring

2.1.10.1 Presence of Respirable Suspended Particulate Matter (RSPM)

The CPCB initiated (1984) National Air Monitoring Programme (NAMP) to determine status and trends of ambient air quality and to ascertain whether the prescribed ambient air quality standards are violated. NAMP was also meant to identify cities where air pollutants exceeded prescribed standards and to

obtain the knowledge and understanding necessary for developing preventive and corrective measures on the basis of the natural cleansing process undergoing in the environment through pollution dilution, dispersion, wind based movement, dry deposition, precipitation and chemical transformation of pollutants generated. Under NAMP, the BSPCB had monitored ambient air quality at two monitoring stations⁴ located at Patna.

The status of ambient air quality as recorded in these monitoring stations during 2009-14 is detailed in the **Table 2.1.5** below:

Table 2.1.5: Status of ambient air quality in Patna
(Prescribed standard: 60 µg/m³)

Sampling point at Patna	Year	Annual average
		RSPM (µg/m ³)
Gandhi Maidan	2009-10	204
Beltron Bhawan	2009-10	121
Annual average at Patna	2009-10	163
Gandhi Maidan	2010-11	217
Beltron Bhawan	2010-11	162
Annual average at Patna	2010-11	190
Gandhi Maidan	2011-12	202
Beltron Bhawan	2011-12	132
Annual average at Patna	2011-12	167
Gandhi Maidan	2012-13	233
Beltron Bhawan	2012-13	153
Annual average at Patna	2012-13	193
Gandhi Maidan	2013-14	186
Beltron Bhawan	2013-14	118
Annual average at Patna	2013-14	152

(Source: Information provided by the BSPCB)

The presence of RSPM in Patna was beyond the parameters specified by the CPCB

From the above table, it was evident that the presence of RSPM in Patna was to be categorised as critical as per the parameters specified by the CPCB (ranging between 152 µg/m³ and 193 µg/m³ against the standard of 60µg/m³ during 2009-14). One of the main sources⁵ of increase in RSPM was vehicular emission as Patna witnessed steep increase in number of vehicles from 5.16 lakh in 2009 to 9.21 lakh in 2014 (78 per cent).

Further, as per Air Act, the BSPCB was required to advise the State Government on any matter concerning the prevention, control or abatement of air pollution. However, the BSPCB informed the Department about the pollution level in Patna only in May 2013.

⁴ Beltron Bhawan and Gandhi Maidan

⁵ Guidelines for Ambient Air Quality Monitoring

In reply, the Member Secretary stated (October 2014) that follow up action would be taken. Further, during exit conference (December 2014) the Additional Secretary stated that the Department was proposing to hold a high level meeting with all concerned Departments to sensitise them about the issue.

2.1.10.2 Procurement of equipment

For setting up of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) at Bhagalpur, Bettiah, Purnea, Darbhanga, Rajgir and Sasaram, equipment worth ₹ 1.18 crore was procured (2010-12). However, the equipment was not installed in the absence of infrastructure facilities resulting in expiry of warranty period of the equipment.

The Chairman replied (October 2014) that the equipment was purchased in anticipation of the approval of manpower for such operation which was sent to GoB in 2011-12. Approval was still awaited. Hence the equipment could not be installed. However, in exit conference (December 2014), the Additional Secretary stated that it would be ensured that such things do not happen in future.

Recommendation: *The BSPCB should take steps for installation and operation of the equipment for air quality monitoring and sensitise the concerned Departments of the Government about the increased RSPM levels in Patna.*

2.1.11 The Water (Prevention and Control of Pollution) Act, 1974

As per Water Act, 1974, the BSPCB was required to inspect sewage or trade effluents, plants and to review plans, specifications or other data relating to plants set up for the treatment of water and purification thereof.

2.1.11.1 Inadequate treatment of effluents

The BSPCB did not initiate any action despite absence of STPs to treat sewage water in 34 districts of the State and the STPs in two out of remaining four districts were non-functional

During test check of records, it was noticed that out of 140 local bodies, seven Sewage Treatment Plants (STPs) existed in four local bodies in four Districts⁶ of the State whereas there was no STP in other Districts. It was also observed that all the STPs were established on river Ganga only, of which five were in running condition. The installed capacity and actual treatment done by the STPs are given in **Table 2.1.6** below:

⁶ Bhagalpur-1, Chapra (non functional)- 1, Munger (non functional)-1 and Patna - 4

Table 2.1.6: (Installed capacity and actual treatment of STPs)

Location of STP	Year of Establishment	Installed Capacity(Million Litre Per Day(MLD))	Actual Treatment (MLD)	Remarks
Patna –Beur	1915 (capacity enhanced in 1968 and 1987)	35	20	-
Patna-Saidpur	1936 (capacity enhanced in 1986)	45	25	-
Patna-Pahari	1994	25	17	-
Patna-Karmalichak	2006	4	2	-
Bhagalpur	1992-93	11	10	-
Munger	1987-88	13.5	-	Not functional
Chapra	1999	02	-	Not functional
	Total	135.5	74	

(Source: Information provided by BSPCB)

It was evident from the table that against treatment capacity of 135.5 MLD, 74 MLD sewage water was only treated in these STPs. It was further noticed that these STPs were running without taking authorisation from the BSPCB under Water Act during 2009-14. The BSPCB did not initiate any legal action against the local bodies for non-compliance to the provisions of the Water Act.

In exit conference (December 2014), the Additional Secretary stated that action would be taken in this regard by the Government.

Other irregularities noticed in working of the STPs are discussed below:

2.1.11.2 Excess Bio-chemical Oxygen Demand level in river Ganga

It was seen (July 2014) in the records of the BSPCB that total 25 drains were identified (July 2013) by the CPCB in the State which were flowing through the Cities of Buxar, Patna, Munger, Bhagalpur and Kahalgaon and carrying 99 tonnes/day of Bio-chemical Oxygen Demand⁷ (BOD) load to river Ganga. The details of drains with BOD load are given in the **Table 2.1.7**.

Table 2.1.7: Details of BOD load in 25 identified drains

(Prescribed parameter of BOD is a maximum of 30 mg per litre for inland surface water (As per Environment (Protection) Rules, 1986)

Sl. No.	Name of City	Total No. of drains	Flow (MLD)	BOD Load (Kg/Day)	Range of BOD Load (mg per litre)
1.	Buxar	5	33.90	4406.56	2.42 – 236.29
2.	Patna	9	233.71	55389.10	172.0 - 279.63
3.	Munger	2	18.63	5393.10	247.49 - 324.72
4.	Bhagalpur	7	140.70	31802.80	192.11 - 299.34
5.	Kahalgaon	2	152.48	2514.96	6.33 - 304.26
		25	579.42	99506.50	

(Source: Reports of the CPCB)

⁷ BOD is the amount of oxygen which is needed to oxidise the organic materials present in water by micro-organisms. The organic pollution measured in terms of BOD gives the indication of extent of water quality degradation.

State did not have capacity to treat the sewage water (from known sources) as only 74 out of 579 MLD of sewage water was being treated in the five working STPs of two districts

As evident from the **Table 2.1.6 and 2.1.7**, the State did not have capacity to treat the sewage water (from known sources) as only 74 out of 579 MLD sewage water was being treated in the five working STPs. Further, it was observed that BOD load in discharge of sewage from 25 drains to the river Ganga ranged between 2.42 mg per litre and 324.72 mg per litre against the prescribed parameter of maximum 30 mg per litre. Out of 25 drains, the level of BOD load in 23 drains was more than seven times of the maximum load prescribed under the Environment (Protection) Rules, 1986.

In exit conference, the Additional Secretary agreed (December 2014) with audit observation and stated that Urban Local Bodies would be instructed to establish required STPs to fill the gap.

Recommendation: *The BSPCB should assess the requirement of STPs in the State and ensure that sufficient number of STPs are installed by local bodies to treat the sewage water specially the sewage discharged into rivers.*

2.1.12 Municipal Solid Wastes (Management and Handling) Rules, 2000

2.1.12.1 Non-implementation of instructions

As per the Municipal Solid Wastes (Management and Handling) Rules 2000, (MSW Rules), the BSPCB shall monitor the compliance of the standards regarding ground water, ambient air, leachate quality and the compost quality including incineration standards. The BSPCB was required to issue directions to municipal authorities for ensuring full coverage in waste collection, segregation, transportation, treatment and disposal in accordance with rules.

Almost all the municipal authorities in the State were not complying with the provisions of Municipal Solid Wastes Rules, 2000 and the BSPCB did not issue directions to them

It was noticed that 1670 Tonnes per Day (TPD)⁸ (July 2012) of municipal solid waste was being generated in Bihar and there was 140 local bodies (11 Municipal Corporations, 41 Nagar Parishads, and 88 Nagar Panchayats) responsible for MSW management in the State. Scrutiny of Annual Reports submitted by the BSPCB to the CPCB revealed that almost all the municipal authorities in the State were not complying with the provisions of MSW Rules (**Appendix-2.1.6**). However, no directions were issued by BSPCB to local bodies for complying with the provisions of the MSW Rules. As a result, municipal solid wastes were being dumped at open places without any treatment which was hazardous to human beings and entire ecosystem. This observation was substantiated from a research report published (2011) in 'International Journal of Environmental Technology and Management' which stated that Methane, Hydrogen Sulphide and Dioxin were much beyond the limits at dumping sites in Patna.

In reply, the Chairman, BSPCB stated (October 2014) that directions had been issued to 41 Municipal Councils and 11 Municipal Corporations proposed for implementing the provisions of the Rules.

2.1.12.2 Delayed submission of annual reports on Municipal Solid Waste (MSW) to the CPCB

The BSPCB was required to ensure timely submission of Annual Reports on MSW to the CPCB by 15th September every year. The Annual Reports should

⁸ Status Report on Municipal Solid Waste Management of the CPCB

reflect complete information relating to MSW management (quantity of waste generation, treatment, recycling, disposal, etc.) including details of facilities.

During test check of Annual Reports of MSW, it was noticed that the BSPCB submitted Annual Reports to the CPCB with delays ranging from four to eight months during 2009-13. Details are given in **Table 2.1.8** below:

Table 2.1.8: Status of submission of Annual Reports of MSW to the CPCB

Year	Due date of submission	Actual date of submission	Delay in submission (in months)
2009-10	15/09/2010	26/05/2011	8
2010-11	15/09/2011	09/02/2012	5
2011-12	15/09/2012	01/02/2013	5
2012-13	15/09/2013	29/01/2014	4
2013-14	15/09/2014	17/09/2014	nil

(Source: Information provided by the BSPCB)

Thus, the prescribed mechanism under Rules for submitting the Annual Reports was not being adhered to by the Board.

In reply, the Member Secretary assured (December 2014) that the Board was taking steps to submit Annual Reports within the stipulated period.

Recommendation: The BSPCB should help each municipality in identifying the waste processing technology best suited to their needs.

2.1.13 Bio-medical Waste (Management and Handling) Rules, 1998

2.1.13.1 Non-authorisation of Health Care Establishments (HCEs)

According to the Biomedical Waste (Management and Handling) Rules, 1998 (BMW Rules), every occupier (including veterinary institutions) of an institution generating, collecting, receiving, storing, transporting, treating, disposing and/or handling bio-medical waste in any other manner, except such occupier of clinics, dispensaries, pathological laboratories, blood banks providing treatment/service to less than 1000 patients per month, shall make an application to the BSPCB for grant of authorisation.

During scrutiny (July 2014), it was observed that there was 2538 numbers of Health Care Establishments (HCEs) identified by the BSPCB in the State. Out of this, 1329 HCEs had applied for authorisation and the BSPCB granted authorisation to 1239 HCEs up to December 2013. Thus, 1209 out of 2538 HCEs in the State failed to apply for authorisation. Further, out of 1329 HCEs applied, 90 HCEs failed to receive any authorisation from the BSPCB.

It was also observed that none of the 1152 veterinary institutions under the jurisdiction of the Animal and Fisheries Resources Department, GoB had obtained required authorisations under the BMW Rules from the BSPCB.

On being pointed out, the Member Secretary replied (August 2014) that defaulting HCEs were being given notices and directions under the provisions of the BMW Rules. Later, the Member Secretary intimated (October 2014) that authorisation for 90 HCEs was in process.

Out of 2538 identified HCEs, 1209 HCEs and all 1152 veterinary institutions in the State were not authorised by the BSPCB

Other irregularities noticed in implementation of BMW Rules are discussed in succeeding paragraphs:

2.1.13.2 Treatment of liquid waste

According to Schedule V of the BMW Rules, the effluents generated from hospitals should conform to the specified standards of pH, suspended solids, oil and grease, BOD, Chemical Oxygen Demand and Bio-assay test. These standards were applicable to those hospitals which were either not connected to public sewers or connected with sewers without terminal sewage treatment plants.

Scrutiny (July 2014) of records revealed that effluent treatment plants (ETPs) were installed in only six out of 1239 authorised HCEs.

On being pointed out (July 2014), the Member Secretary replied (August 2014) that the hospitals were being asked to ensure compliance to BMW rules. Further, during exit conference (December 2014), the Additional Secretary stated that urgent steps would be taken in this matter.

2.1.13.3 Delayed submission of annual reports to the CPCB on BMW

The BMW Rules provides that every occupier/ operator shall submit an annual report to the BSPCB by 31st January every year, providing information about the categories and quantities of BMW handled during the preceding year. The Board shall send this information in a compiled form to the CPCB by 31st March every year.

During test check of annual reports of BMW, it was noticed that the BSPCB submitted consolidated annual reports to the CPCB with delays ranging from one month to nine months during calendar year 2009 to 2013 as given in the **Table 2.1.9** below:

Table 2.1.9: Position of submission of annual reports on BMW to the CPCB

Year	Due date of submission	Actual date of submission	Delay in submission (in months)
2009	31/03/2010	31/05/2010	2
2010	31/03/2011	24/05/2011	2
2011	31/03/2012	09/07/2012	3
2012	31/03/2013	26/12/2013	9
2013	31/03/2014	22/04/2014	1

Thus, prescribed mechanism under Rules for submitting the annual reports was not being adhered to by the Board.

In reply (December 2014), the Member Secretary assured that the reports would be sent on time in future.

2.1.13.4 Common Bio-medical Waste Treatment and disposal Facility (CBWTF)

A CBWTF is a set up for treatment of generated biomedical wastes in healthcare units to cater to 10,000 beds situated within a radius of 150 km so

that adverse effects of waste could be reduced. The treated waste was finally sent for disposal in a landfill or for recycling purposes.

The irregularities noticed in the CBWTF are given below:

- The CBWTF operator at Patna covered 539 HCEs having 11243 beds against norms of 10000 beds.
- The CBWTF operator at Bhagalpur and Muzaffarpur reported (June-July 2014) that total 77 HCEs⁹ were not sending bio-medical waste to the CBWTF for treatment.
- The HCEs under jurisdiction of CBWTF operator at Bhagalpur were not providing segregated waste to the CBWTF operator as per the provisions of the BMW Rules.
- According to guidelines issued by the CPCB (October 2013), the HCEs/CBWTFs operating bio-medical incinerator were required to get analysis report of the hazardous constituents of the incinerator ash generated through a recognised laboratory. This provision was being violated by three¹⁰ CBWTFs in the State.
- As per BMW Rules, the incinerator ash was to be disposed off in municipal landfill. This provision was being violated by the CBWTF operator at Muzaffarpur.
- The BSPCB was required to authorise the HCEs/CBWTFs for setting up of interim storage facility for safe handling and storage of mercury bearing waste generated from HCEs/CBWTFs. Scrutiny (July 2014) revealed that no such instruction was issued by the BSPCB to HCEs/CBWTFs and resultantly no authorisation was done since September 2013.

The Chairman agreed with the audit observation and replied (October 2014) that consent to establish one more CBWTF had been issued by the BSPCB and the CBWTF operators were directed to ensure compliance to the Rules.

2.1.14 The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008

2.1.14.1 Shortcomings in implementation of Hazardous Wastes Rules, 2008

As per the Hazardous Wastes Rules, 2008, the BSPCB had to perform inventorisatation of hazardous wastes, grant and renewal of authorisation, registration and renewal of registration of recyclers/ re-processors, monitoring of compliance of various provisions and conditions of authorisation for implementation of programmes to prevent/reduce/minimise the generation of hazardous wastes and initiate action against the violations.

⁹ Bhagalpur-57 and Muzaffarpur-20

¹⁰ Patna, Bhagalpur and Muzaffarpur

The BSPCB had not conducted any survey or approached concerned departments to get the information about total number of industries generating hazardous waste in the State

During scrutiny, it was noticed that the BSPCB had issued authorisations for management of hazardous waste to 85 industries and registration for recycling to eight industries under this Rule. Further scrutiny disclosed that the BSPCB had not conducted any survey or approached concerned Departments to get the information about total number of industries generating hazardous waste in the State. The work of preparation of inventory was also not done by the BSPCB.

The Member Secretary replied (August 2014) that the BSPCB was having manpower constraint and it was trying to ensure the implementation and compliance to the Rule.

2.1.15 Environmental laboratories

The BSPCB had three laboratories (i) Central Laboratory, Patna, (ii) Regional Laboratory, Muzaffarpur and (iii) Regional Laboratory, Begusarai. Out of this only Central Laboratory, Patna was functional. Further, the services of R and D Cell under Central Laboratory, Patna were not being utilised for any research work and limited to only testing and analysing the parameters of water and air pollutants.

2.1.15.1 Non accreditation of Central Laboratory, Patna

According to instructions (August 2011) of Ministry of Environment and Forest (MoEF), GoI, the BSPCB was required to acquire accreditation under the Environment (Protection) Act, 1986, ISO 17025 (NABL¹¹ Accreditation) or ISO 9001 Certification alongwith OHSAS¹² 18001 certification within a period of one year for Central Laboratory, Patna. However, it was found that Central Laboratory, Patna was functioning without its recognition and the Analyst of the Laboratory was also not notified under Environment (Protection) Act.

In reply, the Member Secretary assured (October 2014) that instructions of MoEF would be followed and steps would be taken for recognition under Environment (Protection) Act.

2.1.15.2 Insufficient equipment/ instruments in Central Laboratory, Patna

The Central Laboratory Patna was not fully equipped to analyse the samples

During scrutiny (August 2014) of the statement of instruments/equipment of the Central Laboratory, Patna (*Appendix-2.1.7*), it was found that the existing instruments/equipment were not in conformity with the mandatory instruments/equipment required for water/waste water/air analysis (*Appendix-2.1.8*). Further, equipment/instruments required for hazardous waste analysis were not found in the list provided by the BSPCB. In absence of required basic and specific equipment/ instruments, the BSPCB was not fully equipped to analyse the samples for water/air pollutants.

In exit conference, the Additional Secretary stated (December 2014) that required equipment with respect to Environment (Protection) Act would be procured.

¹¹ National Accreditation Board for Testing and Calibration Laboratories.
¹² Occupation Health and Safety Assessment Series

2.1.16 Internal Control

2.1.16.1 Non-preparation of Annual Reports and Annual Accounts

Under Section 39 (2) of the Water Act, 1974 read with Section 35 (2) of the Air Act, 1981, every State Board should, during each financial year, prepare an Annual Report giving full accounts of the activities undertaken during the previous financial year and copies thereof should be forwarded to the State Government within four months from the last date of the previous financial year and that the Government should cause every such report to be laid before the State Legislature within a period of nine months from the last date of the previous financial year.

During scrutiny of records, it was noticed that the Annual Reports were not prepared by the BSPCB during 2009-14 as Annual Accounts of 2009-14 (except 2009-10) were not prepared. Thus, the BSPCB failed to provide information to the State Legislature regarding the activities undertaken during 2009-14.

The Member Secretary replied that the Environment and Forest Department was intimated to issue notification for appointment of empanelled Auditors for audit of Accounts. During exit conference (December 2014), the Additional Secretary stated that the matter of appointment of Auditors would be expedited.

2.1.17 Manpower management

Efficient functioning of an organisation depends upon the availability of requisite manpower and proper management of the available manpower. Scrutiny (July 2014) of records disclosed that out of sanctioned posts of 193, only 73 staff were posted in the BSPCB. Further, out of sanctioned posts of 103 technical staff, only 26 staff were posted in the BSPCB (*Appendix-2.1.9*). According to a report (December 2013) on training need assessment survey conducted by the Centre for Science and Environment and World Bank in December 2013, no appointment was made in the BSPCB during last 20 years and staff were not promoted since their joining.

In exit conference (December 2014), the Additional Secretary stated that the recruitment rules were under finalisation.

Recommendation : The BSPCB should finalise recruitment process to address the paucity of staff.

2.1.18 Conclusion

- The BSPCB, main agency for the enforcement of environmental law and responsible for formulation of policy for prevention, control and abatement of pollution did not conduct any survey to identify the polluting industries in the State and failed to draw up a comprehensive plan for preventing or controlling water and air pollution in the State;
- The financial management of the BSPCB was deficient as it could utilise only 23 to 40 *per cent* of its available funds;

- The BSPCB neither assessed the requirement of STPs in the State nor initiated steps to ensure treatment of effluents;
- Out of 2538 identified HCEs, 1299 HCEs and all Veterinary institutions in the State were being operated without authorisation from the BSPCB;
- The Central Laboratory, Patna was functioning without required equipment/instruments;
- Existence of large number of vacancies had been affecting the functioning of the BSPCB.

SOCIAL WELFARE DEPARTMENT

2.2 Implementation of Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)-SABLA

Executive summary

Introduction

To improve the Nutrition and health status of girls in the age group of 11-18 years and to upgrade their home based and vocational skills, a centrally sponsored scheme, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) - SABLA was launched by the Government of India (GoI) in November 2010. The State Government launched this scheme in 12 out of 38 districts in the State in March 2011.

(Paragraph 2.2.1)

Identification of beneficiaries

The Department had no reliable data of Adolescent Girls (Ad Gs). Resultantly, over-aged girls of more than 18 years and school going girls of 11 to 14 years were allowed to take the benefit of the scheme, in contravention of the scheme guidelines. The data of Ad Gs maintained by the Department was not updated quarterly and the data for the year 2011-12 was adopted for the year 2012-13 as well.

(Paragraph 2.2.6)

Financial Management

Against budget provision of ₹ 513.12 crore under nutrition component, Department could receive only ₹ 280.19 crore (55 *per cent*) during 2011-14. Delayed/non-submission of Utilisation Certificates by the State Government resulted in non-receipt of Central assistance amounting to ₹ 173.75 crore (Nutrition: ₹ 164.62 crore + Non-Nutrition: ₹ 9.13 crore) during the audit period.

(Paragraph 2.2.7)

Implementation of the scheme

Ad Gs were not provided with Take Home Ration for 300 days as envisaged under the Nutrition support component of the scheme. Identified Ad Gs in the test checked Districts did not get the services under non-nutrition component of the scheme like health check-up and referral services, Nutrition and health education, life skill education and assessing public services, counselling guidance on family welfare, vocational training etc. Besides, non provision of Iron Folic Acid supplementation among 75 to 95 *per cent* of the Ad Gs also indicated poor implementation of the scheme.

(Paragraph 2.2.8)

2.2.1 Introduction

Rajiv Gandhi Scheme for empowerment of Adolescent Girls (RGSEAG)-SABLA is a centrally sponsored scheme launched by the Government of India (GoI) in November 2010. The scheme aims to make adolescent girls¹ (Ad Gs)

¹ *Adolescence is a significant phase of transition of a girl in the age group of 11-18 years from childhood to adulthood, marked by physical changes accompanied by psychological changes.*

aware about health, hygiene, nutrition, adolescent reproductive and sexual health, family and child care in order to improve their health and facilitate an easier transition to womanhood. The scheme covered Ad Gs under Integrated Child Development Services (ICDS) in selected 200 Districts across India on pilot basis. Accordingly, the Government of Bihar (GoB) launched this scheme in 12² out of 38 districts in the State in March 2011.

The objectives of the scheme were to:

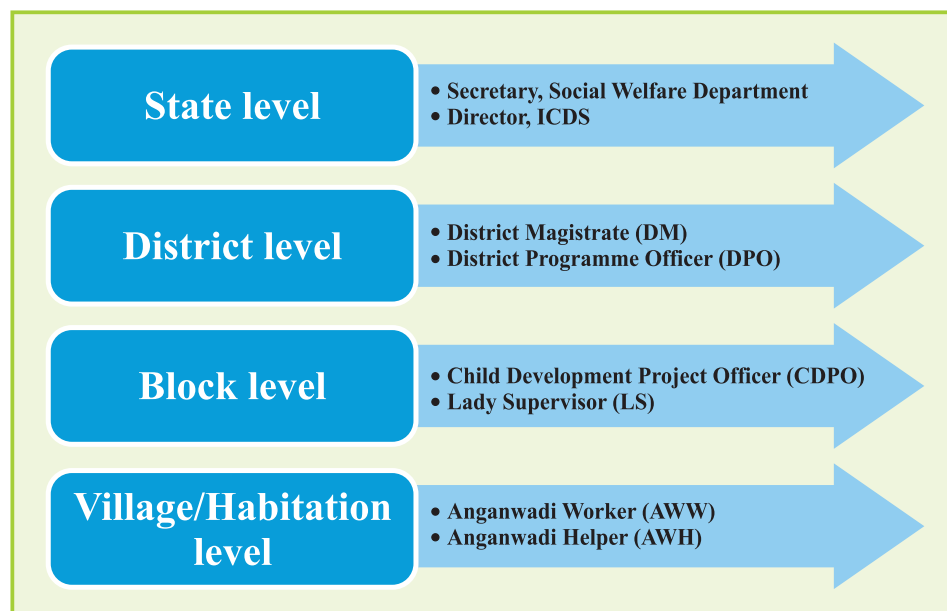
- Enable self-development and empowerment of Ad Gs;
- Improve their nutrition and health status;
- Spread awareness among them about health, hygiene, nutrition, adolescent reproductive and sexual health, family and child care;
- Upgrade their home-based skills, life skills and vocational skills;
- Bring Ad Gs including out-of-school Ad Gs into main stream, to enable them to have a formal/non formal-education; and
- Inform and guide them about existing public services such as Primary Health Centre (PHC), Community Health Centre (CHC), Post Office, Bank, Police Station, etc.

As per the GoI directives, this scheme was to be implemented by using platform of ICDS under the Social Welfare Department.

2.2.2 Organisational set-up

The Secretary, Social Welfare Department (SWD) is responsible for implementation and monitoring of the scheme in the State and is assisted by the Director, ICDS at State level. The organogram of officials responsible for implementation of the scheme is as follows:

Chart no: 2.2.1 Organogram of scheme implementing officials



(Source: Director, ICDS)

² Aurangabad, Banka, Buxar, Gaya, Katihar, Kishanganj, Munger, Patna, Saharsa, Sitamarhi, West Champaran and Vaishali.

2.2.3 Audit Objectives

The performance audit was conducted to assess whether:

- Target groups had been fixed by conducting yearly baseline survey by Anganwadi Workers (AWWs);
- Financial management of this scheme was adequate as per scheme guidelines;
- Nutrition support to the Ad Gs had been provided as per norms;
- Non Nutrition support like arrangement for proper training to upgrade the Ad Gs home based skills, life skills and vocational skills were given and adequate awareness regarding health, hygiene, nutrition and family and child care were provided as per norms fixed by the GoI; and
- Monitoring mechanism was in existence at Anganwadi Centres (AWCs) with a view to assess the proper implementation of scheme.

2.2.4 Audit criteria

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

- Implementation guidelines for Rajiv Gandhi Scheme for empowerment of Adolescent Girls-SABLA (GoI);
- Bihar Financial Rules and Bihar Treasury Codes; and
- Orders and circulars issued by the GoI as well as GoB.

2.2.5 Scope of audit and methodology

During audit, records of the Secretary, SWD, GoB and Director, ICDS, six DPOs³ which included 93 CDPOs (out of SABLA implementing 12 DPOs) pertaining to the period 2011-14 were test checked during April to July 2014. The test checked DPOs were selected by using Probability Proportional to Size with Replacement (PPSWR) method for random sampling.

Audit methodology included examination of records of DPOs and CDPOs, issuance of questionnaire, collecting information from AWCs, consideration of reply of the Department to the audit memos issued etc. In order to explain the objectives of audit, its methodology, scope, coverage, focus and elicit the departmental views, an entry conference was held in April 2014 with the Secretary, SWD. The exit conference was held with the Secretary in October 2014. The replies of Department and views expressed in the exit conference were incorporated at appropriate places.

Audit findings

2.2.6 Identification of Beneficiaries

According to the directives of GoI in September 2010, base line survey work for identification of the beneficiaries was to be completed by that month. The

³ Aurangabad, Gaya, Katihar, Kishanganj, Sitamadhi and West Champaran.

survey data was to be updated quarterly to identify every Ad G in the area of the AWCs where SABLA was to be implemented. According to the scheme guidelines, target group of Ad Gs was to be sub-divided into two categories, viz., 11 to 14 years and 14 to 18 years. All out of school girls in the age group of 11 to 14 years and both out of school and school going girls of 14 to 18 years were entitled for Take Home Ration (THR) under SABLA. Accordingly, selection of beneficiaries was to be made on the basis of base line survey conducted by AWWs of the respective AWCs.

2.2.6.1 Failure to conduct baseline survey

Base line survey was not conducted as per prescribed periodicity and data of identified Ad Gs in 2011-12 were adopted in 2012-13

During audit, it was noticed that the State Government launched this scheme in March 2011 without identifying the beneficiaries as base line survey was not completed during 2010-11. Besides, the number of identified beneficiaries of 2011-12 was adopted during the year 2012-13 as well since the data of beneficiaries for the year 2012-13 was not approved by the Cabinet. Further, scrutiny of records in test checked DPOs disclosed that neither the survey data was updated quarterly nor the data was authenticated by lady supervisor (LS) as envisaged under scheme guidelines. Thus, the identification of beneficiaries was not in accordance with the guidelines framed by the GoI. Consequently, ineligible Ad Gs were also selected for availing benefits of THR as discussed in succeeding paragraph.

2.2.6.2 Selection of ineligible Adolescent Girls

As per scheme guidelines, Ad Gs in the age groups of 11-14 years (out of school girls) and 14 to 18 years were entitled to avail the benefits of THR. It was also envisaged that the LS was responsible to authenticate 20 *per cent* of the entries (e.g. name of Ad Gs, parents name, date of birth etc.) of the survey made by AWWs.

Ineligible beneficiaries were allowed to receive THR due to non-authentication of entries by concerned LS and non-updating the data

It was noticed during audit that the age of Ad Gs were being determined as per statement made by their parents/guardians and required checks had not been exercised by the LS. Hence, the date of birth of Ad Gs selected as beneficiary was not reliable. Besides, survey data was also not updated quarterly by the AWWs as envisaged under scheme guidelines. Consequently, scrutiny of baseline survey register along with THR⁴ distribution registers of 31 CDPOs disclosed that 571 numbers of over-aged girls (i.e. more than 18 years) were allowed to avail the benefits of the scheme (*Appendix-2.2.1*).

Scrutiny also revealed that 52 school going girls in the age group of 11 to 14 years in nine CDPOs⁵ were allowed to take THR though only out of school girls of this age group are entitled for the THR. (*Appendix-2.2.2*). As the identification of beneficiaries was not in accordance with the scheme guidelines, ineligible Ad Gs were allowed to receive THR in contravention of norms fixed by GoI.

⁴ Under THR, each Ad G was to be given at least 600 calories and 18-20 grams of protein and recommended intake of micronutrients per day for 300 days in a year for which ₹ five per day was to be spent.

⁵ Bahadurganj, Barari, Bariya, Belsand, Daudnagar, Dighalbank, Kadwa, Rafiganj and Runnisaidpur.

In reply, the Director, ICDS agreed with the audit observation and stated (October 2014) that directions were being issued to the DPOs/ CDPOs to avoid such discrepancies.

Recommendation: *Baseline survey of Ad Gs should be conducted at prescribed intervals and the survey data should be updated in accordance with the scheme guidelines so as to avoid ineligible beneficiaries receiving the benefits of the Scheme.*

2.2.7 Financial Management

As per funding pattern of the GoI, Nutrition and non-Nutrition supports were to be provided to Ad Gs under SABLA. The Nutrition support was to be provided by Central and State Governments in the ratio of 50:50, where as 100 per cent central assistance was to be provided by the GoI under non-Nutrition support. The status of funds released by the GoI and GoB during 2010-14 is indicated in the **Table 2.2.1:**

Table 2.2.1: Fund provisions and expenditure under nutrition and non-nutrition component

(₹ in crore)

Year	Nutrition component (50:50)						Non-nutrition component (100 per cent GoI share)			
	Budget Provision	Released by		Expenditure incurred		Un spent balance of GoI share	Requirem ent of funds (₹3.80 lakh x 176 i.e. ₹6.69 crore)	Relea sed by GoI	Expendi- ture incurred	CB (col. 9-10)
		GoI	GoB	GoI share	GoB share					
1	2	3	4	5	6	7	8	9	10	11
2010-11	0	21.05	0	0	0	21.05	0	6.69	0	6.69
2011-12	106.94	24.47	24.47	22.85	22.54	22.67	6.69	3.34	6.69	3.34
2012-13	174.93	14.43	60.03	30.24	49.35	6.86	6.69	0	1.76	1.58
2013-14	231.25	31.99	103.75	64.96	64.96	-	6.69	0.91	0.88	1.61
Total	513.12	91.94	188.25	118.05	136.85		20.07	10.94	9.33	

(Source: Director ICDS)

Only 55 per cent of the budget provision was made available by GoB and GoI under Nutrition component

From the above table, it was evident that GoI and GoB did not release the required matching share during 2010-14. Further, against a budget provision of ₹ 513.12 crore, ₹ 280.19 crore only (55 per cent) was made available by State and Central Governments to the Director, ICDS out of which an amount of ₹ 254.90 crore only was spent during 2010-14 under nutrition component. However, GoB spent ₹ 64.96 crore on the scheme towards GoI share during 2013-14 though only ₹ 38.85 crore⁶ was available with GoB as Central share. This resulted in release of ₹ 26.11 crore in excess of its own share during 2013-14 under nutrition component.

Similarly, GoI released only 55 per cent of the required funds under non-nutrition component during 2010-14. Out of the total funds of ₹ 10.94 crore released by the GoB, the Department incurred an expenditure of ₹ 9.33 crore

⁶ ₹ 6.86 crore (Unspent balance of 2012-13) + ₹ 31.99 crore (released by GoI during 2013-14)

(85 per cent) only resulting in an unutilised balance of ₹ 1.61 crore in the funds. Hence, against requirement of ₹ 20.07 crore, only ₹ 9.33 crore (46 per cent) could be made available by the Department to the concerned CDPOs for carrying out activities under non- nutrition component.

Scrutiny of records disclosed that short release of funds by the GoI was mainly due to non/delayed submission of utilisation certificates (UCs) by the Director, ICDS, as the Ministry of Women & Child Development, GoI cautioned (September 2011 and December 2013) the State Government to submit statement of expenditure (SoE) and UCs in time failing which further release of funds was not possible. Despite the direction, the Department could not improve scheme's financial management and persistent non/delayed submission of SoEs to GoI continued till 2013-14.

On being pointed out by audit, the Director, ICDS replied (May 2014) that delayed submission of UCs to the GoI was mainly due to delayed receipt of the same from the field offices.

Reply of the Department was not in consonance with rules as the Director, ICDS was responsible to ensure timely receipt of UCs from field offices and their onward submission to the GoI.

Due to underutilisation of scheme funds and non-submission of UCs to GoI, the scheme in the State deprived of Central share of ₹ 173.75 crore

Thus, due to underutilisation of scheme funds and non-submission of UCs to GoI, the scheme in the State was deprived of Central share of ₹ 173.75 crore⁷ which was 63 per cent of the total Central share of ₹ 276.63 crore (Nutrition: ₹ 256.56 crore and Non-nutrition: ₹ 20.07 crore).

It was further observed that Director, ICDS released ₹ 71 crore⁸ to the Districts towards the end of the financial year during 2011-14 for which no reason was available in the records. Besides, it was also noticed that funds were allotted to the CDPOs in excess of actual requirement as 10 CDPOs received allotment of ₹ 14.40 crore against requirement of ₹ 11.43 crore during 2013-14 (*Appendix 2.2.3*).

In reply, the Director, ICDS attributed (October 2014) the release of funds towards the end of financial year to delayed receipt of funds from the GoI.

Reply was not in consonance with facts as funds to the CDPOs were allotted by the Director, ICDS in excess of requirement also.

Recommendation: Proper utilisation of funds and timely submission of UCs to the GoI should be ensured to avoid non/short release of funds by GoI.

2.2.8 Implementation of the Scheme

The scheme has two components i.e. Nutrition component and Non-nutrition component. The shortcomings noticed under implementation of these components are discussed as under:

2.2.8.1 Nutrition Component

As per the scheme guidelines, required daily intake of micronutrients for each Ad G was at least 600 calories and 18-20 grams of protein for which ₹ five per day was to be spent on each Ad G for 300 days in a year. Under this

⁷ Nutrition: ₹ 164.62 crore + Non-nutrition : ₹ 9.13 crore

⁸ 2011-12 : ₹ 16.31 crore; 2012-13 : ₹ 14.24 crore and 2013-14 : ₹ 40.45 crore

scheme, 11 to 14 years out of school girls and all girls of 14 to 18 years were entitled to get THR once in a week, fortnight or month as decided by the State Government. Accordingly, THR was being provided to each Ad G once in a month since January 2012 which included 3.00 kilo gram (kg) of rice, 1.5 kg of pulses and 300 grams (gms) of Soyabadi.

Scrutiny of records revealed that the information regarding the status of actual number of Ad Gs benefited with THR against the identified Ad Gs in the State during 2011-14 was not available with the Director, ICDS. However, financial records of the Directorate disclosed that the shortfall ranged between 47 and 77 per cent. The discrepancies noticed in providing THR of test checked Districts are discussed in succeeding paragraphs.

• **Shortfall in THR days**

Identified Ad Gs could not receive THR for 300 days (as envisaged in scheme) in any of the years during 2011-14

Records of 73 CDPOs⁹ in the test checked six Districts disclosed that identified beneficiary could not receive THR for 300 days as envisaged in scheme in any of the years during 2011-14 as indicated in the **Table 2.2.2** below.

Table 2.2.2: Number of Ad Gs identified and covered for THR

Year	Identified Ad Gs for THR (in number)	No. of Ad Gs provided THR	No. of days THR provided
2011-12	693939	499304	50-75
2012-13	740378	500303	25-225
2013-14	788339	515539	100-250

(Source: Records of CDPOs)

During exit conference (October 2014), the Secretary, SWD stated that position of THR would be improved in future.

• **Excess payment for THR**

In CDPO, Daudnagar of Aurangabad District, it was observed that the amount paid for THR by the CDPO to AWWs was more than the number of identified Ad Gs as shown in the **Table 2.2.3** below:

Table 2.2.3: Excess payment of THR

Name of the CDPO	Year	(In number)			(₹ in lakh)
		Identified Ad Gs	THR paid for Ad Gs	Excess against identified	Excess Paid
Daudnagar	2012-13	46718	58466	11748	14.68
	2013-14	35275	38064	2789	3.48
Total		81993	96530	14537	18.16

(Source: - Records of CDPOs)

Payment of THR to more Ad Gs than identified led to excess payment of ₹ 18.16 lakh

It was evident from the table above that payment for THR was made for 14537 Ad Gs in excess than the identified number by the CDPO. This resulted in excess payment for THR amounting to ₹ 18.16 lakh.

⁹ Out of 94 CDPOs, records of one CDPO (Thakurganj in Kishanganj district) seized by Police station and required information was not available/ incomplete in 20 CDPOs. Hence status of 73 CDPOs was analysed.

The DPO, Aurangabad did not offer any reply to audit. However, the Director, ICDS stated (October 2014) that field offices had been directed to submit the actual status.

- ***Fixation of rates for food grains of THR***

Guidelines of SABLA stipulates that the same THR would be provided to Ad Gs as being provided to pregnant and lactating mothers under ICDS scheme. Accordingly, three kg of rice was to be provided to each Ad Gs per month from open market at the rate of ₹ 15 per kg as fixed by the State Government.

It was impractical to maintain the quality and stipulated quantity of THR from open market with unrevised rate of food grains

It was further observed in test checked Districts that the rate of rice in open market was higher than the rate fixed by the Department. Besides, the rate of rice for providing THR to pregnant and lactating mother was revised by the Government (May 2013) as ₹ 21 per kg, which was to be purchased by the same AWWs. Hence, it was impractical to maintain the quality and stipulated quantity of THR from open market at lesser rate. This was substantiated by DPO, Sitamarhi who observed (August 2012) that adulterated food grains were purchased by AWWs in order to purchase THR at cheaper rate. Moreover, 14 CDPOs of test checked Districts agreed with the audit observation for requirement of revision of THR rates.

In reply, the Director, ICDS stated (October 2014) that THR amount was fixed by GoI (i.e. ₹ five per beneficiary/day).

Reply was improper as audit observation was on fixation of rate of rice and pulses for THR and not for THR amount.

2.2.8.2 Non-Nutrition Component

Under this component all the Ad Gs in the age group of 11-18 years were to be provided IFA supplementation, health check-up and referral services, nutrition and health education, counselling/guidance on family welfare, adolescent reproductive and sexual health (ARSH), child care practices and life skill education and accessing public services, whereas Ad Gs in the age group of 16-18 years were to be imparted vocational training. The shortcomings noticed in audit are discussed in succeeding paragraphs.

- ***IFA supplementation***

IFA supplementation helps in combating anaemia and enhancing adolescence growth. As per the GoI directive (February 2012), the State Government had to provide IFA tablets to Ad Gs once in a week under the scheme. Further, as per scheme guidelines, the State Government was responsible to establish convergence with Health Department to ensure 100 mg IFA tablets to each beneficiary of SABLA.

During audit, it was noticed that none of the test checked DPOs had information regarding supply of IFA supplementation during 2011-14 (except for Sitamarhi and Bettiah for the year 2012-13 and Kishanganj for 2013-14). Besides, as per information submitted by 73 CDPOs of test checked Districts, significant shortages in supplementation of IFA were noticed in audit. The requirement of IFA tablets against identified Ad Gs and availability of the same in test checked CDPOs were as indicated in the **Table 2.2.4** below:

Table 2.2.4: Requirement of IFA tablets and their availability

Year	No. of Identified Ad Gs	Requirement (Ad Gs*52) 100 mg per Ad G	Actually received		Shortage ¹⁰	Percentage of shortage
			20mg	100mg		
2011-12	693939	36084828	1729450	1617636	34121302	95
2012-13	740378	38499656	7506614	4113693	32884640	85
2013-14	788339	40993628	620400	10084441	30785107	75
Total	2222656	115578112	9856464	15815770	97791049	

(Source: 73 CDPOs of test checked Districts)

The shortage against the requirement of IFA tablets with CDPOs ranged between 75 and 95 per cent

From aforesaid table, it was evident that there was acute shortage of IFA tablets with CDPOs. The shortage against the requirement ranged between 75 and 95 per cent. It was further noticed that neither CDPOs nor the DPOs had taken action to procure the required IFA tablets from National Rural Health Mission (NRHM) functionaries as required under scheme guidelines.

The test checked DPOs accepted the audit observation. In reply the Director ICDS, stated (October 2014) that the Executive Director, State Health Society had been requested (November 2013) to provide IFA tablets for SABLA scheme. During exit conference, the Secretary, SWD stated (October 2014) that convergence with the Health Department is required to be strengthened.

● **Extra expenditure on purchase of IFA tablets**

As per the GoI directive (February 2012), IFA tablets of 100 mg (adult) was to be given to each Ad G once in a week under IFA supplementation of the scheme.

Purchase of 20 mg IFA tablets instead of 100 mg led to extra expenditure of ₹ 17.40 lakh

During scrutiny of records it was noticed that against supply order (March 2012) of the Director, ICDS, IFA tablets of 20 mg for ₹ 3.98 crore were procured during 2012-13 for which payment of ₹ 25.76 lakh (March and July 2012) was made to the supplier out of the scheme funds. Further scrutiny revealed that the purchase of IFA tablets of 20 mg was made on the basis of rate contract (at the rate of ₹ 0.07 per tablet) approved by the State Health Society (SHS), Bihar. The SHS had also approved the rate of 100 mg IFA tablets at ₹ 0.105 per tablet at that time. Thus, it was clear that five IFA tablets of 20 mg (equivalent to 100mg) were costlier than one IFA tablet of 100 mg. Hence, the Director, ICDS incurred extra expenditure of ₹ 17.40 lakh¹¹ on procurement of 20 mg IFA tablets instead of 100 mg.

During exit conference, the Secretary, SWD stated (October 2014) that 20 mg IFA tablets was enlisted in the approved list of the SHS, therefore, 20 mg IFA tablets were procured and supplied five tablets per week to each beneficiary.

Reply was not acceptable as extra expenditure was incurred due to injudicious decision of the Director, ICDS for procurement of 20 mg instead of 100 mg IFA tablets.

¹⁰ Shortage = Requirement – actually received ((No. of 20 mg ÷ 5) + No. of 100 mg)

¹¹ 3.98 crore tablets of 20 mg tablet = 3.98 ÷ 5 of 100 mg dose i.e. 79.6 lakh dose, Rate of 100 mg tablet = ₹ 0.105 per tablet hence cost of 79.60 lakh dose = ₹ 0.105 X 79.60 i.e. = ₹ 8.36 lakh. Thus, extra expenditure = ₹ 25.76 lakh – ₹ 8.36 lakh i.e. ₹ 17.40 lakh

• **Health check-up and Referral services**

Adolescents face numerous risks and problems relating to reproductive sexual health, including sexually transmitted infections and HIV/AIDS, substance abuse, violence and injury, Nutrition psychological and behavioural problems relating to the rapid physical and emotional changes during the period of adolescence. Access to health services therefore, needs to be ensured for Ad Gs. Accordingly, a general health check-up for all Ad Gs was to be organised in close collaboration with Auxiliary Nurse Midwife (ANM) and other health functionaries at least once in every three months. Height, Weight and Body Mass Index (BMI) of each Ad G was to be recorded on Kishori Card to keep close watch on the state of growth of Ad Gs. Besides, in case of Ad Gs having problems requiring specialised treatment, Medical Officers were to refer the Ad Gs to the district hospitals/PHC/CHC/maternal and child health (MCH) sub centre.

Status of health check-up camps and availability of Kishori Cards during 2011-14 in test checked six DPOs was as indicated in the **Table 2.2.5:**

Table 2.2.5: Details of health check-up camps organised and availability of Kishori cards

Year	Total no. of CDPOs	No. of CDPOs where health camp not organised (<i>per cent</i>)	Total no. of Ad Gs	Health check-up and referral service		Status of Kishori Cards	
				No. of Ad Gs required services (four session x Total no. of Ad Gs)	Service provided (<i>per cent</i>)	Kishori cards required	Availability (<i>per cent</i>)
2011-12	93	89 (96)	1284304	5137216	21915 (0.43)	1284304	2034 (0.2)
2012-13	93	81 (87)	1342733	5370932	39802 (0.74)	1342733	180194 (13.41)
2013-14	93	71 (76)	1432306	5729224	105924 (1.85)	1432306	5440 (0.38)

(Source: Test checked CDPOs)

The health check-up camps organised for Ad Gs were inadequate and the availability of Kishori Cards was meagre

From aforesaid table it was clear that shortage in health check-up camps during 2011-14 ranged between 76 and 96 *per cent* and only negligible Ad Gs were provided health check-up facilities in the test checked Districts. Similarly, no Kishori Cards were available with any of the test checked CDPOs during 2011-12 and during 2012-14, the availability was meagre. Further, AWCs had not calculated the BMI of Ad Gs as AWCs either lacked weighing scales or had defective weighing scales. It was also noticed that none of the AWCs were visited by Medical Officers hence, specialised referral treatment could not be provided to the Ad Gs.

In reply, the Director, ICDS stated (October 2014) that directions had been issued in January 2013 to the DPOs for organising Kishori Diwas as per prescribed periodicity.

• **Nutrition and Health education**

Ad Gs require nutritious food, coupled with correct and relevant information on nutrition and health, as their bodies get geared up physically for motherhood. In order to address this requirement, the CDPO / Supervisor was responsible to ensure nutrition and health education (NHE) for all Ad Gs attending AWCs. Mothers of Ad Gs may also be motivated for joining the NHE sessions for improved impact. Accordingly, activity under this

No activity was undertaken by the Department under Nutrition and Health education during 2011-14 in test checked Districts

components include promoting healthy cooking and eating habits, promoting use of safe drinking water and sanitation, educating on personal hygiene, first aid etc. of Ad Gs.

During audit, it was noticed that such activities were not being done in any of the test checked Districts during 2011-14, though the GoI had provided funds of ₹ 27.90 lakh for 93 CDPOs (at ₹ 30000 for each CDPO) for this component during 2010-11. It was further noticed that CDPOs had withdrawn the funds from treasury during 2011-12 and entire funds were lying unutilised in their respective bank accounts (May-July 2014).

During exit conference the Secretary, SWD stated (October 2014) that steps were being taken to improve the activity under this component.

- ***Guidance on family welfare, adolescent reproductive and sexual health, childcare practices and home management***

No activity under Guidance on family welfare, adolescent reproductive and sexual health, childcare practices and home management was done

The Scheme provides for guidance to Ad Gs and their families to promote better healthcare, family welfare, reproductive and sexual health, better childcare practices and improvement of home management skills.

Audit scrutiny disclosed that no such activity was being carried out in any of the test checked Districts.

During exit conference, the Secretary, SWD stated (October 2014) that steps were being taken to improve the activity under this component.

- ***Life skill education and accessing public services***

Awareness campaign for imparting training to Ad Gs for developing their life skills was not initiated

Ad Gs need to acquire knowledge and develop attitudes and skills which will support them and promote adoption of healthy and positive behaviour to deal effectively with the demands and challenges of everyday life. The states will link the life skills component of the SABLA Scheme with similar schemes/interventions of the Department of Youth Affairs, GoI and also explore the possibility of leveraging their scheme and financial resources for Ad Gs.

During audit, it was observed that awareness campaign with respect to imparting training among Ad Gs to develop their life skills was not initiated in any of the test checked Districts (July 2014).

In reply, the Director, ICDS stated (October 2014) that time to time, directives had been issued to field offices in this regard.

Reply was not proper as Department was responsible for proper implementation and monitoring of the activities as envisaged under the scheme.

- ***Vocational training using existing infrastructure of other Ministries and Departments***

The Ministry of Labour and Employment, GoI developed a new strategic framework for skill development for early school leavers and existing workers, especially in the unorganised sector in close consultation with industry, micro enterprises in the unorganised sector, State Governments, experts and academia. Till such time that the National Skill Development

Programme of the Ministry sets in, the institution of the Modular Employable Skills under Skill Development Initiative Scheme may be used.

Audit scrutiny disclosed that no such activity was being carried out in any of the test checked Districts.

No activity under Vocational training was initiated

During exit conference, the Secretary, SWD stated (October 2014) that steps were being taken to improve the activities under non-nutrition components.

Thus, it was evident that no activities under non-nutrition component were carried out as mentioned under **paragraph 2.2.8.2** above though envisaged under this scheme.

Recommendation: Non-nutrition support to each Ad Gs should be ensured as envisaged under the scheme.

2.2.9 Manpower Management and Infrastructure

2.2.9.1 Availability of manpower

Availability of sufficient manpower and infrastructure play a vital role in implementation of the scheme. Since this scheme was being implemented in the State by using the platform of ICDS, the sufficiency of aforesaid aspects in the sampled Districts were assessed during performance audit and status noticed as on March 2014 were as indicated in the **Table 2.2.6** below:

Table 2.2.6: Sanctioned strength and men-in-position at project level

Sl. No.	Name of the Post	Sanctioned Strength	Men-in-position	Vacancy (per cent)
1	Child Development Project Officer	94	63	31(33)
2	Lady Supervisor (LS)	602	511	91(15)
3	Anganwadi Worker (AWW)	16542	14093	2449(15)
4	Anganwadi Helper (AWH)	15840	13359	2481(16)
5	Others	311	199	112(36)

(Source: Test checked DPOs)

From above table, it was clear that vacancy position of CDPO and LS was 33 and 15 *per cent* respectively. Further, shortages in the grass root level posts of AWWs and AWH were 15 and 16 *per cent* respectively. Besides, the CDPOs and LS cadre plays a vital role in implementation of SABLA scheme as all the responsibilities for proper identification of Ad Gs as well as project level expenditure control and field level monitoring and supervision works were entrusted to both these cadres. Thus, the manpower responsible for implementation of the scheme was inadequate.

During exit conference, the Secretary, SWD stated (October 2014) that action was being taken to fill the vacant posts.

2.2.9.2 Availability of infrastructure

As per scheme guidelines, ICDS infrastructure was to be used for implementation of SABLA and AWC was the focal point for delivery of services under the scheme. The infrastructure included functional toilets, drinking water facility etc.

Safe drinking water and toilet facilities were not available in 66 and 83 per cent of AWCs respectively

In six test checked Districts (consisting of 14410 functional AWCs) safe drinking water facilities were not available in 9538 (66 per cent) and toilet facilities were not available in 11927 AWCs (83 per cent). Absence of basic infrastructure facilities in AWCs had adverse implication of the delivery of services to the targeted beneficiaries.



Anganwadi centre (no. 146 of Barari, Katihar) running without basic infrastructure.

During exit conference, the Secretary, SWD stated (October 2014) that majority of the AWCs were running in rented houses and departmental AWCs were under construction in which facilities for drinking water and toilet were being provided.

2.2.10 Constitution of Monitoring Committee

As per scheme guidelines, in order to ensure effective implementation and monitoring of SABLA throughout the State, a State level monitoring committee under the chairmanship of the Chief Secretary was to be formed. Besides, Members of Parliament (MP) and Member of Legislative Assembly (MLA) were also to be involved. A committee under the chairmanship of the District Magistrate (DM) and DPO as member Secretary was also to be formed at the District level. Both these committees were required to meet quarterly or as and when required under the notice of the Chairperson. Besides, Block and Village level committees under the chairmanship of DPO and Women Gram Panchayat member from the village respectively were also to be formed and these committees were to organise regular monthly meetings to discuss various issues of the village.

Monitoring committee at District, Block and Village level not formed

During the course of audit, it was observed that no such meetings were organised at State to village level till date of audit (May 2014). The Secretary, SWD stated (October 2014) that only State level committee had been formed in 2013-14.

Recommendation: Monitoring committees at District, Block and Village levels should be formed and meetings should be organised as per prescribed periodicity to monitor the implementation of the scheme.

2.2.11 Conclusion

- The SABLA scheme was launched without conducting baseline survey for identification of Ad Gs. As a result, ineligible Girls availed the benefit of the scheme;
- Due to under utilisation of scheme funds and non-submission/delayed submission of UCs to the GoI, the State was deprived of 63 *per cent* of the Central share for the Scheme;
- The rates fixed for purchase of food grains under THR was not adequate to ensure the quality of food grains;
- Identified Ad Gs in the test checked Districts did not get the required services under non-nutrition component of the scheme; and
- Monitoring committee, meant to ensure proper implementation of the scheme, was not constituted at District, Block and Village levels.

ART, CULTURE AND YOUTH DEPARTMENT

2.3 Working of the Directorates of Archaeology and Museum

Executive summary

Introduction

The Art, Culture and Youth Department (Department) of Government of Bihar (GOB) has four Directorates out of which the Directorate of Archaeology had the onus of discovering, preserving and developing the antiquarian remains, including monuments and potential sites of the State while the Directorate of Museum was responsible for functioning of Government museums.

(Paragraph 2.3.1)

Financial Management

The financial management of the Directorates was inadequate as funds remained unutilised and ₹ 16.49 crore were surrendered by the Department towards the end of the financial year. Expenditure Control Register was not maintained by the Department and the allotment, expenditure, balance and appropriation of funds were not being recorded and certified by the competent authority. In addition, the receipt/expenditure figures of the Department were not reconciled fully with the figures maintained by the Accountant General (A&E).

(Paragraph 2.3.6)

Planning

The Directorate of Archaeology did not have any laid down policy or guidelines for selection of sites for excavation and there was no priority list or long term perspective plan for completion of projects within a given period. The Directorate did not conduct survey of unprotected sites and monuments. The Directorate of Museum did not have a comprehensive policy for the management of antiquities. There were no standards for acquisition, preservation, documentation and custody of objects.

(Paragraph 2.3.7)

Shortcomings under Directorates of Archaeology and Museum

The Bihar Heritage Development Society established to acquire/collect, conserve and preserve the archaeological remains and artifacts could not achieve its objectives. The conservation and documentation of antiquities, digitisation and publication of collected manuscript/books in the museums were not according to the standards prescribed in the International Council of Museums code of ethics. Tibbati manuscript brought by Rahul Sanskritayan in Patna Museum could not be translated/published. The Directorate of Museum did not have database or inventory of antiquities in its possession.

(Paragraph 2.3.8.1, 2.3.9.1 and 2.3.9.2)

Human Resource Management

Directorates of Archaeology and Museum were facing acute shortage of manpower and trained staff. The Directorates failed to impart training to any of the staff during the period 2009-14.

(Paragraph 2.3.10)

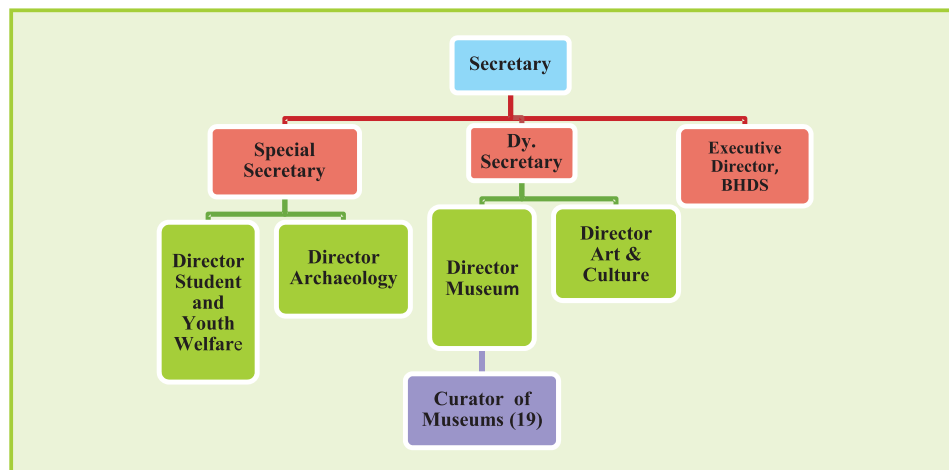
2.3.1 Introduction

Bihar, in eastern India, is one of the oldest inhabited places in the world with a history dating back to 3000 years. The rich culture and heritage of Bihar is evident from the innumerable ancient monuments dotting the State. The Art, Culture and Youth Department (Department) of Government of Bihar (GoB) looks after Art, Culture, Sports, Historical and Cultural heritages of the State and has four Directorates viz. Directorate of Archaeology, Directorate of Museum, Directorate of Art and Culture and Directorate of Student and Youth Welfare. The Directorate of Archaeology had the onus of discovering, preserving and developing the antiquarian remains, including monuments and potential sites while the Directorate of Museum was responsible for functioning of Government museums. In this performance audit, the working of Directorate of Archaeology and Directorate of Museum regarding preservation, protection, upkeep and maintenance of monuments and museums were assessed.

2.3.2 Organisational set-up

The Department is headed by the Secretary who is assisted by the Directors of the four Directorates. The Directorate of Archaeology has no field office. The Bihar Heritage Development Society (BHDS), headed by an Executive Director, was established by the Department in the year 2010 as a registered society to explore, excavate and conserve the archaeological and historical heritage of Bihar. There are 19 Government museums (*Appendix 2.3.1*) in Bihar, headed by Curators under the control of Directorate of Museum. The organogram of the Department is given in the **Chart-2.3.1** below:

Chart-2.3.1 Organogram of Art, Culture and Youth Department



(Source: Information provided by the Department)

2.3.3 Audit objectives

The audit objectives intended to assess and evaluate whether:-

- The funds were adequately provided to the Directorates and it was utilised efficiently;

- The Department /Directorates made a comprehensive and realistic plan for the management and development of archaeological sites and museums ;
- The Directorates executed the works of preservation, protection, upkeep and maintenance of monuments and museums effectively and economically;
- The human resource management was efficient, and
- The storage of antiquities was based on sound inventory management principles.

2.3.4 Audit criteria

The performance audit on Working of Directorates of Archaeology and Museum was benchmarked against the criteria derived from the following sources:

- Bihar Ancient Monuments and Archaeological Site Remains and Art Treasure Act, 1976;
- International Council of Museums (ICOM) code of ethics;
- Bihar Budget Manual;
- Bihar Treasury Code 1937 (Revised in 2011);
- Bihar Financial Rules (Revised), 2005, and
- Departmental instructions/Circulars issued from time to time.

2.3.5 Scope of audit and methodology

The performance audit on Working of Directorates of Archaeology and Museum for the period 2009-14 was conducted between April and July 2014. Records of the Directorate of Archaeology, Directorate of Museum and Bihar Heritage Development Society, Patna along with 12 Museums¹ (out of 19) were test checked. Ten Museums were selected by probability proportional to size with replacement (PPSWR) method and two Museums (Ramchandra Shahi Museum, Muzaffarpur and Chandradhari Museum, Darbhanga) were selected as per suggestion of the Secretary of the Department in the entry conference (April 2014).

Audit methodology included examination of records, issuance of questionnaire, visiting the selected units for scrutiny of the relevant records and collection of evidences, consideration of replies of the Department to the audit memos issued and joint physical inspection/verification of test checked Museums along with 18 protected monuments/excavation sites (*Appendix-2.3.2*). In order to explain the objectives of audit, its methodology, scope, coverage, focus and to elicit the departmental views, an entry conference was held in April 2014 with the Secretary of the Department and Directors of Archaeology and Museum. On completion of audit, an exit conference was

¹ Begusarai, Bhagalpur, Buxar, Chapra, Darbhanga (2), Gaya, Jamui, Muzaffarpur, Madhubani, Nawada and Patna.

held in November 2014 with the Secretary of the Department. The replies of the Department were incorporated at appropriate places for balanced reporting.

Audit findings

The deficiencies noticed during the course of audit are discussed in the subsequent paragraphs:

2.3.6 Financial Management

The Budget provisions, expenditure/ savings during the period 2009-14 are given in the **Table 2.3.1** below:

Table 2.3.1: Budget provisions, expenditure and savings during 2009-14
(₹ in crore)

<i>Directorate of Archaeology</i>				
Year	Budget provision	Expenditure	Total savings	Savings in percentage
2009-10	1.85	1.15	0.70	38
2010-11	4.92	4.20	0.72	15
2011-12	4.43	3.49	0.94	21
2012-13	5.71	4.24	1.47	26
2013-14	9.74	6.26	3.48	36
Total	26.65	19.34	7.31	27
<i>Directorate of Museum</i>				
2009-10	6.90	5.79	1.11	16
2010-11	8.48	5.40	3.08	36
2011-12	12.89	10.20	2.69	21
2012-13	21.89	18.01	3.88	18
2013-14	27.52	22.23	5.29	19
Total	77.68	61.63	16.05	21

(Source: - Information / Statements furnished by the Directorates)

It was evident from the above table that there were savings of 15 to 38 per cent and 16 to 36 per cent against budget provisions of the Archaeology and Museum Directorates during the financial period 2009-14 respectively. It was further observed that savings in Plan head (**Appendix 2.3.3**) ranged between 14 and 48 per cent in the Directorate of Archaeology whereas it ranged between four and 70 per cent in the Directorate of Museum during the period 2009-14. The other deficiencies noticed in financial management are discussed below:

- **Surrender of funds:** Scrutiny of records of the Directorates revealed that funds of ₹ 16.49 crore were surrendered by the Directorates on the last day of the financial year during 2011-14 whereas savings of ₹ 5.61 crore were not surrendered during the year 2009-11 and consequently lapsed (**Appendix-2.3.4**). It was further observed that the earmarked amount for Nalanda Heritage Scheme² under the XIII Finance Commission remained unutilised and ultimately surrendered.
- **Non-reconciliation of expenditure:** Scrutiny revealed that during 2009-14, ₹ 80.15 crore was shown as expenditure in the Appropriation Account whereas the figure of expenditure shown by the Department was ₹ 80.97 crore. The difference of ₹ 82.00 lakh remained unreconciled till date of audit (July 2014).

² Nalanda Heritage scheme included fundamental development of structure and facilities (₹12.50 crore) and Renovation, Conservation and development of 29 archaeological sites (₹12.50 crore) for the year 2012-13.

- **Non-maintenance of Expenditure Control Register:** Audit scrutiny revealed that Expenditure Control Register was not being maintained by the Department and the allotment, expenditure, balance and Appropriation of funds were not being recorded and certified by the competent authority.

During exit conference, the Secretary agreed (November 2014) with audit observations and assured that necessary action would be taken in future.

Recommendation: *The Budget estimates should be prepared on a realistic basis to avoid savings.*

2.3.6.1 Non-receipt of Utilisation Certificates

The sanction letters issued for allocation of funds received for construction/acquisition of land and innovation/conservation work specified that the Drawing and Disbursing Officers (DDOs) had to submit Utilisation Certificates (UCs) to the Department.

During test check of records of the Directorate of Archaeology, it was found that ₹ 13.91 crore was released to the executive agencies such as Building Construction Corporation, District Magistrates of concerned Districts, Bihar Heritage Development Society and Archaeological Survey of India, Circle-Patna for construction/acquisition of land, innovation/conservation work etc. during the period 2009-14. However, UCs for ₹ 12.29 crore were not received till date of audit (June 2014), which was 88 *per cent* of the released amount. A year-wise break up of required UCs was given in the **Table 2.3.2** below:

Table 2.3.2: Details of Utilisation Certificates not received during 2009-14

(₹ in crore)

Year	Amounts for which UCs were required	UCs not received
2009-10	4.45	3.26
2010-11	1.65	1.24
2011-12	1.32	1.30
2012-13	1.96	1.96
2013-14	4.53	4.53
Total	13.91	12.29

(Source: - Information / Statements furnished by the Directorate)

Further, the Directorate neither initiated any action for obtaining UCs nor assessed the physical progress of the works.

In reply, the Department assured (September 2014) that necessary steps would be taken for obtaining the UCs and progress reports from the working agencies. During exit conference the Secretary stated (November 2014) that updated reply and list of UCs would be furnished.

Recommendation: *The Department should ensure that UCs are obtained in time from the DDOs for the given funds.*

2.3.7 Planning

The main objectives of the Directorate of Archaeology were to conduct excavation of the important sites to unravel the mystery of the past and discover, preserve and develop the antiquarian remains, including monuments and potential sites. The Directorate of Museum was responsible for development and up-keep of museums. For fulfilment of these objectives,

Utilisation
Certificates for
₹ 12.29 crore were not
received from
executing agencies

The Directorates did
not prepare long term/
perspective plan to
achieve their objectives

there was a need to identify the sites of archaeological importance and prepare annual as well as perspective plans for their excavation, protection, preservation and development and issue guidelines for maintenance of museums.

During scrutiny, it was observed that only annual plans were prepared on the basis of proposals made by the Directorates while perspective plans were not prepared during the period 2009-14. The Directorate of Archaeology did not have any laid down policy or guidelines for selection of sites for excavation and there was no priority list or perspective plan for completion of projects within the given period. Further, the Directorate of Museum did not have comprehensive policy/guidelines for the management of antiquities. There were no standards for acquisition, preservation, documentation and custody of objects. International best practices issued by ICOM were not adopted by the Directorates. In the absence of any standards, the decisions taken by the Directorates often lacked objectivity, uniformity and transparency.

The deficiencies noticed in the annual plans are as under:

2.3.7.1 No survey of unprotected monuments and sites

Forts, monuments, buildings and sites which were unique in their art and archaeological styles and important from historical and archaeological point of view in the State were mentioned in the annual plan 2009-10 of the Directorate of Archaeology. There was also a proposal in the plan to earmark ₹ 10 lakh for identification/survey of such monuments/sites.

Directorate of Archaeology had not done any survey for identification of the unprotected monuments and sites

Scrutiny of records revealed that the Directorate had not done any survey for identification of the unprotected monuments and sites in Bihar during the period 2009-14. As a result, the Directorate did not have a list of unprotected monuments and consequently no plan could have been prepared for their protection in the annual plans. It was further observed that the Directorate had notified only 36 out of 305 antiquarians described by Kashi Prasad Jaiswal Research Institute³, Patna.

In reply, the Directorate of Archaeology confirmed (September 2014) that the Directorate had not conducted any specific survey in order to collect the data of archaeological sites and monuments in the State during the period 2009-14. However, in exit conference (November 2014) the Secretary, while accepting the facts stated that declaration of archaeological sites as protected sites was an ongoing process and action would be taken after assessment of various site reports.

Recommendation: A survey should be conducted for identification of unprotected monuments and sites and plans should be prepared for their protection.

2.3.7.2 Non-approval of excavation proposals

According to the directives (May 2010) of Archaeological Survey of India (ASI), proposal for excavation in the areas which are not protected by the Central Government, shall be submitted through the respective State

³ The K. P. Jayswal Research Institute in Patna was established by the GoB in 1950 with the object of promoting "historical research, archaeological excavation and investigations and publication of works of permanent value to scholars".

Incomplete proposals of excavations were sent to ASI without any survey or preliminary reports

Governments who in turn, may certify that they intend to undertake or authorise the applicant to undertake archaeological excavation in the area which is not a protected area. The proposal should be research-oriented and aimed at filling the missing links and gaps in Indian Archaeology and History with well-defined objectives.

Scrutiny of records of the Directorate of Archaeology revealed that incomplete proposals of excavations were sent to ASI without any survey or preliminary reports which resulted in denial of the proposals (*Appendix-2.3.5*).

In reply, the Department accepted (September 2014) that the Directorate of Archaeology did not have any specific policy/guidelines for selection of sites for excavation in the State.

2.3.8 Excavation of archaeological sites and maintenance of monuments

The Directorate of Archaeology had declared 36 ancient monuments and archaeological sites (*Appendix-2.3.6*) under the provisions of the Bihar Ancient Monuments and Archaeological Site Remains and Art Treasure Act, 1976. The shortcomings noticed in course of scrutiny of records of BHDS are discussed in succeeding paragraphs:

2.3.8.1 Bihar Heritage Development Society

BHDS was established to acquire/collect, conserve and preserve the archaeological remains and artefacts/art objects received from archaeological places and their display in museums and to encourage the related research works, prepare specific projects for protection, conservation, preservation, renovation, and development of archaeological monuments, remains and heritage buildings of Bihar and to develop places/monuments of archaeological importance as heritage resource.

Scrutiny of records of this society revealed that BHDS had not yet taken adequate steps towards attainment of these aims. The shortcomings noticed during audit are given below:

BHDS had not yet taken adequate steps towards attainment of its objectives

- To perform the responsibilities, the Department had provided ₹ 1.50 crore⁴ to BHDS. However, the Society could spend only ₹ 0.85 crore and remaining funds amounting to ₹ 0.65 crore (43 *per cent*) were returned;
- Five sections such as Chemical preservation laboratory, Structural conservation section, Exploration and Excavation section, Archaeological section and Publication and documentation section were to be established (July 2010) to strengthen BHDS. However, these sections were not established till date of audit (May 2014);
- It was decided in executive committee meeting (September 2011) that the services of retired Archaeologists and Historians would be obtained for scientific archaeological explorations in several areas of Bihar and a heritage calendar and diary would be published. However, none of the decisions were implemented till date of audit (May 2014).

⁴ ₹ one crore in December 2010 and ₹ 0.50 crore in February 2013

On being pointed out, the Executive Director, BHDS replied (June 2014) that appointment of technical staff required for these works was in progress. The Secretary accepted the above facts in exit conference (November 2014) and assured action.

Recommendation: The BHDS should initiate steps to establish specialised sections to achieve its objectives and post qualified personnel for conducting scientific archaeological explorations.

2.3.9 Conservation, documentation and digitisation of antiquities under Directorate of Museum

The Directorate of Museum is responsible for functioning of 19 Government Museums. During audit of the Directorate, records of 12 out of 19 Museums were test checked. The shortcomings noticed during audit are discussed in succeeding paragraphs.

2.3.9.1 Conservation, digitisation and publication of collected manuscript/books:

According to ICOM Code of Ethics, careful attention should be given to the development of policies to protect the collections during armed conflict and other human-made or natural disasters and preventive conservation is an important element of museum policy and collections care. It is an essential responsibility of members of the museum profession to create and maintain a protective environment for the collections in their care, whether in store, on display, or in transit.

Tibbati Manuscripts handed over by Rahul Sanskrityayan were neither properly conserved nor published

Scrutiny of records of Patna Museum, Patna revealed that six thousand Tibbati Manuscripts were handed over to Patna Museum in the year 1929 by Rahul Sanskrityayan. As these books were very old, the Museum was required to conserve them with utmost care, but it was found that 20 of them were torn and no steps of conservation were taken despite availability of funds (₹ 10 lakh) since March 2008. The funds were kept in fixed deposits of bank. It was further observed that the translation/publication of manuscripts were also not done till date of audit (May 2014).

In exit conference, the Secretary accepted (November 2014) the above facts and assured that appropriate action would be taken in future. The Secretary also stated that tender notice for the same had been floated and the work would be started.

Recommendation: The Department should take initiatives for conservation and translation/publication of old manuscripts.

2.3.9.2 Lack of documentation in the Museums

According to ICOM Code of Ethics, museum collections should be documented according to accepted professional standards including full identification and description of each items, its associations, provenance, condition, treatment and present location. The data should be kept in a secure environment supported by retrieval system.

Directorate of Museum did not have database or inventory of antiquities and only 34 per cent of antiquities were documented

Scrutiny of records disclosed that the Directorate of Museum did not have database or inventory of antiquities in its possession. The status of documentation during the year 2010-14, in test checked Museums are given in the **Table 2.3.3** below:

Table 2.3.3: Status of documentation in test checked Museums

Sl. No.	Name of Museum	Total no. of Antiquities	Documentation done (Percentage)	Balance
(1)	(2)	(3)	(4)	(5)
1	Patna Museum Patna	54533	22432(41)	32101
2	Sitaram Upadhyay Museum, Buxar	1563	1205(77)	358
3	Ramchandra Sahi Museum, Muzaffarpur	14617	0(0)	14617
4	Chapra Museum, Chapra	114	0(0)	114
5	M.L.Singh Museum, Darbhanga	607	0(0)	607
6	Chandradhari Museum, Darbhanga	2454	0(0)	2454
7	Mithila Lalit Museum, Sourath, Madhubani	154	0(0)	154
8	Begusarai Museum, Begusarai	4064	4064(100)	0
9	Bhagalpur Museum, Bhagalpur	740	0(0)	740
10	Chandra Shekhar Singh Museum, Jamui	247	0(0)	247
11	Naradah Museum, Nawada	2032	0(0)	2032
12	Gaya Museum Gaya	2067	384(19)	1683
Total		83192	28085(34)	55107

(Source:- Information furnished by the concerned museums)

The above facts indicated poor documentation of antiquities in the Museums except Begusarai and Buxar.

In exit conference (November 2014), the Secretary intimated that the documentation work was being carried out in all Museums and it would be completed in this year.

Recommendation: *The Department should complete the documentation of antiquities at the earliest and develop a centralised and digitised data base of antiquities.*

2.3.9.3 Non-availability of land records of Museum

During test check of records of selected museums, it was found that no records of Museum land were available in any of the Museums except Chandradhari Museum, Darbhanga and Naradah Museum, Nawada. Further, it was found that a piece of land which was situated in north of the Patna Museum was encroached by unauthorised elements. It was also found that the office of District Fisheries Officer, Patna was situated in the land of Patna Museum.

On being pointed out, the Additional Director, Patna Museum accepted (May 2014) the audit observation and intimated that request for taking necessary action would be made to the District Administration. The Secretary also assured in exit conference (November 2014) that necessary action would be taken.

Recommendation: *The Museums should ensure that the land and records thereof are secure and well maintained.*

2.3.10 Human Resource Management

Efficient functioning of the Department depends upon the availability of requisite manpower and proper management of the available manpower.

Both the Directorates were facing acute shortage of staff

Scrutiny revealed that the Directorates of Archaeology and Museum were facing acute shortage of trained manpower. No training was imparted to any of the staff during the period 2009-14 by the Directorates. It was noticed that the posts of the Director, Conservation officer, Assistant Director (Conservation) and Chemical Assistant were vacant in the Directorate of Archaeology. Further in the Directorate of Museum, the posts of Director, Additional Director and Regional Deputy Director were lying vacant and only seven Curators were posted against 19 working museums. One Curator was holding the charge of more than one museum which was adversely affecting the display and management of antiquities in museums. It was further observed that though there were no visitors during the last five years, full-fledged Curators were posted in Chapra Museum, Chapra and Mithila Lalit Museum, Saurath, Madhubani. The sanctioned strength *vis-à-vis* men in position in different posts are given in *Appendix-2.3.7*.

The Department accepted (September 2014) the audit observation and stated that necessary steps were being taken to meet the shortage of manpower.

Recommendation: *The Department should take immediate steps to resolve the manpower shortage in the Directorates.*

2.3.11 Stores/Materials management

2.3.11.1 Poor/ Non- maintenance of Accession Register

As per "Practical Handbook on 'Inventories and Documentation of ICOM, Running a Museum'" the museum should maintain an Accession Register, with a checklist of all the acquisitions. It should have columns for accession number, date, source, method and brief description of the group, number of objects making up the group and the name or initials of the Museum Curator.

Accession Register was not being maintained in museums except Patna Museum where the maintenance of Register was poor

During audit of test checked museums, it was found that the Accession Register was not maintained in museums except Patna Museum, Patna where the Register was not properly maintained. Five out of 41 Accession Registers were test checked in Patna Museum and it was found that 9570 antiquities were entered in the Registers. Out of these, 2031 antiquities had no date of accession, 773 antiquities had no date of provenance, 1213 antiquities had no date of donation, 2496 antiquities had no date of receipt and 7597 antiquities had no information about the placement.

It was further found that though receipts/Antiquities Registers were maintained in Buxar, Muzaffarpur, Bhagalpur, Jamui, Nawada and Gaya

museums, important information were not provided in the said records (**Appendix-2.3.8**).

Non-maintenance of such registers by the Museums may create problems in recognising lost/stolen/misplaced antiquities.

In exit conference (November 2014), the Secretary assured that Accession Register would be prepared in all Museums at the earliest and missing information regarding antiquities would be incorporated in ongoing documentation of antiquities.

2.3.11.2 Physical verification of the Antiquities

Periodical physical verification of antiquities was essential to ensure the existence and also to assess the condition of the antiquities. It was found that physical verification in the test checked museums was not done during the period 2009-14.

In exit conference (November 2014), the Secretary also accepted the facts and assured that necessary action would be taken in this regard.

Recommendation: The Museums should maintain proper records regarding acquisition of antiquities along with their provenance and placements to ensure accountability.

2.3.12 Conclusion

- The financial management of both the Directorates was inadequate as funds remained unutilised and were surrendered towards the end of the financial year;
- The planning aspect of the Directorates was largely neglected as the Directorate of Archaeology did not have any laid down policy or guidelines for selection of sites for excavation and the Directorate of Museum did not have a comprehensive policy for the management of antiquities;
- The BHDS established to acquire/collect, conserve and preserve the archaeological remains and artifacts could not achieve its objectives;
- The conservation and documentation of antiquities, digitisation and publication of collected manuscript/books in the museums were not according to the standards prescribed in the International Council of Museums code of ethics;
- Both the Directorates were facing acute shortage of manpower.

PUBLIC HEALTH AND ENGINEERING DEPARTMENT

2.4 Implementation of Total Sanitation Campaign/Nirmal Bharat Abhiyan in Bihar

Executive summary

Introduction

The Government of India (GoI) started the Central Rural Sanitation Programme (CRSP) in 1986 with the objective of improving the quality of life of the rural people through proper sanitation facilities and to provide privacy and dignity to women. The Government modified the CRSP in 1999 and renamed the programme as Total Sanitation Campaign (TSC). Later on, the TSC was renamed as Nirmal Bharat Abhiyan (NBA) with effect from 01 April 2012.

(Paragraph 2.4.1)

Implementation mechanism

The Bihar State Water and Sanitation Mission (BSWSM) could not set up Water and Sanitation Support Organisation (WSSO) in the State. District Water and Sanitation Mission, Block Resource Centres and Village Water and Sanitation Committees in test checked Districts were not constituted. There were 55 *per cent* and 81 *per cent* vacancies against the sanctioned strength at the State and District level respectively.

(Paragraph 2.4.6)

Preliminary and Baseline Survey

The Preliminary survey was not conducted by the BSWSM during 2010-14 and the BSWSM could conduct Baseline survey only in 2013-14, though funding norms of TSC/NBA were changed in 2010, 2011 and 2012. The Project Implementation Plan was not revised since approval of project during 2000-06 in the test checked districts. The Annual Implementation Plan was prepared without consolidating plans of grass root level *viz.* Block and Gram Panchayat plans in the test checked districts.

(Paragraph 2.4.6.2 to 2.4.6.4)

Release and utilisation of funds

The BSWSM could utilise only 73 *per cent* of available funds during 2010-14. The percentage of expenditure ranged between 32 to 66 *per cent*, however, it declined from 66 *per cent* to 32 *per cent* during 2011-12 to 2013-14. BSWSM was deprived of ₹585.14 crore of GoI funds during 2013-14 due to non-utilisation of available funds. An advance of ₹ 6.63 crore provided for construction of toilets was outstanding even after lapse of more than seven years.

(Paragraph 2.4.7)

Target and achievement

In the State, 79 *per cent* of households lack toilet facilities. The construction of Individual Household Latrines in the State ranged between 14 and 71 *per*

cent during 2010-14. However, it declined from 71 per cent in 2011-12 to 14 per cent in 2013-14.

(Paragraph 2.4.8.1 & 2.4.8.2)

Information, Education and Communication

The DWSCs of the test checked Districts executed Information, Education and Communication (IEC) activities without engaging grass root level field functionaries (Swachhta Doot, ASHA etc.) and most significant IEC tool such as interpersonal communication and door to door contacts were not conducted.

(Paragraph 2.4.10)

2.4.1 Introduction

Government of India (GoI) started the Central Rural Sanitation Programme (CRSP) in 1986 with the objective of improving the quality of life of the rural people through proper sanitation facilities and to provide privacy and dignity to women. The Government modified the CRSP in 1999 and renamed the programme as the Total Sanitation Campaign (TSC). Later on, the TSC was renamed as Nirmal Bharat Abhiyan (NBA) with effect from 01 April 2012.

The objective of TSC/NBA is to accelerate sanitation coverage in rural areas, schools not covered under Sarva Shiksha Abhiyan (SSA) and anganwadi centres (AWCs) in the rural areas. The aim is to achieve the vision of Nirmal Bharat by the year 2022 with all gram panchayats (GPs) in the country attaining Nirmal status by that year.

The implementation of the TSC in Bihar started in 1999. The status of achievement under the TSC/NBA in the State for coverage of Individual Household Latrines (IHHL) for Above Poverty Line (APL) and Below Poverty Line (BPL), school toilets and anganwadi toilets were 11, 27, 41 and six per cent respectively as of March 2010 against approved project objective.

2.4.2 Organisational set-up

The Bihar State Water and Sanitation Mission (BSWSM) is a society registered under the Society Registration Act, 1860 in 2004 for implementation of the TSC in Bihar under Public Health Engineering Department (PHED), Government of Bihar (GoB). The BSWSM shall carry out such directions as may be issued to it from time to time by the Government of India (GoI) or GoB and shall furnish such reports/ returns and other information as may be required by them. The BSWSM consists of an Apex Committee and Executive Committee. The Apex Committee chaired by the Development Commissioner is responsible for providing policy guidance and coordinating with line Departments¹. The Executive Committee chaired by the Principal Secretary, PHED is responsible for implementation of the scheme. The Engineer-in-Chief, PHED is the Member Secretary of BSWSM. The BSWSM is assisted by Project Management Unit (PMU) and

¹ Rural Development Department, Panchayati Raj Department, Finance Department, Health Department, Education Department, Women and Child Development Department, Water Resources Department, Agriculture Department and Information and Public Relation Department

Communication and Capacity Development Unit (CCDU) supported by Consultants. The organisational set-up from state level to village level is given in *Appendix-2.4.1*.

2.4.3 Audit objectives

The audit objectives aimed to assess and evaluate whether:

- The planning of the implementation of the Scheme at different levels was adequate and effective and was aimed towards achievement of objectives of the scheme;
- funds were duly released by the Central and State Governments, accounted for and utilised in compliance with the guidelines of the Scheme;
- the targets set in terms of number of units under various components of the Scheme were sufficient to achieve and sustain the vision of *Nirmal Bharat* by 2022 with all GPs in the State attaining *Nirmal* status;
- the system of selection of beneficiary was transparent and construction and upgradation of infrastructure under various components of the Scheme was in compliance with the financial and quality parameters set out in the scheme guidelines;
- the information, education and communication strategy under the Scheme was effective in generation of demand for TSC/NBA services through community mobilisation;
- the convergence of the NBA activities with other programmes/stakeholders as envisaged was effectively achieved; and
- the mechanism in place for monitoring and evaluation of the outcome of the programme was adequate and effective.

2.4.4 Audit criteria

The performance audit on Implementation of the Total Sanitation Campaign/Nirmal Bharat Abhiyan in Bihar was benchmarked against the criteria derived from the following sources:

- The TSC guidelines 2010 and 2011 and NBA Guidelines 2012; notifications and circulars issued by Ministry of Drinking Water and Sanitation, GoI;
- The State Government orders relating to implementation of the TSC/NBA;
- The Guidelines for engagement of skilled and unskilled workers from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA);
- Bihar Treasury Code;
- Physical and financial progress reported under Management Information System available on website of the Scheme (tsc.gov.in); and
- Bihar State guidelines for implementation of the TSC.

2.4.5 Audit scope and methodology

The records of the BSWSM at Apex level and at District level and records of the District Water and Sanitation Committee (DWSCs) for the period 2010-14 were test checked during May to August 2014. Thirteen² out of 38 Districts of Bihar were selected by Probability Proportional to Size with Replacement (PPSWR) method with size measure based on total approved project cost as envisaged in the guidelines.

However, scrutiny of records was confined to the DWSCs, as the lower level committees at Block, Panchayat and Village level were not constituted. In order to explain the objectives of audit, its methodology, scope, coverage, focus and elicit the departmental views, an entry conference was held in May 2014 with the Principal Secretary, PHED. The exit conference was held with the Special Secretary, PHED in November 2014 wherein Department's views/replies were obtained and incorporated at appropriate places.

Audit Findings

2.4.6 Planning

2.4.6.1 Implementation mechanism

As per TSC/NBA guidelines, a four tier implementation mechanism should be set-up at the State, district, block and village level.

At State level, State Government should constitute a State Water and Sanitation Mission (SWSM) to help supervision of implementation of TSC/NBA in the projects districts. The SWSM shall meet at least once in six months to supervise implementation of NBA in the project districts in the State, to ensure convergence mechanism between line departments etc. Further, a Water and Sanitation Support Organisation (WSSO) under SWSM should be set up to deal with Information Education and Communication (IEC), Human Resources Development (HRD) and Monitoring and Evaluation at the State level.

During course of audit, it was noticed that the BSWSM was constituted (November 2004) with the prescribed composition. However, the BSWSM could convene only six meetings during 2010-14 against required eight meetings as per guidelines. Besides, the BSWSM also could not set up WSSO as of March 2014.

Further, the District Water and Sanitation Mission (DWSM) at district level, Block Recourse Centre (BRC) at block level and Village Water and Sanitation Committee (VWSC) at GP level should be constituted for planning and implementation of TSC/NBA project with appropriate IEC strategies. The DWSM shall meet monthly.

**The BSWSM
could not set up
WSSO as of
March 2014**

² Bhojpur, Darbhanga, Gaya, Kaimur, Katihar, Munger, Muzaffarpur, Nawada, Patna, Purnea, Saharsa, Sitamarhi and West Champaran

DWSCs could not constitute BRCs and VWSCs at District level

In Bihar, as per State guidelines, the District Water and Sanitation Committees (DWSCs) were functional during 2010-14 in place of DWSM whereas BRC and VWSC were not constituted in the test checked districts during 2010-14. Further, test checked DWSCs held nil to 15 meetings against required 48 meetings (for each DWSC) during 2010-14. Thus, due to non-constitution of BRCs and VWSCs and non-convening of required meetings, DWSCs of the test checked Districts ignored the importance of plan and implementation of the TSC/NBA at grass root level.

Overall 55 per cent posts at State level and 81 per cent posts at district level against sanctioned strength were lying vacant as of March 2014

It was noticed that overall 55 per cent posts at the State level and 81 per cent posts at district level against sanctioned strength were lying vacant as of March 2014 (*Appendix-2.4.2*). In addition, it was also noticed that only 76 out of 145 personnel at district level had received training as of March 2014 in the test checked Districts. However, trainings for Panchayati Raj Institution (PRI) members were not organised.

During exit conference (November 2014), the Special Secretary while accepting the audit findings stated that the process had been initiated for hiring 534 Block Co-ordinators and 1257 Cluster Co-ordinators.

Recommendation: Water and Sanitation Support Organisation, Block Resource Centre and Village Water and Sanitation Committee should be set-up by BSWSM/DWSCs at the earliest and the vacant posts at various levels should be filled up for better implementation of the programme.

2.4.6.2 Preliminary and Baseline survey

The TSC/NBA guidelines specified that start-up activities include conducting of preliminary survey, Baseline survey, orientation of key personnel at the district/GP level and preparation of the State Plan. Further, the TSC/NBA guidelines also stipulated that project proposal should be revised after change in the funding norms. The revised project proposal should include Baseline survey report, latest census data available in respect of the districts and any other survey that is referred to in support of revision of the project proposal.

Preliminary survey was not conducted during 2010-14 while the Baseline survey was initiated during 2013-14 only

Scrutiny of records of the DWSCs of test checked Districts revealed that preliminary survey was not conducted during 2010-14. Further, the Baseline survey was neither conducted during 2010-13 nor the BSWSM provided any periodicity for conducting Baseline survey. Despite changes in funding norms in 2010, 2011 and 2012, Baseline survey was initiated by BSWSM in 2013-14 only. Thus, due to non-conducting of preliminary and Baseline survey, the Department failed to assess the status of sanitation and hygiene practices prevailing in rural areas during the said period.

During exit conference (November 2014), the Special Secretary admitted that Project Implementation Plan (PIP) was based on old data but stated that GoI had not defined any periodicity for conducting Baseline survey.

The reply was not in conformity with TSC/NBA guidelines as Baseline survey was to be conducted at the time of revision of funding norms.

2.4.6.3 Project Implementation Plan

The TSC/NBA guidelines envisaged that after conducting the Baseline survey, the exact requirement for different categories of hardware may undergo change which will necessitate revision in the project.

Project Implementation Plan was not revised in the test checked districts since inception of the project

During audit, it was noticed that PIP of the test checked Districts was approved during 2000-06. PIP was not revised in any of the test checked Districts subsequently as of March 2014. Thus, due to non-revision of PIP, assessment of exact requirement for different category of hardware was not done by the DWSCs of the test checked Districts.

During exit conference (November 2014), the Special Secretary accepted that the project objective was based on old data.

2.4.6.4 Annual Implementation Plan

The TSC/NBA guidelines specified that the main objective of the Annual Implementation Plan (AIP) is to provide a definite direction to the programme for creation of Nirmal Grams. The AIP should be prepared by consolidation of GP plans into Block Implementation Plan and further into District Implementation Plan.

AIP was not prepared by consolidating grass root level plans

During scrutiny of records of the DWSCs of the test checked Districts revealed that GP and block level plans were not prepared and district AIPs were prepared at district level only. The failure to prepare the AIPs from the plans of GPs and respective block plans deprived the households at grass root level to contribute innovative ideas best suited for them.

Further, scrutiny of the AIP for the period 2011-14 of 11 test checked Districts³ revealed that previous year's achievement of construction of IHHL was never considered for fixing the targets for APL and BPL households. The target fixed when compared with achievement of previous year for APL households, ranged between 190 and 1693 *per cent* and 15 and 951 *per cent* during 2012-13 and 2013-14 respectively. However, for BPL component, it was between 108 and 807 *per cent* and 105 and 488 *per cent* respectively (*Appendix-2.4.3*).

Thus, the DWSCs of the test checked Districts did not consider previous year's achievement and fixed unrealistic targets which were not achieved during 2012-14.

During exit conference (November 2014), the Special Secretary accepted that AIP was prepared at district level but the implementation of AIP was done from GPs level. Further, the Department added that non-achievement of target was due to lack of convergence under Indira Awas Yojna (IAY) and MGNREGA and non-availability of MGNREGA funds at GP level.

Recommendation: The Project Implementation Plans should be revised after change in funding norms and the Annual Implementation Plan should be prepared by integrating grass root level plans.

2.4.7 Release and utilisation of funds

The TSC/NBA guidelines stipulate that the funds under TSC/NBA is to be released to the BSWM on the basis of approved demands as decided in the AIP meeting and the availability of funds. The allocation of funds to respective SWSMs should be made in two instalments and the second

³ AIP of Kaimur and Purnea district not made available to audit.

instalment should be released after utilisation of 60 *per cent* of the available funds with the SWSM.

The details of funds for the period 2010-11 to 2013-14 are given in **Table 2.4.1**.

Table 2.4.1: Funds released by GoI and State Government, expenditure thereof and savings

(₹ in crore)

Year	GoI share required as per State AIP	Opening balance	Funds released by		Total funds available during the year	Total Expenditure	Closing balance (per centage of available funds)	Percentage of expenditure
			GoI (per cent)	State				
2010-11	421.51	116.88	112.60 (27)	69.51	298.99	178.90	120.09 (40)	60
2011-12	453.15	120.08	172.19 (38)	74.81	367.08	242.06	125.03 (34)	66
2012-13	562.69	125.03	478.15 (85)	58.71	661.89	282.93	378.96 (57)	43
2013-14	585.14	378.96	0.00 (0)	102.73	481.69	156.19	325.50 (68)	32
Total	2022.49		762.94(38)	305.76		860.08		

(Source: Information furnished by the BSWSM)

The BSWSM could utilise only 73 *per cent* of the available funds during 2010-14. As a result, the State was deprived of ₹ 585.14 crore of GoI funds during 2013-14

From above table, it would be evident that against GoI share of ₹ 2022.49 crore, only ₹ 762.94 crore (38 *per cent*) were released by the GoI during 2010-14. Further, the BSWSM could utilise ₹ 860.08 crore (73 *per cent*) only out of available funds of ₹ 1185.58 crore.⁴ The percentage of expenditure declined from 66 *per cent* in 2011-12 to 32 *per cent* during 2013-14. Resultantly, the State was deprived of ₹ 585.14 crore of GoI funds as no funds was released by the GOI during 2013-14 due to meagre spending on IEC activities, lack of manpower, failure of convergence mechanism etc. as discussed in succeeding paragraphs. In test checked Districts, the DWSCs could spend only ₹ 355.66 crore (68 *per cent*) against the total available funds of ₹ 520.76 crore (**Appendix-2.4.4**).

During exit conference (November 2014), the Special Secretary replied that allocation of Central share was not based on the requirement of funds as per the State AIP submitted to GoI.

The reply was silent about the State being deprived of GoI funds due to reduction in expenditure on various components of the scheme.

The other irregularities noticed are discussed as follows:

- The BSWSM released matching State shares after delay between 68 and 69 days⁵ during 2010-12 and at district level, funds were not transferred to GPs by the DWSCs of test checked Districts (except Katihar) during 2010-13 though required to be released within 15 days of receipt of funds as per the TSC/NBA guidelines.
- The BSWSM failed to release required matching share of ₹ 34.90 crore (**Appendix-2.4.5**) under the TSC/NBA programme during 2010-14.

⁴ Opening balance: ₹116.88 crore + GOI share: ₹762.94 crore + State share: ₹305.76 crore = ₹1185.58 crore

⁵ 2010-11: 69 days, 2011-12: 68 days

Advances of ₹ 6.63 crore remained unadjusted in six test checked districts

- Due to non-submission of Utilisation Certificates (UCs), advances of ₹ 6.63 crore remained unadjusted in six test checked Districts⁶ as of March 2014.

Recommendation: *BSWSM should enhance the activities under IEC and ensure convergence of the scheme with various other schemes of the Government so that the State is not deprived of GoI funds.*

2.4.8 Target and achievement

2.4.8.1 Achievement of targets

The TSC/NBA guidelines stipulate that sanitation coverage in rural areas should be accelerated to achieve the vision of Nirmal Bharat by the year 2022 with all GPs in the country attaining Nirmal status.

During scrutiny, it was noticed that there were 2.14 crore households in the State as per Baseline survey conducted by the BSWSM during 2013-14. Of these, 1.68 crore (79 per cent) households were still without toilet facilities.

2.4.8.2 Progress towards achievement of targets

The TSC/NBA guidelines envisaged that the programme was aimed to cover all the rural BPL and eligible APL⁷ households.

It was noticed that the BSWSM fixed year wise target and achievement for construction of IHHL for BPL and APL during 2010-14 as given in **Table 2.4.2.**

Table 2.4.2: Target and Achievements for construction of IHHL during 2010-14

Year	Construction of IHHLs for BPL		Construction of IHHLs for APL		Total		Percent age achievement
	Target	Achievement	Target	Achievement	Target	Achievement	
2010-11	1434638	545770	1450446	172022	2885084	717792	25
2011-12	737735	646052	443313	193875	1181048	839927	71
2012-13	791355	560678	453336	236021	1244691	796699	64
2013-14	686880	98456	460169	63190	1147049	161646	14

(Source: Information provided by BSWSM)

It was evident from the table above that the BSWSM failed to achieve targets in any of the year during 2010-14. The achievement percentage declined drastically from 71 per cent in 2011-12 to 14 per cent in 2013-14.

During exit conference (November 2014), the Department stated that the main reason for non-achievement of IHHL target during two years (2012-14) was due to lack of convergence under IAY and MGNERGA and non-availability of MGNERGA funds at GP level.

⁶ Bhojpur- ₹ 1.28 crore, Darbhanga- ₹ 2.50 crore, Katihar- ₹ 0.14 crore, Muzaffarpur- ₹ 1.60 crore, Nawada- ₹ 0.51 crore and West Champaran- ₹ 0.60 crore.

⁷ Schedule Caste, Schedule Tribe, Small and marginal farmers, landless labourers with homestead, physically handicapped and women headed households.

2.4.9 Selection of beneficiaries, construction and upgradation of infrastructure under the TSC/NBA

2.4.9.1 Selection of GPs for saturation

The TSC/NBA guidelines specified that AIP should be prepared following the saturation approach highlighting comprehensive sanitation and water coverage. Priority may be given to GPs having functional piped water supply.

During audit, it was noticed that 228 (seven *per cent*) GPs out of 3263 in test checked Districts were identified for saturation approach in AIP as of March 2014. As per information provided by DWSC, 73 GPs attained the Nirmal status as on March 2014. However, scrutiny revealed that out of 73 GPs only six GPs were covered by 100 *per cent* piped water supply scheme which shows that priority was not fixed as envisaged in the NBA guidelines. (*Appendix-2.4.6*).

The Special Secretary stated during exit conference (November 2014) that the Department instructed DWSCs to select at least one GP in each block and added that the focus was given on construction work of IHHLs in other panchayats.

2.4.9.2 Selection of IHHL beneficiary

The TSC/NBA guidelines envisaged that the programme was aimed to cover all the rural families.

During scrutiny, it was noticed that list of BPL and eligible APL households for the period 2010-14 were not available in the test checked Districts. However, construction of IHHL was being carried out from the BPL list of households prepared by concerned District administration.

2.4.9.3 Irregular payment to APL households

The TSC/NBA guidelines stipulate that incentive may be provided to eligible APL households *viz.* SCs/ STs, small and marginal farmers, landless labourers with homestead, physically handicapped and women headed households.

Scrutiny of records at the BSWSM disclosed that the Department released (December 2012) a sum of ₹ 519.44 crore for 37.10 lakh eligible APL families since September 2012 with presumption that 90 *per cent* of such APL families pertains to earmarked categories. An amount of ₹119.83 crore⁸ was paid (September 2012 to January 2014) to 2.60 lakh APL households in the State. However, scrutiny disclosed that test checked Districts did not maintain data of eligible APL households. Thus, the entire payment of ₹ 119.83 crore was made without ascertaining the prescribed category of APL.

2.4.9.4 Community Sanitary Complex

The TSC/NBA guidelines stipulate that the TSC/NBA aimed to construct Community Sanitary Complexes (CSCs) when there is lack of space in village for construction of IHHL and can also be at public places, market, etc. The responsibility for their upkeep and maintenance is to be given to the respective

List of BPL and eligible APL households were not available in the test checked DWSCs

⁸ GoI share- ₹ 83.36 crore and State share- ₹ 36.47 crore.

CSCs were constructed without ensuring water facility and upkeep and maintenance by GPs

GPs and water facilities in CSCs were to be provided from other schemes such as the Accelerated Rural Water Supply Scheme etc.

Against the project objective of construction of 703 CSCs, only 346 CSCs (49 per cent) were constructed after incurring expenditure of ₹ 4.41 crore as of March 2014 (**Appendix-2.4.7**). Scrutiny of records of test checked Districts however revealed that no information were available regarding lack of space in village for construction of IHHLs. It was further noticed that the provision of water in constructed CSCs could not be made available by the concerned DWSCs of all test checked Districts. It was also noticed that the DWSC, Sitamarhi constructed 180 CSCs against sanctioned project objective of 50 by the National Scheme Sanctioning Committee resulting in unauthorised construction of 130 CSCs. Further, records relating to upkeep and maintenance of constructed CSCs in seven test checked Districts⁹ were also not available.

During exit conference (November 2014), the Special Secretary stated that there was no provision for running water in the CSCs with maximum unit cost of ₹ two lakh. However, the guidelines specified that water source should be provided from other schemes including National Rural Drinking Water Programme.

2.4.9.5 School toilets

The TSC/NBA guidelines stipulated that separate toilets for girls and boys should be provided in schools. Toilets should be provided with access opportunities to children with special needs (CWSN). The number of toilet units to be constructed should be adequate to meet the requirements of the schools as per the strength of the students attending the school.

School toilets were not constructed by assessing the strength of students and access opportunities to children with special needs

Scrutiny of records disclosed that achievement of construction of school toilets was more than 94 per cent in the State and 95 per cent in test checked Districts and 22375 school toilets were constructed during 2010-14 after incurring an expenditure of ₹ 61.11 crore. However, none of the test checked Districts worked out the requirement of school toilets as per strength of students attending the school. In addition, it was also noticed that provision to access opportunity to toilets for CWSN in schools were not considered.

The Special Secretary replied during exit conference (November 2014) that proper guidelines was not issued for construction of additional unit of toilets as per the number of students in the school.

2.4.9.6 Anganwadi Toilets

The TSC/NBA guidelines envisaged that each anganwadi in Government buildings should be provided with a baby friendly toilet from NBA funds. Owners of AWCs in private buildings should construct the toilet as per design and charge enhanced rent of building to recover the cost of construction.

All the anganwadi centres running in private buildings in the test checked districts were without toilet facilities

Scrutiny of records of test checked Districts disclosed that the DWSCs targeted to cover 5615 AWCs (out of 22758 AWCs) in Government buildings with provision of baby friendly toilets. Of them, only 2987 toilets (53 per cent) were constructed. However, these toilets were not baby friendly and

⁹ Kaimur, Katihar, Munger, Nawada, Purnea, Saharsa and Sitamarhi.

toilets were not constructed in any of the 17143 AWCs running in private buildings.

During exit conference (November 2014), the Special Secretary accepted that child friendly toilets could not be constructed in AWCs due to inadequate rate of construction of toilets.

2.4.9.7 Rural Sanitary Mart and Production Centres

The TSC/NBA guidelines envisage that the main aim of having a Rural Sanitary Mart (RSM) was to provide materials, services and guidance needed for constructing different types of latrines and other sanitary facilities as per choice. Production Centres (PCs) are the means to produce cost effective affordable sanitary materials at the local level.

RSM and PC were remained ineffective in all the test checked Districts (except Purnea) during 2010-14

During audit, it was noticed that only one to 14 RSMs and PCs were available in three test checked Districts¹⁰ during 2010-14 and none of them were functional (except Purnea). In other test checked Districts, no RSM and PC were available during 2010-14.

The Special Secretary replied during exit conference (November 2014) that after 2008, use of PC was minimal.

The reply was in contravention of guidelines as RSM/PC was to be established for ensuring the supply of materials, services and guidance needed for constructing different types of latrines and other sanitary facilities.

2.4.9.8 Incentive based programme changed into scheme based

The TSC/NBA guidelines provide that the construction of households toilets would be undertaken by the households itself as per his choice and on completion and use of the toilet, the cash incentive could be given to the households in recognition of its achievement.

Incentive based programme was converted into scheme based programme in violation of TSC/NBA guidelines

Scrutiny of records of the DWSCs in test checked Districts disclosed that construction of IHHL was done departmentally/through NGOs during 2010-14. The DWSCs of the test checked Districts constructed 10.93 lakh toilets and made payment of ₹245.34 crore to departmental officers/NGOs during said period. Thus, the test checked DWSCs converted incentive based programme into a scheme based one in violation of the TSC/NBA guidelines. Further, the DWSCs issued work orders to NGOs for construction of low cost latrines with a model design without approval of an estimate during 2012-14. It was further noticed that due to poor quality construction, 6.28 lakh (31 *per cent*) out of total constructed 20.15 lakh IHHL were found defunct as mentioned in the Baseline survey conducted during 2013-14. This fact was further substantiated during physical verification that in 155 GPs, 589 IHHL (38 *per cent*) out of 1567 households were found defunct. Further, 63 (four *per cent*) households in these GPs having IHHLs but they were using toilets for purposes such as storage of fodder, wood etc. in the absence of proper awareness.

¹⁰ Patna : One RSM and PCs during 2013-14, Purnea : Eight RSMs (2010-13), Eight PCs (2010-13) and Saharsa : 14 PCs (2010-14)

The Special Secretary accepted during exit conference (November 2014) that the toilets were constructed without model estimates from 2012-13 onwards, as IHHL with two leaching pits and brick superstructure was not possible within ₹ 5500. Therefore, model estimates were not circulated to the DWSCs.

However, the reply was silent about the conversion of the incentive based programme into scheme based one.

- ***Solid and liquid waste management***

Solid and Liquid Waste Management component was implemented only in two per cent of the GPs in the State

The TSC/NBA guidelines stipulated that under Solid and liquid waste Management (SLWM), activities like compost pits, vermi composting, common and individual biogas plants, low cost drainage, soakage channels/pits, reuse of waste water and system for collection, segregation and disposal of household garbage etc. could be taken up.

Scrutiny disclosed that the BSWSM did not fix year-wise targets under various components of SLWM. Further, works for SLWM was carried out in only 154 (two per cent) out of 8404 GPs of the State as of March 2014.

The Special Secretary replied during exit conference (November 2014) that due to absence of specific guidelines, this component was not implemented properly.

2.4.9.9 Revolving funds

The TSC/NBA guidelines stipulated that revolving funds may be given to Cooperative Societies, Self Help Groups (SHGs), APL households and owners of anganwadi centres. Loan from these funds should be recovered in 12-18 instalments.

It was noticed that finances from revolving funds was not provided to Co-operative Societies, SHGs, APL households and owners of anganwadi centres in all test checked Districts. Instead, ₹ 83.40 lakh¹¹ were provided to four NGOs, four Assistant Engineers (AEs) and 24 GPs for construction of IHHL and SLWM in three test checked Districts during 2010-14. Of these, ₹ 73.57 lakh¹² remained unrecovered as of August 2014.

Recommendation: BSWSM should ensure that:

- ***GPs having functional piped water supply should be given priority in achieving Nirmal Status;***
- ***the data of eligible APL households are maintained by concerned DWSCs;***
- ***toilets/baby friendly toilets/ toilets with access opportunity to children with special needs should be constructed in AWCs running in Government as well as private buildings and in schools;***
- ***TSC/NBA remains an incentive based scheme as envisaged in the guidelines.***

¹¹ Bhojpur : ₹ 16.50 lakh to four NGOs for IHHL, Patna : ₹ 6.90 lakh to four AEs for SLWM and West Champaran : ₹ 60 lakh to 24 GPs for IHHL

¹² Bhojpur : ₹ 8.67 lakh, Patna : ₹ 4.90 lakh and West Champaran : ₹ 60 lakh

2.4.10 Information, Education and Communication

The guidelines stipulated that Communication and Capacity Development Units (CCDU) set up at the State level must support the Districts in developing and implementing a good IEC plan. Observance of Sanitation Day/ Week/Fortnight should be an essential component of the Annual Action Plan along with inter-personal communication and door to door contacts. In order to strengthen communication machinery at the village level, participatory field functionaries like Swachchhata Doots, Bharat Nirman Volunteers, ASHA, Anganwadi workers, school teachers etc. can also be engaged at the village level for demand creation and taking up behaviour change communication.

Eighty eight per cent of DWSCs of 11 test checked Districts failed to execute IEC activities

Scrutiny of records of the test checked DWSCs revealed that no support was received from CCDU in developing IEC and its implementation during 2010-14. The inter-personal communication and door to door contact were executed in only 12 per cent of the target set by the 11¹³ test checked DWSCs. It was further noticed that these DWSCs were mainly executing campaigns through wall writing, hoardings and banners, picture frames and distribution of IEC materials under IEC activities (*Appendix-2.4.8*) and observance of Sanitation Day/ Week/Fortnight was not included in their IEC plan.

Thus, 88 per cent of the DWSCs of 11 test checked Districts failed to execute the most significant tool of IEC viz. inter- personal communication activities. As a result, the basic objective of the TSC/NBA to trigger the demand for sanitary facilities in rural areas was not achieved by the DWSCs.

During exit conference (November 2014), the Special Secretary attributed shortfall in IEC activities to absence of grass root functionaries and stated that due to unattractive rate of incentive, persons engaged had not turned up as envisaged.

Recommendation: DWSCs should enhance inter-personal communication and door-to-door contacts to create demands.

2.4.11 Convergence under TSC/NBA

The TSC/NBA guidelines stipulated that all houses constructed by the households under Indira Awas Yojna (IAY) which did not have toilets shall be eligible for the incentive. Further, the GOI circulated (June 2012) the convergence mechanism with MGNREGA for planning, execution and monitoring of the programme to facilitate the rural households with funds availability for creating of their own IHHLs.

¹³ Bhojpur, Darbhanga, Gaya, Katihar, Munger, Muzaffarpur, Nawada, Patna, Saharsa, Sitamarhi and West Champaran

Due to non-development of convergence mechanism in test checked DWSCs, ₹66.98 crore were still out of TSC/NBA programme funds

Scrutiny of records of the DWSCs in test checked Districts disclosed that the DWSC had not developed any convergence mechanism for effective planning and implementation of the district NBA Project. During 2010-14, the test checked DWSCs transferred (December 2011 to March 2014) ₹ 38.73 crore¹⁴ to 175 blocks for IAY and ₹ 28.11 crore¹⁵ to 930 GPs for construction of IHHL for MGNREGA. Of them, only three DWSCs¹⁶ received (August 2014) UCs of ₹ 0.38 crore under MGNREGA convergence. Thus, due to non-development of convergence mechanism in the test checked DWSCs, ₹ 66.98 crore were still out of the TSC/NBA funds.

During exit conference (November 2014), the Special Secretary accepted that the progress was very poor due to non-convergence and non-availability of MGNREGA funds at GP level and the funds remained in the bank accounts of GPs and BDOs.

2.4.12 Monitoring and Evaluation

The TSC/NBA guidelines stipulated that monitoring through regular field inspections by officers from the State level and the district levels is essential for the effective implementation of the Programme. Project authorities should constitute a team of experts in the District who should review the implementation in different blocks at least once a quarter.

Inspection Reports of the concerned officers were not available on records and BSWSM did not conduct review of projects in any test checked Districts

During course of audit, it was noticed that inspection reports of the Member Secretaries, AEs, JEs and District Coordinators of the test checked Districts were not available on record for the period 2010-14. Team of experts at the district level for review of the TSC/NBA Projects was not constituted by the DWSCs in any test checked Districts. In addition, the BSWSM also did not conduct review of projects in any test checked Districts. It was also noticed that the BSWSM did not conduct any evaluation studies on the implementation of TSC/NBA during 2010-14.

During exit conference (November 2014), the Special Secretary accepted the need for inspection of programme at different levels by inspecting authorities and assured that necessary directions would be issued to field and headquarters' officials in this regard.

Recommendation: The Department may conduct a review of projects in each district to assess the actual status of implementation of the programme.

2.4.12.1 Social Audit

The TSC/NBA guidelines provide a central role to 'social audits' as a means of continuous and comprehensive public vigilance. The GPs will have a

¹⁴ Bhojpur- ₹ 2.65 crore to 14 BDOs, Darbhanga- ₹ 1.87 crore to 18 BDOs, Gaya- ₹ 8.11 crore to 24 BDOs, Kaimur- ₹ 1.78 crore to 11 BDOs, Katihar- ₹ 4.52 crore to 17 BDOs, Munger- ₹ 0.18 crore to nine BDOs, Muzaffarpur- ₹ 4.06 crore to 16 BDOs, Nawada- ₹ 5.91 crore to 14 BDOs, Patna- ₹ 5.49 crore to 25 BDOs, Saharsa- ₹ 2.13 crore to nine BDOs and West Champaran- ₹ 2.03 crore to 18 BDOs

¹⁵ Bhojpur- ₹ 5.22 crore to 227 GPs, Darbhanga- ₹ 2.94 crore to 62 GPs, Gaya- ₹ 0.52 crore to 13 GPs, Kaimur- ₹ 1.71 crore to 149 GPs, Katihar- ₹ 7.30 crore to 238 GPs, Muzaffarpur- ₹ 0.97 crore to 21 GPs, Nawada- ₹ 8.60 crore to 187 GPs, Sitamarhi : ₹ 0.16 crore to three GPs and West Champaran- ₹ 0.69 crore to 30 GPs

¹⁶ Nawada-401 : ₹ 0.18 crore, Darbhanga – 300 : ₹ 0.14 crore Gaya-124 : ₹ 0.06 crore

Swachchhata Diwas and Gram Swachchhata Sabha under social audit were never organised in respective districts and grievance redressal mechanism was not developed at DWSCs level

‘Swachchhata Diwas’ every month and will also convene periodic assemblies of ‘Gram Swachchhata Sabha’ (GSS).

Test checked Districts reported that Swachchhata Diwas and GSS were never organised in the respective Districts. Scrutiny of records revealed that grievance redressal mechanism was not developed at the DWSCs levels. Complaints and demands received at State/District level were never compiled or the demands for construction were not recorded.

In reply, the Special Secretary accepted the audit findings during exit conference (November 2014) and stated that it would be organised as per need.

2.4.13 Conclusion

- Preliminary survey was not conducted during 2010-14 to identify status of sanitation and hygiene practices while the Baseline survey to identify households was conducted during 2013-14 only;
- The PIP was not revised since sanction of the project and AIP was not derived from the data of GPs/blocks;
- Financial management of the programme was inadequate as funds were not released to GPs and release of matching State share by the BSWSM was delayed;
- The State was deprived of ₹ 585.14 crore of the GoI share during 2013-14 due to non-utilisation of 60 *per cent* of the allotted funds during the previous year;
- The components of the scheme *viz.* IHHL, CSC, AW toilets, RSM and SLWM were not adequately implemented;
- The DWSCs of the test checked districts failed to execute 88 *per cent* of the IEC activities, and
- The monitoring and evaluation of the programme by the BSWSM and DWSCs were deficient.

ROAD CONSTRUCTION DEPARTMENT

2.5 Construction and Maintenance of State Highways in Bihar

Executive Summary

Introduction

The construction and upgradation of State Highways (SHs) were entrusted by Road Construction Department (RCD) to Bihar State Road Development Corporation (BSRDC) under Asian Development Bank (ADB) financing which was named as Bihar State Highway Project (BSHP).

(Paragraph 2.5.1)

Planning

The Department is yet to notify the norms for declaration of roads as SHs. The declaration of SHs was made by the Government of Bihar on the basis of MPs/ MLAs recommendations.

(Paragraph 2.5.6)

Financial Management

Adequate funds were provided for construction of SHs by the Department in time. The claim of ₹ 64.47 crore could not be reimbursed from ADB due to closure of loan agreement as GoB failed to provide hindrance free sites to the contractor. The reimbursement claim submitted by BSRDC to ADB was only 40 *per cent* as compared to loan sanctioned for BSHP-II due to delay in acquisition of land, shifting of utility and forest clearance.

(Paragraph 2.5. 7.1)

Project implementation

The construction of three out of five SHs taken up under BSHP-II was in progress and scheduled for completion by December 2014. The contracts for remaining two SHs were terminated due to non-acquisition of land and non-handing over of hindrance-free site. Cost escalation of ₹ 175.31 crore due to faulty preparation of Detailed Project Report was also noticed.

(Paragraph 2.5.8.1 to 2.5.8.3)

Maintenance

Delay in transfer of completed SHs by BSRDC to RCD for maintenance resulted in non-inclusion of the SHs under long term output and performance based road assets maintenance contracts and such SHs remained without maintenance for two years.

(Paragraph 2.5.9.1)

2.5.1 Introduction

The development of roads is a basic component of the infrastructural development in a State. State Highways (SHs) are the arterial routes of a State linking district headquarters and important cities within the State and connecting them with National Highways (NHs) or Highways of the neighbouring States. Against the total length of road 105620 Km (*Pucca*- 59159 Km + *Kutch*- 46461 Km) in the State, the SHs network comprises 4857 Km (72 SHs). As the SHs connect all the major district headquarters and traffic on these roads has increased manifold, it became necessary to upgrade the existing roads to SHs with minimum two lane configuration.

In Bihar, the total number of SHs was 45 in 2008. In addition to that, 27 roads were newly declared as SHs between February 2008 and August 2011 by Road Construction Department (RCD). As such, the total number of SHs was 72 as of April 2014. Out of these, 53 SHs were taken up for construction during 2005-14. The remaining 19 SHs were not taken up for construction as of September 2014.

The Central Public Works Department (CPWD) and IRCON International Ltd. (IRCON) were authorised (April 2005) for construction of 33 SHs under Rashtriya Sam Vikas Yojana (RSVY) which was named as State Highway Development Programme (SHDP) in 2005. The SHs were completed between March 2009 and September 2013. The construction of two more SHs entrusted to CPWD/IRCON in March 2013 was under progress.

In February 2009, Bihar State Road Development Corporation (BSRDC) was incorporated as a State Undertaking under the Companies Act, 1956 for construction of all types of roads in Bihar including execution of works entrusted to it by RCD. Out of 53 SHs, construction and upgradation of 18 SHs were entrusted during 2009-14 by RCD to BSRDC with loan assistance from Asian Development Bank (ADB) which was named (2009) as Bihar State Highway Project (BSHP). These 18 SHs entrusted to BSRDC during 2009-14 for construction included 10 existing SHs and eight newly declared SHs. Of these, seven have been completed and the remaining 11 are incomplete. The RCD framed Bihar Road Assets Maintenance Policy in February 2013 and maintenance of all roads in Bihar including SHs is being carried out by RCD under this policy.

The Performance audit was conducted regarding construction of SHs under BSHP by BSRDC and maintenance of the completed SHs by RCD covering the period 2009-14.

2.5.2 Organisational set up

The RCD is headed by Secretary/Principal Secretary who is responsible for construction and maintenance of roads. He is assisted by an Engineer-in-Chief-cum-Special Secretary and seven Chief Engineers at Headquarter level. The construction and maintenance of roads at field level are being carried out by the Executive Engineers (EE) of 49 Road Construction Divisions under the supervision of 11 Superintending Engineers and assisted by the Assistant Engineers and Junior Engineers at Sub-Division level (*Appendix-2.5.1*).

The BSRDC is headed by a Board of Directors with Chairman, Managing Director and Chief General Manager as executive functionaries. Three General Managers and nine Deputy General Managers (DGMs) are responsible for execution of work at headquarter and project implementation units respectively (*Appendix-2.5.1*).

2.5.3 Audit objectives

The Performance audit was conducted to assess whether:

- planning of RCD for declaration of roads as SHs was effective and according to the norms fixed by the Government of Bihar (GoB), Government of India (GoI) as well as financial institutions;

- financial management by RCD ensured adequate and timely availability of funds and their effective and economic utilisation;
- land acquisition and utility shifting work was completed in time to provide hindrance free sites to the contractor;
- projects were implemented by BSRDC as per the terms and conditions of the contract as well as ADB loan agreement and the intended objectives of the projects were achieved;
- proper and effective mechanism for ensuring quality in construction and maintenance of SHs by RCD and BSRDC was in place;
- effective maintenance policy for maintenance of completed SHs was in place and implemented by RCD; and
- effective monitoring mechanism by RCD and BSRDC was in place to keep control over implementation of the project at each level.

2.5.4 Audit criteria

The following were the sources of the audit criteria adopted for the Performance audit:

- Ministry of Shipping, Road Transport and Highways (MoSRTTH)/ Indian Road Congress (IRC) specifications;
- Loan agreements for BSHP phase - I, II and III (Additional Financing);
- Bihar Public Works Account (BPWA) Code, Bihar Public Works Department (BPWD) Code;
- Bihar Road Assets Maintenance Policy; and
- Official website of RCD, BSRDC, ADB and Ministry of Finance, GoI.

2.5.5 Scope of audit and methodology

A Performance audit was conducted during March to September 2014 through test check of records of project headquarter of BSRDC along with five¹ Project Implementation Units (PIUs) for the period 2009-14 relating to construction of SHs. Apart from this, the records of Engineer-in-Chief, RCD and 18² (randomly selected) out of 49 Road Construction Divisions relating to maintenance of SHs were also examined.

Twelve out of 18 SHs under BSHP were selected for the Performance audit. An entry conference was held in March 2014 with the Secretary, RCD to discuss the objectives, criteria and methodology of Performance audit. The exit conference was held in November 2014 in presence of Principal Secretary and other officials of the implementing agencies. The audit findings were discussed and the replies furnished by the Department were suitably incorporated at appropriate places.

¹ Biharsharif, Gaya, Hajipur, Muzaffarpur and Rajgir

² Ara, Aurangabad, Banka, Bhagalpur, Biharsharif, Buxar, Darbhanga, Gaya, Hajipur, Madhubani, Motihari, Muzaffarpur, Nawada, Patna, Purnea, Rohtas, Samastipur and Supaul

2.5.6 Planning

Department failed to notify the norms for declaration of SHs

RCD was required to prescribe norms for declaring new SHs. It was observed that neither the norms were notified by the RCD nor the process adopted for declaring a road as SH was on record. However, in addition to the 45 SHs in existence as of February 2008, RCD declared 27 other categories of roads (1694 Km) as SHs during 2008-11. The 72 SHs connected 37 out of 38 Districts of the State of Bihar and the District of Arwal was yet to be connected with a SH.

Further scrutiny of records maintained by Engineer-in-Chief, RCD, Bihar, Patna revealed that the Hon'ble Chief Minister (CM) approved (March 2006) proposal of the RCD for fixing norms for declaration of new SHs. However, the proposal for fixing the norms was initiated only in August 2009. The Hon'ble Minister, RCD approved (September 2009) the norms but the approval of Hon'ble CM was not taken by RCD as of October 2014. The criteria approved by the Minister were as follows:

- Roads which can connect at least two districts;
- The length of the road should not be less than 25 km;
- Roads having 20 meter available width;
- Roads useful for transportation of agro products and industrial materials; and
- Roads which can connect one SH/NH with an other one.

It was further observed that the SHs declared by RCD during February 2008 to August 2011 were based on the recommendations of MPs/ MLAs. Thus, the RCD failed to notify any norms for declaration of roads as SHs despite directions of the Hon'ble CM in March 2006 and approval of the norms by the Hon'ble Minister, RCD in September 2009.

The Department replied (November 2014) that roads/cluster of roads under State Government having minimum length of 50 km and connecting at least two Districts had been declared as SHs with the following order of preference:

- (i) Top priority had been given to the roads/cluster of roads which connect Bihar to other States/International border;
- (ii) Roads/cluster of roads connecting NH/SH and again terminating at NH/SH;
- (iii) Roads/cluster of roads which were important in respect of tourism/agricultural market/industry.

The Department did not furnish specific reply on the points raised by Audit such as non-approval of norms by the Hon'ble CM and declaration of new roads in SH category on the basis of recommendation of MPs/MLAs.

Recommendation: RCD should immediately notify the norms for declaration of new SHs.

2.5.7 Financial management

2.5.7.1 In order to execute construction of SHs under BSHP, GoB executed a loan agreement among RCD, ADB and GoI during November 2008 to August 2013. The loan was received on the basis of reimbursement method. The GoB makes provision of funds through State budget as per requirement placed by BSRDC from time to time. The BSRDC submits reimbursement claims based on the expenditure to ADB through GoI. The GoB provided budgetary allocation for the entire expenditure including the State share of loan to BSRDC for payments to the contractors. The funds were provided to Executive Engineer, New Capital Road Division, Patna by RCD who withdraws the amount and transfers it to BSRDC through cheques/ Bank drafts.

During the period 2009-14, RCD made budget provision of ₹ 6835.57 crore and transferred an amount of ₹ 4482.17 crore (including State share of ₹ 1265.29 crore³) to BSRDC against sanctioned ADB loans for ₹ 4930.80 crore. Out of this, BSRDC incurred an expenditure of ₹ 2935.40 crore as of March 2014 for execution of the project. However, total amount received from ADB as reimbursement was ₹ 2437.22 crore. Details are given in **Table 2.5.1** below:

Table-2.5.1: Details of allocation and expenditure under ADB financing

(₹ in crore)

Phase (Period)	No. of SHs (Length in km)	Loan sanctioned by ADB	Amount withdrawn by RCD and transferred to BSRDC	Expenditure incurred by BSRDC as on March 2014	Reimbursement claim submitted to ADB (percentage w.r.t. column 3)	Reimbursement received (percentage w.r.t. column 6)
1	2	3	4	5	6	7
BSHP-I (November 2008 to July 2012)	9 (820)	1757.60	1984.10	2061.07	1693.13 (96)	1667.23 (98)
BSHP-II (October 2012 to June 2015)	5 (387)	1373.20	1814.57	690.50	548.65 (40)	537.53 (98)
BSHP-II(AF) (August 2013 to March 2018)	4 (254)	1800	683.50	183.83	293.77 (16)	232.46 (79)
Total	18 (1461)	4930.80	4482.17	2935.40	2535.55	2437.22

(Source: Information furnished by BSRDC)

The total project cost of 12 SHs (out of 18 SHs) selected for audit was ₹ 2644.27 crore and the expenditure incurred during 2009-14 was ₹ 1610.27 crore.

³ BSHP-I: ₹195.29 crore; BSHP-II: ₹620 crore and BSHP-II(AF): ₹450 crore

- ***Adequate allocation of funds***

The budget allocation during 2009-14 (₹ 6835.57 crore) was more than the required amount of the total estimated/approved cost of construction of 18 SHs (₹ 4655 crore) as well as the loan sanctioned by ADB. Thus adequate funds were allocated by the GoB.

- ***Non-reimbursement of loan***

An amount of ₹ 64.47 crore could not be reimbursed due to closure of loan agreement

The reimbursement claim submitted by BSRDC for BSHP-I was 96 *per cent* compared to the loan sanctioned and the balance amount of ₹ 64.47 crore could not be reimbursed as the loan agreement was closed in July 2012. BSRDC incurred expenditure of ₹ 76.97 crore in excess of the amount transferred by RCD to BSRDC. The source from which the excess expenditure incurred was neither available on records nor stated by BSRDC.

The Department replied (November 2014) that the reimbursement claim submitted by the BSRDC was more than the loan sanctioned by ADB for BHSP-I and excess expenditure of ₹ 42 crore was incurred out of BSRDC resources.

The reply was not acceptable as the figure furnished by the BSRDC was calculated on the basis of ₹ 50 per USD for BSHP-I and the audit comments were based on the figure furnished by the BSRDC. The expenditure of ₹ 42 crore spent out of BSRDC funds was calculated only upto November 2013 whereas the actual figure upto March 2014 was ₹ 76.97 crore.

- ***Short utilisation of funds***

Only 38 *per cent* of funds were utilised by BSRDC despite completion of 84 *per cent* of time period

As of September 2014, the reimbursement claim submitted by BSRDC for BSHP-II was only 40 *per cent* of the loan sanctioned due to slow progress of work. Out of five SHs taken up under Phase II, all were due for completion by December 2014. The works remained incomplete owing to non-acquisition of land, delay in utility shifting (including shifting of electric poles, telephone poles/underground cables, religious structures, temporary hut falling in the alignment of roads) and termination of contracts as discussed in paragraph 2.5.8.1 and 2.5.8.2. Audit observed that though 84 *per cent* (46 out of 55 months) of the time period for reimbursement of loan had already elapsed, only 38 *per cent* of funds released by RCD was utilised by BSRDC.

The Department accepted (November 2014) the audit findings and stated that achievement of work was less than planned due to delay in land acquisition, utility shifting, forest/environmental clearance etc.

- ***Work in preliminary stage***

In respect of four SHs taken up for execution under BSHP-II (AF) in August 2013, the expenditure was only ₹ 183.83 crore (27 *per cent*) compared to available funds of ₹ 683.50 crore as the land acquisition, road rehabilitation work and utility shifting was in progress. Tenders for civil works had already been finalised but the implementation was in preliminary stage. Deficiencies in the implementation of projects are discussed in the succeeding paragraphs.

The Department replied (November 2014) that the validity of loan was upto March 2018 and the execution of four SHs under BSHP-II (AF) was under progress.

An amount of ₹ 18.14 crore was irregularly paid to the contractors as additional mobilisation advance and material advance

• ***Irregular payment to the contractor***

The total expenditure of ₹ 2935.40 crore incurred for BSHP during the period 2009-14 included ₹ 18.14 crore irregularly paid to the contractors. Audit observed that in violation of the contract condition, the PIUs Gaya and Hajipur paid (November 2011 to November 2013) additional mobilisation advance of ₹ 14 crore for two SHs (SH-69 & SH-90) in addition to admissible mobilisation advance. As a result, the amount, which otherwise could have been utilised for the works, remained out of BSRDC funds for periods ranging from one year to three years. Similarly, in violation of the General Condition of Contract (GCC), the PIU, Hajipur paid (June to December 2013) material advance of ₹ 4.14 crore on perishable and combustible goods (cement and bitumen) for SH-90. The amounts were not recovered as of September 2014. Further, contrary to the provisions of GCC, the PIU Gaya failed to realise retention money of ₹ 2.71 crore from the contractors for works relating to SH-68 and SH-69 on the increased contract value of ₹ 54.26 crore. Responsibility for making irregular payments by the DGMs was neither fixed nor was any action initiated against them.

The Department replied (November 2014) that additional mobilisation advance of ₹ 14 crore was provided to the contractors on their request to overcome the financial constraints arising out of non-availability of sufficient aggregates due to ban on new quarrying of aggregates in the State of Bihar and to facilitate the early completion of work. The reply was not acceptable as there was no provision of additional mobilisation advance in the contract. The material advance on perishable material such as cement and bitumen was not justified as it was in contravention of Rule 207 of BPWD Code. In context of short recovery of retention money, the Department replied (November 2014) that as per GCC, the Accepted Contract Amount means the amount accepted in the Letter of Acceptance and accordingly, the retention money was recovered. The reply was not acceptable as neither the contract value was adjusted as per clause 14.1 (a) of the GCC nor the retention money was deducted on the enhanced contract value.

Recommendation: RCD should initiate steps to complete the preparatory works before award of contracts to enable BSRDC to complete the projects within the scheduled time and submit reimbursement claims timely.

2.5.8 Implementation of Bihar State Highway Project

The BSHP includes the work of rehabilitation, widening and strengthening of existing roads as well as construction of newly categorised SHs. Out of 18 SHs entrusted to BSRDC, seven SHs pertaining to BSHP Phase-I were completed and remaining two SHs were incomplete. All the five SHs undertaken in Phase-II, remained incomplete. Four more SHs were entrusted to BSRDC under Phase-II (AF) and construction of all these SHs were in preliminary stage. Seven works remained incomplete under BSHP mainly because of delay in land acquisition, non-shifting of utilities, viz. telephone poles, electric poles, etc. and naxal activities, faulty preparation of Detailed Project Report (DPR) resulting in cost escalation as discussed in **Paragraph nos. 2.5.8.1 to 2.5.8.3**. The details of the project are provided in the **Table 2.5.2** below:

Table-2.5.2: Details of implementation of BSHP

BSHP	No. of SHs (Length in km)	Start of project*	Due date of completion*	No. of SHs completed (in km) as of September 2014	Expenditure as of March 2014 (₹ in crore)	Percentage of completion (in km)
Phase-I	9 (820)	November 2008	January 2012	7 (589)	2061.07	72
Phase-II	5 (387)	December 2010	December 2014	Nil	690.50	Nil
Phase-II (AF)	4 (254)	August 2013	September 2017	Nil	183.83	Nil
Total	18				2935.40	

* As per ADB loan agreement

(Source: Information furnished by BSRDC)

Out of nine SHs (820 Km) taken up under BSHP-I, seven SHs (589 Km) were completed. The remaining two SHs constituting 28 *per cent* of the road length allotted for construction to BSRDC remained incomplete on account of issues relating to land acquisition, utility shifting etc. even after two years of the due date of completion (January 2012) after incurring an expenditure of ₹ 333.06 crore. The construction of five SHs under BSHP-II due for completion in December 2014 remained incomplete after incurring an expenditure of ₹ 690.50 crore (September 2014). Out of this, two works were terminated in April/May 2014 due to slow progress of work. The construction of four SHs, under BSHP-II (AF) on which an expenditure of ₹ 183.83 crore was incurred, (September 2014) was in preliminary stage. The audit findings are discussed in the following paragraphs:

2.5.8.1 Incomplete works due to non-acquisition of land

As per clause 3 of Schedule 4 of Loan Agreement of ADB, the State shall ensure that all land and all rights-of-way required for the Project are made available to the works contractor in accordance with the schedule agreed under the related works contract and all land acquisition and resettlement activities are implemented in compliance with the applicable laws and regulations of the Borrower.

Out of 12 SHs test checked pertaining to BSHP-I and II, nine SHs were due for completion, but construction work of four SHs⁴ were not yet completed due to failure of RCD to acquire the required land and resolve the resettlement issues. The major cases have been illustrated below:

Due to non-acquisition of land, works of SH 78 and SH 90 were terminated after incurring an expenditure of ₹ 284.77 crore

Scrutiny of records of PIUs, Biharsharif and Hajipur of BSRDC revealed that the work of improvement of Bihta-Sarmera Road (SH-78) and Mohammadpur-Chhapra Road (SH-90) were awarded to the agencies at contract values of ₹ 391.76 crore and ₹ 201.82 crore respectively and agreements for the same were executed in May 2010 and September 2011 respectively. The due dates of completion of the works were May 2013 and April 2014 respectively. However, the works remained incomplete as land acquisition for 173.24 acre in SH-78 and 15.366 km stretch in SH-90 could

⁴ SH-68,69 (PIU Gaya), 78 (PIU Biharsharif) and 90 (PIU Hajipur)

not be done. Further, the contract agreement in the SH-78 was terminated by BSRDC April 2014 due to failure of GoB to provide the required land for construction. The work of improvement of Mohammadpur-Chhapra Road (SH-90) was terminated by BSRDC in May 2014 due to slow progress of work by the contractor.

Thus, the failure of RCD to acquire the required land despite transfer of funds to the respective District Land Acquisition Officers led to termination of contracts after incurring an expenditure of ₹ 284.77 crore (₹ 201.39 crore SH-78 and ₹ 83.38 crore on SH-90) which did not serve the intended objective of the project to provide connectivity between two Districts.

The Department replied (November 2014) that in an ideal situation, all the preparatory works such as land acquisition, environment/ forest clearance, utility shifting etc. shall be done prior to entering into contracts for road development or upgradation.

2.5.8.2 Delay in completion of projects due to non-shifting of utilities

As per clause 2.1 (a) of the General Conditions of Contract (GCC) between BSRDC and the contractor, hindrance free site was to be provided to the contractor by BSRDC for execution of work.

Scrutiny of records of 12 out of 18 SHs revealed that the progress of work of three SHs for which an expenditure of ₹ 416.44 crore was incurred by BSRDC were delayed due to non-shifting of utilities.

The works of SH-68, SH-69 and SH-90 remained incomplete due to non shifting of utilities and forest clearance despite an expenditure of ₹416.44 crore

- At PIU Gaya, audit observed that the works of improvement of Shivganj Bidrabad Road (SH-68) and Dumariya-Ranitalab Road (SH-69) were awarded by BSRDC (July 2009, December 2008) to two agencies⁵ at a contract value of ₹ 168.53 crore and ₹ 313.50 crore respectively. The due dates of completion of the works were April 2012 and January 2012 respectively. However, electric poles were not shifted by BSRDC from the alignment of SH-68 till February 2014 due to non-coordination with the Bihar State Electricity Board (BSEB), though ₹ 27.66 lakh was deposited for supervision charges to BSEB (April 2010). Apart from this, telephone poles were also not shifted and trees not removed. Thus, the works remained incomplete as of July 2014 despite an expenditure of ₹ 126.05 crore (SH-68) and ₹ 207.01 crore (SH-69) due to non-shifting of utilities.
- At PIU Hajipur, out of the project length of 64.71 km (SH-90), permission for tree cutting from 30 km to 58 km was given by Principal Chief Conservator of Forest, Patna only in August 2013 after a lapse of two years, while for the balance length of 36.41 km (0 km to 30 km & 58 km to 64.71 km), the permission was not received as of February 2014. Thus, despite incurring an expenditure of ₹ 83.38 crore, the Government failed to resolve the resettlement activities which led to slow progress of work.

The Department accepted (November 2014) the audit findings and stated that from beginning of the project, despite full efforts permission for felling of trees from Forest Department was not received for SH-68. However, the final

⁵ M/s MBL Infrastructure Ltd, Kolkata (SH-68), M/s Gammon India Ltd (SH-69)

approval of the forest clearance for SH-90 was received from Ministry of Environment and Forest.

Recommendation: *Proper mechanism may be developed by GoB for better co-ordination among RCD, BSEB and Revenue Department to facilitate the land acquisition and utility shifting works.*

2.5.8.3 Cost escalation due to faulty preparation of DPR

In three out of 12 SHs test checked, it was observed that preparation of faulty DPRs resulted in cost escalation of ₹ 175.31 crore in respect of the works of three SHs as discussed below:

The Department failed to take action against the erring DPR consultant for faulty preparation of DPR which resulted in cost escalation of ₹ 175.31 crore

- During scrutiny of records relating to the work of SH-68, it was observed that in the original estimate and DPR, there was provision of open foundation for construction of three bridges falling in the alignment of the SH in Gaya. However, during execution of work, the Construction Supervision Consultant (CSC), engaged by BSRDC for project management as Engineer, suggested on the basis of actual field survey that open foundation was to be replaced by pile foundation. The Variation Committee pointed out (September 2011) that variation in original estimate and DPR was due to change in foundation from open to pile for three bridges. The Committee approved the varied quantity of 546.5 meter with cost escalation of ₹ 75.11 lakh due to change in design. The Committee also directed RCD to take action against DPR consultant⁶ who failed to frame the design according to actual site condition. However, no action was initiated by BSRDC so far (September 2014), though there was a cost escalation of ₹ 75.11 lakh due to deficiencies in DPR.
- Audit observed that in respect of the work of SH-69, as pointed out by the CSC about the huge variation of quantities⁷ as per BOQ, the Variation Committee approved (September 2011) the increase in variation of these quantities in work amounting to ₹ 7.56 crore and requested RCD to take action against DPR consultant as they failed to assess the actual quantity. However, no action was initiated by BSRDC as of September 2014, though there was a cost escalation of ₹ 7.56 crore due to deficiencies in DPR.
- Scrutiny of records relating to SH-78 revealed that the DPR prepared by the DPR consultant⁸ was reviewed by the CSC which found error in the design of Highway. The plan and profile was not in consonance with land acquisition since major/minor bridge designs were faulty and adequate cross drainages were not provided in the DPR. Further, relocation of Government building/ Schools were also necessary. Therefore, the entire section was redesigned to suit land acquisition plan. Thus, DPR was not prepared as per the actual requirement and position at work site. Resultantly, the estimate was revised from ₹ 391

⁶ M/s Planning and Infrastructure Development Consultant (PIDC), Patna appointed by BSRDC for preparation of DPRs

⁷ Embankment: 405944 cum; GSB: 169498 cum; WMM: 13615 cum; DBM: 1607 cum; BC: 1789 cum; DLC: 2169 cum; PQC: 4337 cum.

⁸ M/s Planning and Infrastructure Development Consultant (PIDC), Patna

crore (original contract value) to ₹ 558 crore after correction of defects in design which led to cost escalation of ₹ 167 crore. However, no action against the DPR consultant was initiated by the BSRDC so far (October 2014).

The Department accepted (November 2014) the audit findings and stated that the matter of faulty preparation of DPR was being looked into and appropriate action would be initiated against erring DPR consultants.

Recommendation: DPR and estimates should be prepared after proper survey and feasibility studies on the basis of actual site requirement to complete the work within the approved cost.

2.5.8.4 Inadequate performance security from contractor

It was noticed that BSRDC failed to obtain additional performance security of ₹ 7.06 crore from contractor in respect of one PIU out of five test checked as detailed below:

As per clause 36.5 read with clause 42.1 of the Instruction to Bidders (ITB) of the agreement with the contractor, if the lowest evaluated bid is seriously unbalanced, the employer may require the amount of performance guarantee to be increased proportionately (in the form of additional performance guarantee⁹) so as to protect the employer against financial loss in the event of default by the contractor.

Additional performance security of ₹ 7.06 crore was not obtained from the contractor

During scrutiny, it was observed that the contract for SH-90 was awarded at 9.5 per cent below the bid value. In such a case, an additional performance security of ₹ 7.06 crore (at the rate of 3.5 per cent of agreement value) should have been obtained by BSRDC from the contractor. However, the BSRDC failed to obtain the additional performance security. The execution of the work was very slow despite grant of time extension and the agreement was terminated in May 2014. Had the additional performance guarantee been obtained by BSRDC at the time of agreement, BSRDC could have invoked the guarantee amount of ₹ 7.06 crore as the agreement was terminated due to slow progress of work by the contractor.

The Department replied (November 2014) that as per approved ITB document (clause 36.5) the employer did the unit rate analysis and concluded that the bid was front loaded and unbalanced. Hence BSRDC recommended to ADB for 15 per cent additional performance guarantee over the regular performance guarantee of 10 per cent. However, ADB did not agree that it was the case of front loaded/unbalanced bid. Though the Consultant appointed by ADB for review of the proposal of BSRDC also recommended for 5 per cent additional performance guarantee, ADB did not approve the recommendation of the consultant.

The reply was not tenable as the contract having the provision of additional performance guarantee for seriously unbalanced bids had already been approved by the ADB and the BSRDC was required to implement the same for which no fresh approval from ADB was required.

⁹ Below 0 to 5 per cent of the estimated cost: @ 0.25 per cent, below 5 to 10 per cent: @ 0.50 per cent and below 10 to 15 per cent: @ 1 per cent of the agreement value.

2.5.8.5 Quality control

The CSC acts as an ‘Engineer’ of the project and is also responsible for Quality Assurance and supervision and monitoring of the project. The responsibility of CSC for quality control includes review of all mix designs and quality control measures adopted by the contractor, evolving a Quality Assurance system for work along with establishing testing frequencies and acceptance criteria, inspection of performance with regard to workmanship and compliance with the specifications of MoSRTTH and IRC; approval of materials brought at site; carrying out independent laboratory test and maintaining of records of all testing work. For this purpose, the contractors are responsible for setting up the laboratory at work site with all testing equipment and hand over to the respective CSCs.

Scrutiny of records of 12 out of 18 SHs pertaining to quality control measures revealed that 12 laboratories with all required equipment were instituted by the concerned contractors and handed over to respective CSCs at the start of the work. All the required tests to ensure the quality of materials as well as mix design at each level of execution were carried out to fulfil the MoSRTTH and IRC specifications. The quality assurance certificates by CSCs were issued before payment after compliance of defects found in the test report.

2.5.9 Maintenance of roads by RCD

All the SHs constructed by BSRDC were to be handed over to the RCD after completion. RCD commenced the maintenance of SHs under Bihar Road Assets Maintenance Policy since August 2013. Out of 4857 Km of SHs in the State, 1916 Km was taken up for maintenance since August 2013 for a five year period. The defect liability period (DLP) for all the SHs was 12 months from the date of completion and thereafter the responsibility for maintenance lay with the RCD. The Bihar Road Assets Maintenance Policy was introduced by the RCD in February 2013 to ensure that the physical condition of the roads under contract was adequate for the need of road users over the entire period of contract. Long term output and performance based road assets maintenance contract (OPRMC) was designed to increase the efficiency and effectiveness of road asset management and maintenance. The contracts under OPRMC included Ordinary Maintenance (OM), Initial Rectification (IR), Periodic Maintenance (PM), Minor Improvement (MI) and Emergent work. The shortcomings noticed during scrutiny of records relating to maintenance works are discussed in succeeding paragraphs:

2.5.9.1 Delay in transfer of completed SHs by the BSRDC to RCD

Six SHs remained out of maintenance contract due to delay in transfer of completed SHs by BSRDC to RCD

Out of seven completed SHs, BSRDC intimated (March 2014) RCD to take over six SHs for maintenance (the seventh one, SH-76 was declared as an NH in 2013). However, audit scrutiny revealed that, instead of handing over the completed SHs immediately after completion, BSRDC issued orders only after one year of completion as they had failed to finalise the tenders for maintenance of these roads under Operation, Maintenance and Transfer policy. Resultantly, these SHs could not be included under OPRMC which commenced in February 2013 itself. The DLP of all these roads had also expired and consequently, these roads remained out of the maintenance policy of the RCD.

The Department accepted (November 2014) the delay in transfer of completed SHs by BSRDC to RCD. This had been done only after issue of direction by the Engineer-in-Chief, RCD in July 2014.

2.5.9.2 Irregular award of maintenance work

As per clause 27.4.2 (Evaluation of Bid) of Section 1- Instruction to Bidders of Part 1 of the Model Bidding Document¹⁰ (MBD), if the value of Periodic Maintenance in any one year exceeds 35 *per cent* of the cost of total Periodic Maintenance, the bid shall be considered seriously unbalanced and shall be rejected.

Scrutiny of records of RCD, Purnea revealed that the work of OPRMC-32 (SH-65 and nine other roads) was awarded to the lowest bidder (M/s Topline Infra Projects Pvt. Ltd., Kolkata) after evaluation/approval of its technical and financial bids. However, as per the bid submitted by the agency, the valuation of Periodic Maintenance work in first year of the contract was 42 *per cent* of the total Periodic Maintenance work, as detailed in the **Table 2.5.3** below:

Table-2.5.3: Details of lowest bid

(₹ in crore)					
Details of PM work	1 st year	2 nd year	3 rd year	4 th year	Total
<i>Value</i>	10.55	1.95	4.95	7.73	25.18
<i>Value in percentage</i>	42	8	19	31	100

(Source: Information provided by Road Construction Division, Purnea)

Incorrect evaluation of bid led to irregular award of contract of ₹ 34.07 crore

Hence, as per the provisions of the terms of the contract for evaluation of bid, the bid of M/s Topline Infra Projects Pvt. Ltd., Kolkata should have been rejected. Wrong evaluation of bid and its non rejection led to irregular award of work valuing ₹ 34.07 crore.

The Department replied (November 2014) that the proposal of Periodic Maintenance in different years was rearranged at the time of award of contract. The reply was not acceptable as the bid should have been rejected at the time of evaluation of technical and financial bids.

As per Rule 126 of BPWD Code, the agreement for execution of work with agency should not be executed without obtaining technical sanction (TS) from the competent authority. Further, as per clause 27.5 of Instruction to Bidder (ITB), the price of the Initial Rectification, Periodic Maintenance, Minor Improvement and/or Ordinary Maintenance works included in each bid shall not be lower/ higher than the threshold indicated in the Bid Data Sheet (BDS). Further, in the BDS, the combined price for the Initial Rectification, Periodic Maintenance and Minor Improvement works may not exceed five *per cent* above the estimated cost of (Initial Rectification, Periodic Maintenance and Minor Improvement) including all taxes and cess and ten *per cent* above the *estimated cost* (Initial Rectification, Periodic Maintenance, Minor Improvement and Ordinary Maintenance) with all taxes and cess. However, the lower limit will be 15 *per cent* below the estimated cost.

¹⁰ MBD is a set of clauses as well as documents for bidding the contracts under OPRMC

Four contracts amounting to ₹ 117.41 crore were awarded without obtaining technical sanctions

During scrutiny of records of three Road Divisions,¹¹ it was noticed that bids for four packages were evaluated by the Departmental Tender Committee (DTC) in November 2013 while the technical sanctions of the estimates were not accorded by the competent authority till the date of selection of the bidders. Further, the bidders were declared successful citing that the rate quoted by the contractors are within the threshold limit prescribed in the ITB and BDS, even before the preparation of estimates and TS of the estimates. Thus, in violation of the BPWD Code, four contracts amounting to ₹ 117.41 crore were awarded to the agencies in November 2013 and the agreements for the same were executed without obtaining the TS. Details are given in **Table 2.5.4** below:

Table 2.5.4: Details of contracts awarded without obtaining TS

Name of Division	Package No	Contract Value (₹ in crore)	Date of award	Date of Technical Sanction
RCD, Bhagalpur	46A/OPRMC	23.74	November 2013	01/04/2014
RCD, Supaul	22/OPRMC	28.74	November 2013	24/01/2014
RCD, Supaul	23/OPRMC	31.78	November 2013	24/01/2014
RCD, Nawada	75/OPRMC	33.15	November 2013	Not sanctioned as of July 2014
Total		117.41		

(Source: Information provided by concerned Road Construction Divisions)

The Department accepted (November 2014) the audit findings and stated that the work was awarded by Departmental Tender Committee in November 2013 while TS was accorded in January to October 2014 for the four packages.

Recommendation: Codal provisions for obtaining TS of estimates must be ensured before award of contracts by RCD.

2.5.9.3 Execution of work within defect liability period

As per the conditions of MBD, the road under DLP was required to be maintained by the original contractor and no work should be done by the new agency in the stretches that comes under DLP.

Unauthorised expenditure of ₹ 1.20 crore was made on work under DLP

Scrutiny of records of RCD Bhagalpur revealed that Sultanganj-Tarapur road (0.00 to 6 km) was constructed by CPWD. The road was completed on 20 May 2013 and DLP was to expire on 19 May 2014. However, ₹ 1.20 crore was spent on Initial Rectification/Minor Improvement work under OPRMC package 46A on the above stretch of road. This led to unauthorised payment of ₹ 1.20 crore to the contractor by the RCD.

The Department replied (November 2014) that the entire road length of 98.865 km was substantially completed in March 2010 and taken over by the respective Executive Engineers between June and December 2012 and the small stretch of road length (190 meter) in the Banka district could not be completed because of the land dispute and problem of land acquisition.

¹¹ Bhagalpur, Nawada and Supaul

The reply was not acceptable as the actual date of completion of road was mentioned as May 2013 with DLP up to 19 May 2014 as per the handing and taking over report and the road could be taken over by the RCD only after completion of entire road.

2.5.9.4 Unauthorised expenditure on Periodic Maintenance works

Scrutiny of records relating to OPRMC of two out of 18 test checked divisions revealed that RCD incurred unauthorised expenditure of ₹ 13.29 crore on Periodic Maintenance works as detailed below:

As per Section-V of Part E of the MBD, Periodic Maintenance work provides for overlaying of 25 mm of Semi Dense Bituminous Concrete (SDBC) only. There was no provision of Bituminous Macadam (BM) under the OPRMC.

Unauthorised expenditure of ₹ 6.26 crore was incurred on works beyond the scope of contract

Scrutiny of records revealed that the maintenance of SH (Ara-Sasaram: 48.31 Km) was taken up under OPRMC (Package No. 53). However, in contravention of the aforesaid terms of contract, a provision for one extra layer of 50 mm BM was provided in addition to 25 mm SDBC in the scope of work. Further, Periodic Maintenance work was executed for 17.28 km of road and a payment of ₹ 10.01 crore was made, out of which ₹ 6.26 crore was made for an extra layer of BM. Thus, additional provision of BM work beyond the scope of work under OPRMC led to an unauthorised expenditure of ₹ 6.26 crore.

The Department replied (November 2014) that the BM was provided due to poor condition of the road at the time of DPR preparation. The reply was not tenable as there was no provision of BM in the contract executed under OPRMC.

As per clause B4, Section V of MBD, Item No. 2.1 (b&c), where the section of the road being repaired under Initial Rectification is scheduled under Periodic Maintenance works for a bituminous overlay, all regulation works shall be completed within a minimum period of one month prior to the execution of any SDBC bituminous overlay under Periodic Maintenance. Hence, it was evident that work of both Initial Rectification and Periodic Maintenance cannot be done within one month on the same stretch of road.

Irregular payment of ₹ 7.12 crore was made in contravention of the provision of the contract

In Purnea (OPRMC Pkg. No. 32), it was observed that the work of Initial Rectification as well as Periodic Maintenance for the same stretch of road for 28.489 km under Purnia-Dhamdaha-Rupauli-Tikapatti Road (SH-65) was carried out simultaneously in contravention of the provision of the MBD. This led to an irregular payment of ₹ 7.12 crore.

The Department replied (November 2014) that the periodic maintenance works was carried out after completion of initial rectification work. The reply was not acceptable as the entries in measurement book confirmed that both the works were carried out simultaneously in violation of MBD provisions.

Recommendation: RCD should ensure that the completed roads are transferred to them without any delay to ensure regular maintenance. RCD should also carry out the maintenance of SHs in a planned manner.

2.5.10 Monitoring

An effective monitoring and evaluation system is the key factor for timely completion of the project. For this purpose a monitoring cell headed by the Secretary, RCD was in place which also included the representative of BSRDC who is responsible for construction of SHs in Bihar. Meetings for monitoring of ongoing construction works were held in each month and the progress as well as impending problems during the execution had been discussed and identified. The steps required to be undertaken as per the decision of the meetings were suitably communicated to the concerned implementing agencies as well as BSRDC/RCD by the Secretary, RCD. The Department did not have action taken report separately. However, during exit conference (November 2014), the Department stated that the directions issued in the review meetings of the Department were regularly monitored in the subsequent meetings.

2.5.11 Conclusion

- Despite directions of the Hon'ble CM in March 2006 and approval of the norms by the Hon'ble Minister, RCD in September 2009, RCD failed to notify norms for categorisation of roads as SHs. The SHs declared during February 2008 to August 2011 were entirely based on recommendations of MPs/MLAs;
- The reimbursement claim submitted by the BSRDC in respect of the expenditure incurred for the work executed under Phase-II of BSHP was only 40 *per cent* of the loan sanctioned due to slow progress of work. Though 84 *per cent* (46 out of 55 months) of the time period for completion of work had already elapsed as on September 2014, only 38 *per cent* of funds released by RCD was utilised by BSRDC;
- In two out of 12 test checked SHs, BSRDC could not complete the works of the SHs though adequate and timely funds were provided by the Government for construction. These works were delayed for over two years due to non-acquisition of land, non-shifting of utilities etc. which was the responsibility of the RCD;
- DPRs of SH-68, SH-69 and SH-78 were not prepared on the basis of actual site conditions resulting in cost escalation of the project; and
- The delay in handing over of completed SHs to RCD by BSRDC resulted in non-inclusion of these SHs under OPRMC. As a result the maintenance of SHs could not be carried out in a planned manner due to delay in formulating Operation, Maintenance and Transfer policy by BSRDC.

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

¹ Bhagalpur and Patna

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.

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

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.

Legacy data were not digitised

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

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 VPN⁹, 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.

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.

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

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.