Chapter II Economic Sector

CHAPTER II ECONOMIC SECTOR

2.1 Introduction

This Chapter of the Audit Report deals with audit observations on the 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 2018-19 are given in the table below:

			(₹in crore)
Sl. No.	Name of the Department	Total Budget Allocation	Expenditure
1	Animal Husbandry & Veterinary Services Department	75.86	66.02
2	Buildings and Housing Department	81.08	65.75
3	Commerce and Industries Department	75.28	45.93
4	Co-operation Department	16.87	16.68
5	Power Department	300.45	269.82
6	Agriculture Department	106.14	92.01
7	Forest & Environment Department	178.95	142.91
8	Horticulture Department	168.93	105.75
9	Water Resources Department	175.64	83.03
10	Mines & Geology Department	6.34	6.33
11	Roads and BridgesDepartment	569.20	497.12
12	Rural Development Department	993.04	745.19
13	Tourism and Civil Aviation Department	108.92	81.53
14	Transport Department	75.62	75.10
15	Urban Development Department	293.71	245.49
16	Public Health Engineering Department	143.09	88.94
17	Food & Civil Supplies Department	37.67	21.11
	TOTAL	3406.79	2648.71

Table 2.1: Details of budget allocation and expenditure

Source: Appropriation Accounts 2018-19.

Besides, the Government of India (GoI) had been transferring funds directly to the implementing agencies under the Economic Sector. The major transfers for implementation of flagship programmes of the Central Government are detailed below:

Sl. No.	Name of the Department	Name of the Scheme/Programme	Implementing Agency	(₹in crore) Funds transferred during the year
1	Forest & Environment Department	Establishment Expenditure AYUSH	State Forest Development Agency, Sikkim	291.14
2	Urban Development Department	TransportPlanningandCapacityBuildinginUrban Transport	Sikkim Urban Development Agency	46.44
3	Commerce and Industries Department	Industrial Research and Development	Shri Abhijeet Sharma	0.38
	D ' A C	1	337.96	

Table 2.2:	Details of funds	directly transferred t	to the implementing agencies
	Determs of Funds		······································

Source: Finance Accounts 2018-19

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 required to furnish replies to the audit findings within one month of receipt of the IRs. After receiving the replies, audit findings are either settled based on reply/action taken or the audited entities requires to take further action 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 for taking further appropriate action.

Test audits were conducted involving expenditure of ₹ 38,67.93 crore (including expenditure of ₹ 927.97 crore of previous years) of the State Government under Economic Sector.

This Chapter contains one Performance Audit on **"Development and Maintenance of Highways and Other Roads in Sikkim"** and two Compliance Audit Paragraphs.

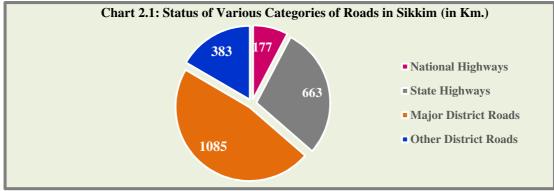
ROADS AND BRIDGES DEPARTMENT

2.3 Performance Audit on Development and Maintenance of Highways and Other Roads in Sikkim

2.3.1 Introduction

Sikkim is a landlocked State comprising of young and fragile mountains and crisscrossed by rivers, streams and water springs. The State shares international boundary with China in the North, Bhutan in the East and Nepal in the West. In the absence of railways, waterways and airways, roadways are the only means of transportation. The roads are crucial for economic development as they are the lifeline of industrial and tourism activities. The responsibility for development and maintenance of roads and bridges in Sikkim is assigned to Roads and Bridges Department (RBD), except for border roads. RBD's vision is to create well developed network of roads, bridges and other transport infrastructure facilities for improved productivity and economic efficiency of transport that will act as a catalyst to expedite the development of the State of Sikkim.

The RBD maintains 2,308.52 kms of roads {National Highways (NHs) - 177 kms, State Highways (SHs) - 663 kms, Major District Roads (MDR) - 1,085 kms and Other Districts Roads (ODR) - 383 kms} as on 31 March 2019 as shown in **Chart-2.1**:



Source: Annual Report of RBD for year ended March 2019.

Sikkim RBD constructs and maintains the SHs, MDRs and ODRs and the expenditure on maintenance of NHs is reimbursed by Ministry of Road Transport and Highways (MoRTH), GoI.

A total number of 227 projects at a sanctioned cost of ₹ 3154.17 crore, under 13 schemes (GoI: 10, State Fund: two and EAP⁶: one) were either completed or ongoing during 2014-19, including projects sanctioned prior to 2014-15 (**Appendix-2.1**). The expenditure incurred on these 13 schemes, during the period was ₹1,371.74 crore⁷. Out of the 10 schemes funded by GoI, seven schemes were funded through grants while other three schemes were funded through borrowings, from NABARD and HUDCO.

⁶ Externally Aided Project

⁷ Departmental Figure

Out of the above 227 projects, 142 projects (sanctioned cost ₹2,176.43 crore) were sanctioned during the audit period, out of which 25 projects were completed and 117 works were ongoing with expenditure of ₹750.74 crore. The status of these 142 projects is given below:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total	Total Expenditure
Total Projects (in numbers)	12	04	09	35	82	142	750.54
Completed (in numbers)	01	Nil	01	06	17	25	114.05
Ongoing (in numbers)	11	04	08	29	65	117	636.49
Estimated Cost (<i>₹in crore</i>)	47.45	36.99	210.54	419.96	1,461.49	2,176.43	
Expenditure (₹in crore) (March 2019)	27.62	26.54	98.15	272.52	325.71	750.54	

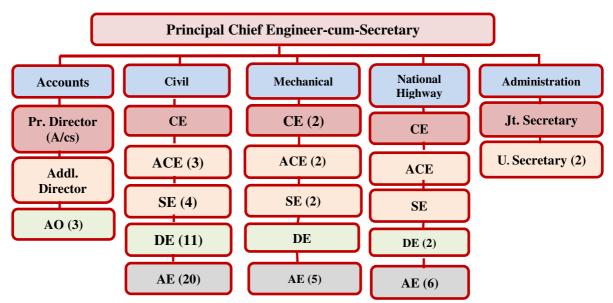
Table 2.3.1: details of projects sanctioned 2014-15 to 2018-19

Source: Departmental figure (Monthly-progress Report)

2.3.2 Organisational structure

The Road and Bridges Department (RBD) is headed by a Principal Chief Engineercum-Secretary (PCES). It has five⁸ wings. The Principal Chief Engineers/Chief Engineers are the head of Engineering wings (Civil, Mechanical and National Highway), Principal Director is the head of the accounts wing and Joint Secretary is the head of the Administration Wing as shown in **Chart-2.2** below:

Chart-2.2



NH: National Highway; CE: Chief Engineer; ACE: Additional Chief Engineer; SE: Superintending Engineer; DE: Divisional Engineer; AE: Assistant Engineer; AO: Accounts Officer.

⁸ Accounts, Civil Engineering, Mechanical Engineering, National Highway and Administration.

2.3.3 Audit objectives

The Performance Audit was conducted to assess whether:

- planning for development and maintenance of highways and other roads in the State was comprehensive and adequate;
- financial management was effective and efficient to ensure availability of funds and proper budgetary and expenditure controls were in place;
- execution of works for development and maintenance of roads was as per plan, estimates and time schedule and carried out transparently, economically and efficiently
- > quality control and monitoring mechanism was adequate and effective.

2.3.4 Audit Criteria

The audit observations have been benchmarked against:

- Guidelines prescribed by MoRTH;
- Indian Road Congress (IRC) specifications;
- Guidelines issued by funding agencies from time to time;
- Sikkim Public Works Manual and Code;
- Sikkim Financial Rules;
- State Government notifications/circulars/orders.

2.3.5 Scope of Audit

The PA covered a period of five years from 2014-15 to 2018-19. The scope of audit included construction of new roads, up-gradation and strengthening of roads and maintenance of existing roads under RBD (except National Highway).Out of 227 projects under 13 schemes, nine⁹ schemes comprising 62^{10} projects (33 were funded under GoI grants/borrowings and 29 projects from State resources) were selected for examination in audit, based on the sampling method - Probability Proportionate to Size Without Replacement (PPSWOR) with size measure as total expenditure (*Appendix-2.2*).

In these 62^{11} projects, against a sanctioned cost of ₹1727.76 crore, an expenditure of ₹833.34 crore was incurred as on March 2019 (Completed: 12 of ₹96.26 crore and On-going 50 of ₹1,631.50 crore).

⁹ Non-Lapsable Central Pool of Resources (NLCPR), North East Council (NEC), Central Sponsored Schemes (CSS), NABARD Rural Infrastructure Development Fund (RIDF), NABARD Infrastructure Development Assistance (NIDA), Sikkim Transport Infrastructure Development Fund (STIDF), Externally Aided Project (EAP), State Earmarked Fund and Housing and Urban Development Corporation Limited (HUDCO).

¹⁰ 29 new constructions, 32 strengthening/up-gradation projects and one project related to 'Installation of Crash Barriers' across the State.

¹¹ East: 13, West: 19, South: 24 and North: 04, Construction of Fair Weather Road and Installation of Crash Barrier: One each (in entire State).

Particulars	Before 2014-15	2014-15	2015-16	2016-17	2017-18	2018-19	Total
No. of Projects sanctioned during the year	28	05	01	02	11	15	62
Sanctioned Cost	396.69	117.72	2.52	4.90	216.02	989.91	1727.76
Expenditure (March 2019)	329.00	72.87	2.64	3.98	153.43	271.42	833.34
Status (Completion/ On-going)	5 completed 23 On- going	01 completed 04 On-going	01 On- going	01 completed 01 On-going	02 completed 9 On-going	3 completed 12 On-going	12 completed 50 On-going

Table 2.3.2: Details of 62 projects selected for audit

2.3.6 Audit Methodology

The PA commenced with an Entry Conference (16 July 2019) with the PCES, RBD. This was followed by issue of requisition for records and information to various authorities in the RBD. Records relating to nine schemes were scrutinised at the office of the PCES, two Circle offices (Namchi and Gyalshing) and six¹² Divisional offices. Based on scrutiny of records, preliminary observations were issued to the Department and their replies obtained. The Audit team along with the engineers of RBD conducted physical verification of 19 road works. At the end of Audit, the draft report was shared with the PCES, RBD for obtaining their replies. On conclusion of Audit, Exit Conference (19 February 2020) with the PCES, RBD was convened. The PA report was finalised duly considering the replies during audit and views of RBD expressed during the Exit Conference.

2.3.7 Acknowledgement

The Office of the Principal Accountant General (Audit), Sikkim acknowledges the co operation and support extended by PCES, RBD, other senior officers of the Department in the Head Office and Divisional Engineers/Assistant Engineers in the District offices in carrying out the Performance Audit in a time bound manner.

¹² 1) Mangan, 2) Kaluk, 3) Soreng, 4) Ravangla, 5) Pakyong and 6) Singtam.

Audit Observations

2.3.8 Policy and Planning

2.3.8.1 Absence of Road Policy and Perspective/Master Plan

The development of roads in hilly region like Sikkim poses special problems due to different terrain, heavy precipitation, rich biodiversity, fragile hills and high seismicity. The National Road Transport Policy envisaged a road policy regime geared to meet requirements of faster mobility, safety, access to social and economic services and minimising the impact of negative externalities like pollution, accidents etc. The endeavour of such a policy should be to promote modern, energy efficient and environment friendly road transport with the objective of sustaining high rate of GSDP growth, promoting public transport, ensuring availability of adequate trained manpower, promoting road safety and strengthening data base collection and management system to assist in continued policy and programme evaluation.

It was observed that the State Government of Sikkim had not formulated State Road Policy as of September 2019, despite an Assurance given (March 2016) the Public Accounts Committee (PAC), based on a C&AG Report, that the State Road Policy would be formulated. Absence of a conducive road policy not only denied an overall framework for long term planning for road development and maintenance in the State to meet the above objectives, it also indicated that in the absence of long term plans and measurable milestones, the prioritisation of road development & maintenance and allocation of resources thereon, remained *adhoc*. This was further compounded by the absence of a perspective/ master plan for construction, upgradation and maintenance of roads in the State.

While accepting the audit observation, the Department stated (December 2019) that efforts are on to frame the State Road Policy and the Perspective Plan would be prepared in future.

2.3.8.2 Non-revision of Schedule of Rates (SoR)

SPW Manual (*Para-4.6*) requires RBD to have updated SoR to facilitate preparation of estimates and serve as a guide in settling rates for contract agreement. The SoR should be revised at least once in two years.

It was observed that the last SoR was formulated in 2012 and the RBD had not revised the SoR although eight years had elapsed. The SoR 2012 needed urgent revision, especially after roll out of GST (01 July 2017). As a result of non-revision of SoR, the Detailed Project Reports (DPRs) were finalised after adding *adhoc* escalation provision of 7.5 *per cent per annum* to arrive at the estimated cost. During the course of execution, the rates offered by the contractors were higher than the lump sum escalation provided in the estimate. This led to additional financial burden to State exchequer on projects where cost escalation had occurred.

While accepting the observation, the Department stated (December 2019) that process of revision of SoR will be initiated shortly. However, as of June 2020, no progress was seen in this respect.

2.3.9 Financial Management

Fund for development and maintenance of roads is received from State and GoI resources. The budget provision and expenditure incurred by the Roads and Bridges Department during 2014-19 is given under **Table-2.3.3**:

							(₹in crore		
Year Overall Budget			Roads and Bridges Department						
	Allocation		Budget provision	Final <u>Grant</u>	Percentage of State Budget	Expenditure	Excess (-)/ Saving (+)		
2014-15	Revenue	4994.95	70.52	70.78	1.42	69.46	1.32		
	Capital	1873.65	188.81	114.20	6.10	77.98	36.22		
Sub-	total	6868.60	259.33	184.98	2.64	147.44	37.54		
2015-16	Revenue	4465.99	66.28	66.28	1.48	60.91	5.37		
	Capital	1413.05	166.89	228.56	16.17	129.10	99.46		
Sub-total 5879.0		5879.04	233.17	294.84	5.02	190.01	104.83		
2016-17	Revenue	5052.59	77.53	81.87	1.62	71.69	10.18		
	Capital	1516.50	124.79	246.90	16.28	85.29	161.61		
Sub-	total	6569.09	202.32	328.77	5.00	156.98	171.79		
2017-18	Revenue	5115.69	81.56	94.87	1.85	95.63	(-) 0.76		
	Capital	2348.08	206.08	350.64	14.93	293.05	57.59		
Sub-	total	7463.77	287.64	445.51	5.97	388.68	56.83		
2018-19	Revenue	6192.74	109.77	142.80	2.31	132.37	10.44		
	Capital	2235.21	168.81	426.39	19.08	364.75	61.64		
Sub-	total	8427.95	278.58	569.19	6.75	497.12	72.08		
То	tal	35208.45	1261.04	1823.29	5.18	1380.23	443.07		

Table 2.3.3: Budget provision and Expenditure

Source: Appropriation Accounts 2014-15 to 2018-19

It is observed that the budget outlay of the Department as a percentage of overall budget allocation of the State was on an increasing trend from 2014-15 onwards, except for a minor shortfall in 2016-17, as compared to 2015-16. The allocation increased from 2.64 *per cent*, to 6.75 *per cent* in 2018-19. The upward trend in allocation was visible in both Revenue and Capital Section of the Budget.

Against a final grant of ₹ 1823.29 crore, the Department spent ₹ 1380.23 crore during the period which included ₹ 430.06 crore (31 *per cent*) on Revenue and ₹ 950.17 (69 *per cent*) crore on Capital account. The savings ranged from ₹ 37.54 (20.3 *per cent*) in 2014-15 to ₹ 171.79 crore (52.2 *per cent*) in 2016-17. The savings under Revenue section ranged from 1.9 *per cent* (2014-15) to 7.3 *per cent* (2018-19), whereas under Capital section the savings ranged from 14.5 *per cent* (2018-19) to 65.4 *per cent* (2016-17).

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The Department stated that the expenditure was less than allocation due to slow pace of works by the contractors, non-receipt of bills from the contractors, and non-receipt of fund from Government of India.

The overall savings under Capital section indicated inability of the Department to complete the projects as per timelines, adversely impacting asset creation in the State.

The condition of the roads affects the vehicle operating cost which is an important component of the road transport cost. Besides bad roads cause tremendous inconvenience to the public, in terms of time and health. The budget provision and expenditure incurred by the Roads and Bridges Department on maintenance during 2014-19 is given under **Table-2.3.4**.

Year	Budget		Expenditure		(₹in croi Total
	Provision	Wages	Minor Works	Materials	Expenditure
2014-15	31.70	16.28	2.98	0.20	19.46
2015-16	19.86	16.44	3.23	0.18	19.85
2016-17	18.40	16.35	1.76	0.03	18.14
2017-18	49.46	55.55	17.53	0.20	73.28
2018-19	57.99	30.78	15.93	0.20	46.91
Total	177.41	135.40	41.43	0.81	177.64

Table 2.3.4: Budget outlay and expenditure on Maintenance

Source: Detailed Appropriation Accounts of the respective years (2014-19)

Out of budget outlay of \gtrless 405.66 crore on Revenue Head, the allocation on maintenance was \gtrless 177.41 crore (44 *per cent*) against which expenditure incurred was of \gtrless 177.64 crore. Under Maintenance Head, the expenditure on minor work and material was only 24 per cent of the maintenance expenditure during the period 2014-19 while it was 76 *per cent* of the allocation under wages.

Audit observed that in 17 works out of total 29 works taken under maintenance for patchwork and slip clearance through departmental execution during 2014-19, only nine were completed, seven works had not commenced even after lapse of two years and one work progressed up to 15 *per cent* as of March 2019. The Department needs to allocate adequate resources for maintenance and ensure timely completion of maintenance works.

2.3.9.1 Unnecessary supplementary provision

It was observed during 2015-16 and 2016-17 that though the expenditure was less than the budget provision during these years, the Department asked for supplementary provision of ₹61.67 crore and ₹126.45 crore respectively, which proved unnecessary. It was also observed that the surrenders were less than the savings during these two years.

2.3.10 Project execution

2.3.10.1 Status of works

Total of 227 projects (85 projects taken up before 2014-15 and 142 sanctioned during 2014-15 to 2018-19, (as given in **Appendix-2.3**) of which 49 were completed and 178 were in progress as of March 2019 as shown below:

Sl. No.	Details of Projects	Total number of Projects	Total Project cost (₹in crore)	Expenditure (March'19) (<i>₹in crore</i>
1	Prior to 2014-15	85	997.75	614.81
2	Sanctioned during 2014-15 to 2018-19	142	2,176.43	750.54
	TOTAL	227	3,154.18	1,365.35
3	Projects completed	49	387.71	320.94
4	Ongoing projects	178	2,767.10	10,44.41

Table 2.3.5: Status of works	Table	2.3.5:	Status	of	works
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Source: Monthly Progress Report of Projects.

During 2014-19, the Department took up 142 projects and brought forward 85 projects sanctioned prior to 2014-15. Out of these 227 projects, 85 projects related to construction of new roads, while remaining 142 projects related to activities like upgradation & carpeting of roads (121 projects), and others (21 projects). The Department completed 49 projects involving 278.45 kms (New: 28.52 kms and Upgradation: 249.93 kms) during 2014-19. The Department has not measured the quantum of work completed (per kms) in the ongoing works and hence did not have the information.

Out of remaining 178 projects, scheduled dates of completions were not recorded in respect of 48 projects, while in respect of 22 projects the scheduled date of completion was beyond March 2019. The remaining 108 projects¹³ were at various stages of completion, recording delays of one to 10 years as on March 2019.

2.3.10.2 Delays in completion of Projects

Out of 49¹⁴ completed projects (18 funded by GoI, 22 by State Funds and nine from Borrowed Funds) only seven projects (14 *per cent*) were completed in time (during 2014-19), remaining 42 projects were completed after recording delays¹⁵ of one to 16 years as shown in **Chart-2.3** below:

¹³ New constructions:50 projects (1828.87 kms); Upgradation: 52 projects (522.58 kms); and Other: six projects

¹⁴ New construction of roads: 09 and Upgradation/strengthening: 40. Oldest one: Upgradation and carpeting of Rimbi-Yuksum Road sanctioned during 2002-03.

¹⁵ The delay has been worked out since the stipulated date of completion as mentioned in the individual project execution agreement.

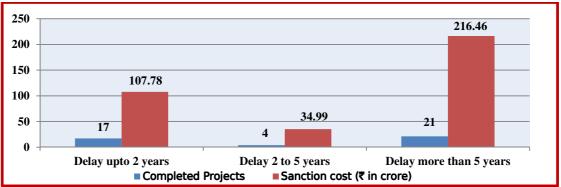


Chart-2.3: Delay in completion of 42 projects

 Delay upto 2 years
 Delay 2 to 5 years
 Delay more than 5 years

 ■ Completed Projects
 ■ Sanction cost (₹ in crore)

 Out of 12 selected projects, the Department completed 10 projects with delays ranging between one to seven years. Against these, reasons for delay were recorded in respect of seven projects. The Department assigned the delays to rainy seasons, non

availability of stock material etc.

Similarly, out of 178 on-going projects (47 funded by GoI, 76 by State Funds and 55 from Borrowed Funds), scheduled dates of completion of 22 projects were beyond March 2019. Of remaining 156 projects, scheduled dates of completion were not recorded in respect of 48 projects and 108 projects had crossed the scheduled date of completion by one to 10 years as of March 2019 as shown in **Chart-2.4** below:

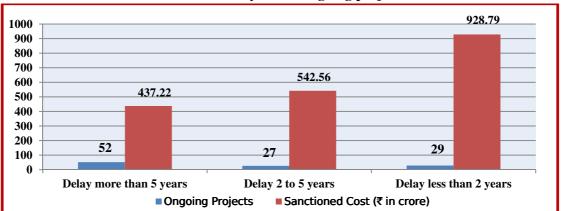


Chart-2.4: Delay in 108 ongoing projects

Further, out of 108 ongoing projects, of which 50 projects were within the audit sample, five projects were to be completed after March 2019 and in respect of one project (Crash Barriers) scheduled date of completion was not mentioned. Remaining 44 projects remained in progress with delays in completion ranging between one to eight years. Out of 44 delayed projects, in 16 projects¹⁶ the delay is attributable to the Department, in seven cases it was the delay on the part of the contactors while in remaining cases the Department gave the reasons such as heavy monsoon, non-availability of stock materials *etc.* The Department also failed to provide encumbrance free site in seven cases. They frequently changed the scope of work or added new items leading to time and cost overruns.

¹⁶ Revision of DPRs: 14 projects, stalled: one project and awaiting forest clearance: one project

Scrutiny of sample of 62 projects also revealed that in 19 projects, the Divisions sought time extension on more than one occasion citing reasons such as non-availability of encumbrance free sites, heavy monsoon, non-availability of stock materials, etc. Time extensions in 15 projects were sought after expiry of scheduled date of completion.

The reasons given by Department were not convincing as heavy monsoon is a regular feature in Sikkim and as regards non-availability of stock materials, self-procurement was allowed to the contractors as and when requested. The time extensions sought by executing agencies were routinely accepted by the Department leading to delays in completion of projects as well as cost escalation.

Audit observed that penalty of one *per cent* per week (maximum 10 *per cent*) on the incomplete portion of work in two projects¹⁷ with estimated cost ₹ 15.32 crore, aggregating to ₹ 1.53 crore was not levied by the Department as required under SPW Manual (Section 22) and General Terms and Condition of Contract.

The Department stated (December 2019) that the contractors are awarded the work with stipulated timelines for completion of projects. In case of delay, contractors are issued reminders to expedite the work. Despite this, in some cases projects are not completed in time. The Department assured that the system would be further strengthened to ensure that the works are completed in shortest possible time. However, no reply was given for non-levy of penalty in two cases mentioned above, which is only an indication on a small sample, and there would be many more cases, where the Department has not ensured adherence to time lines, stringently.

It is pertinent to note that the Department has not made a distinction, in projects funded by GoI which have defined timelines and those executed with borrowed funds, which have an added interest cost to the Government. Non monitoring of such important projects would pose an additional financial burden on the State.

2.3.10.3 Design and cost estimation of projects

MoRTH guidelines and IRC norms provide for determination of road width, thickness crust and categorisation of roads on the basis of pavement conditions. The IRC norm (37:2001) provides for calculation of MSA¹⁸ and CBR for determining thickness of crust of roads. The value of MSA depends on number of commercial vehicles per day (CVPD) and type of commercial vehicles. The thickness of crust of roads should be commensurate with MSA (traffic load) of a road. Similarly, IRC-37:2001 prescribes testing of soil of the site for CBR¹⁹ value. Further, in order to

¹⁷ Chemchey-Lachithang Road (₹7.53 crore) (NABARD-RIDF) and Power House to Jhakridungda via Melling Ferek (₹7.79 crore) (STIDF).

¹⁸ Value of MSA depends on number of commercial vehicle per day (CVPD), year of construction period, design life, vehicle damage factor, lane distribution factor and annual traffic growth. While values of year of construction period, vehicle damage factor, lane distribution factor, design life and annual traffic growth rate are fixed and need no further calculation, value of CVPD is derived from the traffic census conducted on a road.

¹⁹ CBR is a measure of load bearing strength of the soil.

assess the required overlay of Bituminous Macadam for strengthening the stretches of the roads, IRC-81:1997 prescribes Benkelman Beam Deflection Technique Test (BBDT²⁰) to categorise roads (good, fair, poor) on the basis of pavement conditions. This requires a survey to be conducted first for classification of the roads.

During audit of the projects, it was seen that the Department had not conducted any traffic census for determining width of roads, nor carried out CBR tests for determining the crust thickness for the road projects. No survey of road conditions was carried out before according technical sanction to projects.

The Department justified (December 2019) its projects, stating that in hilly terrain it was not possible to adhere to MoRTH guidelines and IRC specifications strictly due to harsh topography. They had kept the width and thickness of roads to the barest minimum of 3.75 mtr and 20 mm respectively.

It was seen that during 2014-19 , eleven projects relating to up-gradation/ strengthening and widening, single lane roads were converted to intermediate lane (seven)²¹ and double lane (four)²² by incurring expenditure of ₹ 359.98 crore without any reference to passenger car unit (PCU) norms.. This was unwarranted because as per Department, the PCU in almost all roads in the State was less than the minimum standard recommended by IRC. The Department did not clarify the reasons for upgradation/widening of the road projects, when they are of the opinion that IRC norms are not implementable in the State.

2.3.10.3.1 Inadequate survey and investigation

SPW Manual (*Para-4.1 to 4.3* and *Para-4.12*) envisages preparation of DPR only after carrying out Survey and Investigation (S&I) of project sites.

(i) Audit noticed that in 49 (out of 62) projects amounting to ₹ 1557.43 crore, no provision was kept for S&I. In remaining 13^{23} projects (sanctioned costs ranged between ₹ 1.91²⁴ crore and ₹61.67²⁵ crore), despite having provision (₹ 0.02 lakh to ₹ 29.79 lakh), S&I was not conducted and the amount was diverted towards meeting cost escalation. Some major illustrations are given below:

²⁰ *BBDT: Methods for measuring surface deflections in field.*

²¹ 1) Cultural Park to Dhapper Dara, 2) Rongli-Rorathang Road, 3) Gangtok-Rumtek-Sang Road, 4) Reshi-Legship-Bermoik Road, 5) Namchi-Sikkim Wok Road, 6) Budang-Chumbong-Chakung-Soreng Road and 7) Kewzing-Legship Road.

²² 1) Namchi-Phong-Mamring Road, 2) Ranka-Sichey Road, 3) Melli-Nayabazar Road and 4) Adampool to Banjhakri Falls Road.

²³ NABARD - ₹20.75 crore (six), CSS - ₹77.66 crore (2), State Earmarked Fund - ₹21.58 crore (3) and STIDF- ₹7.96 crore (two)

²⁴ Carpeting of road from Rong to Khani Gaon (STIDF)

²⁵ Construction of new two lane road from Adampool to STP Ranka-Banjhakri Falls (State Earmarked Fund)

Sl. No.	Name of project	Scheme	Sanctio- ned year	Sanctioned cost (₹in crore)	S & I Amount (₹in lakh)	Status (March 2019)
1	Construction of new two lane road from Adampool to STP Ranka-Banjhakri Falls	S/ Earmarked Fund	2017-18	61.67	4.00	U/Progress
2	Upgadation and carpeting of road from Liching Golai to Uttarey via Bandukay	S/Earmarked Fund	2018-19	18.31	6.62	U/Progress
3	Upgradation & carpetting of Namchi-Sikkip-Wok Road.	CSS	2013-14	25.89	24.87	U/Progress
4	Upgradation widening and improvement of Budang Chumbong- Chakung-Soreng Road	CSS	2012-13	32.75	29.79	U/Progress
	Total		-	138.62	65.28	

Table 2.3.6: Survey and Investigation not conducted despite provision

The Department stated (December 2019) that though projects are taken up only after conducting survey and investigation, the process will be further strengthened to incorporate all aspects of the projects to ensure minimum revision of estimate and change in scope of work.

(ii) Similarly, under the programme of 'Construction of Fair Weather Roads', RBD tendered (2018-19) 780 works (1,664.42 km) involving ₹ 826.39 crore across the State. The objective of this project was to connect hamlets without road connection with mainstream locations and to act as catalysts for rural economy through improved connectivity.

Audit observed that instead of preparing separate estimates for each work at different sites, the Department prepared uniform standard estimate²⁶ of ₹ 49.80 lakh per km for each work, without any Survey and Investigation (S&I), in violation of provisions SPW Manual.

The Department stated (December 2019) that standard estimate of ₹ 49.80 lakh per km was prepared to provide fair weather connectivity to unconnected villages/hamlets at the minimum possible cost. The reply is not tenable as SPW Manual envisages preparation of detailed estimate as per site condition. The uniform arbitrary estimates would not only affect timeliness in completion of projects, it would also compromise quality in execution due to different site conditions.

All the estimates uniformly included hill cutting (six mtr height), formation width (six mtr), protective works in dry masonry (500 mtr) and kutcha drain for whole length and three cross drains in each km. Besides, the estimates also prescribed a uniform amount of ₹21.88 lakh for hill cutting work, ₹ 18.77 lakh for protective works, ₹ 1.72 lakh for cross drainage work and escalation of ₹7 lakh, for each km of road.

2.3.10.3.2 Incorporation of drainage in the DPR without hydrological data

IRC-19 stipulates carrying out S&I for collection of hydrological data for designing of cross drainage (CD) structures. In addition, site inspection with local enquiry and study of nearby road structures is to be conducted for collecting information about high flood level (HFL), tendency to scour and the maximum discharge.

Scrutiny of records revealed that in all the 61 projects (excluding project of installation of crash barriers), CD structures were uniformly included in the estimate without obtaining hydrological data and without conducting study of nearby road structures. Thus, the provision of CD structures was made without any scientific data.

The Department, while accepting that hydrological data was not obtained, stated (December 2019) that effort will be initiated to obtain such data, especially in bigger projects, for designing CD in future.

2.3.10.4 Tendering of projects

2.3.10.4.1 Inadequate publicity to tenders

SPW Manual (*Para-9.6* read with *11.1*) stipulates that notice inviting tender (NIT) should be published for all works proposed for execution by contract on official website, Sikkim Herald and other national and local newspapers, and also by pasting notices in public places. SPW Manual (*Para-11.1*) further emphasised that e-tendering should be resorted to for all projects costing $\mathbf{\xi}$ three crore and above for wider participation and ensuring transparent competition amongst bidders. This provision was reiterated²⁷ (August 2012) by the State Government and in order to make the tender process more competitive and to properly evaluate the rates offered by the contractors, it is necessary that there must be minimum three bids in each tender. Tender received in less than three valid bids shall be summarily rejected and fresh tender shall be invited(Para-9.6 of SPW Manual).

Audit observed that 38 (out of 62) projects with estimated cost ranging between \mathbb{R} 3.41 crore and \mathbb{R} 61.67 crore, aggregating to \mathbb{R} 1,345.50 crore, e-tendering was not resorted to though the estimated costs were above \mathbb{R} 3 crore in each case as detailed in *Appendix-2.4*. Similarly, in 44²⁸ (out 62) projects of estimated cost of \mathbb{R} 534.63 crore, NITs were published in only one local newspaper and were not pasted in public places where the projects were to be executed. Thus, objectives of transparency and wider participation of agencies by ensuring wide publicity,through e-tendering was compromised.

Some major illustrations are given below:

²⁷ Vide OM No.11/ Fin/Admn dated 24 August 2012 issued by Finance Department.

²⁸ State Earmarked Fund- 11 projects ₹129.24 crore, NABARD (RIDF)- 15- ₹170.44 crore, STIDF-12 projects ₹107.44 crore and HUDCO – 6 projects ₹127.51 crore.

SI. No.	Name of project	Scheme	Sanctioned Year	Sanctioned cost (<i>₹in crore</i>)	Status (March 2019)
1	Namchi-Phong-Mamring Road	NABARD- NIDA	2017-18	85.30	U/Progress
2	Construction of new two lane road from Adampool to STP Ranka-Banjhakri Falls	State Earmarked Fund	2017-18	61.67	U/Progress
3	Pelling-Dentam-Kaluk Road	HUDCO	2018-19	36.26	U/Progress
4	Bermoik Phatak-Bermoik- Phong Road	HUDCO	2018-19	29.05	U/Progress
5	Carpeting of Nayabazar- Daramdin Pureytar Road	State Earmarked Fund	2017-18	24.44	U/Progress
	Total		·	236.72	

Table 2.3.7: Non-resorting of e-tendering as well as insufficient public	licity
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The Department stated (December 2019) that wide publicity as per SPW Manual is resorted to in all cases, except work valuing up to $\overline{\mathbf{x}}$ two crore which is tendered and awarded at the Gram Panchayat level. Department assured that the system would be further strengthened.

As mentioned above, in 44 cases there was insufficient publicity (publication of NIT in only one Newspaper and not pasting of NIT in public place) noticed during the Audit. Provisions for *e*-tendering in all project costing more than $\overline{\mathbf{x}}$ three crore were also not adhered to.

2.3.10.4.2 Irregular splitting of projects

Sikkim Financial Rules (*Para-141*) envisaged that a group of works which form one project should be considered as one work for the purpose of approval and sanction. The funding agencies (NEC, NABARD, DoNER, MoRTH) also prescribed that the project should be treated as one work and tendered/awarded accordingly.

Audit noticed that in six projects²⁹ (sanctioned during 2014-15 to 2018-19) costing \mathbb{Z} 41.92 crore (ranging between \mathbb{Z} 2.67 crore and \mathbb{Z} 20.10 crore), the RBD had not adhered to these instructions and the projects were split into 42 works in contravention to SFR.

The Department stated (February 2020) that the projects were split in the interest of the expeditious completion of the works.

The reply is not acceptable as majority projects (five projects splitting into 39 works) were still under progress and remaining one project (splitting into three works) was completed (March 2019) after12 months from the schedule date of completion (March 2018), and thus the claim for expeditious completion of work was hardly met.

²⁹ State Fund -01 project of ₹7.21 crore, NABARD (RIDF)- 4 projects of ₹14.61 crore and HUDCO-01 project of ₹20.10 crore.

2.3.10.5 Execution of Projects

2.3.10.5.1 Avoidable expenditure

The various structures in flexible pavement in construction of roads in terms of Indian Road Congress (IRC) specification consists, *inter-alia*, of Sub-grade³⁰, Sub-base course³¹, Base course³² and Surface course³³. After the sub-base formation with WBM-I, the standard base courses prescribed for roads, other than National Highways and City Roads with high traffic density, are either water bound macadam with stone aggregates of size of 63 mm to 45 mm (WBM-II) or 53 mm to 22.4 mm size (WBM-III) with appropriate screening and binding materials.

Audit observed that during 2014-19, the Department incorporated WBM-III in addition to WBM-I and WBM-II in the estimates of eight projects. Since only one out of the two courses of WBM-II or WBM-III at base level was required as per IRC specifications, inclusion of 2,94,475.20 cum of WBM-III in the estimates was irregular which resulted in extra avoidable expenditure of ₹ 7.03 crore, as detailed in the *Appendix- 2.5*.

2.3.10.5.2 Wasteful/Excess expenditure

As per Sikkim Financial Rules, every officer incurring or authorising expenditure from public moneys should be guided by high standard of financial propriety. Every officer should also enforce financial order and strict economy at every step and see that all relevant financial rules and regulations are observed by his own office and by subordinate disbursing officers.

During course of this PA, Audit observed following wasteful/infructuous expenditure in respect of three works:

(i) Avoidable excess expenditure due to changes in project without approval of competent authority

The 'Up-gradation, strengthening and improvement of Pakyong-Chalamthang-Mamring-Tarethang-Rorathang Road' for a total length of 26 km. was sanctioned (May 2011) by the State Cabinet for Single lane specification at a cost of \gtrless 29.97 crore to be funded from State Transport Infrastructure Development Fund (STIDF). The project was awarded in three phases (July 2011) to three contractors, to be completed within July 2013, (22 percent above SOR 2006).

³⁰ **Sub-grade** is the surface of the ground in its final shape after completion of earthwork and consolidation, compaction or stabilisation,

³¹ **Sub-base course** is a WBM (Water Bound Macadam) laid over the sub-grade with stone aggregate of 90 mm to 45 mm size (WBM-I).

³² **Base course** is also a WBM to be laid either with stone aggregates of 63 mm to 45 mm (WBM-II) or with stone aggregates of sizes 53 mm to 22.4 mm size (WBM-III) with screening.

³³ Surface course may, inter-alia, consist of surface dressing with hot bitumen or premix carpeting with hot bitumen or bituminous macadam using hot mix plant and paver equipment.

It is observed that the work was already tendered in 2009 in anticipation of funds from NEC but awarded in July 2011. After award of the tender in July 2011, '*verbal direction*' was passed on to the field engineer based on the instruction of the then CE, RBD (November 2011) to execute the work conforming to *Intermediate lanespecification*. This was purportedly based on discussion with NEC at Shillong on 12 March 2010. However, funds were never received from NEC for this project.

This led to considerable change in the scope of work which was carried on without approval of the changed scope and estimate of the work from the competent authority, which is the Cabinet. As a consequence, there was huge increase in cost of the works on hill cutting, protective works, cross drainage works and culverts required for road widening to meet Intermediate lane specification, sparing only marginal funds within the sanctioned cost for pavement works, including bituminous macadam and SDBC which could not be taken up due to paucity of funds. By November 2016, 14.80 km. of cutting and protective work had been completed for the Intermediate lane and 9.3 km. of cuting and protective work had been executed for Single lane specification.

It was noticed that the work on Intermediate lane specification was later stopped at "as is where is basis" (January 2017) and the remaining work was ordered to be implemented on single lane specification, to be completed before March 2017 by the same contractors. Subsequently, a revised DPR of ₹63.29crores (based on 2012 SOR) was submitted for approval of the Cabinet (February 2019) to meet the extra expenditure on pavement and allied works bituminous macadam, SDBC, including



protective layers and drainages *etc*, entailing an additional financial burden of \mathfrak{F} 33.32 crores on the project. The revised cost was approved by the Hon. CM in March 2019. As per Monthly Progress Report of the Department (November 2020), 95 *per cent* of the work has been completed with an expenditure of \mathfrak{F} 36.79 crore.

Thus, the Government had to incur an additional financial burden of $\overline{\mathbf{x}}$ 33.32 crores due to changes in specificaitions without approval of the competent authorty.

The Department stated (December 2019) that the specification of the road was changed from single lane to intermediate lane considering the increase in volume of traffic and movement of heavy axle vehicles to cater to the requirement of pharmaceutical companies, hydro power companies, *etc.* However, in absence of adequate fund, the decision had to be reversed and the road was executed in single lane specification. The formation cutting in some stretches for intermediate lane would be useful in future expansion of roads.

The reply is not tenable as major changes were done in the work without proper approvals at the highest level leading to avoidable financial burden on the State exchequer. Moreover, the project remained incomplete and the purported benefit could not be made available to the beneficiaries even after lapse of more than seven years from the scheduled date of completion. The Department may ensure that the road is completed on priority.

It is noted that the issue of change in specification and revision in cost was reviewed at the highest level in January 2017 wherein it was observed that it is a gross violation of established procedure and norms and irresponsible behaviour on the part of the officials and directed that that the responsible delinquent officials need to be reprimanded for their wayward action. Action taken was awaited (October 2019).

(ii) Avoidable excess expenditure on execution of sub-base and pavement surfacing twice

The work 'Up-gradation, carpeting of Namchi-Phong-Mamring Road, South Sikkim' was awarded (October 2013) at estimated cost of ₹ 46.75 crore with a stipulation to complete within September 2016. The project (42 km) was funded under Non-Lapsable Central Pool of Resources (NLCPR). The work was completed by February 2017 and payment was released to the contractor. The work was again taken up under NABARD (NIDA) for higher grade of pavement work and the estimate was revised (February 2017) from ₹ 46.75 crore to ₹ 85.30 crore. The work was divided into two stretches of 21 kms each and awarded to two contractors (February 2017) with stipulation to complete within April 2017.

Audit observed that during the course of execution under NLCPR, pavement work including 20 mm mixed seal surfacing and prime coat (2,42,076 sqm. each) and WBM (54,467 cum) had already been laid at a cost of ₹ 27.42 crore. Subsequently during the course of execution under NIDA, mixed seal surfacing of 40 mm and WBM 60 mm were again laid on the same surface by incurring an expenditure of ₹ 64.69 crore.

Thus, the expenditure of \gtrless 64.69 crore incurred on surface up gradation for an item of work which had already been executed and now again met from NABARD-NIDA borrowings was a case of avoidable excess expenditure. This also entailed an unnecessary interest burden on the Department.

The Department stated (February 2020) that mixed seal had to be executed twice to bring the surface to meet the laid down standard as the pavement surface laid earlier had withered away due to time gap.

The reply is not acceptable as the first work under NLCPR was completed on 25 February 2017 and work order for improvement of riding quality (2^{nd} phase) was issued on 13 February 2017, *i.e.* prior to completion of the 1^{st} project. Hence, the question of withering of earlier pavement works due to efflux of time does not arise.

The Department needs to make an enquiry on the avoidable excess expenditure on this project, when there were so many incomplete projects languishing for funds.

(iii) Wasteful expenditure on laying of sub-base

The "Carpeting of approach road to Ringhim Gumpa (Km-3.87)" was taken up (April 2017) with a view to connect Ringhim Gumpa from DAC road, Mangan at a cost of ₹ 4.23 crore. The work was funded by NIDA and executed departmentally. The work was scheduled to be completed in February 2018. However, after incurring ₹ 2.90 crore (91 per cent physical progress), the work was held up since April 2018 due to shifting of hot mixing plant and heavy monsoon. This resulted in damage of



Approach road to RinghimGumpa

already executed WBM works valuing ₹ 1.34 crore as shown in photograph.

The Department stated (December 2019) that due to heavy monsoon, the executed WBM level was damaged which would be set right while executing pavement work to bring the road surface to desired standard.

The reply is not acceptable as departmental laxity in execution of the project led to delayed completion and also brought additional interest liability to the State exchequer, being a borrowed funds project.

(iv) External Aided Project - delays in execution and avoidable cost escalation

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)'. As per loan agreement between Government of India and the

ADB (9 July 2012) for funding of the project, the State Level Executing Agency (SLEA) i.e. Roads and Bridges Department (RBD) was to obtain all necessary statutory clearances, such as Environmental Clearances, Forest Clearances and No Objection Certificate from the relevant State and Central level agencies and ensure encumbrance free site prior to commencement of work.

The RBD tendered (11 December 2011) the work at a cost of ₹62.92 crore and awarded the



State Highway from Manpur to Nayabazar

same after 10 months (15 September 2012) to M/s BVSR Construction Pvt. Ltd., Hyderabad at a contract price of \gtrless 69.68 crore to be completed within 18 months (March 2014).

The issues of delay in execution/ completion of this project due to prolonged tendering process and non-availability of encumbrance free land *etc.*, had also been featured in Audit Report for the year ended 31 March 2017.

Thereafter the estimate of the work was revised (March 2019) to ₹ 191.03 crore (from ₹ 95.39 crore) due to time overrun and increase in scope of work. As of November 2020, the project remained incomplete (as shown in photograph), with physical progress of 95.71 *per cent* for which RBD had incurred expenditure of ₹ 107.51 crore.

Thus, the failure of RBD to adhere to the provision of the loan agreement regarding obtaining of statutory clearances, ensuring encumbrance free work site and to frame accurate DPR led to abnormal delays in completion of work, which consequently resulted in cost escalation of ₹95.64 crore. Further, the work remained incomplete after more than nine years from the sanctioning of the project.

2.3.10.5.3 Irregular grant of mobilisation advance

According to SPW Manual (*Para-24*), Mobilisation Advance(MA)not exceeding 15 *per cent* may be granted at 10 *per cent* simple interest to the contractor in respect of specialised and capital intensive works costing not less than ₹ 10 crore. The MA is released in two instalments; second instalments to be released only after satisfactory utilization of the first instalment. However, State Government had banned granting of MA vide circular dated 22 February 2016.

Audit observed that the Department had not followed these instructions in as much as MAs of \gtrless 9.67 crore in respect of three projects were irregularly released to the contractors during the period March 2016 to March 2019 despite the ban imposed by the State Government. In case of one contract, where ten lakhs were released (October 2017) to the contractor, neither had the work commenced nor was the MA recovered from the contractor (September 2019).

The Department stated (January 2021) that an amount of \gtrless 6.15 crore (out of $\end{Bmatrix}$ 9.67 crore) had been recovered from a contractor. However, no response on irregular release of MA was provided.

2.3.10.5.4 Non-levy of penalty on contractors

According to SPW Manual (*Para-9.6* and *9.7*, *Annexure-F*, *Clause 16*), in case of failure by the contractor to complete the work even after issuing notice to him, the Department has the authority to cancel the contract and take possession of the site and materials, constructional plants, implements, stores, etc. and carry out the incomplete work by any means at the risk and cost of the contractor.

Audit observed that in three³⁴ projects (out of 62), the contracts were rescinded by the Department due to failure of the contractors to complete the works within the extended time. The Department did not penalise the contractors for not completing the work nor did they recover the additional cost of remaining work from them. The Department completed the balance work of these projects with revised estimates. In two³⁵ projects, additional cost of ₹ 12.22 crore incurred to complete the remaining works, was not realised from contractors resulting in undue favour to them. In one case, earthworks, culverts, protective walls, drains, etc. were excluded/ reduced to bring the cost within the sanctioned cost. This action of the Department, not only compromised the quality of work but was also a favour to the contactor.

The Department stated (December 2019) that whenever the contractors displayed laxity, the contracts were rescinded. The works mentioned in audit have been completed satisfactorily by the Department except '*Up-gradation, protective work and carpeting of Gor-Sangtok Road, North Sikkim*'.

The reply is not tenable as additional expenditure of \mathbf{E} 12.22 crore to complete the work was not realised from the erring contractors. Besides, it also led to delay in completion of works by more than eight years, besides compromising the quality of execution. The reply does not clarify the reasons for not invoking the penal provisions in contracts.

2.3.10.5.5 Non-realisation of Government revenue

Rule 15.4 of Sikkim Financial Rules expects the Head of Department to ensure that all revenue receipts or other sums due to the Government are promptly assessed, realised and credited to Government account. Further, in terms of SPW Manual (*Para-21.4*), the hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machine is made over up to and inclusive of the date of its return in good order excluding the transportation period to and fro worksite.

During 2014-19, the Mechanical Wing, RBD leased out departmental machineries (excavators and dozers) for immediate slip clearance and hill cutting for roads works executed by the Divisional offices, contractors and common public. The hire charges

³⁴ (i) Construction of road from Chemchey via Lachithang to Upper Wok, (ii) Construction of road from Power House Intake to Jhakridunga via Milling Ferek and (iii) Up-gradation, protective work and carpeting of Gor-Sangtok Road, North Sikkim.

³⁵ (i) Construction of road from Chemchey via Lachithang to Upper Wok and (ii) Construction of road from Power House Intake to Jhakridunga via Milling Ferek.

of \gtrless 1.64 crore (Contractual: \gtrless 28.01 lakh and Departmental: \gtrless 1.36 crore) towards leasing out of machines were not realised by the Mechanical Divisional offices. The final bills of the contractors in 46 works had already been paid, and thus possibility of realisation of Government revenue of \gtrless 28.01 lakh was remote.

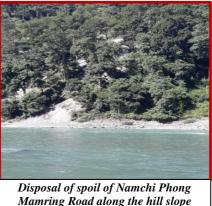
The Department stated (February 2020) that despite best efforts, at times, delay in realisation of revenue occurs due to unavoidable circumstances and assured that the arrear of revenue of hire charges would be realised from all concerned. However, as of June 2020, the Department could not realize the outstanding dues (₹ 1.64 crore).

2.3.10.5.6 Irregular disposal of spoil

According to Forest Conservation Act, 1980, muck and debris generated during hill cutting for construction of roads are to be disposed of at designated dumping site in

close coordination with Forest Department.

Audit observed that provision for disposal of spoil (muck and debris) at designated dumping site was not incorporated in the estimates of five projects³⁶ and spoil generated from hill cutting (17,99,331.78 cum) were disposed off down the hill as seen in the photograph. This was not only in violation of Forest Conservation Act, 1980 but could also adversely impact the environment.



The Department stated (December 2019) that the

contractors have been directed to dispose off the muck at the designated site only and they initiate against erring contractors in case of aberrations noticed by the Department. The procedure will be further improved to safeguard the environment. Further action is awaited (November 2020).

2.3.10.6 Quality and monitoring mechanism

Monitoring and evaluation play an important role in ensuring proper and timely execution of projects, adherence to quality and in yielding the benefits envisaged. Audit observed following deficiencies in ensuring quality control, monitoring and evaluation of projects:

2.3.10.6.1 Inadequate monitoring

(i) Inspection of works not carried out

SPW Manual (*Para-5.2* to *Para-5.7*) stipulated drawing up of quarterly programme for periodical inspection of works by Junior Engineer (JE), Assistant Engineer (AE), Divisional Engineer (DE) and Superintending Engineer (SE). This is to ensure that the

 ³⁶ 1) Cultural Park to Dhapper Dara (4,275.81 cum), 2) Namchi-Phong-Mamring Road (2,52,175.78 cum), 3) Budang-Chumbong-Chakung Road (9,81,214 cum), 4) Namchi-Sikkip-Wok Road. (5,38,981.02 cum) and 5) Rongpo-Duga Road (22,685.17 cum)

works are executed according to design, drawing and specifications laid down in the contract.

Audit observed that JE, AE, DE and SE had not drawn up quarterly programmes for inspection of works as required under the Manual during 2014-19. No records of inspection conducted or otherwise were available. In absence of records, Audit could not verify whether the execution of works was done as per approved design, drawings and specification.

The Department stated (February 2020) that the system will be further strengthened by drawing up inspection schedule in advance and results of inspection will be documented to ensure verification of remedial/corrective works carried out by the contractors.

(ii) Incomplete Monthly Progress Report

The Department prepared a Monthly Progress Report (MPR) of projects which was periodically submitted to the PCES, RBD. Audit noticed that the MPR did not capture date of commencement, stipulated date of completion in 48 projects, up-to-date position of time extension in any of the 227 projects. Thus, the MPR was incomplete and did not give up-to-date status of works for facilitating effective monitoring.

The Department stated (February 2020) that system will be further strengthened by incorporating required details in complete shape.

(iii) Incomplete inventory of roads

The Department was maintaining Register of Roads as enshrined in SPW Manual (Para 2.28). The Register, however, was not updated as basic information like the date of creation, cost of construction, date of subsequent repairs undertaken, cost of such repairs, details of subsequent up-gradation/improvement undertaken, *etc.* were not recorded. In absence of complete inventory of assets under the Department, regular repair and maintenance and subsequent up-gradation/improvement could not be monitored, in a systematic manner.

While accepting the audit observation, the Department stated (February 2020) that they will update the Register to capture the complete inventory of roads infrastructure.

(iv) Safeguard of Road Reserve not ensured

The State Government (Forest Department) formulated (11 March 2015) the Sikkim Forests, Water Courses and Road Reserve (Preservation and Protection) Rules, 2015 in exercise of powers conferred under the Sikkim Forests, Water Courses and Road Reserve (Preservation and Protection) Act, 1988. The rules *inter-alia* prohibited use of road reserve³⁷ area without written consent of the RBD. Any encroachment to the road reserve shall be evicted in accordance with the provisions of the Sikkim Public Premises (Eviction of unauthorised occupants and rent recovery) Act, 1980.

³⁷ Road reserve is defined as such portion of land lying within such distance from the centre either side of the road as may be recorded in Government record.

Audit scrutiny revealed that RBD had not prescribed the road reserve area for various roads under its control nor devised any mechanism for periodical survey to detect encroachment of road reserve area. This would not only compromise safety but also affect the quality of roads and the width for smooth and safe traffic flow. As a result, RBD could not identify encroachment, if any in the road reserve. In many places' construction had come up close to the roads in road reserve as shown in the photographs below:



The Department stated (December 2019) that efforts will be initiated to declare the road reserve areas alongside the roads after obtaining approval of the Government.

(v) Non-repair of damaged works by private individuals

The Department permits the private individuals on the basis of their applications to dig the road on payment of fees ranging between ₹ 300 and ₹ 700. The permission for digging is allowed with the stipulation that the damaged portion of the road should be set properly using of 1:2:4 mix and bitumen patching in presence of the departmental engineers.

Audit observed that the individual applicants did not properly repair the dug portion of roads. There was no evidence of carrying out such repairs in the presence of departmental engineers. Further, during physical verification of 14 patch works, Audit noticed that bitumen mixed was not used in any patch work leading to further deterioration of roads as shown in photograph:



The Departmental Engineers had failed to ensure proper repair by the individual applicants in their presence.

The Department while accepting that in 14 cases, the applicants had not repaired the road properly, assured (December 2019) that in future, proper road repair by the applicants would be ensured.

2.3.10.6.2 Quality control mechanism

Quality control is an important parameter to ensure effective implementation of quality projects and proper utilisation of funds. SPW Manual (*Para 36.1*) provided for constituting an independent quality assurance and technical audit wing under the respective Principal Chief Engineer cum Secretary of Public Works Department.

(i) Inadequate quality control

The Department had not constituted Technical Audit Wing as required under SPW Manual.The MoRTH guidelines require the contractor to setting up a field laboratory with adequate equipments and personnel to carry out all requisite quality tests at his own cost. Further, SPW Manual (Conditions of Contract) also envisages upon the contractor to make necessary arrangements for testing material of cube strength of concrete, crushing strength of road metals, *etc.* at site at the cost of contractors.

Audit observed that field laboratories were not set up in any of the 62 projects for testing material, cube strength of concrete, crushing strength of road metals, *etc*.

The Department had established (2003-04) a Quality Control Laboratory at Tadong, Gangtok at a cost of ₹ 7.32 lakh for quality testing of materials. The laboratory had equipment and facility for carrying out tests such as (i) tests to determine CBR of soils, (ii) aggregate impact value test, (iii) Los Angeles Abrasion test, (iv) cube test to determine compressive strength of cement concrete, (v) swell test to determine the soil index/expansion ratio, (vi) test to determine quality of cement, (vii) test to determine quality of bitumen, *etc*.

It was seen that the RBD had carried out 19 tests relating to cement concrete (17) and aggregate tests (two) during 2014-15. Since 2015-16, no tests were carried out as of September 2019 despite having facility and manpower (six) to conduct such tests.

Thus, there is no assurance of quality in respect of 62 projects executed by the Department in absence of quality tests.

The Department assured (February 2020) that efforts will be initiated to analyse the functioning of the Departmental Laboratory for quality testing of materials, and they willinsist on the test results from manufacturer for all the material before utilisation in works.

(ii) Quality test not done for materials procured directly by contractor

SPW Manual (Conditions of Contract) envisages that materials procured by the contractors should not be utilised in works unless required test have been carried out and accepted by the Engineer-in-charge. Despite ban imposed (June 2015) by the State Government, self-procurement of materials amounting to ₹ 16.68 crore³⁸ in 27 projects was allowed to the contractors. The permission was granted with the stipulation that the materials should conform to ISI specification.

Audit scrutiny revealed that neither the contractor made available the samples of selfprocured materials for carrying out tests nor the Department sent the materials procured by the contractor for tests/analysis. Thus, the contractors utilised the nontested materials (cement, steel bars and bitumen) aggregating to ₹ 16.68 crore in works without ensuring their suitability and quality check.

(iii) Pavement works in test patches not done

SPW Manual (Conditions of Contract) envisages that the contractor will execute pavement works in test patches for ensuring quality of materials and for determination of correct methodology before execution of works in complete stretches.

Audit check of 32 (out of 62) projects revealed that the contractor did not carry test patches in pavement works before execution of works in complete stretches. In absence of test patches in pavement works, quality of materials used by the contractor and determination of correct methodology remained unassessed and indicated lack of adequate monitoring by the Department.

2.3.10.7 Road Safety Policy

The National Road Safety Policy (2010) outlines the initiatives to be taken by the Governments at all levels. The Committee on Road Safety monitored by the Supreme Court of India recommended to: (i) hold meeting of the council at least twice in a year, (ii) set up road safety fund, (iii) draw road safety action plan, (iv) investigation of road accident cases by the Transport, Police and Roads and Bridges Department of the State Government to promote road safety.

The State Government constituted (May 2010) Sikkim State Road Safety Council³⁹ to take suitable steps to implement Road Safety Policy and to oversee the works related

 ³⁸ Cement: 2,46,444 bags @ ₹333/bag, TMT Bar: 1,37,711 qtl. @ ₹49.55/qtl, Bitumen: 8,727 drum
 @ ₹8,926/drum.

³⁹ Vide Transport Department Notification No.113/MV/T dated 13 May 2010.

to road safety. The Council had neither convened any meeting nor issued any direction with regard to road safety despite recorded cases of 1,022 road accidents during 2014-19 in the State. The RBD did not formulate Road safety action plan. Though concerned Sub-divisional offices (six) were assigned the task of road safety, the Department did not carry out assessment of status of road safety, except for identification of black spots.

The State Government released ₹ 13.93 lakh to Transport Department (Motor Vehicle Division) towards Road Safety fund from 2016-17. The fund (₹ 13.93 lakh) was to be incurred towards advertisement (₹ 3.40 lakh), Road Safety equipment (₹ 3.50 lakh), awareness programme (₹ 5.25 lakh) and meeting (₹ 1.78 lakh) during 2016-18. However, during 2018-19, the entire fund (₹ 13.93 lakh) was utilised towards meeting the salary of employees recruited under 'One Family One Job' scheme introduced by the State Government in January 2019.

The Department stated (December 2019) that due to pre-occupation and shortage of trained manpower in the Sub-Division offices, the task of assessing road safety could not be completed in entirety.

2.3.11 Conclusion

The Performance Audit on "Development and Maintenance of Highways and Other Roads in Sikkim" revealed that the RBD required improving its functioning in many areas. During the period 2014-15 to 2018-19, the Department took up227 projects (142 projects sanctioned during 2014-19 and 85 projects brought forward of prior period) of which they completed 49 projects involving 278.45 kms (New: 28.52 kms and Upgradation: 249.93 kms). The large number of on-going projects showed that the Department had overstretched its own financial resources, not adhered to its commitment and engaged with contractors, who were not in a position to deliver outcomes in time.I n the 178 ongoing projects, the Department was unable to furnish the quantum of work completed in kms.

In the absence of an overall State Road Policy and perspective plan, the Department had not prioritized development of highways and other road works, resulting in *adhoc* allocation of resources.

The Department had not revised the Schedule of Rates since 2012 and the DPR estimates were prepared providing an *adhoc* escalation provision of 7.5 *per cent* per annum, which was not in financial interests of the Department.

Against an overall budget of ₹ 1,823.29 crore during the period, the Department spent ₹1380.23 crore with savings ranging from 20.3 *per cent* in 2014-15 to 52.2 *per cent* in 2016-17. The savings under Capital head of expenditure ranged from 65.4 *per cent* (2016-17) to 14.5 *per cent* (2018-19), which indicated that resources earmarked for creation of permanent assets as well as for maintenance works were not fully utilised. Under maintenance head, 76 *per cent* of expenditure was incurred on wages, leaving very little resources for maintenance work of the roads created so far. Projects were consistently delayed leading to cost escalation and undue financial burden to the Department. Out of 44 delayed projects, delays in 16 projects were attributable to the Department whereas in seven cases delays were on part of contractors. The Department also frequently changed scope of work, delayed handing over sites to contractors adding to time and cost overrun of projects. Time extension in 15 out of 62 projects selected in audit was sought after expiry of schedule date of completion in violation of codal provisions.

RBD had not conducted any traffic surveys to determine the width, thickness of crust and pavement conditions of roads and technical sanctions given were not in keeping with technical norms prescribed by IRC.

The Department did not carry out survey and investigation work before preparing work estimates resulting in frequent changes in scope of work and consequent revision in cost of works. In 13 projects, the provision earmarked for survey and investigation was diverted to meet cost escalation.

It was also observed that 780 works were sanctioned in 2018-19 for 'Construction of Fair Weather Roads' for an estimated amount of ₹826.39 crore at a uniform standard estimate of ₹49.80 lakh per km for each work, without any survey and investigation in violation of SPW Manual.

The RBD did not ensure adequate publicity to tenders and in 38 out of 62 projects having sanctioned cost more than $\overline{\mathbf{x}}$ three crore, the RBD had not resorted to *e*-tendering in violation of requirements, thereby compromising transparency and competition in tenders. Projects were split among various bidders for ostensible reason of expeditious completion of projects, which was not achieved.

The Department made a provision of WBM III for ₹7.03 crore in estimates of eight projects which was unnecessary. RBD carried out changes in scope of a major upgradation work (*Up-gradation, strengthening and improvement of Pakyong-Chalamthang-Mamring-Tarethang-Rorathang Road*) from single to intermediate lane on the basis of 'verbal instructions from NEC' without approval of competent authority and incurred additional financial burden of ₹33.32 crore. The Department incurred an avoidable excess expenditure of ₹ 64.69 crore on surface up gradation for an item of work which had already been executed earlier and again met from NABARD-NIDA borrowings, increasing avoidable interest burden on the Department.In another case, WBM work of ₹1.34 crore was rendered unfruitful as it was damaged after the work was held up due to shifting of machinery and monsoons.

Despite ban on grant of Mobilisation Advance (MA) to contractors (February 2016), the Divisions gave irregular MA of ₹9.67 crore to contractors in three projects and had not recovered an advance of ten lakhs given to a contractor, where work had not even commenced. In two projects, additional cost of ₹12.22 crore incurred by the Department on incomplete works, was not realised from two contractors. Hire charges amounting of ₹1.64 crore for machinery leased out to other agencies, contractors and private persons remained unrealised.

The Monitoring Mechanism in the Department of projects was deficient. We did not find any schedule of inspection programmes of supervising officers like CE/SE and neither was there any record of inspections if any carried out by them. Similarly, the Monthly Progress Reports submitted by Divisions were incomplete and did not provide up-to-date status of works for effective monitoring. The inventory register of roads maintained by the State did not contain vital information for taking important decisions on the need for regular repair, maintenance or upgradation of various highways and roads in the State.

The RBD did not conduct periodic survey to detect cases of encroachment in reserve areas. It was noticed in some cases that constructions had come up near the roads, jeopardising the safety and riding quality of vehicles.

Quality control of works was not ensured by the Departmental Officers. Field laboratories to test the characteristics of materials to be used at site were not set up by the contractors in any of the 62 projects, in violation of MoRTH guidelines and SPW The Quality Control laboratory set up by the Department at Tadong, manual. Gangtokdid not conduct any test of materials used at site since 2015-2016, and hence there is no assurance on the quality and strength of the materials used by the contractors in the 62 projects of the Department. It was also observed that despite ban on self-procurement of materials by the contractors, since June 2015, the RBD allowed materials worth ₹16.68 crore to be brought by contractors in 27 projects on the condition that these should conform to ISI specification. However, audit observed that neither the contractors gave samples of self procured materials for testing nor did the Department send these for testing, raising doubts on the quality and strength of the materials used in the 27 projects. The Quality Control Laboratory was not utilised since 2015-16 for testing of materials used in projects.

The RBD did not formulate any Road Safety Action Plan and the Divisional officers did not carry out any assessment of road safety, neither did the Sikkim State Road Safety Council commence any meeting nor issue any direction on road safety during the period.

2.3.12 Recommendations

- State Road Policy and Perspective Plan may be framed without further delay, for effective long term planning for construction and maintenance of roads and optimum utilisation of available resources.
- Considering the large number of projects taken up without any planning and a substantial number of them being incomplete, the State may prioritise these projects for completion rather than taking up any new projects.
- The SOR 2012 requires revision, on priority, especially after introduction of GST, to ensure a sound benchmark for preparing realistic work estimates and to avoid arbitrary cost escalations in works.

- The Department may utilise their budget efficiently, especially under Capital section in the interest of long term asset creation in the State. Besides, the allocation under maintenance head should be augmented and used judiciously for the intended purpose. Close monitoring of the budgetary process is required to avoid unnecessary supplementary provisions and savings.
- In order to frame realistic estimates to determine road width, crust thickness and pavement quality of road works, RBD may conduct road traffic survey/census. Besides, the estimates should be based on actual site attributes, rather than being uniform for the entire State as being done in case of Fair Weather Roads.
- Estimates should be prepared after proper Survey and Investigation Work, to avoid arbitrariness, change in scope of work and avoidable cost escalation.
- In order to ensure transparency, competition and fair play in selection of contractors, NITs should be given adequate publicity as mandated under SPW Manual, including e tendering..
- Responsibility should be fixed for non-imposition of penalty on contractors for delays in completion of works attributable to contractors as well as payment of MA against provisions and sincere efforts made to realize the balance MA. Similarly, detailed investigation may be carried out in cases where undue advantage was given to contractors and estimates were changed arbitrarily.
- In order to ensure the quality of projects executed by the Department, the internal monitoring mechanism needs to be strengthened by proper documentation and by ensuring regular inspections by supervisory officers. Periodic review of projects needs to be intensified for ensuring timely completion of projects.
- The Department may also maintain kilometre-wise status of physical progress of works for better monitoring.
- The Government/ Department may consider five years' maintenance of roads proposed for construction, being embedded in the Request for Proposal (RFP) and estimates itself, as prevalent in Ministry of Road Transport and Highways, Government of India, for National Highways.
- Adequate quality checks should be ensured for materials brought to site and the Quality Control Laboratory at Tadong, Gangtok, be utilised for conducting such tests.

Compliance Audit Paragraphs

PUBLIC HEALTH ENGINEERING DEPARTMENT

2.4 Avoidable expenditure

Delay in acquisition of land for sewerage plant at Rangpo led to avoidable extra expenditure of ₹ 1.82 crore

Para 5.1 of the Sikkim Public Works (SPW) Manual, 2009 envisages that on receipt of technical sanction to the estimate, action should be immediately initiated for taking possession of land acquired by the Government for the purpose. Further, Para 10.4 of the Manual provides that before approval of NIT, availability of site should be ensured. Thus, prior to commencement of any project/ work, availability of encumbrance free land for implementation of project/ work is essential to facilitate timely commencement and completion of the project/work.

Land Revenue and Disaster Management Department (LRDMD) was responsible for acquisition of land required by Government departments and other agencies for implementation of various projects/works. For acquisition of land required by any department/agency, timely requisition should be made to the LRDMD by the concerned department/agency in Form "A" duly indicating the purpose of acquisition, revenue block where land was located, total area of land required, *etc*.

In Sikkim, earlier, the Land Acquisition (LA) Act of 1894 was being followed but from October 2015, the land acquisition is being done as per "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLRR) Act, 2013". Processes followed and the timelines for land acquisition under Land Acquisition Act 1894 were (a) issue of preliminary notice under Section 4, (b) Declaration to be made under Section 6 that particular land is needed for a public purpose and (c) Award to be made under Section 11 within two years from declaration under Section 6.

Ministry of Urban Development, GoI sanctioned the project "Setting up of Sewerage Facility and Construction of Sewerage Plant at Rangpo and Surrounding Areas" at a total cost of ₹4.94 crore in January 2009 under Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT), to be implemented by Public Health Engineering Department (PHED). The project cost was to be shared between GoI and the State Government on 90:10 basis.

Scrutiny of records revealed (January 2019) that the civil work with estimated cost of ₹2.03 crore was awarded to a Rangpo based contractor in March 2009 with stipulated period of completion of two years *i.e.* by February 2011. The PHED without legally acquiring the land, commenced (March 2009) the project based on verbal permission from the concerned land owners to carry out the construction work on their land. After a lapse of more than two years from the date of issue of work order, the PHED approached (December 2011) LRDMD for assessment and inspection of land for the

project. It was seen that while the work was under progress, one land owner⁴⁰ brought the matter of encroachment of his land to the notice of the PHED on several occasions⁴¹, however, the PHED did not take any timely action to acquire the land legally, and instead delayed the land acquisition. No reason for delay in forwarding of application in prescribed form to LRDMD by the PHED was on records.

In the meantime, the GoI enacted "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLRR) Act, 2013", which took effect from 1 January 2014, by repealing the existing Land Acquisition Act, 1894.The Government of Sikkim 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".

Audit noticed that after a lapse of seven years from commencement (March 2009) of the project, PHED requested LRDMD only in February 2016 for acquisition of land of two individuals⁴². Accordingly, the Collector, East District assessed (September 2016) land compensation for land measuring 0.0764 hectares (8223.63 sqft) @ ₹1182.68 per sqft. valuing ₹2,05,98,711/- under new RFCTLRR Act, 2013. The payment of compensation was finalised and released to land owners out of State's own budgetary resources in March2018,whereas had the land been acquired earlier in October 2012, cost of the same would have been @ ₹208 per sqft for land under Land Acquisition Act, 1894 (as assessed by the LRDMD).

Had the PHED taken action for acquisition of land prior to the commencement of the project in 2009 or immediately thereafter, the assessment of the land compensation could have been made as per LA Act, 1894 with lesser prevailing market rates as well as less solatium.

Thus, due to delay on the part of the PHED to submit requisition for land acquisition to the LRDMD and consequential assessment of compensation of land as per new RFCTLARR Act, 2013 had resulted in avoidable expenditure of ₹1.82 crore on land compensation.

While accepting the audit observation, the PHED stated (January 2020) that to complete the project within the stipulated period of two years (February 2011) given by the GoI while sanctioning the project, the work had commenced after obtaining verbal permission from land owners to carry out the work on their land, however, taking the advantage of new Act, land owners claimed the land compensation as per new Act. It was further stated that the request for acquisition of land was submitted in August 2013 and the LRDMD through the Collector, East District assessed the compensation in September 2016.

Reply of the PHED is not acceptable as work order was issued without availability of encumbrance free land violating Para 5.1 and 10.4 of the SPW Manual, 2009. Further,

⁴⁰ Mr. Milan Silwal of Rangpo.

⁴¹ February 2013, November 2013, January 2014, October 2014 and March 2016.

⁴² Mr. Milan Silwal and Mrs. Ambika Silwal of Rangpo

PHED had hugely delayed the land acquisition proceeding, knowing very well that a new land acquisition Act was likely to be enacted, which would increase the cost of acquisition of land for the project.

Recommendation: The State Government may fix responsibility for lapses in land acquisition and resultant extra expenditure.

TOURISM AND CIVIL AVIATION DEPARTMENT (Asian Development Bank Project)

2.5 Non imposition of liquidated damages on contractor for delayed work

The Tourism and Civil Aviation Department delayed timely completion of work "Widening and Strengthening of Ranka-Sajong Road and providing Wayside Amenities along Road in East Sikkim" under ADB funded project. They did not penalise the contractor as per terms and condition of Contract, depriving the public of intended benefit of the work and created a liability of ₹6.65 crore on the State exchequer on account of the re-awarded work.

Good infrastructure is prerequisite for attracting tourists in a sustainable manner. South Asian Tourism Infrastructure Development Project (SATIDP) of Asian Development Bank (ADB) aimed at improving connectivity to tourist destinations by creating tourist infrastructure on selected high-priority sub-regional tourism circuits in South Asia. The State Government implemented the project "Widening and Strengthening of Ranka-Sajong Road and providing Wayside Amenities along Road in East Sikkim" under SATIDP. The implementation of this project lied with the Project Director, Project Management Implementation Unit (PMIU), Department of Tourism and Civil Aviation, Government of Sikkim. The SMEC International Private Limited was appointed (August 2011) as consultant for project design and management, supervision and monitoring of work, carrying out quality control activities, preparing and certifying the Contractor's Bill *etc*.

The work was awarded (April 2013) to one contractor⁴³at a cost of ₹14.35 crore with a scheduled date of completion of 15 November 2015. The State was to bear 22.5 *per cent* of the cost and the ADB would fund the rest. The scheduled completion date was later extended (July 2017) to 15 September 2017 and the contract amount was revised to ₹10.54 crore due to curtailment in scope of work.

Clause 46.1 of the General Conditions of contract entered into with the contractor envisaged that in the event of the contractor failing to comply with the intended time of completion for the whole of the works, or if applicable, any section of work within the relevant time, then the contractor shall pay liquidated damages to the Department at the rate of 0.05 *per cent* of the final contract price per day. The maximum amount of liquidated damages for the whole work was 10 *per cent* of the final contract price.

⁴³ Shri. T. Lachungpa

Scrutiny of records of PMIU in October 2018 revealed that during the course of execution of the project, the Consultant brought (November 2014, January 2015, March 2016 etc.) to notice of PMIU that the contractor failed to mobilise adequate manpower/equipment right from the very beginning of the work, failed to meet the prescribed technical specifications time and again, ignored instructions of the Consultants and the PMIU, withdrew manpower from the site of work time and again without informing the PMIU, did not care to establish labs and testing facilities at the site of work as required under the terms of contract, delayed getting samples tested from recognised institutions *etc*.

As work could not be completed even by revised scheduled date of completion, the Department terminated the contract in March 2018 and final payment of ₹ 5.41 crore (ADB contribution ₹4.19 crore + State contribution ₹1.22 crore) was made to the contractor without initiating any penal action against him. The cost of incomplete portion of work (around 45 *per cent*) amounting to ₹ 5.13 crore (tender value ₹ 10.54 crore – amount paid for work done ₹5.41 crore) was revised to ₹ 7.80 crore in April 2018,which was entirely to be borne by the State Government from its own resources. The remaining work was awarded (May 2018) to a new contractor with a stipulated date of completion by November 2018 and as of April 2019, 45 *per cent* of the work was still incomplete.

Hence, failure of the Department to take timely action on the observations of the Consultant, resulted in the incomplete work and resultant liability of $\mathbf{E}6.65^{44}$ crore besides the delay in achieving intended benefits of the work. The Department failed to take penal action against the defaulting contractor by not imposing liquidated damages to the tune of $\mathbf{E}72.74$ lakh on the contractor.

The Department in its reply stated (December 2019) the reasons behind the delay in execution of the work and subsequent termination of contract; however, it was silent on the matter of non-imposition of liquidated damages on the defaulting contractor.

Recommendation: The State Government may conduct an enquiry in this case to fix responsibility for the deficiencies noticed and the release of entire payment to the contractor, without imposing any penalty on the agency.

⁴⁴ ₹7.80 crore - ₹1.15 crore (22.5 per cent of ₹5.13 crore, which was to be borne by the State as per SATIDP funding pattern)