CHAPTER II
ECONOMIC SECTOR

2.1 Introduction

This Chapter of the Audit Report deals with the audit findings on functioning of the Government departments under Economic Sector.

The names of the departments and the total budget allocation and expenditure of the Government under Economic Sector during the year 2016-17 are given in the table below:

Table 2.1.1

(₹ in crore)

Sl. No.	Name of the Department	Total Budget Allocation	Expenditure
1	Animal Husbandry, Livestock, Fisheries and Veterinary Services	68.54	46.65
2	Buildings and Housing	52.26	50.26
3	Commerce and Industries	63.06	45.76
4	Co-operation	17.12	14.66
5	Energy and Power	337.93	271.81
6	Food Security and Agriculture Development	83.34	53.37
7	Forest, Environment and Wildlife Management	224.01	132.17
8	Horticulture and Cash Crops Development	111.54	62.71
9	Water Resources and River Development	171.74	30.74
10	Mines, Minerals and Geology	4.81	4.56
11	Roads and Bridges	328.77	156.98
12	Rural Management and Development	522.97	482.54
13	Tourism and Civil Aviation	70.90	58.70
14	Transport	62.84	60.74
15	Urban Development and Housing	206.64	75.71
16	Water Security and Public Health Engineering	164.85	69.75
TOTAL		**2,491.32**	**1,617.11**

2.2 Planning and conduct of audit

Audit process starts with the assessment of risks faced by various departments based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of overall internal controls, etc.

After completion of audit of each unit on a test check basis, Inspection Reports (IRs) containing audit findings are issued to the heads of the departments. The departments are to furnish replies to the audit findings within one month of receipt of the IRs. Whenever replies are received, audit findings are either settled based on reply/action taken or further action is required by the audited entities for compliance. Some of the important audit observations arising out of these IRs are processed for inclusion in the Audit Reports. The Audit Reports are submitted to the Governor of the State under Article 151 of the Constitution of India for laying on the table of the Legislature.

Test audits were conducted involving expenditure of ₹ 868.30 crore of previous years of the State Government under Economic Sector. The details of year-wise break-up is given in **Appendix 2.2.1**. This Chapter contains two Performance Audits on 'National Rural Drinking Water Programme' (NRDWP) and 'Sikkim Nationalised Transport Division including implementation of the Integrated Depot Management System' and seven Compliance Audit Paragraphs as given below:

RURAL MANAGEMENT AND DEVELOPMENT DEPARTMENT

2.3 National Rural Drinking Water Programme

Performance Audit (PA) on implementation of NRDWP in Sikkim for the period 2012-17 was conducted during April-July 2017 to ascertain effectiveness of planning, economy, efficiency in implementation and effectiveness of monitoring. PA disclosed deficiencies in planning, programme execution and monitoring mechanism. The Department had not constituted the Source Finding Committee. There were short-release of State share and delay in submission of Annual Action Plan. As of March 2017, the Department was able to make only 737 habitations out of 2,084 habitations as Fully Covered in the State while the remaining 1,347 habitations (65 per cent) had not been covered even after the implementation of revised scheme in 2009. One hundred and five rural water supply schemes (RWSS) out of the total 462 RWSS in the State had not been completed even after a delay ranging between three and four years beyond the stipulated date of completion. The water quality monitoring and testing for detection of chemicals and bacteriological contamination fell short of the stipulated targets. Discrepancies in data maintained in the Integrated Management Information System (IMIS) and that maintained by the implementing agencies undermined the reliability of the system as a viable tool for monitoring. The following were the main highlights of the PA.

Highlights

Lack of effective delivery mechanism, planning and functioning on the part of State Water and Sanitation Mission, State Level Scheme Sanctioning Committee and State Technical Agency led to abnormal delay in completion of projects. This deprived the intended benefits of providing safe drinking water to the targeted beneficiaries.

(Paragraph 2.3.9.1)

Analysis of financial management disclosed short-release of State share of ₹ 4.83 crore. As against the total required State share of ₹ 13.95 crore, only ₹ 9.12 crore was released by the State Government. There was also delay in release of funds by State to State Water and Sanitation Mission.

(Paragraph 2.3.9.2)

The Department procured 84 electro-chlorinators worth ₹ 1.18 crore during 2012-13 from the Natural Calamity Fund meant for immediate restoration and repair of damaged drinking water supply works. None of these chlorinators were put to use in any of the Gram Panchayat Units and were lying idle in dilapidated condition. This fact was confirmed during physical verification of eight GPUs where none of the electro-chlorinators were functioning.

(Paragraph 2.3.9.3.3 (d))

Inadequacy in project preparation process led to tapping of water from non-perennial sources, non-commencement of work involving ₹ 53.63 lakh. Abandonment of six projects despite incurring ₹ 19.43 lakh owing to land dispute, absence of source and contractor's negligence.

(Paragraph 2.3.9.3.1)

All the three mega projects involving ₹ 40.77 crore were lagging behind the scheduled date of completion by more than two and a half years. This was due to non-receipt of forest clearance and non-availability of pipes/fittings, contractor's negligence and slow pace of work.

(Paragraph 2.3.9.3.1 (c))

As against the total requirement of 1,83,990 tests (Bacteriological and chemical) to be conducted during 2012-17, the District Laboratories conducted only 5,820 tests.

(Paragraph 2.3.9.3.6 (h))

There were discrepancies in data uploaded in the Integrated Management Information System with that of records maintained by the Department. The monitoring mechanism was non-existent as evident from the fact that several projects were delayed beyond the targeted date.

(Paragraph 2.3.9.4.1)

2.3.1 Introduction

Sikkim is known for its substantial water resources being endowed with waterfalls, springs, rivers and lakes. The average annual rainfall of 2,739 millimetre is the principal mode of recharge of surface water. Despite these advantages however, providing potable water on a sustainable basis to its citizens is becoming increasingly a challenge due to rapid growth of population and industrial development in the State.

The Accelerated Rural Water Supply Programme (ARWSP), renamed (2009) as National Rural Drinking Water Programme (NRDWP) by the Government of India (GoI), aims to provide every rural person with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis.

NRDWP funds rural water supply schemes with special focus on water-stressed and water quality affected areas, rainwater harvesting and groundwater recharge measures and for operation and maintenance. It promotes conjunctive use of surface and roof rainwater,

and, supports convergence with other developmental programmes. The NRDWP, in Sikkim, was being implemented by Rural Management and Development Department

The rural habitations were categorised as Fully Covered, Partially Covered and Not Covered habitations. Not Covered habitations were defined as habitations where a drinking water source was not available within 100 mtrs. elevation in hilly areas, or where the habitations had a water source affected by quality problems; Partially Covered were those habitations which had a safe drinking water source but the capacity of the system ranged between 10 and 40 lpcd[1]. The remaining habitations were known as Fully Covered habitations.

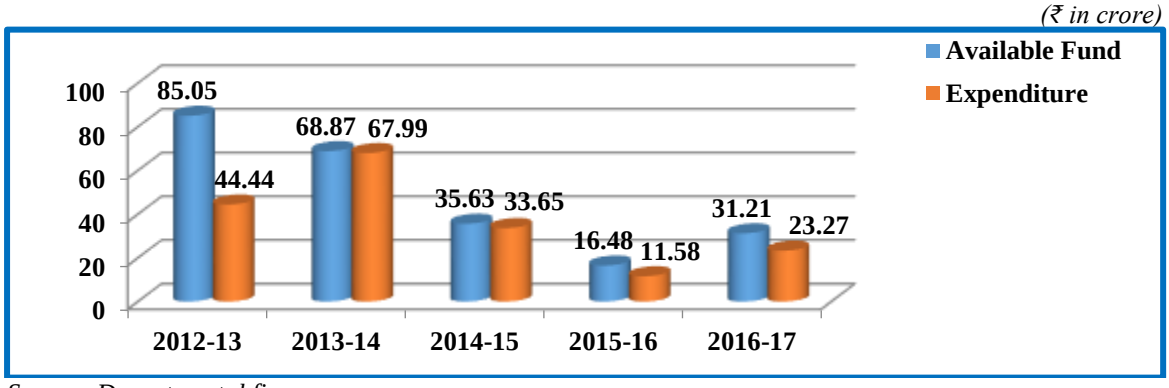
The components of the programme, purpose of each component, distribution of State allocation under NRDWP and Centre-State sharing pattern of the NRDWP funding at State level during 2012-17 are given in **Appendix 2.3.1.**

2.3.1.1 Financial achievement

Funds of ₹ 237.24 crore was available under NRDWP during 2012-17, against which, the Department spent ₹ 180.93 crore as shown in the chart below:

Chart 2.3.1
Financial achievement under NRDWP

(₹ in crore)



Source: Departmental figures

2.3.1.2 Physical achievements

Out of 462[2] augmentation works relating to RWSS sanctioned in the State under the NRDWP during 2012-17, 357 works had been completed and 105 works were under implementation till the date of audit (July 2017).

2.3.2 Organisational set-up

The RMDD was headed by the Secretary who was assisted by the Principal Chief Engineer, Chief Engineers, Additional CE, Director (Accounts) and other sub-ordinate officers.

[1] *Lpcd: Litres per capita per day.*
[2] *East – 183, South - 118, North - 54, West – 107 :* ***Total– 462***

2.3.3 Audit objectives

The Performance Audit of the NRDWP was taken up to ascertain whether:

- planning at various levels was adequate;
- necessary institutional mechanism existed for effective implementation of the programme;
- the fund management was economical and effective;
- the implementation of the NRDWP was effective and efficient; and,
- adequate and effective mechanism existed for monitoring and evaluation of the programme.

2.3.4 Audit criteria

Audit findings were benchmarked against the criteria derived from the following documents:

- Scheme guidelines of the NRDWP issued in 2009 and 2013;
- Strategic Plan and Annual Action Plan;
- Sikkim Financial Rules;
- Sikkim Public Works (SPW) Code and Manual;
- Physical and financial progress reported under MIS;
- Uniform drinking water quality monitoring protocol;
- Statement of Accounts prepared by the firm of Chartered Accountants; and,
- Monitoring mechanism prescribed by the GoI and the State Government.

2.3.5 Audit methodology including scope

The audit process began with an Entry Conference (April 2017) held with the Head of the Department, engineers and district functionaries wherein audit objectives, scope of audit, audit criteria and audit methodology were explained.

The PA on implementation of NRDWP covering the period from 2012-13 to 2016-17 was carried out during April-July 2017. Records at the Head Office (RMDD), three (East, South and North) districts out of four districts, three Zilla Panchayats (ZPs) out of four ZPs, six Blocks out of 31 Blocks and 15 Gram Panchayat Units (GPUs) out of 176 GPUs of the selected districts covered under this PA were also checked. Out of 912 works (₹ 86.95 crore) in the three districts, 311 works (₹ 51.97 crore) were checked. Ninety out of 311 works were also physically verified along with the departmental engineers and panchayat functionaries involved in the execution of the projects. The details of selection of works are given in the table below:

Table 2.3.1

Name of work	State total	Total of 3 selected districts	Works checked from selected districts
Augmentation of RWSS	462	355	161
Natural Calamity works	514	402	86
Roof Rain Water Harvesting Structure	140	85	42
Drinking water supply in Schools	46	37	14
Drinking water supply in Anganwadis	50	33	08
Total	**1212**	**912**	**311**

Audit findings were discussed with the departmental officers in the Exit Conference (11 October 2017). The views and reply of the Department have been taken into account appropriately while finalising this PA.

2.3.6 Audit sampling

Audit sampling was done as per the Probability Proportional to Size Without Replacement (PPSWOR) method with number of drinking water supply schemes as population size during the period of PA (2012-17) for selection of Districts and Blocks. Thereafter, the method of Simple Random Sampling Without Replacement (SRSWOR) was adopted for selection of GPUs, habitations and beneficiaries. The details of sample selection is given in **Appendix 2.3.2**. The gist of sample size selected through the above sampling method is given in the table below:

Table 2.3.2
Details of the Sample selected for audit

Particulars	Total	Selected	Remarks
District	4	3	East, South and North.
Block	31	6	Gangtok, Pakyong, Rongli, Namchi, Ravongla and Mangan
Gram Panchayat Unit	176	15	**East (8)**: Khamdong, Sirwani, .Beyong, Chalamthang, Taza,. Berring, Budang and. Chujachen. **South (5)**: Sadam, Turuk, Namthang, Sripatam and Niya. **North (2)**: Kabi and Navey. Two GPUs were selected from each of the six Blocks. Three additional GPUs were also covered, two in East and one in South District
Habitations	2084	60	Four habitations per GPU were covered (4 x 15= 60);
Beneficiaries		600	Ten beneficiaries from each habitation were covered (10 x 60)

2.3.7 Past audit coverage and PAC's recommendations

The PA on Accelerated Rural Water Supply Programme in Sikkim featured in the Comptroller and Auditor General of India's Audit Report for the year 2007-08, Government of Sikkim, vide Paragraph 3.1.9.1. The same was discussed in the Public Accounts Committee (PAC) and action taken by the Department was published in PAC's

98 Report on 28 June 2012. The Recommendations, Action Taken Notes and present status are given in **Appendix 2.3.3.**

2.3.8 Acknowledgement

The Indian Audit and Accounts Department acknowledges the co-operation extended by the Secretary, RMDD and his officers in providing necessary records and information for conducting the PA.

2.3.9 Audit findings

Audit findings on the implementation of NRDWP in the State are discussed in the succeeding paragraphs:

2.3.9.1 Delivery Mechanism and Planning

Annexure VII of the NRDWP guidelines stipulated devising an appropriate delivery mechanism and adequate planning to ensure providing safe drinking water to rural habitations. The State Government was to constitute various committees such as State Water and Sanitation Mission (SWSM), State Level Scheme Sanctioning Committee (SLSSC), State Technical Agency (STA), WSSO, Source Finding Committee (SFC), DWSM, BRC and Village Water and Sanitation Committee (VWSC) from State to GPU level and also to formulate plans such as Village Water & Security Plan (VWSP), District Water & Security Plan (DWSP), Annual Action Plan (AAP) and Comprehensive Water Security Action Plan (CWSAP).

The adequacy and effectiveness of these delivery and planning mechanisms are given in the table below:

Table 2.3.3
Details of functions of various committees

Functions	Audit observation
Delivery Mechanism	
State Water and Sanitation Mission (SWSM)	
As per Para 12.4 and Annexure VII (Para 1) of the NRDWP guidelines, each State has to constitute SWSM, with following functions to provide (i) policy guidance, (ii) convergence of water supply and sanitation activities, (iii) coordination with various State Government departments, (iv) effective monitoring and evaluation of physical and financial performance and management of the water supply and sanitation projects, (v) integration of communication and capacity development programmes for both water supply and sanitation, and (vi) for maintaining the accounts for programme and support fund and carrying out the required audits of the accounts. The SWSM should conduct review of the programme in the districts once in six months.	Although the SWSM was constituted (August 2009) in the State, only one meeting (29 June 2013) was held during 2012-17 against the required ten meetings. Resultantly, the major functions like providing policy guidance, coordination with various departments, monitoring and evaluation of physical and financial performance and management of the water supply and sanitation projects were found lacking.
State Level Scheme Sanctioning Committee (SLSSC)	
As per Para 12.4 and Annexure VII (Para 2), of the NRDWP guidelines, States were required to constitute a SLSSC for ensuring a proper system of close monitoring and evaluation of	The SLSSC was constituted in August 2009 with Secretary RMDD as Chairman. During 2012-17 against the

Functions	Audit observation
the scheme as well as furnishing complete and timely information to enable the GoI to release funds regularly. All the rural water supply projects and support activities were to be approved by SLSSC. Meetings of the Committee were to be held at least twice in a year for sanctioning new schemes, progress/completion and commissioning of the schemes approved earlier by the Committee was also to be reviewed.	requirement of 10 meetings as per guidelines, barring 2013-14 when two meetings were held no other meetings were held, resulting in a shortfall of eight meetings.
Department's response: The Department accepted (November 2017) the shortfall in meetings of the SLSSC and stated that this was due to non-sanctioning of any projects after 2013-14. The Department added that SLSSC meetings to review the ongoing works would be convened in 2017-18.	
State Technical Agency (STA)	
As per Para 12.4 and Annexure VII (Para 3) of the NRDWP guidelines, the SWSM in each State in consultation with the Ministry would identify reputed Technical Institutions, designated as STA to which technical support to RMDD could be outsourced. The STA was to assist (i) to plan and design scientifically sound and cost effective RWSS with special emphasis on sustainability of the source and system, (ii) to prepare action plan for both software activities and hardware activities, and (iii) to evaluate and scrutinise major/complicated water supply schemes as assigned by the RMDD for consideration under SLSSC.	The State Cabinet approved (August 2009) the proposal to identify Water Security and Public Health Engineering Department (WS&PHED) as STA for RWSS under NRDWP in the State. However, it was found that none of the Detailed Project Reports and estimates relating to RWSS works were vetted by the STA except for three[3] mega RWSS projects.
Department's response: The Department stated (November 2017) that NRDWP schemes were sanctioned by the SLSSC only after vetting by the STA. However, no supporting document to this effect was furnished to Audit. The Department further stated that, it had instructed the Zilla Panchayats to comply the guidelines and avoid such lapses in future.	
District Water and Sanitary Mission (DWSM)	
As per Annexure VII (Para 5) of the NRDWP guidelines, the DWSM under the supervision, control and guidance of ZP was to be constituted to prepare district based water security plan for implementation. The village water security plan should be analysed and consolidated at the district level by DWSM.	The DWSM was constituted involving Adhyacha of Zilla Panchayat as Chairman and Additional District Collector as Member Secretary. Though the DWSP was prepared, it was not implemented in the districts.
Block Resource Centre (BRC)	
As per Annexure VII (Para 6)of the NRDWP guidelines, the BRC was to be set up at the block level with an objective to provide continuous support in terms of awareness generation, motivation, mobilisation, training and handholding to village communities.	The Department failed to constitute BRCs at Block Level leading to non-providing of support to village communities on water and sanitation issues.
Village Water and Sanitation Committees (VWSC)	
As per Annexure VII (Para 7) of the NRDWP guidelines, the VWSC was to be set up in each GPU in order to decentralize powers and responsibilities and to give greater focus on water and sanitation issues. The VWSC is responsible for: (i) planning, designing, and implementing all in-village drinking water and sanitation activities; (ii) providing facts and figures to the GPU for reviewing water and sanitation issues; (iii) providing inputs for the VWSP; (iv) ensuring community participation and	Though the VWSCs were constituted, there was absence of planning, monitoring, implementation and O&M of water supply schemes by the VWSC in GPUs. Resultantly, the participation of the local communities to achieve drinking water security also remained largely unachieved.

[3] *Namphing, Yangang and Chingthang.*

Functions	Audit observation
decision making in all phases of in-village scheme activities; (v) commissioning and takeover of completed in-village water supply and sanitation works through a joint inspection with Line Department; (vi) collection of funds through a tariff , charges and deposit system for O&M of water supply and sanitation works for proper managing and financing of O&M of the services on a sustainable basis.	
Planning	
Village Water Security Plan (VWSP)	
As per Para 13 of the NRDWP guidelines, the VWSP is responsible for planning, implementation, management, operation and maintenance of the rural water supply systems. Village level planning including water budgeting is the key factor in ensuring optimum utilisation of water. A water safety plan, performance improvement plan when augmenting existing infrastructure and an operational plan for operating the scheme will be part of the VWSP.	Although the VWSP was prepared at GPUs, there were absence of monitoring, planning and maintenance of the rural water supply systems in the GPUs covered under this PA. There was no water budgeting, water safety plan, performance improvement plan and operational plan.
District Water Security Plan (DWSP)	
As per Para 13 of the NRDWP guidelines, the DWSP should be prepared based on all the VWSPs of the districts for carrying out all village work by the GPU or its sub-committee i.e. VWSC. The DWSP will be implemented by dovetailing funds from different sources/rural water supply programmes and NRDWP funds.	Although the DWSP was prepared by the DWSM, none of the required activities were undertaken in the villages due to fund constraints and shortage of manpower.
Annual Action Plan (AAP)	
As per Para 14 of the NRDWP guidelines, the main objective of the AAP is to provide a definite direction to the programme, and also to ensure regular monitoring of the progress made by the respective State towards the goal of achieving drinking water security to every rural household. While preparing the AAP, completion of the incomplete works was to be given priority over new works and also to ensure that the works taken up were completed as per schedule and that there was no delay in execution. The AAP was also to indicate the target for the year of coverage of habitations that were proposed to be covered under these schemes adhering to the prioritisation in targeting habitations. The AAP for every subsequent year was to be submitted to GoI by February of each year.	The Department did not furnish the AAPs for the years 2012-14. However, the scrutiny of AAPs for the years 2014-17 revealed that priority was not given for coverage of 0-50 *per cent* population, which was one of the core objectives of the NRDWP. Further, these were submitted to the GoI belatedly. There was absence of monitoring of the ongoing schemes which resulted into delay in completion of the projects, non-commencement of work, abandonment of some projects etc. which are discussed in paragraph 2.3.9.3.1 (a & b).
Department's response: The Department stated (November 2017) that the SFC was not set up and the responsibility of source finding was taken by VWSC. The reply was not tenable as the SFC was responsible for clearance of schemes put up for approval of SLSSC and for review of the functioning/performance of existing water supply schemes for availability of potable drinking water as per the norms of the guidelines.	
Comprehensive Water Security Action Plan (CWSAP)	
As per Para 14 of the NRDWP guidelines, the Department was to prepare a five year CWSAP including broad directions/thrust and tangible targets planned to be achieved at the State level	No CWSAP was constituted in the State. In the absence of CWSAP, it was not clear how thrust areas were identified and broad direction given on the NRDWP's implementation and tangible targets were planned.

2.3.9.2 Fund Management

As per Para 16.1 of the NRDWP guidelines, the SWSM was to maintain two accounts, namely, Programme Fund Account and Support Activities Account in any Public Sector Bank at the State Headquarters. The accounts were required to be audited by a Chartered Accountant within six months of the close of the financial year. GoI made allocation of funds under the NRDWP every year in the beginning of the financial year.

2.3.9.2.1 Flow of Funds

Para 16 of the NRDWP guidelines envisaged that the SWSM was required to select a Bank branch of any Public Sector Bank with internet connectivity at the State Headquarters for maintaining the two accounts namely Programme Account and Support Activities Account under the NRDWP. These shall be saving accounts and once selected, the accounts shall not be changed to any other Branch or Bank without concurrence of Ministry of Drinking Water and Sanitation (MDWS).

The SWSM opened (December 2009) two savings accounts at Gangtok Branch of the State Bank of India (SBI) and funds were deposited into those separate accounts for Programme Fund and Support Fund respectively. The accounts were audited by the empanelled Chartered Accountants every year. The fund flow chart was as below:

Chart 2.3.2
Flow of funds

Scrutiny of records revealed persistent savings, short/delay in release of funds by GoI, short release of State share, delayed release of funds by the State Government to SWSM etc.as discussed in the following paragraphs:

a) Budget provision and expenditure

Budget provision and expenditure under NRDWP during the years 2012-13 to 2016-17 were as detailed below:

Table 2.3.4
Budgetary allocation and expenditure under the NRDWP during 2012-17

(₹ in crore)

Year	Allocation[4]	Opening Balance	Funds Receipts		Interest earned	Available Funds	Expenditure			Closing Balance
			Release by GoI	Release by GoS			Central	State	Natural Calamity	
1	2	3	4	5	6	7 (3+4+5+6)	8	9	10	11 (7-8-9-10)
2012-13	36.69	50.88[5]	32.36	Nil	1.81	85.05	22.87	0	21.57	40.61 (48)
2013-14	16.88	40.61	27.21	Nil	1.05	68.87	48.31	0	19.68	0.88 (1)
2014-15	30.38	0.88	34.45	Nil	0.3	35.63	33.26	0	0.39	1.98 (6)
2015-16	12.96	1.98	12.05	2.32	0.13	16.48	9.27	2.31	0	4.9 (30)
2016-17	14.43	4.9	19.42	6.8	0.09	31.21	16.49	6.78	0	7.94 (25)
Total			**125.49**	**9.12**	**3.38**	-	**130.2**	**9.09**	**41.64**	

Source: Departmental figure. Figures in brackets indicates percentage

The above table shows that the Department had been able to absorb and spend the funds released to it under NRDWP except during the year 2012-13 when there was a closing balance of ₹ 40.61 crore against the available funds of ₹ 85.05 crore *i.e.* a saving of 47.75 *per cent*.

The Department stated (November 2017) that the savings in 2012-13 was because of Calamity fund of ₹ 41.64 crore released by the Ministry in 2011-12 for immediate restoration works of the water supply scheme damaged by the earthquake of September 2011.

b) Short release of State share

In terms of Para 17 of the NRDWP guidelines the State Government was required to release the matching share in the ratio of 90:10. Details of release of State share during 2012-17 was as under:

Table 2.3.5
Release of State share under NRDWP during 2012-17

(₹ in crore)

Year	GoI release	Corresponding matching share to be released by GoS	Actual release by GoS	Progressive Shortfall
2012-13	32.36	3.60	0	(-) 3.60
2013-14	27.21	3.02	0	(-) 6.62
2014-15	34.45	3.83	0	(-) 10.45
2015-16	12.05	1.34	2.32	(-) 9.47
2016-17	19.42	2.16	6.80	(-) 4.83
Total	**125.49**	**13.95**	**9.12**	(-) 4.83

Source: Departmental figure

It can be seen from the above table that while the State Government did not release any share during 2012-15, it released ₹ 9.12 crore during 2015-17 which was short by ₹ 4.83 crore. The reasons for non/short release of State share were not on record.

The Department stated (November 2017) that the short release of State share during 2012-13 to 2014-15 was due to non-availability of sufficient funds with the State and the overall shortfall would be taken care of during 2017-18.

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[4] The GoI release of funds more than the allocation under NRDWP was due to Management Devolution Index (MDI) fund devolved to the State as per the performance of the State

[5] The opening balance of ₹ 50.88 crore includes ₹ 41.64 crore of Natural Calamity Funds approved under NRDWP.

c) Delayed release of funds by the State Government to SWSM

Para 17(s) of the NRDWP guidelines requires, the State to release the entire amount of central allocation received along with the matching State share to the implementing agency (SWSM) without any delay and in any case not later than 15 days after its receipt.

The funds were released directly by the GoI to the SWSM till 2013-14. From 2014-15 onwards, funds were routed through the State treasury. Audit noticed that there was delay in release of funds received from GoI by the State to the SWSM as given below:

Table 2.3.6
Delay in release of fund by the State to the SWSM

(₹ in crore)

Year	Delay between 15 days to one month	Delay between one month to six months
2014-15	20.60	11.10
2015-16	10.25	0.01
2016-17	1.46	17.96
Total	**32.31**	**29.07**

The delay in release of fund by the State to the SWSM ranged between 15 days and six months. An amount of ₹ 32.31 crore was released with delay ranging between 15 days and one month while ₹ 29.07 crore was released after delay of one to six months. Reasons for the delays were not on record.

While accepting the fact the Department stated (November 2017) that the same would be taken care of in future.

2.3.9.3 Programme Implementation

The NRDWP comprises of six components viz. Coverage, Water Quality, O&M, Sustainability, Support Activity and Water Quality Monitoring & Surveillance (WQMS). These have been covered under programme implementation under various paras: Coverage (Para 2.3.9.3.1), Water Quality (Para 2.3.9.3.2), O&M (Para 2.3.9.3.3), Sustainability (Para 2.3.9.3.4), Support activities (Para 2.3.9.3.5) and WQMS (Para 2.3.9.3.6). These and other audit findings on programme implementation are discussed in the succeeding paragraphs:

2.3.9.3.1 Coverage

Para 4 and Para 9.3(ii) of the NRDWP guidelines envisaged to provide safe and adequate drinking water supply to un-served, partially served and slipped back habitations with 47 *per cent* of the annual NRDWP fund. Further, the drinking water supply service level in rural areas was to be increased from 40 lpcd to 55 lpcd and at least 50 *per cent* of rural households were to be provided with piped water supply by 2017. NRDWP objectives also required that all Government schools and anganwadis have access to safe drinking water. Guideline further required examination of issues relating to preparation of DPRs, tendering, contract management, outcome of the completion of schemes along with the functional status of selected schemes viz. completed/incomplete/abandoned.

Scrutiny of records and physical verification revealed deficiencies under coverage. These were due to non-prioritisation, non-coverage of schools and angawadis with safe drinking water, non-commencement of RWSS works, abandonment of works, partial execution of

RWSS, tapping of water from non-perennial source and lack of co-ordination within the State Government departments. These adversely affected the targeted coverage of habitations as required under the Programme guidelines as discussed in the following paragraphs:

➢ ***Priority in coverage***

Para 9.1 of the NRDWP guidelines envisaged that higher priority should be given for coverage of habitations with zero to 25 *per cent* and 25 to 50 *per cent* population, identified quality affected habitations, SC, ST and minority concentrated habitations to provide adequate and safe drinking water. Hence, the guidelines provide for according priority to habitations where least number of persons have access to adequate and safe drinking water.

The status of population coverage of habitations under the NRDWP is shown in the table below:

Table 2.3.7
Status of population coverage of habitations

Status of habitations	Total habitations	No. of habitations with population coverage >0 and <25 *per cent*	No. of habitations with population coverage >25 and <50 *per cent*	No. of habitations with population coverage >50 and <75 *per cent*	No. of habitations with population coverage >75 and <100 *per cent*	No. of habitations with 100 *per cent* population coverage
As on April 2013	2084	505	359	520	198	502
As on March 2017	2084	331	447	391	178	737
Increase/Decrease (-)		(-)174	(+)88	(-) 129	(-)20	(+)235

Source: Departmental figure

The above table shows that habitations with 100 *per cent* population coverage increased from 502 (April 2013) to 737 (April 2017).

Further, the Department did not give much priority to the less covered habitations i.e. > 0 to < 25 *per cent* and >= 25 to < 50 *per cent*. As against 864 habitations under these categories as of April 2013, only 86[6] habitations (9.95 *per cent*) could be brought under Fully Covered habitations as of March 2017. Further, against 718 habitations under >= 50 to <100 *per cent* as of April 2013, 149[7] habitations (20.75 *per cent)* were brought under Fully Covered habitations as of March 2017.

The above figures indicates that overall, the aim of providing at least 50 *per cent* of rural households with piped water supply by the year 2017 was not achieved as only 35 *per cent* of rural households (737 habitations out of 2,084) were covered till March 2017.

The Department stated (November 2017) that more schemes with >= 25 to < 50 *per cent* of population coverage habitations were taken up instead of sanctioning population coverage habitations of > 0 to < 25 during 2013-14. They also assured to take up schemes of > 0 to < 25 *per cent* coverage only in all future sanction of schemes. The reply was not

[6] *86 = Total of habitations with population coverage > 0 and < 25 per cent and> 0 and < 50 per cent (505 + 359) less (331 + 447).*
[7] *149 = Total of habitations with population coverage >50 and <75 per cent and>75 and <100 per cent (520 + 198) less (391 + 178).*

acceptable as the prioritisation of less population coverage habitations of 0-25 *per cent* and 25-50 *per cent* should have been done as per the norms of the guidelines.

➢ ***Schools and Anganwadis***

NRDWP objectives required that all Government schools and anganwadis have access to safe drinking water facilities.

Audit scrutiny of records in respect of safe drinking water supply at various schools revealed that out of a total of 653 schools in the entire State, only 437 schools were covered under the NRDWP (July 2017) while 216 schools had not been provided with safe drinking water.

Image 2.3.1

Empty Water Tank

Similarly, in case of Anganwadi Centres, only 93 out of 172 Anganwadi Centres in the State, were covered till date of audit (July 2017) leaving 79 Anganwadi Centres yet to be provided with safe drinking water. No targets were fixed by the Department except in 2013-14 and 2015-16.

The joint physical verification (May 2017) of six works revealed that three[8] Anganwadi Centres were without drinking water supply as the water tanks were empty and dry due to non-availability of water sources.

While accepting the fact, the Department stated (November 2017) that due importance would be given for coverage of all schools and ICDS centres in the next batch of sanction.

➢ ***Work execution***

One of the important steps in project formulation was preparation of DPR. Sikkim Public Works (SPW) Code (Section IV of Para 4.3) envisaged that no work should commence unless a properly designed estimate is framed after detailed survey, investigation and technical sanction. The preparation of estimates for projects should be comprehensive, supported by complete details and based on design and drawing.

Audit noticed that the Department had not complied with the above prescription leading to (i) delay in completion of schemes, (ii) non-commencement of work, (iii) abandonment of works, (iv) partial execution of Water Supply Scheme, (v) tapping of water from non-perennial source and (vi) lack of co-ordination within the State Government departments under NRWDP as discussed below:

a) Delay in completion of schemes

Completion of projects/schemes in a timely manner was necessary to provide intended benefits to beneficiaries.

The status of sanctioned, executed and ongoing projects during 2012-17 was as given below:

[8] *Bikmat ICDS, Kateng ICDS and Maneydara ICDS*

Table 2.3.8

Status of projects under NRDWP during 2012-17

Sl. No.	Details of Projects	Total number of Projects					Total Project cost*(₹ in crore)*				
		East	West	North	South	Total	East	West	North	South	Total
1	Opening balance (2012-13)	1	0	0	1	2	0.21	0	0	0.85	1.06
2	Sanctioned during 2013-14	182	107	54	117	460	32.67	29.71	8.77	38.03	109.18
3	Projects/works completed	130	93	54	80	357	21.73	18.60	8.77	12.06	61.16
4	Projects/works in progress	53	14	0	38	105	11.15	11.11	0	26.82	49.08

Source: Departmental figure

It will be seen that 357 projects (out of 462) had been completed and 105 were in progress. Out of the 357 completed projects, 309 projects were completed after delays between three and four years. The reasons for delay were attributed to non-availability of stock material, contractors' negligence, land disputes, forest clearance, non-identification of source, etc. A few cases of delayed projects are given in **Appendix 2.3.4**.

b) Other issues under coverage component

Joint physical verification of various Rural Water Supply Schemes revealed that some of these were stalled on account of various reasons given in **Appendix 2.3.5.** The gist of the same is as under:

Table 2.3.9

	No. of work	Sanctioned cost (₹ in lakh)	Date of commencement	Scheduled date of completion	Expd till August 2017 (₹ in lakh)	Reasons	Department's response
Non-commencement of work	Three	55.63	Feb 2014 to Feb 2015	Jan 2015 to Jan 2016	Nil	Water source dispute as the current water source identified for this work was already catering to another habitation and land dispute for laying of pipes.	Department stated that reports from the field had been sought and appropriate action would be taken to complete the work.
Abandoned works	Six	153.89	Mar 2011 to Aug 2014	Sept 2011 to May 2015	19.43	Non-identification of water source by the department, land dispute for laying of pipes and non–release of running account bills to the contractor.	The Department stated that the report from the field had been sought and appropriate action would be taken to complete the works.
Partial execution of water supply schemes	Three	75.00	Nov 2014 to Mar 2017	Jul 2015 to Sept 2017	35.00	Non- availability of material in time, provision was not made for tapping and laying pipelines from distribution tanks to the households.	Department stated that schemes were revised and water pipeline from source to main reservoir along with the construction of tank was being taken up.
Tapping of water from non-perennial sources	Four	87.50	Nov 2013 to Feb 2015	Aug 2014 to Aug 2015	Nil	The Department failed to identify the perennial source resulting in acute shortage in discharge of water.	Department stated that the perennial water sources were not available in the nearby locations and shortage of funds.
Lack of co-ordination with other State Government departments	Three	185.23	Mar 2011 to Nov 2013	Feb 2014 to Nov 2014	76.53	The work remained stalled due to damage of tanks and pipes during the construction of roads under PMGSY and the R&B Department.	Department stated that the matter to fund the repair work was being pursued with the concerned department.

c) Implementation of mega RWSS projects

The sources of water supply in Sikkim are mainly rivulets and spring water sources. Some of these are perennial but most dry up or lose discharge during lean seasons. To overcome the hardship faced in the water scarce areas of the State, three mega projects (RWSS at Yangang, Namphing and Chingthang) were taken up by the Department. Audit scrutiny of records of these three projects revealed the following.

i. During joint physical verification (May 2017) of the Yangang RWSS project it was noticed that the project was delayed by two and half years achieving 20 *per cent* of physical progress after spending ₹ 9.52 crore (63 *per cent*) against the scheduled date of completion of February 2015. The construction of sedimentation tank near source was stopped by Forest Department as forest clearance was not obtained. Only 16,154 mtrs. of pipes were laid as against the total requirement of 64,050 mtrs. of pipes. Out of 57 tanks, only four were installed/fabricated. Further, only 40 water hydrants were constructed as against the requirement of 735. The reasons for delay were non-availability of stock material, non-finalisation of actual site, delay in getting forest clearance for construction of sedimentation tank and objection by private landowners for laying pipes and GI tanks.

The Department stated (November 2017) that the project was being revised due to change in scope of work and scheduled to be completed by April 2018.

ii. Scrutiny of records revealed that the Department allowed the firm to conduct survey at the higher rate of ₹ 5,000 per acre as against ₹ 3,000 per acre allowed to the same firm during the same period and for similar assignment for two other contour surveys at Namphing RWSS (South District) and Chingthang RWSS (West District). Thus, an excess payment of ₹ 8.00 lakh was made to the firm.

iii. As per one[9] of the items of the estimate, the pipes measuring length of 64,050 mtrs. was required to be buried by excavating soil at a total cost of ₹ 21.59 lakh. Joint physical verification (May 2017), however, revealed that the pipes were laid without excavating soil and burying the pipes underneath. Thus, payment towards unexecuted work was irregular. Further, non-execution of this item of work led to laying of the pipelines on surface that exposed the pipes to high risk of damage.

While accepting the audit observation, the Department stated (November 2017) that it was issuing instructions to bury the pipelines as per the provisions of the estimate.

- ***RWSS at Namphing***

The GoI sanctioned ₹18.14 crore for a RWSS targeted to cater to 1200 households at Namphing and its surrounding areas in South Sikkim on 90:10 cost sharing with the State. The civil portion of work to the tune of ₹ 7.48 crore was awarded (February 2014) to a contractor and scheduled to be completed by February 2016. As per the DPR, the water was to be tapped from three different sources and three pressure filters were to be installed between these sources and the main reservoirs. As of March 2017, 66 *per cent* of the work was completed at a cost of ₹ 9.30 crore.

[9] *Excavation in foundation trenches in mixed soil, hard rock and mixed filling in pipe line with excavated earth, etc. all complete'.*

The following observations are made on the project:

i. Rinkey-1**:** Against the required length of 550 mtrs (65 mm dia) of pipes, the Department laid 605 mtrs. (80 mm dia) of pipes from the main source to the reservoir tank. The reason for change in size and length of the pipes was not on record. No other components of works were executed as of July 2017.

Image 2.3.2

Incomplete reservoir tank at Namphing.

ii. Rinkey-2**:** As per DPR, the length of the pipes between the main source and reservoir tank was 3,916 mtrs. (100 mm dia). Joint physical verification (May 2017) revealed that 4,029 mtrs. length of pipes was laid with an additional requirement of 1,000 mtrs to reach the reservoir tank due to change in construction site of the reservoir tank as the landowner refused to give land in the original site. Audit noticed that only 10 *per cent* of the reservoir tank had been constructed as seen in the image. The delay was due to non-identification of site for installation of pressure filter.

iii. Bedhghari: The laying of 80 mm pipelines was completed from main source to reservoir tank. The reservoir tank and five steel tanks were also constructed. Physical progress of approximately 40 *per cent* was achieved in respect of laying of pipes. However, the pressure filter had not been installed between the main source and reservoir tank. Joint physical verification (May 2017) revealed that though the Department spent ₹ 54 lakh on survey work, the same was not conducted properly as the size of the pipes had to be changed during execution.

Thus, due to change in size of pipes during execution, non-availability of land for setting up of reservoir tank and non-installation of pressure filter, the project targeted to deliver drinking water to 1,200 households at Namphing and its surrounding areas in South District by February 2016 had not been completed.

The Department stated (November 2017) that the project was being revised due to landslide at water source and the change in size of pipes was as per the new alignment. It further stated that the pressure filters would soon be installed.

- ***RWSS at Chingthang***

The Chingthang mega project was sanctioned at an estimated cost of ₹ 7.59 crore. The civil portion of the work amounting to ₹ 1.97 crore was awarded (February 2014) to a Co-operative Society and scheduled to be completed within 18 months (August 2015).

Scrutiny revealed (July 2017) that the Department after incurring ₹ 4.77 crore (63 *per cent*) could physically complete only 10 *per cent* of the work. The Department procured materials viz. Poly Propylene Random (PPR) pipes and fittings (₹ 3.05 crore), storage tanks (₹ 20.65 lakh) and pressure filters (₹ 78.88 lakh) which were lying in the Store godowns and on private land/building. Joint physical verification (July 2017) revealed that the area under the project was very dry and the public were facing acute shortage of drinking water.

2.3.9.3.2 Water Quality

As per Para 9.3 of the NRDWP guidelines, 20 *per cent* of the State-wise allocation was to be utilised for Water Quality component for providing safe drinking water to water quality affected habitations. States had also been given flexibility to utilise the Coverage component funds for Water Quality and vice versa.

The Department stated (November 2017) that the State did not have any Water Quality affected habitation but the basis of the above statement was not substantiated by any documentary evidence. However, audit analysis revealed that there were some water quality related issues which are highlighted in the Para 2.3.9.3.6 (f and h).

2.3.9.3.3 Operation and Maintenance

As per Para 9.3 of NRDWP guidelines, funds under O&M were for expenditure on running and repair costs of drinking water supply projects. Further, State Government should endeavour to develop sustainable sources of funding for maintenance of RWSS.

Scrutiny of records and physical verification revealed short-utilisation of O&M fund, non-levy of water charges, diversion of natural calamity funds meant for immediate repairs and restoration works and other issues relating to O&M. These are discussed in the following paragraphs:

a) Short-utilisation of O&M fund

As per Para 9.3 of NRDWP guidelines, 15 *per cent* of the total fund releases under NRDWP is to be earmarked for O&M component.

As can be seen from Table 2.3.10, against the total available funds of ₹ 19.15 crore under O&M during 2012-17, the Department spent only ₹ 5.16 crore (27 *per cent*). The utilisation of O&M funds ranged between zero and 30 *per cent* during 2012-17. No expenditure was incurred on O&M in 2016-17.

Table 2.3.10
O&M funds during 2012-2017

(₹ in crore)

Year	Opening Balance	Release by GoI	Misc. receipts	Available funds	Expenditure	Closing Balance
2012-13	1.13	4.83	0.27	6.23	0.03 (1)	6.20
2013-14	6.20	3.87	0.16	10.23	3.11 (30)	7.12
2014-15	7.12	4.96	0.04	12.13	1.81 (15)	10.31
2015-16	10.31	1.75	0.02	12.08	0.21 (2)	11.87
2016-17	11.87	2.11	0.01	13.99	0 (0)	13.99
Total		**17.52**	**0.50**		**5.16**	

Source: Departmental figure; note: Figures in bracket indicate percentage

Thus, despite availability of fund, the Department failed to adequately prioritise repair and maintenance works of the non-functional projects. This was evident from the

physical verification (June 2017) wherein three[10], out of 15 physically verified, water supply works were lying defunct for want of repairs and maintenance.

b) Water charges

As per Para 14.1 of the Manual of O&M the water charges were to be fixed by the water agency/GPUs taking into account the ability of the system to meet the expenditure on O&M. The Department fixed (27 September 2010) water and sanitation charges of Rupee one per month per household under the GPUs who were responsible for collecting those charges to fund O&M of rural water supply schemes.

Joint physical verification (May/June 2017) of GPUs covered under this PA revealed that the recovery mechanism to collect user charges for O&M was not in place as GPUs had not realised water charges from any of the beneficiaries. This had resulted in non-realisation of water charges to the tune of ₹ 26.71 lakh[11] during 2012-17 which could have been utilised under O&M for repair and maintenance of various rural water supply schemes. The fact was further corroborated during beneficiary survey conducted between May and July 2017 on 600 beneficiaries, that no user charges were collected and used for operation and maintenance of the water supply schemes.

c) Issues related to Operation and Maintenance

Joint physical verification (May 2017) of RWSS works of GPUs covered under this PA revealed the following:

- As per Para 9.7 of the NRDWP guidelines, the O&M fund were essential to be made available to PRIs for long term usability of RWSS. The Department transferred only ₹1.76[12] crore in 2013-14 and no funds were released to any of the GPUs since 2014-15 despite availability of sufficient funds. Hence, the persons responsible i.e. Bare Foot Engineers (BFEs) for maintenance of RWSS were not paid wages regularly. Instead the Department had prioritised Coverage component over the O&M and as against the available funds of ₹ 19.15 crore during the last five years, the Department spent only ₹ 5.16 crore while the balance was diverted to Coverage component, i.e. augmentation of RWSS works.

- Beneficiary survey in May to July 2017 on 600 beneficiaries also disclosed that none of them were aware of O&M funds. In the event of any immediate repair, the beneficiaries themselves repaired the RWSS. Thus, lackadaisical approach by the GPUs led to beneficiaries bearing financial burden to avail drinking water facilities.

In its reply, the Department stated (November 2017) that the funds from14th Finance Commission (FC) and 4th State Finance Commission (SFC) were released for implementing basic services including O&M of RWSS. The reply was not tenable as

[10]Augmentation of RWSS from Chuba source to Kolbong, South Sikkim 2) Kalimate source to Upper Rateypani, South Sikkim and 3) Augmentation of RWSS from Hitti source to Karungthang Secondary School, South Sikkim.
[11]Calculation was done based on number of households provided with drinking water facilities during 2012-17 @ ₹ one per household per month.
[12](@₹ 1 lakh per GPU X 176 GPUs).

physical verification (of 15 GPUs) revealed that none of the checked GPUs were released any fund by the State towards O&M.

d) Natural Calamity Funds released under NRWDP

A major earthquake hit Sikkim on 18 September 2011, which resulted in loss of lives and damage to public and private properties. In order to provide immediate relief to the affected populace, the GoI under NRDWP sanctioned ₹ 41.64 crore towards restoration of various damaged rural water supply schemes. The irregularities on utilisation of Natural Calamity Fund noticed are given below:

i. As per the records of the Department it was found that the entire fund of ₹ 41.64 crore received during 2011-12 was utilised by 2014-15. However, scrutiny revealed that the Department executed 514 works (East-183, West-112, North-60 and South-159) at a sanctioned cost of ₹ 40.44 crore[13] which were completed by 2014-15 incurring an expenditure of ₹ 35.84 crore. The balance amount of ₹ 5.80 crore was diverted on other works that were not within the ambit of Natural Calamity Fund.

The Department stated (November 2017) that the funds were utilised in few cases for augmentation works of rural water supply schemes under coverage which were severely damaged by the devastating earthquake of September 2011 purely on need basis and cannot be classified as deviation. The reply of the Department was not acceptable as the expenditure on augmentation works were not covered under the ambit of natural calamity funds.

ii. Out of 514 works executed under Natural Calamity Fund at a sanctioned cost of ₹ 40.44 crore, 79 works amounting to ₹ 1.91 crore were diverted to new augmentation works which were not damaged by the earthquake and hence, not covered under Natural Calamity Fund.

iii. The Department procured 84[14] electro-chlorinators worth ₹ 1.18 crore during 2012-13 from the Natural Calamity Fund released by the GoI during 2011-12. The electro-chlorinators were procured for disinfection of bacteriological contamination by using sodium hypochlorite solution obtained from common salt through those electro-chlorinators. These chlorinators were distributed to all the GPUs of South and West districts but were not put to use in any of the GPUs.

Image 2.3.3

Electro Chlorinator lying idle

Joint physical verification (May 2017) along with the departmental engineers and gram panchayats members of eight out of 15 GPUs corroborated that none of these chlorinators were put to use and were lying idle in stores/godowns in dilapidated condition as

[13] *East - ₹ 10.98 crore, West - ₹ 8.74 crore, North - ₹ 6.75 crore and South ₹ 13.97 crore*

[14] *84 electro-chlorinator: 47 in GPUs of South district, 36 in GPUs of West district and one in CCDU/SIRD, Jorethang, South*

shown in the photograph. Thus, the expenditure of ₹ 1.18 crore which was diverted from the Calamity Fund meant for immediate repair and restoration proved wasteful.

The Department while accepting the audit observation stated (November 2017) that the electro-chlorinators were procured for supplying safe and chlorinated drinking water to the people in the GPUs. Further, the electro-chlorinator machines would be repaired and made functional in all the GPUs**.**

The above observation on operational management revealed that there was absence of preparedness to absorb the available fund leading to meagre utilisation (27 *per cent*) and diversion of O&M fund to other component. This was coupled with non-levy of water charges (₹ 26.71 lakh) which could have been utilised at village level towards repairs and maintenance of existing water supply schemes to ensure availability of drinking water round the year.

2.3.9.3.4 Sustainability

Para 6 of the NRDWP guidelines stipulated to ensure lifeline drinking water security under all circumstances and at all times. Treatment could be at the delivery point or at the source but water quality testing could be done at both ends.

Scrutiny of records and physical verification revealed short-utilisation of Sustainability fund and inoperative Roof Rain Water Harvesting Structures, which are discussed in the following paragraphs:

a) Short-utilisation of Sustainability fund

As against the total available fund of ₹ 12.76 crore[15] during the last five years, the Department spent ₹ 10.03 crore. The utilisation of available funds ranged from seven to 77 *per cent* during 2012-17 as given in the table below:

Table 2.3.11
Financial status of Sustainability fund during 2012-13 to 2016-17

(₹ in crore)

Year	Opening Balance	Release by GoI	Misc. receipts (Interest and other receipts)	Available funds	Expenditure	Closing Balance
2012-13	0.74	3.22	0.18	4.14	2.14(52)	2.00
2013-14	2.00	2.58	0.10	4.68	3.60(77)	1.08
2014-15	1.08	3.31	0.03	4.42	3.23(73)	1.19
2015-16	1.19	1.17	0.01	2.37	0.87(37)	1.50
2016-17	1.50	1.41	0.01	2.92	0.19(7)	2.73
Total		**11.69**	**0.33**		**10.03**	

Source: Departmental figure
Note: Figure in bracket indicates percentage

During 2016-17, the Department spent only ₹ 19.11 lakh against the available fund of ₹ 2.92 crore for the sustainability component which accounted for only seven *per cent* of total available find. The reason for short utilisation of funds was not on record. It was noticed that the funds under this component (Sustainability) was diverted to 'Coverage' component of the Programme.

[15] *OB (₹ 0.74 crore) plus total release by GoI (₹ 11.69 crore) plus miscellaneous receipt ₹ 0.33 crore).*

b) Inoperative Roof Rain Water Harvesting Structures

Under NRDWP (Sustainability), the Department constructed 140 Roof Rain Water Harvesting Structures (RRWHS) with filter and gutter system at roof top at the cost of ₹ 3.19 crore (₹ 2.28 lakh per unit) across the State. The main objective of the scheme was to provide safe drinking water to the schools at water scarce and dry areas of the State. However, joint physical verification (May 2017) of 12 RRWHS under 42 schools revealed that none of the RRWHS was functioning as no gutter system was fitted with the roofs of the schools. Further, it was also seen that none of the RRWHT had any type of filtration system.

The objective of providing safe drinking water to schools in dry and water scarce area through RRWHS was not fulfilled in respect of the above schools even after spending ₹ 3.19 crore.

The Department stated (November 2017) that the RRWHS, wherever implemented, would be revisited and all works would be rectified and made functional under O&M, though the responsibility of maintenance of assets created by the Department lay with the School Management Committee/GPU as the works were handed over to them after completion. The Department further stated that henceforth it would regularly monitor the same and deficiencies observed would be verified for taking appropriate action.

2.3.9.3.5 Support activities

Para 9.3(ii) of the NRDWP guidelines stipulated five *per cent* of NRDWP funds on a 100 *per cent* Central share basis to be used for different support activities to enable the rural communities to have access to assured availability of potable drinking water, use of advanced technology, viz. satellite data/imagery; GIS mapping; MIS and computerisation; etc. and other sector support activities, viz. IEC; HRD; MIS; Computerisation and R&D besides undertaking software support activities on WSSO.

Scrutiny of records and physical verification revealed persistent savings under Support fund, shortfall in training and discrepancies in MIS figures as discussed in the following paragraphs:

a) Persistent saving

The GoI released only 1.62 *per cent* (₹ 2.18 crore) of its total commitment (₹ 134.61 crore) under the component, Support activities as against the required release of five *per cent* (₹ 6.73 crore) during the period 2012-17. Against the available funds of ₹ 2.80 crore (including opening balance and interest earned), the Department spent ₹ 2.66 crore on training for IEC and HRD, District Water Testing Laboratories, etc. The details are given in the table below:

Table 2.3.12
Financial status under support funds during the period 2012-17

(₹ in lakh)

Year	Opening Balance	Release by GoI	Interest earned during the year	Available Funds	Expenditure	Closing Balance
2012-13	52.63	5.09	3.26	60.98	54.43	6.55
2013-14	6.55	86.02	1.43	94.00	71.83	22.17
2014-15	22.17	80.82	1.02	104.01	73.33	30.68
2015-16	30.68	24.08	2.28	57.04	28.37	28.67
2016-17	28.67	21.9	1.66	52.23	37.77	14.46
Total		**217.91**	**9.65**		**265.73**	

Source: Departmental figure

Audit scrutiny revealed that there was a short release of support funds by the GoI. However, the Department did not utilise even the available funds with them and there were persistent savings in all the five years. The fund could have been utilised in objectives of this component such as refilling of FTKs, R&D, etc. The reasons for short release of support funds by the GoI and short-utilisation of available funds by the Department was not available in the records.

b) Research and Development (R&D)

Para 10.3 of the NRDWP guidelines envisaged that to strengthen the R&D facilities, State Government was encouraged to establish R&D cells with adequate manpower and infrastructure. The core objective of this sub component was to strengthen the R&D facilities and were also to be in link with the Monitoring and Investigation Unit and study the Monitoring and Evaluation Study Reports for initiating appropriate follow up action.

However, Audit noticed that the Department had not created any R&D cell in the State and no research and development activity was done during 2012-17.

c) Information, Education and Communication (IEC) and Human Resource Development (HRD) activities

Para 1 of Annexure IV of the NRDWP guidelines lay great emphasis on use of IEC and HRD to generate demand and create awareness and participation of the community. WSSO[16] has been designed to support the Engineering Department by taking up software activities like IEC, HRD, MIS etc. to improve the quality of the implementation in each State for promoting initiatives in water supply and sanitation sector.

The target and achievement of activities conducted by the Department on drinking water supply programme under IEC and HRD are as given below:

[16]*Communication and Capacity Development Unit (CCDU) to be merged with the WSSO*

Table 2.3.13
Target and achievement of activities on drinking water supply programme under IEC and HRD

Year	IEC Activities		HRD Activities			
	No. of targeted IEC activities	No. of IEC activities undertaken	No. of Training programmes conducted	No. of persons required to be trained (5 persons per GPU) as per guidelines	No. of trainees covered	Shortfall in achievement
1	2	3	5	4	6	
2012-13	Not fixed	32	8	880	654	226
2013-14		2	38	880	2334	Nil
2014-15		6	20	880	980	Nil
2015-16		1	7	880	378	502
2016-17		13	1	880	33	847

Source: Departmental records

From the above table it can be seen that there was shortfall in the number of trainees covered during the period 2012-13, 2015-16 and 2016-17. During 2013-14, 38 trainings were conducted covering 2,334 trainees whereas during 2016-17 only one training was conducted covering merely 33 trainees. The trainings covered handling of electro chlorinator, handling of FTKs to BFE and preparation of Village Plan to Village Committees. No trainings and awareness generating IEC activities were ever imparted to the beneficiaries during the period of PA. Beneficiaries survey (May-July 2017) also revealed that none of the beneficiaries were ever given training and awareness generating IEC activities on drinking water.

2.3.9.3.6 Water Quality Monitoring and Surveillance (WQMS)

As per Para 9.3(ii) of the NRDWP, 3 *per cent* of State allocation was to be provided on a 100 *per cent* Central funding basis. The guidelines envisaged that the States should establish/upgrade Water Testing Laboratories at the State, district and sub-district levels with a provision of testing a few selected chemical and biological parameters. The FTKs could be used for primary detection of chemical and biological contamination of drinking water sources in the village with provision for refills and replacement of FTKs with the fund under WQMS. They were also to authenticate the test results of FTKs used in the village.

Scrutiny of records and physical verification revealed saving under WQMS fund, shortfall in water quality test, not refilling of FTKs, idle equipment, undue benefit, non-establishment of testing labs, non-availability of lab instruments and chemicals, shortage of manpower and shortfall in water sample testing. The details are discussed in the following paragraphs:

a) Under Utilisation of funds for WQMS

The financial position under WQMS during performance audit period was as given below:

Table 2.3.14
Financial position under WQMS during2012-17

(₹ in lakh)

Year	Opening Balance	Release by GoI	Total Available fund	Expenditure	Closing Balance
2012-13	20.38	11.87	32.25	32.25	Nil (0)
2013-14	Nil	55.23	55.23	53.82	1.41 (3)
2014-15	1.41	58.42	59.83	30.67	29.16 (49)
2015-16	29.16	14.45	43.61	11.64	31.97 (73)
2016-17	31.97	13.14	45.11	35.31	9.80 (22)
Total		**153.11**		**163.69**	

Source: Departmental figure
Note: Figure in bracket indicates percentage

It can be seen from the above table that during the financial years 2014-15 and 2015-16, there were high savings of ₹ 29.16 lakh (49 *per cent*) and ₹ 31.97 lakh (73 *per cent*) respectively. However, the reasons for such savings could not be found in records. Although there were savings upto 73 *per cent*, the Department did not initiate any step towards refilling of FTKs after their procurement in 2013-14.

b) Water Treatment Plant

One Water Treatment Plant (WTP) was proposed to be constructed at Yangang mega project at an estimated cost of ₹ 4.00 crore for setting up of water filtration and disinfection plant for the drinking water tapped from the Rangpo Khola Source. The work was awarded (March 2013) to a Kolkata based firm on turnkey basis with the completion time of 18 months. It was noticed that the contractor supplied all the machines and equipment in November-December 2013 and October 2015 at WTP site and was paid ₹ 2.91 crore (₹ 2.40 crore on procurement of machineries and equipment and ₹ 0.51 crore on civil work) till date of audit (July 2017).

Joint physical verification (May 2017) of the WTP site revealed that the machineries and equipment procured for the WTP worth ₹ 2.40 crore were lying idle at site for more than four years and was in dilapidated condition as there was no proper place for storing the equipment at the site. The site engineer was also not in a position to explain the number of equipment and machines brought into site as there was no inventory or stock register of those valuable items.

The Department stated (November 2017) that the project was implemented on turnkey basis and machine of WTP could only be installed prior to commissioning of the plant. The Department would ensure that the functional machines with required specification would be installed so that intended benefit could be provided to the beneficiaries.

c) Procurement of Pressure filters

The Department awarded the work of supply of three pressure filters for the work at Namphing mega project to a supplier in February 2014 at a cost of ₹ 1.48 crore. As per agreement, the payment was to be released to the supplier in four instalments: (i) 40 *per cent* on procurement of material against bank guarantee, (ii) 40 *per cent* on delivery of material at work site, (iii) 10 *per cent* on erection and installation, and (iv) 10 *per cent* on testing and commissioning of the pressure filter. Further, as per the clauses of agreement,

the pressure filters were to be supplied with one year onsite comprehensive warranty from the date of supply of the pressure filters.

Scrutiny of records revealed that the Department released three instalments to the suppliers amounting to ₹ 1.33 crore (i.e. upto installation and erection of the pressure filters) during February 2014 to March 2015.

Image 2.3.4

Image 2.3.5

Pressure filters lying idle at Chingthang, West Sikkim and Singtam, East Sikkim

Joint physical verification (May 2017) revealed that none of the three pressure filters were available at site. Later, it was found that the supplier parked these pressure filters at Singtam around 30 kms. away from the project sites in an open yard since February 2014 in a dilapidated condition. The warranty period had also lapsed in February 2015. Thus, undue financial benefit of ₹ 1.33 crore was extended to the supplier in violation of the agreement which provided that payment of ₹1.33 crore was to be made only after the supply of pressure filters at work site and after its erection and installation.

Similarly, as per DPR, one Water Treatment Plant was to be constructed at Chingthang mega project for the treatment of drinking water. The Department, however, procured (December 2013) two pressure filters at a cost of ₹ 98.60 lakh and made provision for installation of both the pressure filters at one place just before the main reservoir which was not necessary as there was only one water source. Procurement of two pressure filters instead of one was unwarranted resulting in extra expenditure of ₹ 49.30 lakh.

The Department stated (November 2017) that it would ensure that filters were properly installed and made functional as laid down in the procurement order as 20 *per cent* payment for installation & commissioning was due. The reply was not tenable as the material were to be delivered at work site before release of the second instalment of 40 *per cent* which was not done.

d) Water Quality Testing Laboratories

Para 5.1.2 of Uniform Drinking Water Quality Monitoring Protocol envisaged that the State was required to set up one State Level Lab, four District Level Labs and nine Sub-Divisional (Block) level Labs for testing all drinking water sources at least twice a year for bacteriological contamination and once a year for chemical contamination. However, it was noticed that only two District Level Labs (East and South) were established in the State. Although the approval of ₹ 69.92 lakh for two more District Level Labs at North

and West districts were granted in 2013-14 by the SWSM, they had not been established. The reasons for non-establishment were not on record.

While accepting the audit contention, the Department stated (November 2017) that the laboratories at Gyalshing and Mangan would be taken up on priority on availability of funds.

e) District Laboratories

Para 5.4.3 of Uniform Drinking Water Quality Monitoring Protocol envisaged the District Laboratories to play a pivotal role in ensuring adequate monitoring of water quality and water safety in the entire RWSS. The District Laboratory team was responsible for allocating resources needed to ensure that the water quality monitoring was undertaken with an objective for corrective action in ensuring safe water provision to the community. The requirement and availability of items of two District Laboratories (South and East) was as given below:

Table 2.3.15
Details of requirement and availability of items of District Laboratory

Sl. No.	Particulars	Required numbers	Actual numbers available and monitored	
			North-East (NE)	South-West (SW)
1	List of Parameters to be monitored	34	17	11
2	Instruments requirement in laboratories	43	12	21
3	Chemicals requirement	140	90	47

Source: Departmental figure

The above table indicated that there were shortages of chemicals, instruments and parameters to be monitored by the District Laboratories during the period of audit. Out of 34 parameters to be monitored, only 17 (NE) and 11 (SW) were monitored. Similarly, against the required 43 instruments and 140 chemicals, only 12 (NE) and 21 (SW) instruments and 90 (NE) and 47 (SW) chemicals respectively were available. Testing of Sulphate, Nitrate-R. Chlorine, Iron, etc. at District Laboratory (East) were not done due to Spectrophotometer being non-functional since February 2015.

f) Biological examination

In terms of Para 2.2.3 of Standard IS, the water sample was to be examined within 2 to 3 hours after collection, when the organisms were alive. If this was not possible, the samples were to be preserved in ice or in the refrigerator (3 to 4 degree Celsius) for a few days taking care not to allow it to freeze. Further, Sampling Assistant (SA) was responsible for identifying and reporting any quality problems encountered to the respective leader.

Scrutiny revealed that against the sanctioned strength of two Sampling Assistants (SAs) in each District Labs, no SAs were appointed and the collection of water samples were being done by the Bare Foot Engineers (BFEs) who were not provided with any mobility for timely submission of samples to the Laboratory as well as the refrigerator to preserve the water samples at 3 to 4°C. Further, scrutiny of GPUs covered under this PA revealed that there were 149 water sources, out of which, samples of only 26 sources (17 *per cent*) were taken up by the BFEs and sent to District Laboratories for testing. However, it was

found that the results of laboratory reports of only two sources were received by one GPU (Sripatam-Gagyong) out of which one source (Tingtingay) had issues of turbidity. But, no remedial measure was found to have been taken up at the GPU level. Hence, the samples collected from source water by BFEs for testing and the potency remained questionable in audit.

The Department accepted the audit observation and stated (November 2017) that the shortcomings on biological examination of water testing would be addressed.

g) Shortage of manpower

The sanctioned strength determined as per the guidelines and men-in-position in two District Level Water Testing Laboratories in the State is given below:

Table 2.3.16
Staff position in the District Level Water Testing Laboratories

Sl. No.	Name of the post	Sanctioned strength	Men-in-position	Excess(+)/ Shortfall(-)
1	Chemist/Water Analyst	2	2	Nil
2	Microbiologist/Bacteriologist	2	Nil	(-)2
3	Laboratory Assistant	4	2	(-) 2
4	Lab Attendant	2	Nil	(-) 2
5	Data Entry Operator	2	1	(-) 1
6	Sampling Assistants	4	Nil	(-) 4

Source: Uniform Drinking Water Quality Monitoring Protocol

The above table indicated that there was no Microbiologist/Bacteriologist, Laboratory Attendant and Sampling Assistants in the District Labs. Further; there were shortages of two Laboratory Assistant and one Data Entry Operator in the Labs. Shortage of manpower resulted in huge shortfall of testing of water samples. In the absence of Data Entry Operator in East District Lab, the Chemist himself entered the data and performed other record keeping jobs in the Lab. Further, the two Chemists were appointed on temporary basis and were drawing consolidated pay from NRDWP Fund. The Department may ensure that at least one dedicated post of Water Analyst/Chemist in all four districts was created and filled on regular basis.

While accepting the audit contention, the Department stated (November 2017) that the shortfall of manpower would be taken up appropriately.

h) Water Quality Testing

The target and achievement of water quality testing by the District Labs under WQMS was as under:

Table 2.3.17
Status of water quality testing by the District Labs under WQMS

Financial year	No. of sources to be tested	No. of water samples to be tested by District Laboratory									Shortfall against the required targets as per guidelines		
		Target as per guidelines			Target as fixed by the SWSM			Achievement					
		Bacterio-logical	Chemical	Total	Bacterio-logical	Chemical	Total	Bacterio-logical	Chemical	Total	Bacterio-logical	Chemical	Total
2012-13	12266	24532	12266	36798	1000	1000	2000	183	183	366	24349	12083	36432
2013-14	12266	24532	12266	36798	1000	1000	2000	887	887	1774	23645	11379	35024
2014-15	12266	24532	12266	36798	1000	1000	2000	825	825	1650	23707	11441	35148
2015-16	12266	24532	12266	36798	1000	1000	2000	852	852	1704	23680	11414	35094
2016-17	12266	24532	12266	36798	1000	1000	2000	163	163	326	24369	12103	36472
Total	**61330**	**122660**	**61330**	**183990**	**5000**	**5000**	**10000**	**2910**	**2910**	**5820**	**119750**	**58420**	**178170**

Source: Departmental records and IMIS

Analysis of data of water quality tests conducted by both the District Labs of the State revealed that there was shortfall in achieving the targets by 95 to 99 *per cent* during 2012-17. As against the total requirement of 36,798 tests (24,532 bacteriological and 12,266 chemical test) every year, the actual water quality testing ranged between one and five *per cent* only. The reason for shortfall was attributed to acute shortage of manpower in the District Labs.

Further, scrutiny of records at both the Districts Labs of the State revealed that the Department collected water samples and conducted water quality tests on 2,910 samples, out of which, 488 samples were found contaminated with pH (30), turbidity (52), coliform (406). No remedial measures were however, taken at any level by the Department.

This fact was also corroborated in beneficiaries survey (May to July 2017) wherein 465 (77 *per cent*) out of 600 beneficiaries were not satisfied with the water quality, 468 (78 *per cent*) beneficiaries had grievances of water during rainy season, i.e. dirty and murkier water and 407 (67 *per cent*) beneficiaries were not aware that supplied drinking water was safe/potable.

i) Field Testing Kits

Para 5.1.1 of Uniform Drinking Water Quality Monitoring Protocol envisaged that GPU and Water Quality Testing Laboratories were to use Water Quality FTKs for primary investigation for physio-chemical analysis. This kit could carry out 100 tests for 11 parameters[17]. The water sources were to be tested twice a year for bacteriological parameters and once a year for chemical parameters with positive detects triggering clear pre-defined interventions. All positively tested samples using FTKs was to be referred to the nearest district/sub-divisional water quality testing laboratory for confirmation. Accordingly, the Department procured 220 FTKs during 2013-14 for ₹ 77.17 lakh and issued to BFEs.

Records of the two Water Testing Labs in the State revealed that no target was fixed by the Department for water samples to be tested with FTKs. There was huge shortfall in achievement of targets against the requisite norms as per guidelines of water source

[17]*(i) Turbidity, (ii) pH, (iii) Total Hardness, (iv) Total Alkalinity, (v) Chloride, (vi) Ammonia, (vii) Phosphate, (viii) Residual Chlorine, (ix) Iron, (x) Nitrate and (xi) Fluoride.*

testing by the BFEs using FTKs in the State during 2012-17. As against the total requirement of 36,798 test each year, only 10; 1,922; 743; 427 and Nil number of water sources were tested with a shortfall of 36,788; 34,876; 36,044; 36,371 and 36,798 respectively.

Joint physical (May 2017) verification of GPUs covered under this PA revealed that after the FTKs were issued to the BFEs in 2013-14, no refilling of kits was ever done by the Department even though there was provision and availability of funds under the scheme. The water samples from the sources were tested by BFEs only once in 2014-15 in two GPUs and twice in two GPUs during the last five years. The test reports were sent in February 2015 by the BFEs to the District Labs for their confirmation and analysis on some parameters (Chloride, turbidity and total hardness) which was found in excess of desirable limits. However, no reports were received by any of the GPUs from the District labs to address the issue, if any. Thus, the entire expenditure of ₹ 77.17 lakh spent on procurement of FTKs remained unfruitful as these FTKs were unusable due to non-refilling in time.

The Department stated (November 2017) that the capacity building of Panchayat functionaries and BFEs would be taken up by CCDU so that they were well equipped to handle FTKs at GPU Level. The reply was not tenable as the FTKs were not in use.

j) Fencing provision not kept in the estimates

In order to protect the main source of water through stream, gravity and spring water, every source compound was required to be fenced to avoid contamination and to protect from grazing of animals. However, the provision for fencing of source were not taken into account while framing the estimates.

Joint verification (May to July 2017) in water sources covered under this PA revealed that all the drinking water sources were without any fencing leaving them prone to biotic interference and contamination which would result in health hazard.

The Department stated (November 2017) that the schemes under WQMS were taken up as and when required as per the availability of funds.

2.3.9.4 Monitoring and Evaluation

Regular monitoring of implementation of various activities of any programme is an inevitable part of the Management's responsibility to ensure optimum performance and timely fulfilment of objectives of the projects.

Para 19.2 of the NRDWP guidelines provided for Vigilance and Monitoring Committees (VMC) to monitor the progress and exercise vigilance of the programme. Regular field inspections by officers from the State and the district levels were essential for effective implementation of the programme. DWSM was required to constitute a team of experts in the district, which reviewed the implementation in different blocks frequently. Similarly, the SWSM was to conduct review of the programme in the districts once in six months.

Audit scrutiny revealed that neither the State Vigilance and Monitoring Committee (SVMC) nor DVMC were constituted in the State. As a result, monitoring on the progress

and exercise of vigilance in respect of NRDWP were absent which can be corroborated by the fact that 414 (out of 462) projects were delayed and incomplete as of July 2017.

Further, monitoring through regular field inspections by officers from the State and the District level was not conducted for effective implementation of the programme. There were no records to show that the field inspections were conducted by the officers and engineers from the Central Ministry, State and districts on monitoring and evaluating the projects. Quarterly and six monthly review meetings were not held by the SWSM and the DWSM. Social audit was never conducted for the rural water schemes. Complaint Grievance Redressal Mechanism did not exist both at the State and at District Level.

The Department stated (November 2017) that the National Level Monitors independently inspect the works carried out regularly. Regular inspections were also done by the concerned at all levels. The reply was not acceptable as the Department could not furnish any of the monitoring reports of inspection conducted for NRDWP works to Audit.

2.3.9.4.1 Data Analysis of Integrated Management Information System (IMIS)

The IMIS is a key mechanism for monitoring any programme. To this end, the officials were required to furnish all the data and information, as may be prescribed by the Ministry of Drinking Water Supply, GoI from time to time, in the relevant module of the online IMIS.

Audit scrutiny revealed inconsistencies in data with regard to various parameters as given below:

➢ Discrepancies in the number of functional RWSS, targets and achievement of drinking water, coverage of schools and Anganwadi and number of water samples tested in the District Labs were as follows:

Table 2.3.18
Data discrepancies regarding water samples tested in the District Labs

Parameter	As per IMIS	Audit analysis
Functional water schemes	Number of functional RWSS was 278 in ten GPUs checked.	It was found that only 161 RWSS schemes were functional in those GPUs and 117 RWSS were non-functional.
Collection of samples	Testing of water samples in the District Labs during 2012-17 = 273	As per the records maintained at District Water Testing Laboratories the number of testing during 2012-17 = 243
Category of scheme	No. of schemes in the GPUs covered under this PA = 246	Actual number of schemes in the GPUs covered under this PA= 156

Source: IMIS

➢ Discrepancies in data maintained on IMIS and those at the 15 GPUs covered under this PA in respect of status of drinking water facility at schools and Anganwadis were as follows:

Table 2.3.19
Data discrepancies regarding status of drinking water facility at schools and Aganwadis

Sl. No.	Name ofGPUs covered under this PA	Schools				Anganwadis			
		Total number of Schools		No. of Schools with drinking water facility		Total number of Anganwadis		No. of Anganwadis with drinking water facility	
		IMIS	As per site Record	IMIS	As per site or Physical Record	IMIS	As per site Record	IMIS	As per site or Physical Record
1	Khamdong	7	6	3	6	0	6	0	4
2	Sirwani	6	5	5	3	0	14	0	3
3	Chalamthang	8	4	5	0	0	6	0	0
4	Taza	6	3	4	1	1	4	1	3
5	Namthang	2	5	2	5	1	8	1	8
6	Sadam	9	2	8	2	3	2	1	0
7	Niya	2	6	1	3	1	7	0	3
8	Sripatam	4	7	0	3	0	9	0	6

Source: Departmental records and IMIS

➢ Discrepancies were also noticed in the figures of total number of schemes in the districts covered under this PA as given in the table below:

Table 2.3.20
Discrepancies in total number of schemes in districts

Name of districts	Total number of scheme		
	As per IMIS	As per physical record	Discrepancies in uploading of numbers
East	1,424	524	900
South	1,455	411	1,044

Source: Departmental records and IMIS

➢ Discrepancies in financial figure (opening balance, total funds received and expenditure) during 2012-17 uploaded in MIS compared to figures of the departmental records are depicted in table below:

Table 2.3.21
Discrepancies in financial figure during 2012-17 uploaded in IMIS

(₹ in crore)

Year	As per MIS			As per Department records				
	Opening Balance	Funds Receipts	Expenditure	Opening Balance	Funds Receipts	Interest earned	Expenditure	Closing Balance
2012-13	20.15	43.91	38.89	50.88	32.36	1.81	44.44	40.61
2013-14	0	71.32	71.25	40.61	27.21	1.05	67.99	0.88
2014-15	0	32.46	32.03	0.88	34.45	0.3	33.65	1.98
2015-16	0	14.81	14.81	1.98	14.37	0.13	11.58	4.9
2016-17	0	24.19	23.30	4.9	26.22	0.09	23.27	7.94
Total		**186.68**	**180.28**		**134.61**	**3.38**	**180.93**	

Source: Departmental records and IMIS

Thus, there were inconsistencies in figures in the opening balances, total funds received and total expenditure uploaded in the IMIS as compared to the actual figures in the departmental records. There were no opening balances shown during 2013-14 to 2016-17 in IMIS. Funds received during 2012-17 were shown as ₹ 186.68 crore in IMIS against the actual receipt of ₹ 134.61 crore.

The above discrepancies indicated unreliability of data maintained on IMIS, which was expected to serve as the key tool for planning, monitoring and evaluation of the programme.

While accepting the fact, the Department stated (November 2017) that the data gap as per actual and IMIS was being reconciled in consultation with the concerned section of the Ministry of Drinking Water & Sanitation.

2.3.10 Conclusion

Implementation of the National Rural Drinking Water Programme in Sikkim was riddled with deficiencies in planning, programme execution and monitoring. The Five-year comprehensive plan was not prepared which resulted in water supply schemes being taken up without an integrated approach. The Department failed to constitute the Source Finding Committee. As of March 2017, the Department was able to cover only 737 habitations out of 2084 habitations as Fully Covered (40 lpcd, though the target for Fully Covered habitation was 55 lpcd by March 2017) while the remaining 1,347 habitations (65 per cent) had not been covered even after the implementation of revised scheme in 2009. There were instances of short-release of State share and delay in release of funds by State to State Water and Sanitation Mission. Out of 462 RWSS projects in the State, 105 projects had not been completed recording delay between three and four years beyond the stipulated date of completion. Programme implementation had been characterised with non-commencement of work, abandonment of work, tapping of water from non-perennial source, lack of co-ordination with other departments, etc. This was mainly due to ineffective monitoring and evaluation of physical and financial performance and management of the water supply by the SWSM. The water quality monitoring and testing for detection of chemicals and bacteriological contamination was only one to five per cent in a year. Discrepancies between data in the IMIS and that maintained by the implementing agencies undermined the reliability of the system as a viable tool for monitoring.

2.3.11 Recommendations

The Department may consider the following recommendations:

- Strengthening of institutional set up for effective coordination, implementation and monitoring of the schemes taken up under National Rural Drinking Water Programme;
- Constituting the Source Finding Committee to ascertain the perennial water source;
- Ensuring timely submission of Annual Action Plans as well as the Utilisation Certificates and timely release of State's matching share;
- Ensuring timely completion of the projects;
- Ensuring integrity of data maintained in the Integrated Management Information System for effective monitoring of programme at various levels.

TRANSPORT DEPARTMENT

2.4 Sikkim Nationalised Transport Division including implementation of the Integrated Depot Management System

In Sikkim, the control and transportation of all goods and of passengers within the State and also to and from outside the State are carried out by the Sikkim Nationalised Transport Division (SNT) of the State Transport Department. Performance Audit of the SNT including implementation of the Integrated Depot Management System (IDMS) for the period 2012-17 revealed that the Government had not accorded adequate priority to public transport in the State. Besides, the IDMS which was an IT based application for supervision of fleet, management of workshops and collection of supervision charges was beset with flaws making the data in the system unreliable. The main findings are highlighted below.

Highlights

There exists no policy or road map to chalk out long term perspective plan with a view to make operations of the SNT sustainable in the long run.

(Paragraph 2.4.9.1)

The Capital expenditure of ₹ 7.20 crore constituting barely 3 *per cent* of the total expenditure of ₹ 220.15 crore during 2012-17 indicated low priority accorded to public transport.

(Paragraph 2.4.9.2.2)

The SNT had a yearly revenue gap of the order of ₹ 1.58 crore to ₹ 18.75 crore during the period 2012-17.

(Paragraph 2.4.9.3.1)

The SNT was unable to fulfil its social responsibility of providing connectivity equitably to all areas of the State. There was no connectivity of West district with the capital town (Gangtok). Further, far flung areas in the North and West districts like Lachung, Lachen and Yuksom were not provided bus connectivity even to the respective district headquarters.

(Paragraph 2.4.9.1)

The IDMS scheme which was expected to substantially improve operational efficiency of the SNT had not delivered the desired result. There was no scope in the IDMS to capture vital data required for monitoring the functioning of SNT by the top management. Instances of incorrect data feed, due to absence of standardised mode of data entry and data authentication were noticed. It may render the data fed unreliable.

(Paragraph 2.4.9.4)

2.4.1 Introduction

The history of the Sikkim Nationalised Transport Division of the Transport Department, Government of Sikkim dates back to more than 72 years. The Truck Department was created by the Sikkim Durbar in 1944 which was subsequently renamed as the Sikkim Nationalised Transport (SNT) in 1955. After merger of the kingdom of Sikkim with India (April 1975), the Motor Vehicles Department and the SNT were merged to form the Transport Department with two divisions – the SNT Division and the Motor Vehicles Division. Brief statistics of operation of SNT for the year 2012-13 to 2016-17 are given below:

Table 2.4.1
Brief statistics of SNT operation

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Number of buses	95	96	84	125	120
Number of trucks	56	49	48	42	32
Number of tankers	34	33	30	30	34
Revenue receipt (₹ in crore)	29.01	34.10	27.63	41.55	48.76
Expenditure (₹ in crore)	36.87	41.65	46.38	43.13	52.12
Revenue collection for passenger fare from SNT buses (₹ in crore)	4.44	5.19	5.62	5.46	6.81
Net freight earned from SNT trucks (₹ in crore)	2.46	2.93	2.24	2.85	1.96
Net freight earned from SNT tankers (₹ in crore)	1.96	2.33	2.38	2.68	2.69
Commission earned from hired private trucks (₹ in crore)	1.77	1.98	2.99	3.24	3.94
Commission earned from hired private tankers (₹ in crore)	2.39	2.61	2.70	3.26	4.71
Supervision charges (₹ in crore)	17.95	15.87	13.92	20.39	24.88
Railway out agency post bag carriage lease rent etc (₹ in crore)	0.59	0.51	1.07	0.54	0.34
Revenue expenditure (₹ in crore)	35.84	39.65	44.38	43.13	49.95
Capital expenditure (₹ in crore)	1.03	2.00	2.00	0.00	2.17
Revenue gap (₹ in crore)	7.86	7.55	18.75	1.58	3.36
Effective KM operated (in lakh Kms) (for bus operations)	17.89	18.82	16.76	18.98	22.86
Traffic Revenue per KM (in ₹ /Km)	24.76	27.58	33.53	28.77	29.79
Repair & Maintenance expenses per vehicle per year (₹ in lakh)	0.76	0.79	1.54	0.71	1.34
Kilometre Per litre (KMPL) (buses)	4.27	4.56	4.39	4.18	3.77

2.4.2 Mandate of the Sikkim Nationalised Transport (SNT)

In terms of the Government of Sikkim (Allocation of Business) Rules, 2008 the SNT was mandated to provide public transport in the State through controlling and transportation of all goods and passengers on routes within Sikkim and also outside the State *(under Inter-State agreement)*. SNT was also mandated for:

- The running of Railways Out-Agency[18] for carriage of goods and passengers;
- Transportation of postal mail within and outside the State;

[18] *Railway ticket booking counter*

- Fixation of tariffs[19], purchase of Government vehicles, accessories and spare parts from manufacturers and authorised dealers;
- Running of workshop for repair and maintenance of departmental fleet of SNT;
- Running of Car Workshop for repairs of Government vehicles;
- Supply of petrol, oil and lubricants to Government vehicles; and,
- Maintenance of stores[20] for SNT fleet and Government department vehicles,

The SNT had a network of eight depots, eight booking offices and four workshops and owned and operated a fleet of 34 tankers, 32 trucks and 120 buses as at the end of 2016-17.

The SNT implemented (2014-15) the Integrated Depot Management System (IDMS) with one time financial assistance of ₹ 4.52 crore (50 *per cent* of project cost) from Government of India (GoI), Ministry of Road Transport and Highways (MORTH).

2.4.3 Organisational Set-up

Secretary, Transport Department is the head of the SNT. He is assisted by a Chief Engineer-cum-General Manager (CE-cum-GM). CE is supported by an Additional Chief Engineer, an Additional General Manager, an Additional Director, a Joint General Manager, two Superintending Engineers, a Joint Director, a Chief Accounts Officer, an Accounts Officer, eight Deputy General Managers, a Deputy Director and a host of other officers and staff. SNT comprised of seven functional wings – Mechanical, Operational, Enforcement, Administration, Accounts, Revenue and Statistics.

The additional Chief Engineer had been declared as nodal officer to oversee the functioning of the IDMS.

2.4.4 Scope of Audit

The Performance Audit (PA) of the SNT and implementation of IDMS covering the period from 2012-13 to 2016-17 was conducted during May to August 2017. Records in the departmental headquarters, three selected depots/booking offices (Gangtok, Rangpo and Siliguri) out of eight depots/booking offices and two workshops (Gangtok and Jalipool) out of four workshops were test checked. Besides, joint physical verification of three out of four weigh-bridges and the two check-posts existing at the selected depots was also conducted.

2.4.5 Audit Objectives

The PA was conducted with the objective to assess:

[19] *Bus fares, freight charges of goods carriers (trucks & tankers) and supervision charges*
[20] *Stores of spare parts maintained by the SNT attached to its workshops for repair/maintenance of Government vehicles.*

- the availability and implementation of any policy, plan or strategy for effective functioning of the SNT;
- efficacy of overall financial management of the SNT;
- operational efficiency and efficacy of the SNT;
- efficacy of IDMS in facilitating functional efficiency of the SNT; and,
- effectiveness of monitoring and supervision of the SNT's functions and activities by the top management.

2.4.6 Audit Criteria

The Audit findings were benchmarked against:

- Norms prescribed by the SNT and Sikkim Financial Rules;
- Physical and financial targets fixed by the Management and the Government;
- Performance standards and operational norms determined by the Association of State Road Transport Undertakings (ASRTU) and Central Institute of Road Transport (CIRT), Pune; and
- All India Average (AIA) for performance parameters relating to operation of State Transport Undertakings and good practices followed for public transport.

2.4.7 Audit Methodology

The audit objectives, audit criteria and the methodology adopted for drawing the audit conclusions were explained to the departmental authorities in an entry conference (14 July 2017) with the head of the Department and his team of officers.

The field work was carried out (May-August 2017) through examination of records in the departmental headquarters at Gangtok supplemented with scrutiny of records in three Depots/Booking offices[21] and two workshops[22] selected through random sampling as follows:

Table 2.4.2
Sampling

Particulars	Total no.	Selected for scrutiny
Depots	8	3
Workshops	4	2
Buses	120	39
Trucks	32	11
Tankers	34	11

[21] *Gangtok, Rangpo and Siliguri*
[22] *Gangtok and Jalipool*

A sample of 30 *per cent* of the fleet[23] (39 buses, 11 trucks and 11 tankers) was drawn using random sampling technique. Two check-posts at Rangpo and Melli and the weighbridges located at those check-posts were also inspected. Prior to the commencement of audit, analysis of data sourced from the IDMS was conducted using 'Tableau reader' software with the objective of identifying risk areas relating to utilisation of vehicles, variation in earning between vehicles, performance of drivers, collection of supervision charges, geographical reach of public bus service within the State, etc. The implementation of the IDMS and its functioning was examined with reference to the leads obtained from the data analytics.

The audit findings were discussed with departmental officers in an exit conference held on 13 October 2017. Replies furnished by the Department during and after the exit conference have been suitably incorporated in the Report.

2.4.8 Acknowledgement

The Indian Audit and Accounts Department acknowledges the cooperation extended by the officers and staff of the SNT of Transport Department, Government of Sikkim in the successful completion of the PA.

2.4.9 Audit Findings

The results of audit are given below:

2.4.9.1 Planning for public transport

Effective management of any operation requires proper planning to ensure that an organisation is able to fulfil its mandate in the most effective and efficient manner while also taking care of its social responsibility. Similarly, for the SNT to exercise its mandate effectively and efficiently, it was imperative to formulate detailed plans for providing connectivity equitably to the people of the State through sustainable operations and judicious use of its available resources.

The deficiencies noticed in this respect were as follows:

- The SNT had not conducted any need assessment of overall public transport requirement in Sikkim to keep pace with the changing times as the State's population grew from 5.41 lakh in 2001 to 6.11 lakh in 2011 and tourist inflow rose from 5.85 lakh in 2012-13 to 8.07 lakh in 2016-17.

- Route planning of SNT buses was not evident. The SNT plied its buses on 48 routes within and outside the State. However, the basis for determining the routes was not evident on records.

- The West district headquarter of Gyalshing remained unconnected with the capital town Gangtok by SNT buses and remote locations like Lachung, Lachen (North) and Yuksom (West) were unconnected to their respective district headquarters.

[23] *120 buses, 34 tankers and 32 trucks*

➢ The SNT had not conducted any assessment of the requirement of goods carriers (trucks/tankers) to cater to the growing demand due to increased commercial and industrial activities in the State.

➢ Purchase planning of fleet was not done. Purchases were made as and when funds were provided by the State or available under central schemes. During the period 2012-17, the SNT could increase its bus fleet from 97 to 120[24]. Out of the 120 buses, eleven buses were older than 10 years and hence, had outlived their economic life as prescribed by the SNT.

➢ Sixteen JNNURM buses designed for short distance urban transport were deployed for long distance journeys to Siliguri (15 buses) and Namchi (01 bus) even though they lacked basic structure for long distance journey like overhead racks (Image 2.4.1) for keeping passenger belongings. Further, 11 JNNURM buses meant for urban transport were being deployed for rural destinations.

Image 2.4.1

Bus having no overhead racks

➢ While the SNT added only 49 new buses to its fleet between 2012-13 and 2016-17, the volume of private passenger carriers grew from 5,413 at the beginning of 2012-13 to 11,897 at the end of 2016-17, which was an increase of 6,484 vehicles *(268 buses, 2,159 maxi-cabs, 3,326 taxi-cabs & 731 luxury tourist vehicles)* indicating the rapidly rising demand for public transport in the State which was not being capitalised by the SNT.

The SNT stated (October 2017) that it had a well laid down policy for public transport and that the State followed the National Transport Policy.

The reply of the SNT was not factual and relevant. SNT had not adhered to the basic requirements under the National policy framework for Public Bus Transport (PBT). SNT had also not laid down a clear and stable policy framework that defined roles and responsibilities of all stake-holders in the PBT system to facilitate long term planning, sound day-to-day operation and a firm basis for launching public private partnership. The national policy also envisaged putting in place an efficient PBT system to contain runaway growth in personalised mode of transport, which the SNT had not been able to fulfil.

2.4.9.2 Financial Management

The estimates and actuals of revenue receipts and expenditure of the SNT during 2012-13 to 2016-17 was as under:

[24] *Against an opening balance of 97 buses in 2012-13, 49 buses were added during 2012-17 and 26 buses were disposed of during the same period leading to net increase of 23 buses.*

Table 2.4.3
Receipt and expenditure of SNT

(₹ in crore)

Year	Revenue Receipt		Expenditure	
	Estimate	Actual	Estimate	Actual
2012-13	31.77	29.01	38.07	36.87
2013-14	36.04	34.10	41.67	41.65
2014-15	43.00	27.63	52.04	46.38
2015-16	42.36	41.55	45.82	43.13
2016-17	50.00	48.76	52.12	52.12
Total	**203.17**	**181.05**	**229.72**	**220.15**

Source: State Finance Report and Detailed Appropriation Accounts

➢ Annual estimates of revenue for the SNT were fixed by the Finance, Revenue and Expenditure Department (FRED) of the State Government. It may be seen that the targets were scaled up from ₹ 31.77 crore to ₹ 50 crore for the SNT during 2012-17, except for the year 2015-16 when the target was slightly scaled down to ₹ 42.36 crore from ₹ 43 crore in 2014-15. However, the basis or analysis for determination of SNT's annual revenue targets by the FRED could not be ascertained in audit. The SNT on its part also did not prepare any revenue model for itself for optimising the revenue collection while ensuring sustainable operations.

➢ The SNT prepared a deficit budget in all five years. The expenditure estimates were always kept higher than the revenue estimates, indicating that the SNT assumed incurring loss right from the budgeting stage. Further, the accounts of the SNT were not maintained in commercial model despite the fact that major activities of the SNT were related to commercial operations.

➢ The revenue earning of SNT fell short of the estimates in all the five years with substantial shortfall of ₹ 15.37 crore in revenue collection in 2014-15. This shortfall in 2014-15 was due to low realisation of supervision charges from private trucks/tankers. The position improved in the subsequent years with SNT's revenue collection increasing from ₹ 29.01 crore to ₹ 48.76 crore (68 *per cent* increase) between 2012-13 and 2016-17. The increase was mainly due to increased vigil in collection of supervision charges, revision of passenger fares, rates of goods freight, and introduction of new fleet of buses under the JNNURM scheme.

The SNT stated (October 2017) that since public transport came under the social sector and transport facilities were being provided on subsidised rates, it was not possible to operate public transport on a revenue model. It further stated that the revenue targets were fixed by FRED with due consultation with the SNT. Reply of the SNT was not acceptable as 84 *per cent* of its total revenue came from collection of freight charges/commission from trucks/tankers, supervision charges etc. which were commercial activities while only 16 *per cent* came from its bus service, which had social responsibility angle. Further, the Chief Minister who was also the Finance Minister had specifically instructed (February 2016) the SNT to function as a revenue generating Department for the State while working in public interest, and ensuring qualitative delivery of service and winning the trust of the consumers.

2.4.9.2.1 System of collection and deposit of revenue

The revenue of SNT comprised earnings from passenger fare, freight charges collected from SNT's own trucks/tankers, commission earned from private trucks/tankers hired and let out by SNT, supervision charges collected from private trucks/tankers at the check-posts, supervision charges from private buses under SNT supervision, commission from railway out agency, post bag carriage charges and rent earned from leased out properties.

The revenue earned by the SNT from various sources[25] is shown in the table below:

Table 2.4.4
Components of revenue

(₹ in crore)

Year	Passenger fare from SNT buses	Net Freight earned from SNT		Commission earned from hired Private		Supervision Charges	Railway out agency, Post bag carriage, lease rent etc.	Total
		Trucks	Tankers	Trucks	Tankers			
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
2012-13	4.44	2.46	1.96	1.77	2.39	17.95(57)	0.59	31.56
2013-14	5.19	2.93	2.33	1.98	2.61	15.87(51)	0.51	31.42
2014-15	5.62	2.24	2.38	2.99	2.70	13.92(45)	1.07	30.92
2015-16	5.46	2.85	2.68	3.24	3.26	20.39(53)	0.54	38.42
2016-17	6.81	1.96	2.69	3.94	4.71	24.88(55)	0.34	45.33

Source: Departmental records. Figures in bracket indicate percentage

It can be seen that the maximum revenue of SNT was from collection of supervision charges from private trucks/tankers at the check-posts, which constituted 45 to 57 *per cent* of the total revenue. The collection on this account was lowest in 2014-15 at ₹ 13.92 crore. This was due to inadequacy in monitoring collection of supervision charges at the check-posts, as corroborated by facts mentioned below.

The SNT personnel stationed at the check-posts at Rangpo and Melli were required to ensure deposit of supervision charges into Government account in the State Bank of Sikkim Branch located at the check-posts by the goods carrying private trucks/tankers. Any truck/tanker permitted to pass through the check-posts by SNT personnel without ensuring deposit of appropriate supervision charges would escape paying supervision charges since there was no system in the SNT for secondary verification of payment of supervision charges by such trucks/tankers. The low revenue realisation from supervision charges due to likely misappropriation of revenue at the check-posts during 2014-15 came to the notice of the Chief Minister (CM) and the Chief Secretary (CS) in December 2015 resulting in the CM visiting the Rangpo check-post on 10 February 2016. Thereafter, the situation improved from 2015-16 as is evident.

The SNT stated (October 2017) that there was no laxity/pilferage of revenue and that with the implementation of IDMS and operation of static and weighs-in-motion weighbridges,

[25]*The difference in figures of revenue earned in Table 2.4.3 & Table 2.4.4 is due to maintaining a separate account in the Axis Bank by SNT for dealing with receipts and payments relating to hire business of trucks/tankers. Net revenue from hire business was transferred into Government account from time to time after receipt into the separate account first. The time lag in receipt/deposits caused the difference.*

the system of enforcement and monitoring had increased resulting in higher revenue. The reply was not tenable as (i) the weighbridges were found mostly non-functional and (ii) working of the IDMS was found largely inadequate.

2.4.9.2.2 Revenue expenditure vis-a-vis Capital expenditure

97 *per cent* of the expenditure of ₹ 220.15 crore of SNT during 2012-17 was of revenue nature comprising expenditure on salaries, allowances, office expenses, repair and maintenance of vehicles, minor repair of buildings and guest houses, implementation of IDMS project etc., while only 3 *per cent* was of a capital nature, as shown in the table below:

Table 2.4.5
Expenditure: Revenue vis-à-vis Capital

(₹ in crore)

Year	Revenue Expenditure	Capital Expenditure	Total Expenditure
2012-13	35.84	1.03	36.87
2013-14	39.65	2.00	41.65
2014-15	44.38	2.00	46.38
2015-16	43.13	0.00	43.13
2016-17	49.95	2.17	52.12
	212.95	**7.20**	**220.15**

Source: Detailed Appropriation Accounts and Budget Estimates

The fact that capital expenditure accounted for a bare three *per cent* of the total expenditure indicated that the SNT remained more or less stagnant in terms of organisational growth with just sufficient expenditure (capital and revenue) to maintain the status quo. The capital expenditure of ₹ 7.20 crore during 2012-17 was used by SNT for purchase of four trucks, seven tankers, eight buses, installation of weighs-in-motion at the check-posts and purchase of minor tools, equipment and other items.

The SNT stated (October 2017) that all the funds provided for infrastructure development had not been reflected in the capital account. Government had provided additional funds of ₹ 7.26 crore for infrastructure development towards implementation of the IDMS and allied works which were of capital nature but had been reflected under revenue head of account.

The reply was not tenable as depiction of capital expenditure under revenue head of account was irregular. Besides, out of ₹ 7.26 crore mentioned by the SNT, ₹ 5.36 crore pertained to implementation of the IDMS for which 50 *per cent* of the funds had been provided by the GoI.

2.4.9.3 Operational Performance of SNT

The vehicle fleet held by the SNT during 2012-17 was as under:

Table 2.4.6
Year-wise fleet strength of SNT

Year	Buses				Trucks				Tankers			
	O.B.	New	Disposed	C.B.	O.B.	New	Disposed	C.B.	O.B.	New	Disposed	C.B.
2012-13	97	0	2	95	52	4	0	56	33	1	0	34
2013-14	95	8	7	96	56	0	7	49	34	2	3	33
2014-15	96	0	12	84	49	0	1	48	33	0	3	30
2015-16	84	41	0	125	48	0	6	42	30	0	0	30
2016-17	125	0	5	120	42	0	10	32	30	4	0	34
Total		**49**	**26**			**4**	**24**			**7**	**6**	

Source: Departmental records

➢ During 2012-17, the SNT added 49 new buses to its fleet and disposed of 26 old buses. The 49 new buses included 41 buses procured in 2015-16 funded under the JNNURM scheme of GoI while eight buses procured in 2013-14 were funded under State Plan.

➢ During 2012-17, the Department procured only four new trucks and disposed of 24 old trucks with the SNT's truck fleet dwindling from 52 at the beginning of 2012-13 to 32 at the close of 2016-17. The decline in the number of trucks was due to disposal of aged fleet and lack of funds for purchase of new fleet to replace the aged fleet.

➢ During 2012-17, the SNT procured seven new tankers while disposing of six old tankers. The number of SNT owned tankers remained almost static at 33 at the beginning of 2012-13 and 34 at the close of 2016-17.

In the absence of proper assessment of needs and fleet planning audit could not comment on the adequacy or shortfall of the fleet position of the SNT. Nonetheless, considering the increased population, flow of tourists, increasing industrialisation of the State and consumption of goods, there was obvious scope for enhancement of the SNT's fleet.

2.4.9.3.1 Revenue Gap

Though the bus fleet constituted 65 *per cent* of total fleet strength (31 March 2017), the SNT did not maintain separate records relating to various components of costs relating to bus operations. However, traffic revenue and effective kilometres were recorded for bus operations separately. The details of consolidated working results of SNT for the period 2012-17 are highlighted below.

Table 2.4.7
SNT's consolidated working result

(₹ in crore)

Sl.No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1	Total Revenue (A) *(including traffic revenue, misc. revenue & net revenue from hired fleet of trucks / tankers)*	29.01	34.10	27.63	41.55	48.76
2	Total Expenditure (B)	36.87	41.65	46.38	43.13	52.12
3	Revenue gap for the year (B-A)	7.86	7.55	18.75	1.58	3.36
4	Traffic Revenue (for bus operations only) (C)	4.43	5.19	5.62	5.46	6.81
5	Effective KM operated (in lakh Kms) (for bus operations only) (D)	17.89	18.82	16.76	18.98	22.86
6	Traffic Revenue per KM (in ₹/Km) (Cx100/D)	24.76	27.58	33.53	28.77	29.79

Source: Monitoring & Evaluation cell, SNT. Effective KM: Total revenue earning kilometres

➢ As can be seen from the above table, while the total expenditure of SNT ranged from ₹ 36.87 crore to ₹ 52.12 crore, the revenue collection was only in the range of ₹ 27.63 crore to ₹ 48.76 crore with consequent revenue gap ranging between ₹ 1.58 crore (2015-16) and ₹ 18.75 crore (2014-15) during 2012-17. The SNT does not maintain its accounts as per commercial system and hence, items like depreciation, cost of assets, etc., could not be worked out.

➢ The revenue gap of ₹ 18.75 crore during 2014-15 was due to low non-traffic revenue from collection of supervision charges, decrease in revenue from operation of trucks and high expenditure during the year. The gaps were however, reduced considerably after 2014-15.

➢ The effective kilometres operated by the SNT buses increased from 17.89 lakh Kms in 2012-13 to 22.86 lakh Kms in 2016-17 and traffic revenue was also on an upward trend and increased from ₹ 24.76 per Km in 2012-13 to ₹ 29.79 per Km in 2016-17.

The SNT stated (October 2017) that it had not suffered losses but that the revenue targets were too high while the fares had not been revised.

The reply of the SNT was irrelevant as the revenue gap mentioned in audit were worked out by comparing the actual revenue earned *vis-a-vis* the expenditure incurred, which had no relation with the revenue targets fixed for the Department. The non- revision of fares by the SNT at regular intervals indicated its failure in establishing an institutional mechanism to protect the SNT against inflation, which, otherwise, has the potential to seriously impact on the bottom-line of the organisation.

2.4.9.3.2 Fleet strength and age profile

The SNT prescribed the norm of 10 years or 3 lakh Kms, whichever was earlier, to declare a bus as over-aged. The table below indicates details of buses held by the SNT during the period 2012-17.

Table 2.4.8
Details of SNT buses

(in numbers)

Sl.No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1.	Total number of buses at beginning of the year	97	95	96	84	125
2.	Additions during the year	Nil	8	Nil	41	Nil
3.	Buses condemned/disposed during the year	2	7	12	0	5
4.	Buses held at the end of year	95	96	84	125	120
5.	Number of buses more than 10 years old	32	25	17	15	11
6.	Percentage of over-age buses to total buses (Based on the SNT norms)	34	26	20	12	9

Source: Monitoring & Evaluation cell, SNT

The number of over-aged buses had reduced from 32 in 2012-13 to 11 in 2016-17 which was an encouraging trend.

The SNT stated (October 2017) that for the year 2016-18, the State Government had provided ₹ 3.05 crore for purchase of nine new buses and approved in principle purchase of 10 new small good quality/luxury buses to meet the need of tourists, etc.

2.4.9.3.3 Vehicle productivity

Vehicle productivity refers to the average Km run by each bus per day in a year. The vehicle productivity of the SNT ranged from 42 Km/day/bus during 2015-16 to 55 Km/ day/bus during 2014-15. Compared to the All India Average of 196 Kms per day for hilly areas (2009), the vehicle productivity of the SNT was substantially low. The reason for low vehicle productivity of SNT buses was low fleet utilisation by the SNT. Despite continued low productivity, effective steps to improve vehicle productivity by the SNT were not evident on record.

The SNT stated (October 2017) that it had taken all necessary steps after the observation of Audit to enhance vehicle productivity.

2.4.9.3.4 Repairs and Maintenance

A summarised position of fleet holding and Repair and Maintenance (R&M) expenditure for the period 2012-17 is given in the table below:

Table 2.4.9
Summary of fleet, overage vehicle and R&M

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Total vehicles at the end of the years						
1.	Buses	95	96	84	125	120
2.	Trucks/Tankers	90	82	78	72	66
	Total	**185**	**178**	**162**	**197**	**186**
	Over-age vehicles (more than 10 years old)					
	Buses	32(34)	25 (26)	17 (20)	15 (12)	11 (9)
	Trucks/Tankers	46(51)	31(38)	21(27)	21(30)	14 (21)
3.	R& M expenses (₹ in crore)	1.4	1.4	2.5	1.4	2.5
4.	R& M Expenses per vehicle (₹)	75,676	78,652	1,54,321	71,066	1,34,409

Source: Monitoring & Evaluation cell, SNT. (Figures in bracket indicate percentage)

The R&M expenditure of the SNT was erratic during the five year period 2012-13 to 2016-17 ranging between ₹ 0.71 lakh per vehicle to ₹ 1.54 lakh per vehicle. In 2014-15, when the SNT held least number of vehicles (162), the R&M expenditure per vehicle was maximum (₹ 1.54 lakh) while in 2015-16, when the number of vehicles held was maximum (197), the R&M expenditure per vehicle was minimum (₹ 0.71 lakh). Further, the total number of vehicles reduced from 178 in 2013-14 to 162 in 2014-15, while the number of overage vehicles reduced from 57 to 38 during the period but the per vehicle R&M expenditure increased from ₹ 0.79 lakh to ₹ 1.54 lakh per vehicle during the period. This defied logic. Further, the SNT was not able to reduce the R&M expenditure which rose from ₹ 0.76 lakh per vehicle in 2012-13 to ₹ 1.54 lakh per vehicle in 2014-15 and ₹ 1.34 lakh in 2016-17. This was despite induction of new vehicles and reduction in the number of over-aged buses. The SNT did not maintain data on vehicle-wise R&M expenditure. Hence, Audit could not analyse the trend of R&M expenditure *vis-à-vis* the age of the buses.

The SNT stated (October 2017) that the maintenance cost included additional facilities like dust bin, hanger, fire extinguisher and upgradation of the buses while the market cost of spares was on an increasing trend. The reply of the SNT could not be vouched for, in

the absence of specific data on vehicle-wise R&M expenditure. The erratic trend of R&M expenditure of the SNT, therefore, needed to be properly investigated.

2.4.9.3.5 Fuel consumption

The position of effective kilometres covered by the SNT buses *vis-a-vis* fuel consumed during 2012-17 is depicted in the table below:

Table 2.4.10
Kilometre per litre achieved by SNT

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1.	Effective KMs operated (in lakh)	17.89	18.82	16.76	18.98	22.86
2	Fuel Consumption (in lakh litres)	4.19	4.13	3.82	4.54	6.07
3.	Actual KMPL[26] (1/2)	4.27	4.56	4.39	4.18	3.77
4.	Target of KMPL fixed by SNT	3.00	3.00	3.30	3.30	3.30

Source: Monitoring & Evaluation cell, SNT

Except during 2014-15, the effective kilometres operated by the SNT buses were on an increasing trend. However, despite improvement in the quality of the SNT's fleet in terms of age profile over the period 2012-17, there was continuous decline of the distance performed per litre of fuel by the SNT vehicles from 4.56 kmpl in 2013-14 to 3.77 kmpl in 2016-17. The SNT had neither evaluated the reasons for decline in performance of its fleet in respect of fuel efficiency nor taken any steps to improve the situation.

The SNT stated (October 2017) that the hilly terrain, road and weather conditions did not allow optimum output by the vehicles. The reply did not address the fact that despite improvement in the age profile of the fleet over the period 2012-17, the fuel efficiency was on a declining trend.

2.4.9.3.6 Private vehicles hired by SNT

Apart from its own trucks/tankers, the SNT also hired private trucks/tankers and rented them to various agencies. All private trucks/tankers entering Sikkim (not hired by SNT) were required to pay supervision charges at specific rates calculated on the basis of load carried and distance travelled. Audit noticed that the rate difference between hire charges collected from the SNT's customers and the hire charges paid to the owners of private trucks/tankers by the SNT equalled the supervision charges applicable to other private trucks/tankers not hired by SNT. Details of the rate of hire charges collected vis-à-vis hire charges paid by the SNT and the Supervision charges applicable to other private tankers and trucks are given in the table below:

[26] *Kilometre Per litre.*

Table 2.4.11
Rate of hire charge vis-à-vis supervision charge (2016-17)

Sl. No.	Name of Users	Hire charge collected by SNT from its Users (₹/MT/Km)	Hire charges paid by SNT to owners of private trucks/tankers (₹/MT/Km)	Difference	Supervision charge (₹/MT/Km)
	a	*b*	*c*	*d=b-c*	*e=d*
1	Army & Project Swastik	14.64	10.98	3.66	3.66
2	Hydel project developer & ancillary units, para-military forces, pharmaceutical companies etc.	14.64	10.98	3.66	3.66

Hence, the SNT did not gain anything by undertaking the hiring business of private trucks/tankers. On the contrary the SNT had to incur extra expenses on managing the hired trucks/tankers (309).

The SNT also allotted 8.89 lakh litres of high speed diesel (HSD) from its pump at Rangpo at a cost of ₹ 4.78 crore on the hired private trucks/tankers during 2015-17 for performing 5,743 trips. This constituted undue favour to the private vehicle owners. Had the SNT collected supervision charges at the check-posts instead of hiring the private trucks/tankers, it could have earned the same amount of revenue promptly without incurring additional administrative cost and incurring expenditure on purchase of HSD.

The SNT stated (October 2017) that it had introduced additional administrative charges of 1.73 *per cent* against hiring of private trucks/tankers since 2016-17.

2.4.9.3.7 Measurement of weights of goods transported

All private trucks/tankers carrying load in the State of Sikkim, whether inter-State or intra-State, were required to pay supervision charges to the State at rates notified by the SNT from time to time. The supervision charge was determined on the basis of load carried, distance travelled and the type of organisation/business/individual on whose behalf goods were carried. The supervision charges were collected at the check-posts located at Rangpo and Melli.

The following deficiencies were noticed in audit:

- ***Functioning of weighbridges***

For the purpose of determining weights carried by vehicles entering or exiting Sikkim, the SNT took up (February 2011) work of installing two weighbridges at Mining about 5 Kms from the Rangpo check-post and another at Melli check-post at a cost of ₹ 64.91 lakh. Installation of the weighbridges was to be completed by April 2011. The weighbridges were commissioned in September 2012 and December 2015 respectively, after a delay of more than one year in Mining

Image 2.4.2

Weighbridge at Mining

and more than four years in Melli. A joint visit (August 2017) by Audit along with departmental officers revealed that the weighbridge at Mining was installed about 50 metres away from the national highway inside a residential complex of the State Government and remained largely unused due to the unplanned nature of its installation. The weighbridge could be accessed by loaded vehicles coming from Siliguri only after crossing the highway and after measurement, the vehicles had to reverse and turn round to exit the complex, there being no thoroughfare from the other end of the weighbridge. Scrutiny of weighing done at the weighbridge during March 2017 revealed that weighing was done only for 14 days *(between 1 March 2017 and 21 March 2017)* for 126 vehicles only out of 6362 private goods carriers, which passed through the Rangpo check-post during the same period[27]. Out of these, 45 vehicles were found carrying excess load ranging from 300 kgs to 6,810 kgs indicating that the practice of carrying excess load was prevalent.

At the weighbridge, Melli check-post, only 12 vehicles were measured during March 2017 out of 3,407 goods carrying vehicles, passing through the check-post. Out of these 12 vehicles measured, eight vehicles were found carrying excess weights between 1,690 and 4,630 Kgs indicating widespread prevalence of excess loading.

Despite this fact, mandatory weighing of all vehicles was not enforced and supervision charges were levied on fixed weights based on carrying capacity of the vehicles.

➢ *Installation and functioning of weighs-in-motion*

The Chief Secretary (CS) expressed concern (December 2015) over virtual non-utilisation of weighbridges located at Rangpo and Melli and consequent loss of revenue to the Government due to likely connivance of Government servants with businessmen in misappropriating Government revenue. The CM also ordered (December 2015) for repair of the weighbridges within one week.

The CM also approved (February 2016) the proposal of the Department for installation of new sets of Weighs-in motion[28] (WIM) at various check-posts of the State and at district headquarters. In the first phase, installation of four Weighs-in motions (WIMs) was taken up (July 2016), two each at the Rangpo and Melli check-posts for weighing incoming and outgoing vehicles. The WIMs were expected to automatically measure weights of vehicles passing through the check-posts without stopping them thereby saving time and the trouble of taking weights, as in the case of conventional weighbridges.

The SNT directly obtained (February 2016) rates for supply and installation of the WIMs from three agencies[29] without publicising tenders in the national papers as required under Sikkim Financial Rules (Rule 127). The work was awarded (July 2016) to two firms (M/s Essae Digitronics Ltd., Bangalore and M/s Precision weighing system, Pune) for supply and installing two WIMs, one at Rangpo and other at Melli check-post at total cost of ₹ 65.78 lakh.

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[27] *1 March 2017 to 21 March 2017.*

[28] *Total12 Weighs-in Motion (WIM) to be installed at the check-posts located at Rangpo, Melli and Reshi besides purchase of five portable WIM system to be kept in the District Headquarters.*

[29] *M/s Essae Digitronice Ltd., Bangalore, M/s Precision weighing system, Pune and M/s Kunal Enterprise, Pune.*

The installation of the WIMs was to be completed, in all respects, by 3 September 2016 but was actually completed only in July 2017, after delay of almost a year. The delay was due to (i) oversight in obtaining timely clearances from the Ministry of Road Transport & Highways and the Border Roads Organisation for installing the WIMs right across the highways and (ii) delay in supply and installation of the WIMs by the selected firms.

A joint inspection (August 2017) of the WIMs installed at Rangpo and Melli check-posts by Audit along with departmental officers revealed that while the WIM at Rangpo functioned for a brief trial period in March 2017, the WIM at Melli check-post was never functional. Besides, the two sensor poles installed in the middle of the road forming part of the WIMs at Rangpo check-post were missing and was stated (August 2017) to be damaged by miscreants. The other two sensor poles set on either side of the road were not fixed firmly on the ground and wobbled on being manually shaken. Cameras placed in the complex were non-functional while the electronic circuit embedded in the ground below the WIMs were stated (August 2017) to be damaged due to seepage of rain water and flow of slush underground.

Image 2.4.3

WIM at Melli Check post

The damage of WIMs located within direct visual range of the custodians of the check-post by miscreants was an unacceptable excuse as there was 24 hour surveillance in the check-posts through different agencies of the State[30]. Further, the WIMs were pit type machines requiring embedding in the ground where water from rain could seep in. Yet the Department did not take preventive measures to address the issue at the outset indicating negligence on the installation and upkeep of the WIMs at the check-posts.

Between 22 March 2017 and 31 March 2017, weights of 72 vehicles only were taken in the WIM located at Rangpo check-post out of 3,485 goods carrying vehicles for which supervision charges were levied during the period[31]. All 72 vehicles were found carrying excess load between 500 kg and 9000 kg beyond the specified carrying capacity of the vehicles. This clearly indicated that there was widespread prevalence of carriage of excess load by the transporters.

While the first set of static weighbridges installed in 2012 and 2015 at a cost of ₹ 64.91 lakh were sparingly used and hence, almost redundant, the second set of WIMs installed at a cost of ₹ 65.78 lakh at the check-posts were lying useless indicating lack of initiative on the part of the Department in operationalising the weighing machines for generating revenue for the State.

The SNT stated (October 2017) that (i) due to space/manpower constraints and traffic congestion at the check-posts, only those vehicles were taken to the weighbridges which were suspected of carrying excess load (ii) the WIMs were procured directly from the

[30] *State Police, Commercial Taxes Division, Forest Department, Motor Vehicles Division, Agriculture Department, Animal Husbandry Department and State Bank of Sikkim.*
[31] *22 March 2017 to 31 March 2017.*

manufacturers in extreme urgency due to shortage of time to call for tenders (iii) the installation of WIMs was done as a pilot project on trial basis to prevent revenue pilferage and enhance efficiency at the check-posts, and (iv) the damaged component of the WIM at Rangpo check-post had since been identified and rectified.

Reply of the SNT was not tenable as (i) taking weights of goods vehicles at the check-posts was being done on arbitrary basis on the whims of the personnel stationed at the check-posts, and, (ii) while the SNT exhibited all urgency in procuring the WIMs, it did not demonstrate the same enthusiasm for timely installation of the WIMs and making them functional.

2.4.9.3.8 Non-levy of supervision charges from intra-State transport of goods

The State Government issued notification (May 2016) specifying the rate of ₹ 3.66/MT[32]/Km supervision charge for transportation of goods within the State of Sikkim in respect of hydropower project developers & ancillary units, paramilitary forces, pharmaceutical companies, private companies, any commercial companies and organisations. In terms of the notification, the minimum chargeable rate for supervision would be 10 MT or as per pay load mentioned in the registration certificate with minimum chargeable distance of 20 Kms.

Audit verification revealed that 1,50,66,315 cubic feet (cft) of sand, stone and stone chips had been transported within State during 2016-17 in the East district alone. This translated to a total of 75,332 trips calculated at the rate of 200 cft[33] per trip. Supervision charges for the East district alone for one year would therefore, work out to ₹ 5.51 crore[34].

Audit noticed that weighbridges had been installed only at the two check-posts at Rangpo and Melli for measuring weights of vehicles engaged in inter-state transportation. No arrangement had been made by SNT to take weights of goods carrying vehicles engaged in intra-State transportation within the State. Thus, the SNT's oversight in laying systems, procedures and facilities for collection of supervision charges from goods carrying vehicles for intra-state transport had resulted in huge recurring loss of revenue to the State with no scope of recovery.

2.4.9.4 Information Management System

The GoI, Ministry of Road Transport and Highways (MORTH) introduced (March 2010) the scheme 'Central Assistance for strengthening Public Transport System in the Country' to address the problems faced by Public Transport Institutions and to ensure better transport mechanism which could provide world class passenger bus service across the country. The objectives of the scheme were to provide financial assistance to the States for use of latest technologies such as Global Positioning System (GPS)/Global System of Mobile communication (GSM) based vehicle tracking system, computerised reservation system, automatic fare collection system, electronic ticket vending machines,

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[32] *MT=Metric Tonne*

[33] *Carrying capacity of trucks for sand, stone etc. for Sikkim (hilly region)*

[34] *Calculated at the chargeable rate of ₹ 3.66/MT/Km for minimum weight of 10 MT per trip and minimum distance 20 Kms.*

inter-modal fare integration and passenger information system for services covering inter-city and mofussil[35] areas and to provide financial assistance for preparation of total mobility plan for the entire State. The scheme provided one time financial assistance to States to the extent of 50 *per cent* of the project cost for IT related projects.

Based on the proposal for developing an Integrated Depot Management System (IDMS) submitted (March 2013) by the SNT, the GoI sanctioned (March 2013) ₹ 4.52 crore for the project on 50:50 cost sharing basis between the Centre and the State with stipulation to complete the project within 16 months (July 2014). The project consisted of Depot Computerisation (₹ 1.95 crore), Electronic Ticketing Machines (₹ 0.22 crore), Real Time Passenger Information System (₹ 2.30 crore) and preparation of DPR (₹ 0.04 crore). In addition, the GoI also sanctioned (March 2013) ₹ 1.99 crore towards annual maintenance cost for the hardware and software components of the project for five years in the funding pattern 50:50 between the Centre and the State.

Tenders were invited online (24 September 2013) through the State Government website 'www.sikkimtenders.gov.in' and also simultaneously published in the local and national papers. The SNT awarded (27 January 2014) implementation of the project to the firm M/s Aeon Software Pvt. Ltd. along with maintenance of the hardware and software systems for a period of five years at the GoI sanctioned cost of ₹ 6.51 crore.
The following issues were observed in audit:

2.4.9.4.1 Delay in execution and re-scoping of project

The project (excluding maintenance) was to be completed within 365 days from the date of award (by 26 January 2015) while the contract for maintenance was for the period 2015-20. The Department reported completion of the project in September 2015, after a delay of seven months. The delay was due to delay in execution of the project by the contractor and re-scoping of the project by the Department leading to failure in timely delivery of targeted benefit of the project to the Department. Further, although the component 'Depot computerisation' was reported as completed, numerous flaws were observed in the software part of the component as highlighted in paras 2.4.9.4.4 (i, ii and iii). The other two components of Electronic Ticketing Machines and Real Time Passenger Information System *(which included installation of GPS, Speakers and LED signage)* had only been partially implemented, as highlighted in para 2.4.9.4.3 below.

In March 2015, when the project was nearing completion, the Department realised that there was a surplus of ₹ 1.05 crore funds resulting from savings on implementation of the project. Considering the surplus, the Department moved (March 2015) a proposal for re-scoping the project and took up four additional items[36] of work which were not contemplated in the original proposal and hence, not covered by the GoI/State Government sanction. This constituted diversion of project funds of ₹ 1.05 crore without obtaining approval of the GoI. This also indicated that the project requirement was

[35] *Provincial or rural districts of India*
[36] *i) Creation of website with facilities for self-management at ₹ 3.75 lakh (ii) Implementation of cloud based server hosting automated vehicle tracking software for private vehicles, luxury taxies and Government vehicles at ₹ 60.20 lakh (iii) Construction of control room at ₹ 34.36 lakh and (iv) Payment for user charges of Global Positioning System (GPS) sim cards (₹ 6.34 lakh).*

inflated at the DPR stage by the CIRT leading to surplus funds of ₹ 1.05 crore leaving scope for diversion of funds.

The SNT stated (October 2017) that the IDMS, launched as a pilot project, had enhanced the efficiency of SNT. Some funds under the IDMS were re-scoped and fruitfully utilised on important items of work which had not been contemplated under the project earlier like construction of control room, monitoring of the SNT Undertaking vehicles, private passenger carriers etc. using GPS system. These essential items had been left out inadvertently at the DPR stage.

The reply was not tenable as the items of work carried out by the SNT after re-scoping of the project were beyond the ambit of GoI sanction.

2.4.9.4.2 Shortcomings in implementation of physical infrastructure under the IDMS

The objectives of the IDMS scheme, *inter alia*, were to provide latest technological solution such as Global Positioning System (GPS) based vehicle tracking system, computerised reservation system, automatic fare collection system, electronic ticket vending machines, and passenger information system. It also included preparation of total mobility plan for the entire State. A number of shortcomings were observed in implementation of the physical infrastructure of the IDMS as highlighted below:

Table 2.4.12
Details of items supplied under IDMS

Name of item	Quantity ordered and paid for	Cost *(₹ in lakh)*	Quantity actually supplied	Short-supply	No of items	
					Installed & Functional	Non-functional/idle
1	2	3	4	5	6	7
GPS machines	167	25.05	160	07	114	46
Electronic Ticket Vending Machines	64	8.96	64	00	44	20
Speaker System	40	2.00	40	00	00	40
LED display panel (signage)	40	62.08	40	00	22	18

The above items were supplied to the SNT and payment for the same was released to the firm by March 2015. However, the exact dates of supply and period for which the items remained non-functional could not be ascertained in audit.

While accepting the audit observation, the SNT stated (October 2017) that the shortcomings noticed in the devices had been corrected while few of the non-functional devices and machines were under repair.

2.4.9.4.3 Data Analytics and deficiencies in data management under the IDMS

As part of the audit planning process, analysis of data captured under the IDMS was carried out using trial version of the software 'Tableau reader' with the objective of identifying risk areas in the functioning of SNT. This included distance covered and trips performed by the vehicles, trips performed and earnings by drivers, earnings from private hired trucks/tankers and earnings from supervision charges. This also included entry/exit

of vehicles in workshops etc. The analysis indicated risks related to utilisation of vehicles, variation in earning between vehicles, performance of drivers, collection of supervision charges, geographical reach of public bus service within the State, etc. Examination of the identified risk areas in field audit, such as, low performing vehicles in terms of distance run, trips performed and revenue earned; low performing drivers; entry/exit of vehicles in workshops; collection of supervision charges etc. brought out inconsistencies and inadequacies in the software developed for the IDMS. Besides, there were weakness in input controls and data validation as detailed below:

(i) Input controls

➢ For proper input control, information like SNT vehicles driver's names, date of entry/exit of vehicles in the workshops, journey destinations, etc. could have been pre-fed in the system and accessed through drop down box in order to prevent incorrect entry of data and to maintain data uniformity and accuracy. This was, however, not done and data was being entered in an arbitrary manner. The registration numbers of vehicles (in case of supervision charges collected at check-posts) were entered in any form - in capital letters, small letters, alphabets and numerals in continuity or separated by slashes etc. Thus, even a small variation in the spelling of the SNT driver's name was treated as a different entry by the system indicating deficiency in the input control of the software programme. The arbitrary input and acceptance of data by the system made it impossible to extract details of a particular vehicle, driver etc. in a single sheet, for analysis. Further, the details of the entry and exit of vehicles in the workshop as maintained in the registers did not match with similar data entered into the system. For instance, while workshop records indicated that nine buses entered the workshop at Gangtok on 5 March 2016 for minor repairs, the IDMS data captured entry of only five vehicles on the date. Similarly, as per records maintained in the Jalipool workshop, three vehicles entered the workshop on 2 March 2017 for repairs, while the IDMS data reflected entry of five vehicles on the date. Out of the five vehicles entered in the IDMS data, only two vehicles matched with the vehicles entered in the workshop record.

➢ The SNT buses hired by the Army for transportation of manpower were included in the goods module and not in the passenger module. Hence, the details of journeys performed by such buses was not recorded in passenger module. During April 2016, the Army hired SNT buses on 179 occasions for which the details were captured in goods module and not in the passenger module. A proper input control system would have prevented this. Hence, the earning of transportation revenue, distance travelled, trips performed, HSD issued, drivers deputed, etc. in respect of those buses were left out while extracting consolidated details of the SNT buses from the IDMS.

➢ The SNT owned trucks and tankers were hired by the Army, Border Roads Organisation, Indian Oil Corporation (IOC), Bharat Petroleum Corporation Limited (BPCL) and other organisations for carriage of goods and HSD from Siliguri to different destinations within Sikkim and also between different locations within Sikkim at freight charges fixed from time to time. The freight charges earned constituted Government revenue and credited into the Government account. There was no scope for re-

imbursement of hire charges to private truck/tanker owners in this case as the vehicles were owned by the SNT. However, the data entered in the system showed re-imbursement of hire charges in six cases amounting to ₹ 1.68 lakh even in the case of goods transported by SNT owned vehicles. This was a case of unnecessary insertion of the field/column 'reimbursement' and erroneous entry of data in the field/column 're-imbursement', which was not necessary for SNT owned trucks.

The SNT stated (October 2017) that the deficiencies noticed under Input Control had since been identified and rectified to avoid recurrence of such errors.

(ii) Mapping of requirement of SNT in the system

- No fields had been created in the system to capture complete details of fleet under the SNT such as year of manufacture, engine number, chassis number, seating capacity of buses, laden and unladen weight, etc., which were essential for assessing performance of the vehicles and to assist in decision making on fleet operation. Due to absence of provision to capture basic information relating to individual vehicles, the age and other unique details of SNT's fleet could not be sourced from the IDMS.

- For every trip a unique challan number was generated with details of vehicles, client, load, distance etc. Audit noticed that there were double entries of details of the same trip including challan number, date, driver, vehicle number, consignor, place of origin and ending point, etc. for the same trip conducted by the truck/tanker on four occasions, creating confusion in interpreting the data. This was a systemic deficiency indicating absence of provision for mapping uniqueness of challan number in the system.

- There was no provision in the IDMS to display the weights of vehicles measured in the weighs-in-motion installed at the check-posts at Rangpo and Melli as the automatic weighing system at the check-posts had not been integrated with the IDMS programme.

- Huge quantities of goods like sand, stone, stone aggregates were transported within the State on a daily basis for infrastructure development projects like construction of roads, bridges, buildings, hydro-dams, tunnels etc. undertaken by various organisations and contractors. During 2016-17, 1.51 crore cft of sand, stone, stone aggregates were transported in the East district alone. However, no provision had been made in the IDMS to capture details of goods carried within State by private transporters for the purpose of collection of supervision charges.

The SNT stated (October 2017) that provision for recording details of SNT owned fleet in the system had since been put in place and data entry of vehicular details was under progress. Data validation of challan number with reference to trips performed had since been done and the errors highlighted had been identified and since rectified. The scope of the project did not include integration of IDMS and Weigh Bridge software while the supervision on movement of sand, stones, etc. within the State was not applicable.

The SNT accepted the lapses relating to mapping its requirements in the IDMS and stated that it would take corrective measures to rectify the errors. The reply regarding non-applicability of supervision charges on movement of sand, stones, etc. within State, was not tenable, as there was no notification/order of the Government exempting collection of

supervision charges against movement of sand, stones, etc. within State. Further, integration of the IDMS with the WIMs was essential to automatically capture details of vehicles passing through the check-posts in the system. This would enable the SNT to both monitor the functioning of the WIMs and keep a vigil on vehicles passing through the check-posts.

(iii) Absence of validation control in IDMS

The data entered in the system should be validated with the actual facts and figures to maintain authenticity. However, no such validation was conducted. As a result, the following deficiencies were noticed:

- The data fed in the IDMS relating to hire of trucks/tankers by SNT and leased out to the army for transport of goods between Kupup, Tsangu, Gnathang, Sirhi, Surasoi, Thegu, Yakla, etc. near the Nathula border depicted incorrect distance and quantity of goods carried. All distances were shown as 1 Km and all quantities of goods as 1 MT by default, irrespective of the actual distance travelled and the actual load carried. During 23 July 2016 to 6 October 2016, a total of 41 trips were performed by SNT trucks between the different locations. Out of this, while the distance between Kupup and Gnathang, which was 4 kms for which 4 journeys were performed could be ascertained, the distance in respect of other journeys and the loads carried could not be ascertained in audit. In all the above 41 cases, the distance travelled was shown as 1 Km and weights carried 1 MT. Thus the correct distances covered and loads carried by the SNT's trucks/tankers over time could not be known from the available IDMS data.

- The distance travelled by buses on a number of occasions was shown as '0' on the system although the vehicles were found to have travelled various distances. For instance, distance from Gangtok to Pakyong, Ranka, Jalipool and Penlong was 32 Kms, 14 Kms, 16 Kms and 14 Kms respectively. However in case of three buses, distance travelled was shown as '0' against 317 trips performed by the vehicles during the period June 2014 to March 2017.

- The fuel issued to the SNT owned buses were shown as '0' on several occasions in the formats although all buses were issued fuel before undertaking journey. For example, during the period June 2014 to March 2017, bus No SK01B0011 performed 236 trips in terms of the IDMS data, but fuel issued in case of 116 trips was shown as '0'. Similarly, out of 66 trips performed by bus No. SK01B0319, fuel issued in case of 20 trips was shown as '0'. Therefore, the quantity of fuel consumed by SNT vehicles and the fuel efficiency could not be assessed from data sourced from the IDMS.

- In six cases, the earning by SNT from hire of private tankers was shown as '0' in the 'Earning Statement' of private tankers. The discrepancy occurred due to posting of identical amount in the 'gross amount' column (meant for entering amount collected by SNT) as well as in the 're-imbursement amount' column. Since the two figures were equal, the difference constituting net earning of SNT was shown as '0'. The system should have rejected or questioned any entry of 'gross amount' which was equal to or less than the 'reimbursed' amount.

Thus, due to poor input controls, inadequate mapping of requirements of the SNT in the IDMS and absence of secondary data validation, the data captured in the IDMS was inconsistent, incomplete and ridden with errors and could not be relied upon for further analysis to comment on the performance of the SNT's vehicles.

The SNT stated (October 2017) that in case of tippers carrying army consignments to forward areas, the freight rate was calculated on trip basis on fixed rate and not on actual weights and actual distance travelled. Hence, to record such trips, the parameter such as 1MT and 1 km were recorded in the system. All other deficiencies highlighted in the audit observation were identified and rectified.

Audit observed that the SNT needed to ensure data entry of actual distance travelled by the tippers even though the journeys performed were on 'per trip' basis. This will help ensure recording of the total distances travelled by the SNT tippers during the course of their life.

(iv) Absence of data security and exit strategy

As mentioned earlier (Para 2.4.9.4), the firm M/s Aeon Software Pvt. Ltd. had been awarded contract for implementation of the IDMS project alongwith maintenance of the hardware and software systems for a period of five years 2015-20. Audit noticed that the central servers of the IDMS were kept at Mumbai. For storage of the IDMS data, cloud storage facility was deployed by the firm (Aeon) by hiring services of a cloud service provider (Netmagic). The firm (Aeon) therefore, administered the system and had complete control over the IDMS data. Thus, there was no system in the SNT to prevent the private agency (Aeon) from manipulation or misuse of the IDMS data. The SNT also had not formulated any strategy for data storage, data management, data security and continuity of business after conclusion of agreement and exit of the firm from business.

2.4.9.5 Monitoring and Supervision

Regular monitoring of functioning of various wings of the SNT by its top management was a necessary part of the management's responsibility with a view to ensure proper functioning of the depots, booking offices, workshops, weighbridges, check-posts, discharge of delegated duties by subordinate officers and staff and fulfilment of targets set by the Department.

Audit observed the following inadequacies:

- The SNT had not laid down mechanism for regular monitoring of various activities of the Department. It could not provide copies of manuals, office orders, circulars, notifications relating to establishment of monitoring mechanism and also copies of reports and returns relating to monitoring of various activities of the Department.

- The SNT had not maintained any Assets Register containing consolidated assets of the Department like land, buildings, machinery, equipment, vehicles etc. In the absence of such consolidated record, it was not clear how the SNT management monitored utilisation of the assets and their upkeep and vigilance. The SNT had also not laid down any norm for mandatory checking of its vehicles to ensure their fitness before undertaking journeys.

- The SNT had not established any mechanism to continuously monitor its functioning and provide guidance to achieve its objectives. The SNT had also not established any grievance redressal mechanism to address complaints/grievances from clients/passengers using SNT services.

- The GoI, while sanctioning (March 2013) the IDMS project, had specifically stressed that the State Government should monitor implementation of the IDMS project through a Monitoring Committee. Although the SNT constituted (May 2013) a monitoring committee consisting of two members, one from FRED and the other from the Information Technology Department, the SNT could not furnish any report on monitoring of the IDMS project by the Committee. Negligence in monitoring the implementation of the IDMS project resulted in delay in execution of the project besides failure to ensure installation of GPS system, speaker system, LED signage, etc. in the vehicles. Inadequate monitoring of the IDMS also resulted in absence of authentication of data entered at the depots, workshops and check-posts resulting in non-uniform and incorrect entries which rendered the data captured by the system unreliable.

The SNT stated (October 2017) that since the IDMS project was launched on trial basis, certain errors were obvious. However, the errors were being taken care of. Further, the monitoring of operations of the SNT was being done from the IDMS control room which was being carried out in shifts.

The SNT however, did not comment on slackness of overall monitoring system in the Department as indicated by non-existence of monitoring and grievance redressal mechanism, absence of departmental code and manual, non-maintenance of assets registers, etc.

2.4.10 Conclusion

The Sikkim Nationalised Transport (SNT) had not prepared a long term plan and strategy keeping in perspective its mandate. As a result, no specific targets had been set for various its functions. The SNT was unable to meet the huge demand of public transport in the State despite its virtual monopoly within the State on public bus transport.

The SNT incurred huge recurring expenditure (₹ 213 crore) on salaries, allowances, office expenses, repair and maintenance which constituted 97 per cent of the budgeted expenditure, while only 3 per cent of the budgeted expenditure of ₹ 220.15 crore was spent on creation of assets. Although, there was slump in revenue collection during 2013-15, the SNT improved its earnings from 2015-16 onwards and made revenue collection of ₹ 48.76 crore in 2016-17.

Supervision charge, a non-transport revenue, which the SNT imposed on load carrying private trucks/tankers crossing the border check-posts at Rangpo and Melli constituted upto 57 per cent of the total revenue. The SNT was found lagging with regards to weighing load carrying vehicles at the check posts for determining weight of load and realising appropriate supervision charges. The weigh bridges installed at the check-posts at substantial cost were mostly non-functional. Further, supervision charges were not

being collected from private trucks within the State carrying sand, stone, stone aggregates, etc., leading to loss of revenue.

The Integrated Depot Management System, which was expected to contribute substantially to improve operational efficiency of the Sikkim Nationalised Transport had not delivered the desired result. There was no scope in the Integrated Depot Management System to capture many vital data required for monitoring the functions of the Sikkim Nationalised Transport by the top management. There were instances of incorrect data feed due to absence of standardised mode of data entry and data authentication. Reliability of available data in the system was therefore low.

2.4.11 Recommendations

The Government/Sikkim Nationalised Transport may consider the following recommendations:

- Laying down policy, vision, mission and road map for long term perspective plan with a view to make operations of the Sikkim Nationalised Transport sustainable.
- Initiate steps to improve fleet utilisation, vehicle productivity and enroute monitoring of its buses to enhance traffic revenue from passenger bus service.
- Initiate steps to establish a system for collecting supervision charges from private goods carrying vehicles within the State.
- Initiate steps to ensure Weighs-in-Motion (WIM) installed at the check-posts are made functional round the clock by providing specialised and dedicated manpower for monitoring and upkeep.
- Institutionalise a mechanism for proper management of the Sikkim Nationalised Transport's operations by making Integrated Depot Management System reliable through ensuring entry of all required data, standardisation of process of entering data and ensuring data security and business continuity.
- Institutionalise a system for fixing specific targets for various functional wings of the Department and ensure achievement of targets by establishing a systematic and well laid down monitoring mechanism.

ANIMAL HUSBANDRY, LIVESTOCK, FISHERIES AND VETERINARY SERVICES DEPARTMENT

2.5 Idling of feed mills and consequent non-production of fish feed

Delay in installation of power supply resulted in idling of Fish Feed Mills worth ₹ 1.16 crore for more than three years and led to non-production of fish feed of ₹ 12.00 crore.

The Directorate of Fisheries under Department of Animal Husbandry, Livestock, Fisheries and Veterinary Services established two Automatic Floating/Sinking Fish Feed

Mills at Rangpo and Rothak with a production capacity of 100 to 150 kgs feed per hour each for the development of Carp and Trout Fish Farm in the State. The project at Rangpo was completed (December 2013) at the total cost of ₹ 0.58 crore which was funded by National Fish Development Board (NFDB) and the project at Rothak was completed (February 2015) at the total cost of ₹ 0.58 crore funded by Rastriya Krishi Vikash Yojana (RKVY). The machinery/equipment of both the Fish Feed Mills were automatic and required power connection for operation. However, the provision for electrification services was not included in the estimate prepared. Instead, the Directorate requested (March 2014) the Energy and Power Department for electrical connection of 100 KW at the Feed Mills which was not provided as of March 2017. Despite completion of the projects at a cost of ₹ 1.16 crore, the feed mills at Rangpo and Rohtak could not be operationalised and remained idle for 36 months and 24 months respectively due to delay in obtaining power supply. This also led to non-production of minimum 600 tons of fish feed worth ₹ 12.00 crore[37] during the period from April 2014 to March 2017.

The Department stated (August 2017) that funds for electrification had since been made available with electrification expected to be completed within September 2017 and that the mills would be operational by the end of the year. However, the fact remained that due to idling of the mills, the Department failed to produce fish feed worth ₹ 12 crore.

FOOD SECURITY AND AGRICULTURE DEVELOPMENT DEPARTMENT

2.6 Irregular expenditure

Setting up of a new bio-fertiliser production unit at a cost of ₹ 1.29 crore at the same site of an existing unit whose products the Department was unable to utilise was unwarranted. This was also irregular as the approval from the national mission for sustainable agriculture was for state of art bio-pesticide unit and not for bio-fertiliser unit.

The Food Security and Agriculture Development Department established (2008) one Bio-fertiliser Production Unit at Mazitar Farm, East Sikkim at a cost of ₹ 0.61 crore with an annual production capacity of 150 MTs and with further scope of augmenting the capacity under financial assistance from NEC (90 *per cent* grant and 10 *per cent* loan). The objective was to produce bio-fertilisers using local strains and to make this input easily accessible to the farmer. The Department's initial effort to operate the unit by providing training to two Village Level Workers did not work as qualified technical expert/Micro-biologist was required for running the plant and marketing additional products after meeting the State's requirement became difficult.

[37] *Taking into account production capacity 100 kgs per hour (minimum), production cycle of 150 days per year, production hour per day 8 hours and rate of feed ₹ 200 per kg (lowest rate of SIMFED). (Therefore 100 kg x 450 days x 8 hours = 360000 kg @ ₹ 200 per kg = ₹ 7.20 crore for Rangpo Mill) + (100 kg x 300 days x 8 hours = 240000 kg @ ₹ 200 per kg = ₹ 4.80 crore for Rothak Mill): Total ₹ 12.00 crore. (Calculation based on production cycles provided by the Directorate to the NFDB while sending proposal.)*

In order to make this unit viable and to make the products available within the State, the Department proposed to lease it out (November 2011) to the International Panaacca Ltd, New Delhi for a period of 15 years based on the highest lease rent of ₹ 10.06 lakh per annum offered by the Company. However, this did not materialise as the rate of the finished product fixed by the Department was not acceptable to the Company. The Department thereafter called for fresh tender (May 2012) and on the basis of highest lease rent of ₹ 18 lakh per annum, the Unit was leased out to M/s Balaji Crop Care Private Ltd (BCCPL) for 15 years. However, after completion of 16 months of the lease period, BCCPL intimated (18 September 2013) that the Department had not placed any order for supply of bio-fertilisers/bio agri inputs although the company had manufactured 15 MT of nutria pack organic manure. BCCPL also assured for payment of second year lease rent of ₹ 18.00 lakh after the supply starts. Despite the assurance by the BCCPL, the Department unilaterally cancelled (October 2013) the extension of lease to BCCPL and again called for fresh tender (February 2014) and bio-fertiliser unit was leased out to Vandeep Green Globe Ventures Pvt. Ltd, Hyderabad at the highest lease rent of ₹ 9.00 lakh per annum for 5 years. The MOU was accordingly signed (16 October 2014) between the Company and State Government.

Audit noticed that instead of placing the indents for demand of bio-fertiliser/bio-agri inputs to BCCPL which had the stock of 15 MT of nutria pack organic manure, the Department procured the same from SIMFED for ₹ 2.92 crore (September 2013 to March 2014) without any recorded reason.

Besides, the Department established (February 2016) another new bio-fertiliser production unit at the same place (Mazitar) with an installed capacity of 150 tonnes per annum incurring an expenditure of ₹ 1.29 crore (equipment: ₹ 1.00 crore and construction: ₹ 0.29 crore) from the National Mission for Sustainable Agriculture (NMSA), a 100 *per cent* CSS meant for setting up of a State of art liquid bio-pesticide unit.

Further, it was noticed that under Rastriya Krishi Vikas Yojana (RKVY), the Department took approval from GoI for establishment of bio-fertiliser and bio-pesticides production unit and obtained sanction of ₹ 1.62 crore in 2015-16. However, work had not started (December 2016) due to non-finalisation of land.

Expenditure of ₹ 1.29 crore for establishment of bio-fertiliser unit from NMSA fund was irregular as the NMSA's approval was for establishment of a 'State of art bio-pesticide unit' and not a bio-fertiliser unit. Besides setting up of a new bio-fertiliser unit rather than utilising/maintaining the existing production unit and instead procuring bio-fertiliser from SIMFED for ₹ 2.92 crore was unwarranted.

The Department stated (December 2017) that (i) the lease with BCCPL was cancelled as the Company failed to pay lease amount even after grace period of several months; (ii) the 15 MT nutria produced by the company was not indented as they were nearing expiry (being produced in early 2012-13) and constituted only a fraction of the Department's total requirement; (iii) the Department had to establish another unit in 2016 as most of the equipment of the old unit had become obsolete and equipment for liquid bio-fertiliser and

liquid bio-pesticide units were similar with production depending on raw materials only; and (iv) the third unit was proposed to cater to South and West districts and production from all the three units was not sufficient to meet the entire State's requirement (over 600 MT).

However, the fact remained that the old unit was not put to any productive use by the Department resulting in the Department procuring bio-fertiliser from SIMFED instead of procuring the same through the bio-fertiliser unit.

ROADS AND BRIDGES DEPARTMENT

2.7 Avoidable payment

Delay in execution/completion of work due to prolonged tendering process and belated action for obtaining statutory clearances for encumbrance free land and shifting of power and electrical utilities led to avoidable payment of cost escalation of ₹ 1.40 crore.

The Ministry of Development of North Eastern Region sanctioned (18 August 2011) "Widening, reconstruction and upgradation of State Highway from Manpur to Nayabazar (Sk-01) and Nayabazar to Namchi (Sk-02) roads (29.2 km)" at a cost of ₹ 95.39 crore (Centre: ₹ 89.01 crore and State: ₹ 6.38 crore) under Asian Development Bank (ADB) assisted 'North Eastern State Roads Investment Programme (NESRIP)'. The GoI entered into Loan Agreement with the ADB on 9 July 2012 for funding of the project as per which the State Level Executing Agency (SEA) was to obtain all necessary statutory clearances such as environmental clearances, forest clearances and No Objection Certificate (NOC) from the relevant State and Central level agencies prior to commencing any civil work.

The Project Director, Project Implementing Unit, NESRIP, Sikkim under the Roads and Bridges Department tendered (11 December 2011) the civil work (₹ 62.92 crore). The work was awarded (15 September 2012) to M/s BVSR Construction Pvt. Ltd., Hyderabad at a contract price of ₹ 69.68 crore to be completed within 18 months. The work commenced on 28 March 2013 and was to be completed by September 2014. However, the contract was initially extended till 19 May 2016 for 20 months and proposal for further extension till 26 June 2018 was forwarded to Ministry. As of July 2017, ₹ 28.72 crore had been paid to the contractor. As per the contract, the amount payable to the contractor was to be adjusted in respect of rise or fall in the indexed cost of labour, contractor's plants and equipment, material and other inputs to the works by addition or subtraction.

Though work was scheduled for completion by 28 September 2014, the financial and physical progress as of March 2017 was only 44 and 48 *per cent* respectively and it was expected to complete by June 2018, i.e. more than 3½ years beyond schedule.

Due to this delay, ₹ 2.47 crore was paid towards cost escalation due to rise in various costs till October 2016 as per conditions of contract. This included ₹ 1.40 crore for

escalation cost relating to period from October 2014 to October 2016, i.e. after scheduled completion date of September 2014. The cost escalation of ₹ 1.40 crore could have been avoided had the Department completed the work within the scheduled date. Scrutiny of records revealed (June 2017) that the delay was due to belated action by Department at various stages as stated below:

(a) *Commencement of work*: Though project was sanctioned in August 2011, tender was floated only in December 2011 and work awarded nine months later (September 2012). The work finally commenced in March 2013, after 19 months of sanction of the project. The delay in awarding and commencement of project was due to delayed evaluation of bids (July 2012) and subsequent delay in obtaining Cabinet approval (August 2012).

(b) *Providing encumbrance free land*: The Department requested the Energy and Power Department (EPD) for shifting of electrical utilities existing along the project areas only in October 2012 for which fund of ₹ 224.95 lakh was transferred to the EPD during March 2013 to September 2015[38]. Similarly, request to Water Security and Public Health Engineering Department for shifting of water utilities was made only in October 2012 and fund transferred during April 2013 to October 2015[39]. Thus, the Department could handover only 33 *per cent*[40] of encumbrance free land for road length of Section SK-02 to the contractor before the scheduled completion date.

(c) *Environmental clearance*: Though Department obtained *in-principle* approval for diversion of forest land measuring 3.636 hectare during 2008, final approval was obtained after award of work only in July - November 2012. Also while request for felling of trees was made to the Forest, Environment and Wildlife Management Department in September 2015 and fund transferred during November 2015 to January 2017[41], the approval for felling of trees was obtained only in December 2016 and marking orders issued in January 2017. Approval for Environment clearance, the process for which was initiated in May 2013, was obtained only in May 2014.

Thus, the Department did not adhere to the provision of the loan agreement and initiated the tendering/execution of the works without obtaining all the statutory clearances, which could not be provided even after lapse of the original scheduled completion date leading to delay in completion of work. This not only resulted in avoidable payment of cost escalation of ₹ 1.40 crore[42] (October 2014 to October 2016), but also caused disruption in road connectivity.

The Department in an initial reply accepted (February 2017) that there was delay on its part to handover the encumbrance free land to the contractor due to environmental clearance, shifting of utility, etc. However, it did not respond on cost escalation of the project.

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[38] *March 2013: ₹ 50 lakh; July 2013: ₹ 25 lakh; January 2014: ₹ 5 lakh; September 2014: ₹ 20 lakh and September 2015: ₹ 124.95 lakh*
[39] *March 2013: ₹ 15 lakh; March 2014: ₹ 20 lakh and October 2015: ₹ 65.06 lakh*
[40] *As ascertained from Contractor's correspondence with the Project Director (ADB Projects)*
[41] *November 2015: ₹ 67.15 lakh and January 2017: ₹ 11.41 lakh.*
[42] *Total Escalation paid upto Interim Payment Certificate VIII: ₹ 2,46,69,355*
Escalation paid upto scheduled date of completion (27 September 2014) : ₹ 1,06,81,302
Escalation paid after scheduled date of completion: ₹ 1,39,88,053

The matter was reported to the Department (July 2017); reply was awaited (March 2018).

2.8 Avoidable liability

Failure to exercise due diligence by the Roads and Bridges Department in executing the deposit work led to abandonment of project by user agency and consequent unwarranted burden of ₹ 24.58 crore on the State exchequer.

The Sikkim Public Works Manual 2009 (SPWM), *inter alia*, envisaged levy of 9 *per cent* establishment charge and other departmental charges as applicable on Deposit works which was to be recovered in advance[43] from the user agency. Further, the agency on whose behalf the work was done was to be made to understand that the Department does not bind itself to complete the work within the amount of estimate and that the agency agrees to finance any excess that may occur. The transfer of funds or deposits should be realised before any liability is incurred on account of the work[44]. Estimate for road works should invariably include 'No Objection Certificate' from the landowners[45], and before approval of Notice Inviting Tender (NIT), availability of site and funds should be ensured[46].

Himagiri Hydro Energy Private Limited (HHEPL), a private hydropower project developer involved in development of the Panan hydropower project in North Sikkim approached (February 2009) Roads and Bridges Department (RBD) with a proposal for improvement/upgradation of the road from Sankalang Bridge to Lingzya village in North Sikkim which included widening/upgradation of existing road (10 Km) and construction of two bridges en-route. The project was to be undertaken as a deposit work with 100 *per cent* funding from HHEPL. After working out (May 2009) the project cost at ₹ 14.96 crore[47] and floating NIT (July 2009), the RBD entered into a Memorandum of Understanding (MOU) with HHEPL on 5 October 2009.

In terms of the MOU, the HHEPL entrusted the work to RBD to be completed within one and half year from date of award of work at a total cost of ₹ 15.65 crore *(including the tender premium)*. The MOU, inter alia, envisaged the following:

- The cost of work was all inclusive and any upward revision was not allowed. The entire cost of works would be met from the total amount provided for the works in the MOU (unless there was a natural calamity).
- The RBD would insure both the bridges and the road during the construction stage as well as after commissioning against all possible risks.

Work order for the civil portion of the project was issued (14 October 2009) to the lowest bidder (S. K. Agarwal) at a value of ₹ 13.16 crore at 20 *per cent* tender premium with completion within 18 months i.e. by April 2011.

[43] *SPWM Clauses 35.4 & 35.7.*
[44] *SPWM clause 35.9*
[45] *SPWM Clause 4.12(i)*
[46] *SPWM clause 10.4*
[47] *Improvement/widening of road ₹ 8.36 crore & Construction of two bridges ₹ 6.60 crore.*

The contractor stopped work in August 2013 due to failure of the Department to make the site available and non-payment of bills. The Department could only obtain forest clearance and clearance from private land owners more than two and half years after issue of work order, much after the stipulated completion period. In April 2015, the contractor issued legal notice to the Department to clear his dues with cost escalation of 7.5 *per cent* besides compensation of ₹ 50 lakh towards cost incurred on idle labour, plant and machinery. HHEPL on its part stopped releasing funds to the Department after initial release of ₹ 6.33 crore from October 2010 to March 2013 on the grounds of tardy progress of work and failure to obtain timely insurance of roads/bridges by the Department.

In December 2015, the Department moved a proposal for revision of estimate of the project citing non-inclusion of sufficient quantities of hill cutting works, protective walls, drainage works, pavement works, absence of provision of launching of two steel bridges in the original estimate and cost escalation of 7.5 *per cent* per annum over a six-year period (2009-16). The project cost was accordingly revised from ₹ 15.65 crore to ₹ 30.91 crore. Audit, however, noticed that all the items of works which were revised were foreseeable and could have been included in the original estimate itself had due diligence been exercised at the time of framing the original DPR.

Since the Department failed to obtain further funds from the HHEPL, it was decided (March 2016) to take up the work under State plan through the same contractor. As of March 2017, the Department had incurred ₹ 13.54 crore on the project.

Thus, absence of due diligence in framing the estimate and inordinate delay in making the site available led to unwarranted burden of ₹ 24.58 crore on the State Plan due to upward revision of project cost and unwarranted cost escalation of over ₹ 5.64 crore.

The matter was reported to the Department (August 2017); reply was awaited (March 2018).

RURAL MANAGEMENT AND DEVELOPMENT DEPARTMENT

2.9 Excess payment

There was excess payment of (i) ₹ 0.60 crore to the contractor on haulage charge of non-stock material and (ii) ₹ 0.64 crore towards labour on resizing and carriage of stones beyond requirement despite availability of stone at the work site.

A) Payment towards haulage charges

Pradhan Mantri Gram Sadak Yojana (PMGSY) works were executed based on State Schedule of Rates (SoR). One of the components under carriage of non-stock material paid for carriage of stone and sand, was haulage charges. The SoR had various rates for haulage depending on types of works. Some rates were for per cubic meter and some were for per ton of non-stock material. Haulage was calculated by multiplying the quantity of non-stock material, distance transported from the quarry to work site and

applicable rate as per SoR. However, if the rate applicable was on per ton basis and quantity of sand/stone executed was in cubic meter, the quantity executed was converted to ton by multiplying by 2 or 2.2 in case of sand or stone respectively before applying rate on per ton basis.

Scrutiny of records revealed (March 2017) that in respect of seven PMGSY road works (during 2013-14 to 2016-17) the Department allowed carriage of 39,313.24 cum of non-stock material for which 11,74,054.30 cum and 12,81,462.54 ton of haulage was allowed against the required 7,69,007.84 cum and 8,97,972.15 ton of haulage to the contractors i.e. an excess haulage of 4,05,046.46 cum and 3,83,490.39 ton. This resulted in excess payment of ₹ 0.60 crore (**Appendix 2.9.1**) to the contractors on account of excess carriage of haulage for non-stock material as tabulated below:

Table 2.9.1
Details of carriage and haulage of non-stock materials

Quantity of work executed (in cum)	Actual haulage that should have been allowed	Haulage on carriage allowed	Excess haulage allowed	Excess payment made to contractors by the Department (₹ in lakh)
20982.74	7,69,007.84 cum	11,74,054.30 cum	4,05,046.46 cum	42.96
18330.50	8,97,972.15 ton	12,81,462.54 ton	3,83,490.39 ton	17.23
39,313.24				**60.19**

Thus, due to allowing excess haulage on carriage of non-stock material to the contractors, there was an excess payment to the tune of ₹ 0.60 crore.

(B) Payment towards labour and carriage charges on stone

Scrutiny of records (March 2017) relating to the work 'Construction of Rural Connectivity Road from Maney Sisney to Thoker Reghu,' revealed that the contractor was paid (2016-17) in excess of the actual requirement of the total quantity of work requiring stones for various item of works. Audit noticed that the Department made labour payment for breaking and resizing of 27,490.44 cum @ ₹ 142.62/cum amounting to ₹ 0.39 crore from usable stone retrieved from hill cuttings and also made payment for carriage of stone for civil works amounting to ₹ 0.36 crore. However, the total requirement of stone for the civil works executed was only 7,874.23 cum which could have been met from the usable stone retrieved from the hill cutting by spending ₹ 0.11 crore (7,874.23 cum @ ₹ 142.62/cum). This led to an excess expenditure of ₹ 0.64 crore to the contractor as shown in the table below:

Table 2.9.2
Details of labour payment and carriage charges to the contractor

Particulars	Quantity	Amount
Labour payment to the contractor for breaking and resizing of usable stone retrieved from hill cutting	27490.44 cum @ ₹142.62/cum	₹ 39,20,687
Payment of carriage of stone for civil works		₹ 36,41,339
Total amount paid to the contractor for stone		₹ 75,62,026
Less - Total quantity of stone and amount required for the civil work executed	7874.23 cum @ ₹ 142.62/cum	₹ 11,23,023
Excess payment to the Contractor		₹ 64,39,003

Thus, payment of excess haulage charge and payment for extra labour charge on breaking and resizing and carriage of stone resulted in excess payment of ₹ 1.24 crore to the contractor.

The matter was reported to the Department (August 2017); reply was awaited (March 2018).

URBAN DEVELOPMENT AND HOUSING DEPARTMENT

2.10 Avoidable cost escalation

Lack of proper planning to provide encumbrance free site prior to issue of work order resulted in delay in commencement of the work leading to cost escalation of ₹ 1.22 crore.

Para 5.1 of the Sikkim Public Works (SPW) Manual, 2009 envisaged that on receipt of technical sanction to the estimate, action should immediately be initiated for taking possession of land acquired by the Government for the purpose and preparation of draft Notice Inviting Tender (NIT). Further, Para 10.4 of the Manual provided that before approval of NIT, the availability of site should be ensured.

Thus, it was the responsibility of the Department to ensure proper planning viz. availability of encumbrance free site, forest clearance, availability of funds, etc. before any project was submitted to the Government for sanction so that the project commenced immediately on receipt of sanction from the Government. This would facilitate hindrance free execution of work/project and avoid delay in execution and cost overrun.

The work *"Construction of Kissan Bazaar at Namchi, South Sikkim"* was sanctioned (March 2011) by the GoI at an estimated cost of ₹ 28.26 crore based on SoR 2006 under Additional Central Assistance/Special Plan Assistance funding to be shared between Centre and the State Governments in the ratio of 90:10 (i.e. Centre: ₹ 25.44 crore and State: ₹ 2.82 crore).

Scrutiny of records revealed (January 2017) that the civil portion of work valuing ₹ 13.48 crore was tendered (July 2011) and the lowest tendered rate of ₹ 17.26 crore which was 28 *per cent* above the estimated cost offered by a Namchi based contractor[48] was accepted (November 2011). The work order was issued (29 November 2011) with stipulation for completion within 36 months (i.e. by 28 November 2014). However, the proposed work site was under the custody of Sikkim Police who did not vacate the land immediately as four units quarter and two units of Police barrack fell within the work site. Sikkim Police finally gave their consent for dismantling the structures in July 2013 by which time the commencement of the work was delayed by more than 20 months.

[48] *Shri Mahabir Prasad Agarwal*

Citing the delay in the commencement of the work due to non-providing of encumbrance free work site, the contractor demanded (April 2013) for grant of differential cost of stock material and labour due to hike in market rate during the intervening period of November 2011 (date of issue of work order) to July 2013, which was accepted (September 2013) by the Department. The differential cost was worked out to ₹ 1.22 crore. Accordingly a revised work order of value of ₹ 18.48 crore (₹ 17.26 crore plus ₹ 1.22 crore) was issued (1 October 2013) with stipulation for completion within October 2016 (36 months). However, as of May 2017, the project was under execution with physical and financial progress of the work at 75 *per cent* and 60 *per cent* respectively. Work valuing ₹ 11.29 crore was completed till March 2017 against which payment of ₹ 11.09 crore[49] was made (20 March 2017) inclusive of differential cost amounting to ₹ 74.39 lakh.

Thus, lack of proper planning by the Department to provide encumbrance free site to the contractor before issue of work order, led to extra cost of ₹ 1.22 crore in construction of Kissan Bazaar at Namchi, out of which, ₹ 74.39 lakh was already spent till March 2017. Besides, non-completion of the project despite extension of stipulated completion date by two years (from November 2014 to October 2016) also denied the kissan (farmers) of the locality of timely benefit from the project.

The Department accepted the observation and stated (January 2017) that Sikkim Police took considerable time in relocating the Police Station and other infrastructures to a suitable location. It further added that it had to consider the claim of the contractor due to delay in providing hindrance free site to the contractor. Thus, lack of proper planning to ensure acquisition of land before floating of NIT resulted in delay in commencement of the work for more than 20 months.

2.11 Avoidable expenditure

Failure to award the declaration under Section 11 of the Land Acquisition Act, 1894 due to absence of budgetary provision for land acquisition and subsequent revision of compensation resulted in avoidable committed liability of ₹ 23.73 crore.

Land Revenue and Disaster Management Department (LRDMD) was responsible for acquisition of land required by Government departments for implementation of various projects/schemes as well as land required by other agencies. While acquiring land from the public, the LRDMD applied two different methodologies for determination of rates for land compensation depending upon the landowner's willingness or otherwise. Where the landowner was willing to sell, the rate notified by the Government (LRDMD) from time to time based on the agriculture productivity was applied. In the event of the landowner not willing to sell the land, acquisition was effected after determining the prevailing market rate in terms of Section 23 of the Land Acquisition (LA) Act, 1894. In such an event of compulsory acquisition, the landowner was entitled to a sum of 30 *per cent* of market value of land as solatium in addition to market value of land as incentive.

[49] *₹ 9.22 crore (7th RA bill vide Vr. No. 13 dated 28.12.2016 + ₹ 1.87 crore i.e. Adhoc payment on 8th RA bill vide Vr. No. 06 dated 20.03.2017)*

The Government of India (GoI) implemented The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLRR) Act, 2013 with effect from 27 September 2013 repealing the LA Act, 1894. According to Sub-Para (a) of Para 24(1) of the Act (2013), in any case of land acquisition, proceedings initiated under the LA Act, 1894, where no award under Section 11[50] of the said Act had been made, all provision of the Act (2013) relating to the determination of compensation shall apply. Further, Para 30(1) of the new Act provided for payment of solatium equivalent to one hundred *per cent* of the compensation amount against 30 *per cent* provided in the LA Act, 1894. The State Government implemented the Act of 2013 in the State with the publication (13 October 2015) of The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Sikkim) Rules, 2015.

Urban Development and Housing Department's proposal to acquire land belonging to two landowners measuring 1.7258 hectare at Rangpo for the purpose of Basic Service for Urban Poor project and creation of Town Hall/Amusement Park was approved by the Government in March 2011. Assessment of land compensation of ₹ 5.22 crore[51] was forwarded (October 2012) by the LRDMD to the Department with the request to release ₹ 4.02 crore (80 *per cent*) for disbursement to the landowners. Audit noticed that despite having the land acquisition proposal approved (March 2011), the Department had not made any provision for it in its budget till 2014-15. Hence, it transferred ₹ 3.92 crore to LRDMD in October 2013 with loan from State Bank of India (SBI CAP Loan) leaving a balance of ₹ 1.30 crore. The Department proposed for allocation of fund for compensation in its supplementary budget in September 2014 but no funds were provided.

While the Department failed to release the balance payment of compensation of ₹ 1.30 crore, the landowners through legal notice (12 August 2014) requested the Department for revision of compensation as per RFCTLRR Act, 2013 along with interest and immediate release of compensation. Considering the landowners' request, the LRDMD forwarded revised assessment of compensation of ₹ 4.62 crore in September 2016 to the Department by adding 12 *per cent* interest on balance payment of ₹ 1.30 crore till July 2015 and increased the solatium from the original 30 *per cent* to 100 *per cent* in accordance with RFCTLRR Act, 2013. Dissatisfied with the revised compensation and also due to non-release of compensation by the Department, the land owners again requested (8 June 2016) for revision of land compensation. As the award under Section 11 of the LA Act, 1894 was pending till implementation of the RFCTLRR Act, 2013, the LRDMD revised (June 2017) the compensation to ₹ 28.84 crore (land compensation: ₹ 24.64 crore @ ₹ 663.19 per sq. ft. and interest on delayed payment: ₹ 4.20 crore) excluding ₹ 0.99 crore towards establishment charges.

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[50] *Section 11 of LA Act, 1894 provides for the Collector to make an award of true area of land to be acquisitioned, compensation to be allowed and apportionment of such compensation among persons believed to be interested in the land after making inquiry into the objection (if any) which any person interested has stated.*

[51] *Cost of land @ ₹ 208/sft for 1.7258 hectare: ₹ 3,86,39,144 + 30 % Solatium: ₹ 1,15,91,743 + Contingent/Establishment charges @ 4 %: ₹ 20,09,235 + Capitalised value of LR: ₹ 346 = ₹ 5,22,40,468.*

Thus, delay in release of balance compensation of ₹ 1.30 crore resulted in additional burden to the State exchequer of ₹ 23.62 crore (₹ 28.84 crore – ₹ 5.22 crore excluding contingency charge). As of June 2017, the Department had released ₹ 5.11 crore (October 2013: ₹ 3.92 crore and September 2016: ₹ 1.19 crore) leaving a balance of ₹ 23.73 crore.

Thus, the Department acquired land without ensuring funds and did not propose/provide necessary funds in the budget. Despite invoking (May 2012) compulsory clause under Section 23 of LA Act, 1894, there was inordinate delay in declaration of award under Section 11 of the LA Act, 1894 resulting in avoidable committed liability of ₹ 23.73 crore on account of revision of land compensation as per RFCTLRR Act, 2013. Besides, this also led to blockade of Government fund of ₹ 3.92 crore for more than three and half years as creation of Town Hall and Amusement Park had not been started.

In an interim reply, the Department stated (January 2017) that 75 *per cent* of the cost was already paid to the landowners from the funds available from the SBI CAP loan component. The balance amount was requested every year to the Government during annual budget and the supplementary demand for grants. However, no funds were provided. The fact however, remained that the Department could have paid the balance of ₹ 1.30 crore out of funds (₹ 3.57 crore) transferred to the LRDMD for payment of compensation to other areas (Majwa, Rangpo and Tadong blocks) which were lying idle (February 2013) with the LRDMD (District Collector, East) due to de-acquisition.

Responsibility for inordinate delay in payment causing extra financial burden of ₹ 23.62 crore may be fixed. The angle of collusion of officials of LRDMD with land owner to extend financial benefits for personal gains may also be investigated.

The matter was reported to the Department (August 2017); reply was awaited (March 2018).