

CHAPTER-VIII: Compliance Audit of Economic Sector

8.1 Introduction

8.1.1 Profile of Audited Entities

The Accountant General (Economic and Revenue Sector Audit), Rajasthan, Jaipur conducts Audit of the expenditure of twelve economic sector departments¹ falling under the economic sector. These Departments are headed by Additional Chief Secretaries/Principal Secretaries/Secretaries, who are assisted by Commissioners/Deputy Secretaries and subordinate officers. This chapter contains audit findings of nine departments. Audit observations on Tourism, Energy and Industries departments are covered under CAG report on PSUs of Rajasthan.

The summary of fiscal operations of Government of Rajasthan during the year 2017-18 and 2018-19 is given in table below:

Table: Summary of Fiscal Operations in 2018-19

(₹ in crore)

Receipts			Disbursements		
	2017-18	2018-19		2017-18	2018-19
Section-A: Revenue Account					
Tax Revenue	50,605.41	57,380.34	General Services	43,450.36	54,364.06
Non-Tax Revenue	15,733.72	18,603.01	Social Services	53,064.07	65,686.92
Share of Union Taxes/Duties	37,028.01	41,852.35	Economic Services	49,326.98	46,722.12
Grants-in-aid from Government of India	23,940.04	20,037.32	Grants-in-aid and Contributions	0.11	0.09
Total Section-A Revenue Receipts	1,27,307.18	1,37,873.02	Total Section-A Revenue Expenditure	1,45,841.52	1,66,773.19
Section-B: Capital Account and others					
Miscellaneous Capital Receipts	16.61	20.13	Capital Outlay	20,623.28	19,638.20
Recoveries of Loans and Advances	15,133.41	15,158.41	Loans and Advances disbursed	1,334.02	1,113.09
Public Debt Receipts*	28,556.57	37,846.82	Repayment of Public Debt*	11,673.66	16,914.80
Contingency Fund	-	-	Contingency Fund	-	-
Public Account Receipts#	1,56,811.26	1,70,527.88	Public Account Disbursements#	1,47,088.02	1,60,570.22
Opening Cash Balance	8,112.46	9,376.99	Closing Cash Balance	9,376.99	5,793.75
Total Section-B Receipts	2,08,630.31	2,32,930.23	Total Section-B Disbursements	1,90,095.97	2,04,030.06
Grand Total (A +B)	3,35,937.49	3,70,803.25	Grand Total (A+B)	3,35,937.49	3,70,803.25

Source: Finance Accounts for the respective years

* Excluding net transaction under Ways and Means advances and overdraft

Figures of Public Account Receipts/Disbursements are shown on gross basis in **Table**

¹ Public Works Department, Water Resources Department, Forest, Command Area Development, Indira Gandhi Nahar Project, Science & Technology, Information Technology & Communication, Ground Water Department, Environment Department, Tourism, Energy and Industries.

8.1.2 Authority for Audit

The authority for audit by the CAG is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

The Accountant General (Economic and Revenue Sector Audit), Rajasthan, Jaipur conducts audit of expenditure of Economic Sector Departments, including Public Sector Undertakings and Autonomous Bodies of the Government of Rajasthan under the provisions of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 and the Regulations on Audit and Accounts, 2007 issued there under by the Comptroller and Auditor General of India. The principles and methodology for the performance and compliance audit are prescribed in the guidelines and manual issued by the CAG.

8.1.3 Planning and conduct of audit

Audit process starts with the assessment of risk of various Government departments/organisations/autonomous bodies and schemes/projects, etc. Risk assessments are based on quantum of expenditure, criticality of activities, position of overall internal control systems and the concerns of stakeholders. Previous audit findings are also considered in this exercise. During 2018-19, in Economic Sector-II Audit Wing, 1699 party-days were utilised to carry out audit of 256 units. Further, 201 party-days were utilised for conducting a thematic audit. As of March 2019, 2680 Inspection Reports (11248 paragraphs) were outstanding against nine departments under the Economic Sector.

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

8.1.4 Significant audit observations

This chapter contains one compliance audit on Functioning of Department of Science and Technology and five individual paragraphs. The highlights are given in the following paragraphs:

Functioning of Department of Science and Technology

The Department of Science and Technology was established in the year 1983 with the aim to develop scientific temper in the society and to uplift the socio-economic status of the masses especially in the rural areas and the weaker sections of the society by utilising the benefits of science and technology. Regular activities such as observing science day, organising science club, children's science congress, communication and popularization of science activities, entrepreneurship awareness camp, intellectual patent camp and various other seminars/conferences are organised by the Department. Audit of the department revealed:

- The Department could not achieve the financial and physical targets as only 45.65 per cent of allotted budget was utilised, entire budget allotted under State Plan head for various projects of SATCOM Division was surrendered during 2015-16 to 2018-19.
- The Department does not have a departmental manual. No comprehensive policy (long term/short term) and guiding principles except Bio-Technology Policy 2015 were framed by the Department; and even objectives of this policy could not be achieved. The Department has not conducted any survey/study to identify areas in which science and technology can be utilized for achieving the socio-economic objectives of the State.
- The Department could not operationalize Biotechnology and Medical Bio-technology centres at Jodhpur, Nano-technology centre at Jaipur and the progress under SATCOM coaching scheme and Science Clubs was minimal. The internal control systems in the Department were poor as consolidated data in respect of assets created by various institutions/department out of grant released by the Department to them was not available and the utilization certificates were not received in timely manner. The HR management was not streamlined as the cadre rules could not be finalised even after lapse of 36 years since the establishment of the Department and the technical posts were being manned through deputations.
- The Department surrendered ₹ 29.93 crore during 2016-19 allotted under various projects by GoI/State Government. Given the poor efficiency standards prevailing in the Department which have resulted in surrender of grants worth crore of rupees, non-monitoring of a few projects it actually undertook and lack of coordination with user department, the very existence of the departments needs justification.

Based on these findings we recommend that Department may prepare a comprehensive manual to incorporate long term policies and procedure for implementing the mandate given to it. Department may conduct study/survey so that specific problems can be identified and available resources can be utilized for up-liftment of socio-economic status of population through the use of science and technology. Department may ensure that the grants are utilized properly and in a timely manner. Department may prepare the cadre rules on priority so that recruitment to the critical posts can be done on permanent basis and various schemes of department could be implemented and monitored effectively. Department may evaluate the status of science education at school level and prepare an action plan in co-ordination with Education Department to improve the quality of science education in schools.

(Paragraph 8.2)

Public Works Department/Water Resource Department

Public Works Department and Water Resource Department, passed final bills without ensuring proper adjustment under price escalation clause, calculated and paid escalation claims based on wrong Wholesale Price Index base years and wrongly considered the technical bid opening date as the base date instead

of the date of opening of financial bid which resulted in overpayment to the contractors.

(Paragraph 8.3)

In violation of the scheme guidelines, Public Works Department constructed roads with excess width, thickness and in areas where Gramin Gaurav Path scheme guidelines did not permit them to be constructed, without obtaining design from State Technical Agency and prior permission from competent authority.

(Paragraph 8.4)

The Public Works Department, irregularly awarded contract against conditional offer and to non-qualified bidders who did not submit proper documents.

(Paragraph 8.5)

The Public Works Department incurred unfruitful expenditure of ₹ 1.22 crore on construction of flush causeway at wrong chainage in the Ramgarh Pachwara to Kanwarapura road under Pradhan Mantri Gram Sadak Yojna, as a result, a 800-metre portion of the road was washed away during rains.

(Paragraph 8.6)

The Public Works Department, in violation of Public Works Financial and Accounts Rules paid a sum of ₹ 0.78 crore to a contractor within a week of awarding of the work order. The work, however, was started only after a year from the award of the work order.

(Paragraph 8.7)

8.1.5 Follow-up on Audit Reports

The Finance Department of the State Government decided (December 1996) that explanatory notes on all paragraphs/performance audits that have appeared in Audit Reports be submitted to the Public Accounts Committee (PAC), duly vetted by Audit, within three months from the date of laying of the Reports in the State Legislature. No explanatory note on paragraphs/performance audits is pending as of 31 July 2019.

Discussion of Audit Reports by PAC

The status of discussion of Performance Audits and Paragraphs which appeared in Audit Reports (Economic Sector) by the PAC as of 31 March 2020 is as under:

Performance Audits/Paragraphs appeared in Audit Reports vis-a-vis discussed

Period of Audit Report	Number of Performance Audit/Paragraphs			
	Appeared in Audit Report		Paragraphs discussed	
	Performance Audit	Paragraphs	Performance Audit	Paragraphs
2016-17	1	11	1	10
2017-18	2	7	-	-

The discussion on Performance Audits and Paragraphs which appeared in Audit Reports (Economic Sector) up to 2015-16 has been completed.

Department of Science and Technology

8.2 Functioning of Department of Science and Technology

8.2.1 Introduction

The Department of Science and Technology (the Department) was established in the year 1983 with the aim to develop scientific temper in the society and to uplift the socio-economic status of the masses especially in the rural areas and the weaker sections of the society by utilising the benefits of science and technology. Regular activities such as observing science day, organising science club, children's science congress, communication and Popularization of science activities, entrepreneurship awareness camp, intellectual patent camp and various other seminars/conferences are organised by the Department.

8.2.2 Organisational structure

At State level, the Principal Secretary is the administrative head of the Science and Technology Department. At Department level, the Director functions as the Head of the Department for administrative and technical matters. There are five regional offices at Ajmer, Bikaner, Jodhpur, Kota and Udaipur and each regional office is headed by Project Officer/Research Officer. In addition to these, State Remote Sensing Application Centre (SRSAC), Jodhpur and Regional Science Centre and Science Park, Jaipur are also working under respective Project Director (PDs). Specific programme/activities² are conducted by the PDs working at Directorate. Besides this, Project Officer, Satellite Communications (SATCOM) centre, Jaipur reports to the Director.

8.2.3 Audit Objectives

Audit objectives were to assess the:

- Adequacy and effectiveness of the planning of various programmes/schemes/ activities.
- Effectiveness in implementation of the different programmes/ schemes/ activities.
- Effectiveness of Management Information System (MIS) and Monitoring system.

8.2.4 Audit criteria

- Rajasthan Rules of Business 2005;
- Rajasthan Transparency in Public Procurement (RTPP) Rules, 2013 of Government of Rajasthan;
- General Financial and Accounting Rules;
- Guidelines issued by the Department to implement various programme/schemes;
- Circulars and orders issued by Government of Rajasthan.

² Like start up boot club, artificial insemination, SATCOM coaching centres, etc.

8.2.5 Audit Coverage

The audit was conducted during January to June 2019 covering the period from 2016-17 to 2018-19. Records were examined in the office of the Director, Science & Technology Department, Rajasthan, Jaipur along with five Regional Offices³. Records of office of Project Director, State Remote Sensing Application Centre (SRSAC), Jodhpur, Project Officer, Regional Science Centre and Science Park, Jaipur and Project Officer, SATCOM centre, Jaipur were also examined. Besides, audit of major schemes implemented under seven out of 14 divisions⁴ were conducted at Director's office as well as at the concerned Regional Offices. An entry conference with the then Commissioner⁵ was held on 31 January 2019 where audit objectives, scope and methodology of audit were discussed. The "Exit Conference" was held on 27 August 2019 to discuss the findings of the Theme Based Compliance Audit.

8.2.6 Financial Resources

The Science and Technology Department in Rajasthan receives financial resources from both the State Budget as well as from Government of India under the Central grant/assistance as secretarial assistance under Central Sponsored Scheme (CSS) for the sanctioned posts under CSS. There are 26 scientific schemes/ projects⁶ operated by the Department during 2016-19.

The budget allotment and expenditure for three years is as under:

(₹ in crore)

Year	Plan		Non- Plan		CSS		Total	
	A	E	A	E	A	E	A	E
2016-17	35.52	12.48	5.55	4.64	Included in Plan		41.07	17.12
2017-18	27.53	14.26	5.49	5.08	2.10	1.18	35.12	20.52
2018-19	30.44	6.80	6.36	6.03	1.86*	1.96	38.66	14.79

#A stands for Allotment and E stands for Expenditure.

*Further budget revised to ₹ 2.06 crore.

Scrutiny of above table revealed that the budget allotted under State Plan head and CSS for various projects was not fully utilised as it ranged between 27.12 and 52.11 *per cent*. Further, Division-wise allotment of budget and expenditure is given in **Appendix 8.1**, analysis of which revealed that utilization percentage of budget allotment ranged between 21.92 *per cent* and 96.49 *per cent* in 10 out of 14 Divisions during 2018-19 whereas it was Nil in

³ Ajmer (Headquarter situated at Jaipur), Kota, Jodhpur, Udaipur and Bikaner

⁴ Science and Technology, SRSAC, Science and Society, Science Communication and Popularization, Biotechnology, Entrepreneurship Development Programme and Research and Development

⁵ The designation of HoD depends upon the seniority of the officer holding the post.

⁶ In R& D Division (R&D projects, Nano- technology, Student projects, Workshop/ Seminar, Travel support), In SSD Division (Pilot projects such as Sanitary Napkin, Artificial Insemination, Training for women), In Science Communication and Popularization (Science Club, National Science Day, Children Science Congress, Children's Quiz, Academic tour, Science Drama Competition, Science Model and Teaching Aid, Awareness Camp), In EDP Division (EDP Awareness Camp, Skill Development, RTBI/BBI, Start-up Boot Club), In Patent Information Centre Division (IPR Workshop/ Seminar, University IPR Cell), In BT Division (Workshop/ Seminar, Advance Research Centre for Bio- technology), SATCOM training centre and SRSAC.

case of Bio-Technology Research Centre as against allotment of ₹ three thousand. There was no budget allotment during 2018-19 in the remaining three Divisions.

Departments' reply regarding excess demand of budget and short utilisation thereof is awaited (May 2020).

Audit findings

8.2.7 Financial management

8.2.7.1 Financial and Physical targets

Based on the activities undertaken by each Division and considering the budget announcement/ allocation, physical targets (projects to be set-up) as well as financial targets are fixed for each division. Analysis of data and information provided by the Department revealed that the average achievement of financial target of six divisions⁷ during 2016-19 remained between 27.84 *per cent* and 83.84 *per cent* whereas achievement of physical targets remained between 30.22 *per cent* and 94.65 *per cent*.

The State Government accepted (October 2019) the facts and stated that targets could not be achieved due to shortage of technical staff and non-receipt of eligible projects. Grant for projects is released only when the panel finds the project eligible. State Government further stated that due to time consuming process of approval of projects, the Finance Department, based on the less expenditure on the projects, curtails the budget allocation; however, physical targets remain same.

Reply needs to be viewed in light of the fact that the average physical targets achieved ranged from 30.22 *per cent* to 58.38 *per cent* only (Except SRSAC and Science Communication and Popularization) which indicates that more efforts are required on the part of Department for increasing public understanding and capacity through conducting training sessions and increasing coordination with other departments and institutions.

8.2.7.2 Non-utilisation of Financial Resources

According to point 13.6 of chapter 13 of Rajasthan Budget Manual, it is essential that the estimates of expenditure should be accurate as possible.

Scrutiny of records at SATCOM, Jaipur revealed that during 2016-17 to

⁷ SRSAC, Science and Society, Science Communication and Popularization, Biotechnology, Entrepreneurship Development and Research and Development.

2018-19, complete budget allotted under State Plan head for various projects was surrendered as detailed below:

(₹ in lakh)

S. N.	Name of Head	2016-17		2017-18		2018-19	
		Allotment	Surrender	Allotment	Surrender	Allotment	Surrender
1.	Establishment of Receive Only Terminals (ROTs) (Tribal Sub Plan Areas)	375.38	375.38	318.51	318.51	331.00	331.00
2.	Establishment of ROTs (SCSP ⁸ Areas)	501.75	501.75	428.94	428.94	475.00	475.00
3.	Establishment of ROTs	40.01	40.01	00.00	00.00	00.00	00.00
4.	SATCOM Tele- medicine	50.00	50.00	00.00	00.00	00.00	00.00
5.	Upgradation & Expansion of SATCOM Network	00.00	00.00	50.00	50.00	10.00	10.00
Total		967.14	967.14	797.45	797.45	816.00	816.00

The State Government replied (October 2019) that due to change of frequency (October 2017) of satellite on which transmission was going on, updation of technology was required and therefore, the amount could not be utilised. It was further stated that the Department is looking for the possibility of technology replacement and thereafter the network may be expanded.

Since the department was in the process of updating technology, there was no need for the budget allotment for network expansion in the year 2018-19.

Further scrutiny of records of SRSAC, Jodhpur revealed that almost entire budget allotted under State Plan head for various projects was surrendered as detailed below:

(₹ in lakh)

S. N.	Name of Head	2015-16		2016-17		2017-18		2018-19	
		Allotment	Surrender	Allotment	Surrender	Allotment	Surrender	Allotment	Surrender
1.	SATCOM ⁹ (ROTs)	234.22	234.22	0.00	0.00	0.00	0.00	0.00	0.00
2.	Diploma Course	0.00	0.00	50.00	50.00	0.00	0.00	0.00	0.00
3.	Manpower, Vehicle Hiring	0.00	0.00	20.00	20.00	12.00	12.00	0.00	0.00
4.	Lidar Mapping	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
5.	Study of Wetland	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
6.	Impact Assessment of water shed	0.00	0.00	30.00	28.00	30.00	30.00	0.00	0.00
Total		234.22	234.22	102.00	100.00	42.00	42.00	0.00	0.00

⁸ Schedule castes sub plan

⁹ Administrative control of SATCOM was under SARSAC till February 2015

On being pointed out, the Department stated (March 2019) that for SATCOM, budget was allotted by the Department at the end of the year¹⁰, while in respect of diploma course, due to non-availability of separate building and faculty, the budget was surrendered. In case of remaining projects, the funds available under the other schemes were utilized and also due to non-approval from Finance Department and non-operation of activities, the budget allotted was surrendered.

The State Government further replied (October 2019) that the diploma course could not be operationalized due to its non-acceptance by All India Council for Technical Education (AICTE). No comment was made on remaining projects.

Reply is not tenable as the Department was responsible for ensuring timely availability of budget for SATCOM as well as arrangement of building and faculty for Diploma course before allotment of budget. Further, the diploma course could not have been made operational in view of lack of arrangement of building and faculty.

8.2.7.3 Grant-in-Aid from Government of India

Grant-in-Aid received from Government of India (GoI) for various schemes/activities were kept in personal deposit account¹¹ of Rajasthan Council of Science & Technology (RAJCOST), a society working under the Department. Scrutiny of personal deposit account & related report revealed that the entire amount of grant-in-aid received from GoI during 2008-09 and 2009-10 for various schemes were surrendered after five to eight years as detailed below:

(₹ in lakh)

S.N.	Name of schemes and activities	Sanctioned		Amount		Surrendered	
		Amount (₹)	Date	Received (₹)	Date	Amount (₹)	Date
1	Identification inventORIZATION & documentation of sector specific problems requiring SET Input	12.54	20/08/2008	6.77	03/11/2008	6.77	12/08/2016
2	Pilot demonstration project on custom hiring on animal drawn farm implements in tribal areas of Rajasthan	7.23	04/02/2010	5.36	26/07/2010	5.36	12/08/2016
3	Social diffusion of improved hand pumps	27.75	28/01/2010	14.00	13/04/2010	14.00	12/08/2016
4	Understanding planet earth	27.90	24/03/2009	10.00	13/05/2009	10.00	18/12/2014
Total		75.42		36.13		36.13	

¹⁰ on 30th March 2016

¹¹ No. II/547/288

The State Government accepted (October 2019) the facts and stated that due to vacant posts, shortage of technical officers and other administrative reasons, sanctions could not be issued.

Reply is not acceptable as concrete efforts were not made to utilise the grant. This not only resulted in surrender of ₹ 36.13 lakh, but also in loss of opportunity to obtain the second instalment of grant-in-aid of ₹ 39.29 lakh.

Further, audit also observed that in certain cases the Grant-in-Aid received from Government of India (GoI) for various schemes/activities¹² were not utilized in time and funds were lying idle in PD Accounts for period ranging from 76 to 103 months.

The State Government replied (October 2019) that in case of RO plant, remaining amount would be utilised as and when required. In case of Bio-gas plant, several letters have been issued to submit the progress of project and to refund the unspent amount as well as a committee has been constituted (August 2019) for physical verification of the projects. In case of bangle making kiln, decision regarding the outstanding balance would be taken after physical verification of the project.

Reply is not acceptable as the Department was not proactive in ensuring utilisation of funds. Further, the Department could have conducted physical inspection of the bangle kiln during the last eight years, which was not carried out.

8.2.8 Planning

8.2.8.1 Departmental Manual

An ideal Departmental manual describes the long term vision, mission, and policies of an organization and lays down the work processes and procedures.

Scrutiny of records revealed that the Department has not prepared a departmental manual so far (October 2019) *i.e.* even after more than 36 years of its existence. On being pointed out, the Department confirmed the fact.

8.2.8.2 Policy statement and guiding principles

As per the Rajasthan Rules of Business 2005, the duties of the Department include:

- Formulation of Policy Statement¹³ & guiding principles regarding Science and Technology and to monitor their implementation.
- Developing new areas of Science and Technology.
- All necessary steps for enhancement of Science and Technology and their application for development of the State.

Accordingly, the Department identified following objects for itself:

¹² Operation & maintenance of RO plant (SSD), Development & Pilot level demonstration of Biogas enrichment & bottling system of rural & automobile applications and Design & Development of improved kiln for bangle making in Bharatpur District.

¹³ Policy formulation is the development of effective and acceptable courses of action for addressing what has been placed on the policy agenda

- To take necessary measures to promote utilization of Science and Technology for the achievement of the socio-economic objectives.
- To identify areas in which science and technology can be utilized for achieving the socio-economic objectives of the State, and in particular, the objectives of tackling the problems of backwardness, unemployment and poverty in the rural areas.
- To initiate, support, promote and co-ordinate such research and development projects and programmes (including demonstration projects) as are likely to be relevant to the achievement of specific objectives and problems and help in the fruitful exploitation of the natural resources of the State through various institutions and organizations in the State.
- Assessment of status of science education at school level and formation of action plan for strengthening the science education in the State.

Scrutiny of records however revealed that:

➤ No comprehensive policy (long term/short term) and guiding principles except Bio-Technology Policy 2015 were framed by the Department. Further, the Department has not evolved a system to collect data/returns on regular basis from other departments so that comprehensive policy/plan could be prepared.

The Department stated (October 2018) that action plans have been prepared on the basis of reports issued by the Economic and Statistical Directorate, Planning Department. However, no documentary evidence for existence of action plans was provided to audit.

The State Government replied (October 2019) that draft of University IP policy has been prepared and submitted for approval. Besides, a study has been completed by the Department in “*Open Science- Open Innovation*” and policy guidelines would be framed in this area.

➤ Survey/study was not conducted to identify areas in which science and technology can be utilized for achieving the socio-economic objectives of the State, and in particular, the objectives of tackling the problems of backwardness, unemployment and poverty in the rural areas.

The Department accepted the facts and stated that (December 2018) no such survey has been conducted by the Department.

The Department did not initiate any Research projects in absence of survey/study during 2014-15 to 2018-19. However, financial support was provided to 55 Research and Development projects in different areas¹⁴ of various universities/ institutions sanctioned between May 2013 and March 2018. Out of these 55 projects, 10 projects were completed till May 2019. Scrutiny of records revealed that neither effort was made by the Department to communicate the outcomes to beneficiaries/end users nor any user workshop was organised to disseminate the results. Further, no efforts to implement any scheme based on the outcomes of R&D projects were made in coordination with other departments/institutions.

¹⁴ Projects related to Waste water management, treatment of various diseases, De- florodization of water, etc.

The State Government stated (October 2019) that the thrust areas were not selected after study or survey. The topics had been decided by the first expert advisory committee comprising reputed scientists and technologists. The State Government further stated that proposals for organising users' workshop is under submission.

Reply is not acceptable as no evidence in support of the selection of thrust areas by first expert advisory committee were produced to Audit.

➤ A system to evaluate the status of science study at school level in the state was not in place. Further, action plan was not prepared for strengthening the study of science subject.

The State Government replied (October 2019) that the mandate of Department's science popularisation scheme¹⁵ is to popularise science in schools and further stated that evaluation of science study and preparation of action plan is controlled and monitored by the Department of school education.

Reply is not acceptable because preparation of action plan and to evaluate the status of science study was a primary objective of the Department.

8.2.9 Execution of Plans and Policies

8.2.9.1 Bio-Technology (BT) Policy - 2015

The Bio-technology (BT) Policy 2015, was framed with the main objectives of:

- positioning the State as an attractive destination for biotechnology;
- establishment of research institutes of global standard;
- establishment of technology-cum-business incubators for biotechnology innovations;
- creating vibrant service in biotechnology along with manufacturing with all conventional concession/incentive packages;
- creating Biotechnology/Life Sciences Parks to boost bio-manufacturing; and
- providing special incentives to bio-pharma companies for vaccines, diagnostics, drug delivery devices and biosimilar.

According to above policy, the following governance & regulatory mechanism was to be introduced:

- **Rajasthan Biotechnology Council (RBC):** as an Apex advisory body to facilitate Government Industry-Academia interaction and recommend biotechnology programmes relevant to the mandate of State's Biotechnology policy.
- **Rajasthan State Biotechnology Mission (RSBTM):** a body, under the guidance of Secretary, Department of Biotechnology Secretary, Department of Science & Technology, GoI, to work with experts, technocrats, professionals, academicians, industrialists and policy planners

¹⁵ Science Club, National Science Day, Children Science Congress, Children's Quiz, Academic Tour, Science Drama Competition, Science Model and Teaching Aid, Awareness Camp.

to devise and implement policies. Principal Secretary, Science & Technology will be the Member Secretary.

- **Bio-technology Development, Regulatory and Testing Authority:** to serve as a "Single Window" approval body and a database of Rajasthan Biotech sector. It was to regulate and facilitate intellectual property and patenting, research, processes, product procurement and marketing, data use and data confidentiality and provide a uniform platform throughout the State.
- **Web based Regulation:** To carry out regulatory functions which shall be web- based, having a virtual office and network.
- **Bio E-Commerce Agency:** to work under Biotechnology Authority for investment, services, marketing and delivery. This was to be created under the Public Private Partnership mode, if feasible or as an independent Biotech Investment Services and Marketing Authority.

Scrutiny of records related to implementation of BT policy revealed:

Formation of RBC and RSBTM

In compliance of the Rajasthan Bio-Technology Policy 2015, RBC & RSBTM were constituted¹⁶ by Government of Rajasthan, wherein Secretaries of Department of Bio-technology (DBT), Department of Science & Technology (DST) and Department of Atomic Energy (DAE), GoI were also nominated as members. Para 2.6 of circular regarding formation of State/District level committees issued (07/09/2010) by Department of Administrative Reforms, Government of Rajasthan (GoR), stipulates that where officers of Ministries/Departments of GoI are nominated as member of the committees by State Government, then approval must be obtained from concerned Department. Accordingly, the Department of Administrative Reforms advised¹⁷ (March 2016) that approval from GoI may be taken for including secretaries of DBT, DST and DAE before issuing orders for constitution of aforesaid Councils.

Audit observed that orders for formation of said councils were issued (May 2016) before obtaining the consent from GoI, stating that formalities of permission will be completed in a fortnight and the names will be included after obtaining permission. Consent from Department of DBT and DAE has been received however consent from the DST was awaited (January 2019).

On being pointed out (September / October 2018), the Department stated (December 2018) that as the status of both the bodies was not clear, steps were not taken to initiate proposal for meeting with the DST. Further, audit did not find any records regarding meeting or activities undertaken by council/mission since their formation in May 2016.

The State Government accepted (October 2019) the facts and stated that meeting of RBC and RSBTM was not scheduled due to lack of concrete agenda towards implementation of programs.

¹⁶ vide office order number 3807 dated 10/05/2016

¹⁷ as per para 32-33 of note sheet of concerned file

Failure to launch Bio E-Commerce portal, RBRA and web based Regulations

A proposal to setup an E-Commerce Venture in partnership with *Alibaba.com* was sent (January 2016) to Government by Principal Secretary, DST for providing assistance in marketing of Bio-technology products. The proposal was forwarded (February 2016) to Finance Department and Department of Information Technology & Communications (DoIT&C) after approval of the Chief Minister, Rajasthan. The proposal was turned down (March 2016) by Finance Department stating that as per rule of business, IT platform development including e-commerce portal is part of mandate for DoIT&C and DoIT&C has already undertaken similar initiatives and there is no requirement of separate e-commerce portal to be setup by any other Department. Further, the Department resubmitted (March 2016) a proposal for setting up a Bio E-Commerce portal to the Chief Minister which was forwarded (April 2016) to DoIT&C for comments. DoIT&C stated (May 2016) that the existing platform for marketing would be configured to take care of requirements of BT Policy 2015.

The State Government replied (October 2019) that ever since DST has routed the bio-tech agencies to DOIT&C for such requirements of the Bio-enterprises in the State.

Reply is not acceptable as DoIT&C confirmed (May 2019) to Audit that no communication was made by the DST in respect of any services till date.

Similarly, the Rajasthan Biotechnology Regulatory Authority (RBRA) and Web based Regulations were also required to be introduced in compliance to the BT Policy 2015. Scrutiny revealed that proposals regarding formation of RBRA and web based regulations were turned down by the Finance Department as the single window body already existed under Bureau of Investment Promotions, Industries Department and RIICO and the activities of Biotech Sector were being looked after by these departments.

The Department should have coordinated with other departments/bodies about existence/operation of single window system, E-commerce portal before framing the policy but the Department failed to do so. Further scrutiny revealed that the Department had not made any effort to coordinate with the Bureau of Investment Promotions, Industries Department and RIICO even after it became aware of the situation in this regard. The fact was confirmed by these departments (March and May 2019).

The State Government replied (October 2019) that coordination was established with concerned departments such as BIPs, Industries, Pollution Board, *etc.* before framing and finalisation of policy statements.

Reply is not acceptable as no documents in this regard were provided at the time of audit as well as with the reply.

Thus due to lack of coordination with the concerned departments and failure to implement the highly ambitious policy, the intended benefits could not be achieved.

8.2.9.2 Centre for promoting research in Biotechnology and medical Biotechnology

In Budget speech for the year 2013-14, the Hon'ble Chief Minister announced that an advance research centre for promoting research in Biotechnology and Medical Biotechnology would be established at Jodhpur. The proposed centre was to be set up in two phases:

Phase-I: Equipment was to be purchased and centre to be established at a rental accommodation at Jodhpur.

Phase -II: A dedicated centre shall be constructed as per DPR and manpower will be hired.

Work order for providing project development services for the proposed centre was awarded (August 2013) to M/s PDCOR Limited, Jaipur for both the phases for ₹ 25.00 lakh and ₹ 15.00 lakh respectively. Memorandum of Agreement (MoA) was signed on 30th October 2013 between the Department and PDCOR.

Final DPR was to be submitted by PDCOR within 15 days from the date of receiving comments from DST, if any on the draft DPR. The DPR submitted by PDCOR was to be vetted by the committee of three experts and after approval of DPR by the said committee, steps were to be taken for initiating phase II activities. (July 2013).

Scrutiny revealed that DPR for Phase-I was submitted on 3rd January 2014 by PDCOR, while the committee of experts was constituted (20 January 2014) after submission of DPR and letters were issued (29 January 2014) to three experts for obtaining their consent. After receiving their consents, letters were issued for obtaining their vetting comments on 26th February 2014. It was observed that vetting comments of two experts were obtained between 26th March 2014 and 6th August 2014. Vetting comments of third expert were received after a delay of 22 months in December 2015. In between the PDCOR intimated (14 November 2014) that the DPR submitted on 3rd January 2014 may be treated as final report.

Audit observed (October 2018) that:

- Due to non-constitution of expert committee in time and delay in obtaining vetting comments, the PDCOR submitted final report without including the vetting comments of expert committee.
- After final presentation of the DPR for Phase-I (April 2016), steps were not taken to establish the centre and thus even after a lapse of more than three years, the expenditure of ₹ 28.09 lakh incurred on preparing DPR for Phase-I remained unfruitful.
- It was also observed that venue of the centre was shifted from Jodhpur to Jaipur at State Government level but reasons thereof were not found on record.

On being pointed out (September-October 2018), the Department stated (October-December 2018) that decision for shifting the centre was taken at Government level, besides, one of three experts also suggested that it would be more relevant if centre is set up at Jaipur. Reply is not acceptable as due to

lack of proactive action and proper planning, the centre could not be established even after lapse of more than five years.

After further pointed out (July 2019) by Audit, specific reply regarding delay in setting up of centre was not furnished by the State Government, however, it was accepted that establishment of centre has always been top agenda of the Department and is being pursued vigorously at present.

8.2.9.3 Centre of excellence for Nano-technology

According to the budget announcement in the year 2011-12, a centre for promotion of high level research and training program in "Nano-technology" at Centre for Converging Technology (CCT) of University of Rajasthan (UoR) was proposed to be established Accordingly, an agreement was signed (11 February 2012) between the Department and UoR for release of grant to establish the above centre. As per agreement, non-recurring grant of ₹ 8.00 crore during 2011-12 for phase I and ₹ 2.00 crore for phase II during 2012-13 for the purchase of equipment was to be released. Recurring grant of ₹ 1.00 crore every year during 2012-13 to 2014-15 for maintenance and consumables of equipment was also to be released. The Department released ₹ 8.00 crore (30 March 2012) to UoR.

Scrutiny of records revealed that:

- The Department was to monitor the research/training programme of centre through monitoring committee. The committee was constituted in July 2012 but the committee never met till date nor the Department made efforts /called for reports from the committee about the physical/financial progress.
- The Department was to nominate a scientist to carry out research work related to Nano-technology on the basis of proportionate charges on the consumables but the Department did not take any action for nomination of a scientist.
- According to point 2.7 & 2.9 of agreement, the CCT was to prepare and submit all periodical reports and documents that would be required by the Department along with an annual audited statement of expenditure incurred under the project. Scrutiny revealed that efforts were made only for getting utilisation certificate (UC) which was submitted¹⁸ after a prolonged delay but after that the progress of installation of machines and their operation were never called by the Department nor submitted by CCT till date.
- During joint physical inspection of the centre conducted¹⁹ with the officers of the Department & UoR, it was observed that only four equipment (costing ₹ 8.96 crore) could be purchased against requirement of seven due to increase in the exchange rate of US dollar. Further the centre was not in operation as the major equipments were yet to be installed. (June 2019).
- The Department did not provide the grant of ₹ 2.00 crore for 2nd phase and ₹ 1.00 crore each year for maintenance and consumables. Further, it did

¹⁸ on 30th March 2016

¹⁹ 30th October 2018 and on 21st June, 2019

not prepare any plan for operation of centre. Thus, due to non-installation of the equipment, non-release of remaining grant by the Department, the Nano-technology centre could not be operated even after six years of its conceptualization.

The State Government replied (October 2019) that university administration is responsible for delay in procurement and establishment of equipment. It was further stated that two instruments were in operation since 2014 and being used by CCT students and faculty members.

Reply shows that there was lack of monitoring and coordination between DST and UoR. Further, data in respect of use of two instruments was not furnished and an action plan for nomination of scientists to carry out research work was also not prepared.

8.2.9.4 Implementation of SATCOM coaching scheme

Satellite Communication was established in 2005 at *Indira Gandhi Panchayati Raj Sansthan*, Jaipur with Development and Education Communication Unit (DECU), ISRO, Ahmedabad with the objective of training & publicity of activities of various department. The Department is the nodal agency for this project. The program was initially proposed for three successive years from April 2011 and after regular evaluation based on feedback as per criteria prescribed, the program was to be continued in future.

Facility for preparation of entrance examination of engineering was to be provided to about 7000 intelligent students of backward families of remote rural areas of State through SATCOM coaching every year. This coaching was to be provided through 512 Receive Only Terminals²⁰ (ROTs) and 76 Satellite Interactive Terminals²¹ (SITs) established at *Zila Parishad*, *Panchayat Samiti* and Government Senior Secondary School (GSSS) etc.

Details of SATCOM centre in operation and expenditure incurred during 2016-17 to 2018-19 to run these centres is given below:

(₹ in lakh)

Year	Total number of coaching center established		Number of SATCOM classes in operation (%)	Total budget allotment	Total expenditure (%)
	ROTs	SITs			
2016-17	512	76	92 (15.65)	220.00	65.93 (29.97)
2017-18	512	76	46 (7.82)	220.00	46.84 (21.29)
2018-19	512	76	46 (7.82)	100.00	20.24 (20.24)
Total				540.00	133.01 (24.63)

The above table discloses that only 7.82 to 15.65 *per cent* centres were in operation and only 20.24 to 29.97 *per cent* of budget allotment was utilised.

Further, scrutiny of records revealed following deficiencies in operation of the scheme:

- The criterion for registration under the program was that the student should have obtained minimum 50 *per cent* marks in science subject in

²⁰ 312 ROTs established during 2008 to 2010 and 200 ROTs in 2013

²¹ Established during 2008 to 2010

11th class. Duly filled application form was to be submitted through District Education Officer (DEO) and final list of students whom training was to be imparted, was to be prepared after scrutiny by committee of Science & Technology Department consisting Project Director, Project Officer and Research Officer. Scrutiny of records revealed that procedure for inviting application from eligible students and selection of backward students from remote rural areas was not adopted.

- Attendance of students in SATCOM classes at *Zila Parishad* and *Panchayat Samiti* level was to be monitored by a person nominated by DEO. Besides, for evaluation of project, regular feedback was to be obtained from the students once in a fortnight. A format for the purpose was to be circulated to students and collected by SIT operator. SATCOM office, Jaipur was responsible for scrutiny and submission of the feedback to the Departmental Committee headed by Principal Secretary, S&T. However, audit observed that this procedure was not followed.
- DEO was to collect information on selection of participating students from various institutions for evaluation of programme. Scrutiny revealed that neither information was being collected by DEOs for evaluation of programme nor such information was found on record at the Departmental level.
- During Joint Physical inspection of SATCOM centres in 14 out of 46 centres in operation at GSSS, it was observed that:
 - Records related to selection of students, schedule of classes, attendance of students, feedback from students were not maintained at 13 centres.
 - Classes were not conducted for last two to six years at 11 centres.
 - SATCOM terminal was not working at 10 centres. In four out of these 10 centres, terminal was not working for last two to six years.

The State Government accepted (October 2019) the facts and stated that less utilisation of ROTs' was due to migration of satellite to new frequency. In respect of nomination, attendance and feedback from students, it stated that these were being received from nodal officers/principals. In view of the positive feedback the scheme was continued further.

Reply is not tenable as SATCOM classes were not conducted in 11 out of 14 centres during the last two to six years as verified in joint physical inspection with the Department officials.

Thus, the objective of SATCOM coaching to provide facility for preparation of entrance examination of Engineering and Medical courses to students of backward families of remote rural areas was not fulfilled. Audit cannot derive assurance that expenditure of ₹1.33 crore incurred for establishment of SATCOM coaching achieved its desired objective.

8.2.9.5 Project on use of Artificial insemination in livestock

The Department accepted a proposal from PEC limited²² regarding "Pilot Project to increase the population of livestock by using latest technology in artificial insemination" after evaluation by Department of Animal Husbandry (DAH), Government of Rajasthan. Accordingly, administrative sanction for

²² An undertaking of Government of India

₹ 63.05 lakh as well as financial sanction for release of an advance for ₹ 31.52 lakh (50 per cent of grant) was issued (13 May 2016) in favour of PEC Limited. Joint Director (*Prajanan and Gaushala*) DAH was appointed as State Level Nodal Officer and District Deputy Directors of five districts (Jaipur, Udaipur, Nagaur, Bharatpur and Churu) were appointed as district level Nodal Officer²³. Under the project, training for the period of 60 days was to be provided to veterinary officers and artificial insemination (AI) workers at various AI centres in Jaipur, Udaipur and Bharatpur districts.

During scrutiny of records, it was observed that:

- A&F sanction was issued to implement the pilot project in three districts *i.e.* Jaipur, Udaipur & Bharatpur, whereas the training was provided only in Jaipur district and the UC was submitted by PEC Limited for whole amount of ₹ 63.05 lakh as against amount of ₹ 31.52 lakh released as advance.
- The project report submitted (March 2017) by the PEC limited was sent (July 2017) to two of the officials in the DAH for evaluation but their comments were awaited (October 2019). The Department did not take any action to liaison with the higher officials of the DAH in this regard.
- The DAH did not nominate veterinary officers/AI workers for participating in the training programme. However, documents at the Department showed that training was started by a company²⁴ from 16th May 2016 *i.e.* even before the directions were issued by the Department (26th May 2016). The DAH still did not nominate its officials for the training and merely issued telephonic directions to field officers to cooperate with the company imparting the training.
- There was no evidence of a mechanism in existence for maintaining coordination between the Department and DAH to implement the project.
- Neither the Department nor the DAH conducted follow up of the project to analyse the benefits. The Department did not receive nor requested for the progress/follow up report from the nodal officer of DAH regarding implementation and monitoring of pilot.

On being pointed out (December 2018) the Department replied that repeated letters were issued to DAH to obtain the evaluation report. It also stated that nodal officer of DAH was appointed for follow up and monitoring of project but no information in this regard has been received so far.

The State Government replied (October 2019) that the project was implemented only in two districts as per sanction issued by the department and all the details of training are available in project report submitted by PEC Limited. Further, a meeting with DAH would be held to take necessary action/decision to get the project complete in all respects.

Reply is not tenable as it is evident from departmental documents that training was to be imparted in three districts against which training was conducted only in Jaipur district. Further, document regarding nomination/training imparted was neither maintained nor submitted by DST/DAH. Thus expenditure of ₹ 31.52 crore incurred on training remained unfruitful.

²³ vide order 23-02-2016

²⁴ Outsourced by PEC Ltd.

This implies that Department did not take proactive steps to oversee the implementation of a pilot project which could have played an important role in the growth and development of economy of the state.

8.2.9.6 Start-up Boot Club

According to the budget announcement for the year 2017-18, start-up boot clubs were to be established to promote science, technology, engineering & maths (STEM) in 71 model schools in first phase. Under this scheme, “*Raspberry pi kits*” (a small sized computer) were to be provided to the students. A meeting was organised (May 2017) with School Education Department for implementation of this project. Deputy Director (Model School) was nominated as nodal officer from school Education Department and Project Director-II was nominated as Nodal Officer from DST. School Education Department provided the list of 71 Government Model Schools along with nomination of a nodal officer for ensuring coordination. It also provided a list of teachers who were to be provided one-week training. Training was imparted during 14th to 18th March 2018 to 68 teachers²⁵.

Scrutiny of records revealed that:

- The Department of School Education did not provide information on requirement of the kits. No action plan/ mechanism was in place to monitor the operation of these clubs.
- During joint physical inspection of 27 boot clubs out of 71 in operation with the Departmental officers it was observed that:
 - In nine schools, the kits were still in packed condition since March 2018, while in 15 schools, two or three kits were opened through which the initial information was provided to the students. Only in three schools²⁶ training was being imparted properly.
 - Teachers of seven schools who were originally trained were transferred to other schools within one or two months of such training.
 - Majority of the boot clubs’ in-charge accepted that they needed further trainings so that effective teaching could be provided to the students. Records regarding number of students taught and their feedback were not maintained.

The State Government stated (October 2019) that the decision to establish the start-up boot club was taken in a meeting with School Education Department. Further, being nodal authority, monitoring and inspection of start-up boot up clubs was the duty of School Education Department. It also stated that official communication had been done with the Department for optimum use of kits. In respect of feedback, the State Government replied that teachers sent the feedback on the basis of opinion of students.

The reply is not tenable as the Department procured kits based on its own calculations and proposals regarding requirement of these kits were not submitted by school Education Department. Further, feedback sent by School Education Department was not reliable as basis of feedback received from students was neither found on record nor submitted with the reply.

²⁵ Three teachers were absent

²⁶ Model school Kodiya (Kotri), Dibshya (Gangapur city) and Didwana (Lalsot)

8.2.9.7 Establishment of Science Clubs

According to the budget announcement of 2011-12, 5000 science clubs were to be established in secondary/higher secondary schools, where science laboratories already existed and science was taught as an optional subject. Grant of ₹ 10000 for each club was to be provided to eligible schools as financial assistance; to be utilised in the share of 50% each for purchase of science related books, CDs, Posters, Charts, Science Kit, *etc.* and for organizing various science related programmes/activities.

As per guidelines, the evaluation of these clubs was to be done on the basis of activities performed, annual reports & utilization certificate submitted to regional office of the Department. On the basis of annual reports, the best Science Club at Panchayat, District and Division level were to be provided special economic and programme based assistance.

Scrutiny of records revealed that the number of clubs which received assistance decreased continuously as given below:

(₹ in lakh)

Year	Position of science clubs		Amount of grant
	Number of science clubs to which grant released	Percentage of total science clubs to which grant released (base year 2011-12)	
2011-12	5000	100.00	500.00
2012-13	550	11.00	55.00
2013-14	550	11.00	55.00
2014-15	00	00.00	00.00
2015-16	375	7.50	37.50
2016-17	416	8.32	41.60
2017-18	430	8.60	43.00
2018-19	160	3.20	16.00

Thus, only 3.20 *per cent* of the clubs were in operation as of March 2019. Scrutiny revealed that during 2011-12 to 2015-16, grants were released directly to science clubs through regional offices, thereafter, grants were released to concerned DEOs for further release to science clubs. For 2018-19, the Department had released the lump-sum grants to the Director, School Education, Bikaner, from where grants were given to concerned DEOs and thereafter to science clubs. This indicates that the system to release the grants to science clubs was quite ad-hoc. Scrutiny further revealed that:

- Neither any activity report/annual report was submitted by Science Club during 2016-17 to 2018-19 nor the Department made effort to obtain them;
- Stipulation of declaring one of the clubs as best Science Club was not followed. Hence, no special assistance was provided to the clubs which could have further motivated the students.

- The Department did not monitor the activities of these science clubs after releasing the financial assistance and was content with obtaining utilizing certificates only.

On being pointed out by audit, three Regional Offices²⁷ informed (January-April 2019) that evaluation was not done in absence of any report submitted by concerned DEOs. Further, Regional Office, Ajmer intimated that due to lack of staff no monitoring was done while Regional Office, Jodhpur intimated that few evaluation reports²⁸ have been received from Education Department but no further evaluation was done at their level due to excess work load and lack of staff.

The State Government replied (October 2019) that due to curtailment of budget, number of science clubs declined. Best science clubs were not selected due to non-receipt of UC's in time and lack of staff. It was further stated that monitoring of science clubs is being done by regional offices and DEO's.

Reply is not acceptable as in the absence of proper follow-up, evaluation and monitoring of the scheme by the Department, it could not be assured that the scheme served the intended purpose. Hence, objective to generate more interest among the students about science remained unfulfilled.

8.2.9.8 Intellectual Property Rights (IPR) Cell

Intellectual Property Rights (IPR) have become important in the face of changing trade environment. According to the annual report of the Controller General, Patent Design and Trade Mark office, 151 and 186 patent applications were filed in Rajasthan during 2016-17 and 2017-18.

The Department had intended to establish an IPR regime which maximizes the incentive for the generation and protection of IP by inventors. Towards this end, the Department had released grant of ₹ 2.00 lakh each to five universities²⁹ during 2017-18 to establish IPR cell. As per guidelines, quarterly, half-yearly and yearly reports were mandatorily to be submitted by these universities. A steering committee at DST Rajasthan was to quarterly review the progress of these cells.

Scrutiny of records revealed that:

- The percentage of budget utilization ranged between 46.44 and 71.87 per cent. The details are as under:

(₹ in lakh)			
Year	Allotment	Expenditure	Per cent of expenditure
2016-17	35.75	16.60	46.44
2017-18	32.35	23.25	71.87
2018-19	25.57	17.74	69.38

²⁷ Bikaner, Kota and Udaipur

²⁸ One out of 125 in 2015-16, 25 out of 100 in 2016-17 and five out of 100 in 2017-18

²⁹ 1. University of Rajasthan, Jaipur 2. Kota University 3. Rajasthan Technical University Kota 4. Jai Narayan Vyas University, Jodhpur and 5. Maharshi Dayanand Saraswati University, Ajmer

- Department has not set physical and financial targets for organizing IPR awareness camp and activities.
- The Department failed to prepare and submit reports on achievement of organizing IPR camp, conference and workshop to Finance Department as well administrative department
- Department has not maintained data regarding filing of application for patent, copy right and design in the State of Rajasthan. When enquired it quoted the data (for 2016-18) from the annual report of the Controller General, Patent Design and Trade Mark office.
- The annual report of the Department says, “*the Department will create such a system which can promote the inventors to create and protect the intellectual property rights*”. However, no action plan to implement this objective was available. Further, the Department submitted a list of 16 cases where it assisted the concerned individual/institution in filing of patents. This shows that the role of the Department was negligible in this regard.
- Out of five universities, two universities³⁰ did not take steps to establish IPR cell.
- No document in support of quarterly review conducted by steering committee of these cells was found on record.

Thus, the objective of establishment of the cell was not fulfilled.

8.2.10 Monitoring

8.2.10.1 Monitoring of grant-in-aid sanctioned

According to Rule 281 (v) to (vii) of General Financial & Accounting Rules, unless it is otherwise ordered by Government, every non-recurring grant made for a specific object is subject to the following implied conditions:

- The grantee institutions as well as sanctioning authority shall maintain a register in the prescribed format of the permanent and semi-permanent assets, immovable and moveable property of a capital nature, the value of which exceeds ₹ 1,000/- acquired wholly or mainly out of Government grants.
- Such register shall be maintained by the grantee institutions and a copy thereof shall be sent to the sanctioning authority annually.
- This record shall be of permanent nature and shall be posted on the basis of annual return furnished by the grantee institution in terms of condition No. (v).
- The registers mentioned shall be available for scrutiny by audit.

Scrutiny of records revealed that the Department operated schemes such as Centre for Excellence in Nano Technology, Reverse Osmosis Plant, Sanitary Napkin Pilot Project, Rural Technology Business Incubation, SATCOM coaching centres etc. and released grant for them to various institutions/departments. However, the Department did not have consolidated

³⁰ Jai Narayan Vyas University, Jodhpur and Maharshi Dayanand Saraswati University, Ajmer

data in respect of assets created by various institutions/departments out of the grant released to them.

The State Government accepted (October 2019) the facts and stated that a consolidated asset register in the prescribed format will be maintained.

8.2.10.2 Maintenance of grant register

According to the instructions issued under Rule 287 (c) of General Financial & Accounting Rules, a register of grants shall be maintained by the sanctioning authority.

Scrutiny of records revealed (December 2018) that no such register was maintained by the Department.

On being pointed out (July 2019) by Audit, the State Government accepted (October 2019) the facts and stated that a consolidated grant register in the prescribed format will be maintained.

8.2.10.3 Utilization certificates of the grant-in-aid disbursed

According to Rule 281 of General Financial & Accounting Rules, unless it is otherwise ordered by Government, every non- recurring grant made for a specific object is subject to the conditions that the grant will be spent upon the object within a reasonable time, if no time limit has been fixed by the sanctioning authority. As per rule 282 (1), the reasonable time should ordinarily be interpreted to mean 'one year' from the date of issue of letter sanctioning the grant.

During audit, it was observed that utilization certificates (UC's) for ₹ 6.30 crore in 202 cases were not received up to March 2019. Non-submission of UCs' ranging from one to nine years by grantee institutions is reflection of lack of proper monitoring on part of the Department.

On being pointed out (July 2019) by Audit, the State Government accepted (October 2019) the facts and stated that efforts are being made to clear the pendency of UC's.

8.2.11 Human Resources Management

The Department selected Project Directors, Project Officers, Research Officers through Rajasthan Civil Service Rules 1986 (Special selection service rules) i.e. on deputations from universities, colleges and scientific institutes. This meant that the critical functionaries in the Department did not had permanent tenure.

Permanent cadre rules have not been framed till now (October 2019). In 2009 a beginning was made in this regard when while submitting the proposal for framing of cadre rules, it was argued that due to non-framing of permanent cadre rules, the officers were not feeling connected with the Department, resulting in low progress of various schemes. Assurance was given in the legislative assembly during 2012-13 that finalisation of cadre rules were under process and would be finalised soon. Hon'ble High court, Rajasthan Jaipur in

its decision (January 2017) also directed the GoR that rules should be framed for permanent selection of officers in the Department so as to provide continuity of tenure. Despite the above efforts, the cadre rules could not be finalised till date (October 2019).

On being pointed out (July 2019) by Audit, the State Government accepted (October 2019) the facts and stated that formation of cadre rules is in final stage.

8.2.12 Conclusion

The Department could not achieve the financial and physical targets as only 45.65 per cent of allotted budget was utilised, budget allotted under State Plan head for various projects of SATCOM Division was surrendered during 2015-16 to 2018-19.

The Department does not have a departmental manual. No comprehensive policy (long term/short term) and guiding principles except Bio-Technology Policy 2015 were framed by the Department; and even objectives of this policy could not be achieved. The Department has not conducted any survey/study to identify areas in which science and technology can be utilized for achieving the socio-economic objectives of the State.

The Department could not operationalize Biotechnology and Medical Bio-technology centres at Jodhpur, Nano-technology centre at Jaipur and the progress under SATCOM coaching scheme and Science Clubs was minimal. The internal control systems in the Department were poor as consolidated data in respect of assets created by various institutions/department out of grant released by the Department to them was not available and the utilization certificates were not received in timely manner. The HR management was not streamlined as the cadre rules could not be finalised even after lapse of 36 years since the establishment of the Department and the technical posts were being manned through deputations.

The Department surrendered ₹ 29.93 crore during 2016-19 allotted under various projects by GoI/State Government. Thus it failed to achieve its main objectives of developing scientific temper in the society and uplifting the socio-economic status of the weaker section of the society by utilising the benefits of science and technology. Given the poor efficiency standards prevailing in the Department which have resulted in surrender of grants worth crore of rupees, non-monitoring of even the few projects it actually undertook and lack of coordination with user department, the very existence of the department needs justification unless it takes its prescribed work seriously and produces desired results.

8.2.13 Recommendations

- *Department may prepare a comprehensive manual to incorporate long term policies and procedure for implementing the mandate given to it.*
- *Department may conduct study/survey so that specific problems can be identified and available resources can be utilized for up-liftment of socio-economic status of population through the use of science and technology.*

- Department may ensure that the grants are utilized properly and in a timely manner.
- Department may prepare the cadre rules on priority so that recruitment to the critical posts can be done on permanent basis and various schemes of department could be implemented and monitored effectively.
- Department may evaluate the status of science education at school level and prepare an action plan in co-ordination with education department to improve the quality of science education in schools.

Public Works Department/Water Resource Department

8.3 Payment of final bills without ensuring proper application of price escalation clause led to over payment/excess payment to contractors

Public Works Department and Water Resource Department, passed final bills without ensuring proper adjustment under price escalation clause, calculated and paid escalation claims based on wrong Wholesale Price Index base years and wrongly considered the technical bid opening date as the base date instead of the date of opening of financial bid which resulted in overpayment to the contractors.

- Relevant provisions of Public Works and Financial & Accounts Rules³¹ and rules regarding works sponsored under Central Road Fund (State Roads) Scheme Rajasthan Road Sector Modernization Project (RRSMP) stipulated the manner³² in which contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants and other inputs to the works.
- Finance Department, Government of Rajasthan, directed (May 2004) that “if rates received on the date of opening of tenders have been accepted then the date of opening of tender shall be considered for price adjustment.
- Ministry of Road Transport and Highways (MoRTH), Government of India, in view of new series of Wholesale Price Index (WPI) with base year 2011-12 issued (June 2018) office memorandum wherein it was mentioned that work orders awarded prior to April 2017 will be governed under 2004-05 WPI series and 2011-12 WPI series to be used for the works executed after March 2017.
- Further, after the matters of irregularities in price escalation clause were referred by Audit (November 2015), the Chief Engineer & Additional Secretary, Public Works Department (PWD) Rajasthan directed (January 2016, April 2016, June 2016, September 2016 and February 2018) the field divisions to ensure strict adherence to the price variation clause and instructed that Final Bills will not be paid without adjustment of price escalation and

³¹ Clause 45 of appendix “XI” of Public Works and Financial & Accounts Rules, Clause 47 of Special Conditions of Contract (SCC) of Special Bidding Documents (SBD) adopted for works sponsored under Central Road Fund (State Roads) Scheme and Clause 47 of Special Conditions of Contract (SCC) adopted for Rajasthan Road Sector Modernization Project (RRSMP)

³² Condition No. 4 of General Conditions for admissibility of Escalation, condition No. 26 of Section 4 (Contract Data) and 47 (h) respectively indicating the coefficients of various inputs and the sources of indices for various schedules of Bill of Quantities (BOQ) and stipulating that “Unless otherwise stated in the SCC, the price adjustment shall be done in every quartet/each monthly IPC (as the case may be).

Divisional Accountant/Divisional Officer will be held responsible for financial irregularity/financial loss to Government.

Scrutiny of records of test checked divisions of Public Works Department and Water Resource Department revealed cases of excess/over payment of price escalation due to non-compliance of above mentioned directions as enumerated below:

(₹ in crore)

Department	Name of Division	Name of Work	Amount paid as escalation	Amount which should have been paid	Excess payment	Remarks
		Contract Amount				
PWD	Khanpur	Package No. RJ19-WB-RRSMP-43	--	(-) 0.83	0.83	Final bill passed without adjustment of escalation paid earlier. Recovery effected after Audit pointed out.
		₹ 15.95 crore				
PWD	Chaabra	RIDF-XX Package No. RJ-04-03/Non-Patchable/RIDF-20/5054/2014-15	--	(-) 0.48	0.48	Final bill passed without adjustment of escalation paid earlier. Recovery effected after Audit pointed out.
		₹ 18.57 crore				
PWD	Nimbahera	CRF Job No. CRF-844/ RJ/ 2015-16	0.244	0.00002	0.24	Division paid escalation claim based on 2011-12 WPI Index instead of 2004-05 WPI Index.
		₹ 46.70 crore				
		CRF Job No. CRF-864 /RJ /2015-16)				
		₹ 16.54 crore				
PWD	Division-I Alwar	CRF Job No. CRF-844/ RJ/ 2015-16	1.67	0.71	0.96	Division paid the escalation claim considering the technical bid opening date as base date. Recovery is pending.
		₹ 21.21 crore				
WRD	Bundi	Bada Naya Gaon Minor Irrigation	0.65	0.45	0.19	Division paid the escalation claim considering the

		Project				technical bid
		₹ 18.57 crore				opening date as base date. Recovery is pending

- The State Government accepted the over/excess payment in 03 out of 05 cases and intimated that PWD Division Khanpur, PWD Division Chhabra and PWD Division Nimbahera recovered the objected amount of ₹ 1.64 crore³³ whereas overpayments of ₹1.15 crore made by PWD Division-I Alwar and WRD Division Bundi were contested.

- State Government in its replies (August 2019) stated that the payment of price escalation by PWD Division-I Alwar was made as per the provisions mentioned in the memorandum and circular issued (May 2004 and July 2018) by Finance Department. Further opening of technical bid is initial stage of tendering process and financial bid can be opened any time after opening of technical bid. The contractor cannot be held responsible for delay, if any, in opening of financial bid.

- State Government in respect of excess payment made by WRD Division Bundi, stated (September 2019) that specific provision for tender opening dates to be considered for the purpose of escalation does not exist in the clause 45 of PWF&AR and Departments like Rajasthan Urban Infrastructure Development Project (RUIDP) and PWD issued instructions to consider date of opening of technical bid as the base date for the purpose of calculation of escalation. Further, it was mentioned that clause 3&4 of Indian Contract Act 1872 provides that department is liable to accept the successful tender from the very first day, the process of opening of tender begins hence the price escalation was given considering the date of opening of tender.

- The replies are not acceptable, as the memorandum issued by Finance Department (May 2004) is self-explanatory as it lays down that *“if rates received on the dates of opening of tender have been accepted, then the date of opening of tender shall be considered for price adjustment”*. Thus, as the rates are not received on the date of opening of technical bid, the date of opening of financial bid when the rates are first known, should be considered as the base date. Finance Department circular of July 2018 is not relevant in this case as it does not have retrospective effect. Moreover, power to interpret the PWF&AR rules rests with the Finance Department and hence Department should not have relied upon the interpretation by other agencies.

Further, it is also pertinent to mention that these audit findings are based on our analysis of cases in selected divisions only and there is a possibility of more such cases occurring in the remaining divisions. Therefore, the Government is expected to review all other cases having possibility of similar deficiencies/irregularities and required to take corrective action.

³³ PWD Khanpur recovered ₹82.04 lakh vide Voucher No. 661 dated 09/01/2019 and ₹0.74 lakh vide DD No. 460465 dated 02/01/2019. PWD Division Chhabra recovered ₹47.29 lakh vide voucher No. 90 dated 31/03/2018 and PWD Nimbahera recovered ₹32.53 lakh vide Voucher No. 67040 dated 11/12/2019.

8.4 Irregular expenditure on construction of Gramin Gaurav Path roads in violation of the prescribed guidelines

In violation of the scheme guidelines, Public Works Department constructed roads with excess width, thickness and in areas where the scheme guidelines did not permit them to be constructed, without obtaining design from State Technical Agency and prior permission from competent authority.

- Gramin Gaurav Path (GGP) is a Flagship Scheme of Government of Rajasthan initiated in 2014. The main objective of the GGP Scheme is to construct Cement Concrete roads and drain at each Gram Panchayat Headquarter with the purpose of creating neat and clean environment and also provide damage free roads for commuters at each Gram Panchayat Headquarters. The constructed length of roads under this scheme is ranging from 0.5 km to 2.00 km. Average construction of road of 1.00 km at each Gram Panchayat Headquarter is taken. A total 6820 GGP works for 6427.49 km road length were undertaken with an expenditure of ₹ 2994.12 crore (up to December 2019).

The roads were to be made under the following specifications:

- (i) Proposals for 3.75-metre wide and 150 mm thick Cement Concrete (CC) roads only be prepared under the Gramin Gaurav Path (GGP) scheme.
- (ii) The field divisions to get the design of Cement Concrete (CC) pavement prepared by the nearest government engineering college State Technical Agency (STA) on priority and if thickness of CC pavement as per the design obtained from STA was more than 150 mm, permission of Chief Engineer (Roads) would be obtained before execution of CC pavement.
- (iii) Proposals of GGPs for the Panchayat headquarter (PHQ) situated on State Highways (SH) /Major District Roads (MDR) and roads proposed under Public Private Partnership (PPP) should not be taken up.
- (iv) The width of the GGP roads may exceed 3.75 metre, if the width of the existing road is broader. However, in that case, length of the road should be reduced to the extent that the quantity of CC M-30 to be used does not exceed from the total quantity of CC M-30 mentioned in the Bill of Quantities (BOQ). Principal Secretary, PWD Rajasthan further warned that the concerned executive engineers would be held responsible for any irregular work executed.

Test check of records in the PWD Divisions revealed cases of non-compliance of scheme guidelines and irregular construction of GGP roads as stated below:

I. PWD Division Bhawani Mandi in violation of the instructions mentioned above, without approval of design by STA, considered IRC: 58-2002 meant for construction of Highway designs and constructed nine roads³⁴ with 200 mm thick CC pavement instead of 150 mm thick CC pavement. This resulted in an irregular and avoidable expenditure of

³⁴ package No. RJ/19/04/5054/GGP Road/Plan/2016-17

₹ 0.70 crore as per details given in **Appendix 8.2**. On being pointed out by Audit, Public Works Department, in its reply (July 2019) stated that the design prescribed 200 mm thick CC pavement due to traffic load and soil of Jhalawar being black cotton soil. Further, it quoted the directions (March 2015) by the Principal Secretary, PWD, Rajasthan that 200 mm thickness of road can be taken as per site requirement with the prior approval of Chief Engineers (Roads), PWD, Rajasthan. State Government in its reply (December 2019) submitted the Ex-Post Facto sanction of Chief Engineer, PWD Rajasthan for construction of 200 mm CC pavement but did not respond to the issues regarding adoption of improper IRC and non-approval of design by STA.

The reply was not acceptable as the Chief Engineer (Roads) had directed (January 2015) that if thickness of CC Pavement as per design obtained from STA was more than 150 mm, permission would need to be obtained before execution of CC Pavement. Documents of eight roads submitted by the Department revealed that designs were not obtained from the STA. Moreover, the designs of these low traffic volume village roads were prepared based on the IRC: 58-2002 Guidelines. These guidelines, however, were applicable for the design of Plain Jointed rigid pavements for high volume highway roads and the IRC: 58-2002 itself restricts its applicability for designing low volume village roads. The appropriate design for such low volume village roads was IRC: SP: 62-2014.

II. PWD Division Kekri implemented two road works³⁵ in open area having no habitation and on Major District Road respectively and incurred an expenditure of ₹ 78.84 lakh³⁶. Image obtained from the Google map in respect of road SH-7E Km 7/200 to *Margola Ganeshpura Tiraha* indicates that the road was constructed in open area outside the habitation area in violation of the scheme guidelines. State Government in its reply (October 2019) stated that Chief Engineer's instructions of September 2014 did not apply to GGP road constructed by PWD Kekri on SH-7E Km 7/200 to *Margola Ganeshpura Tiraha* being bypass road and not a State Highway. Further, GGP road *Nagola PHQ on Kekri Bijay Nagar Road* (Km 29/00 to 30/00) was constructed on thickly populated village portion benefitting maximum population of the village.

The reply is not tenable as construction of GGP roads were aimed to provide water and mud free quality road in main portion of selected gram panchayats to benefit habitants at large. Construction of GGP roads in open area/higher category of roads was prohibited as per instruction mentioned *ibid*. Further, Guidelines regarding GGP Works issued (April 2018) strengthens the audit opinion wherein it was mentioned that construction of Gramin Gaurav Path is not to be carried out in open area and on MDR.

³⁵ package No. RJ-01-03/GGP-III/Plan/2017-18 viz. SH 7-E Km 7/200 to *Marogla Ganeshpura Tiraha Road* (bypass in Fatehgarh village) and *Kekri Bijainagar road* (Km 29/00 to 30/00 (PHQ Nagola))

³⁶ ₹ 27, 79,148/-+₹ 43, 40,541/-= ₹ 71, 19,690 minus TP@ 2 percent=₹ 6977296/- plus Prorata @ 13 Percent= ₹ 907048. Total Expenditure = ₹ 7884344/-

III. In PWD Division Nagaur despite the existing width of the roads being 3.75 metre only, the Division, in violation of instructions/scheme guidelines, constructed 5.50-metre-wide roads, and thus incurred an irregular expenditure of ₹ 1.42 crore (**Details in Appendix 8.3 and 8.4**). PWD Division Nagaur stated (February 2019) that traffic density on GGP roads constructed³⁷ were too high and carriage way width of 3.75 metre road was inadequate for movement of villagers, animals & vehicles and these roads remained water logged due to discharge of drain water from the nearby houses. Hence, on the demands of villagers, public representatives and the member of legislative assembly, these roads were constructed with a width of 5.50 metre. State Government, in its reply (November 2019) stated that the villages where the GGP roads were constructed are in close proximity to the mining area and overloaded heavy vehicles ply on these roads and in view of instructions of the Principal Secretary (March 2015) and survey/inspection of existing roads, which were 5.50-metre-wide, proposals, being technically essential and as per scheme guidelines, were prepared and GGP roads were constructed as per the technical sanctions and the BOQ. The Government also stated that the width of *Gangawana* and *Chutisara* GGPs were increased on account of the traffic load of passenger car units (PCU) being above 2000.

The reply is not acceptable as the linear charts of the 10 GGP roads prepared before sanction of the works depict the width of existing roads as 3.75 and not 5.50 metre as being claimed by the Government in its reply. Further in support of the reply, the State Government has enclosed linear chart of 5.5-meter-wide GGP *Sinod, Chainar, Tankla, Chhilo, Hanuman Nagar, Rohini and Singad*, but as per the linear chart of these roads available with audit, their width was only 3.75 metre. Further, Audit observed that the norm of 2000 PCU is applicable for Black Topped (BT) roads and not for the CC roads. As per the IRC specifications SP: 62-2014, the prescribed width for rural roads was 3.75 metre for a load of up to 450 commercial vehicles per day (CVPD) whereas in the case of *Gangawana and Chutisara* GGPs, the CVPD was 323 and 341 respectively.

Thus, it can be seen that Department constructed GGP roads in violation of the Scheme guidelines and incurred an irregular expenditure of ₹ 2.91 crore.

Further, it is also pertinent to mention that these audit findings are based on our analysis of cases in selected divisions only and there is a possibility of more such cases occurring in the remaining divisions. Therefore, the Government is expected to review all other cases having possibility of similar deficiencies/irregularities and required to take corrective action.

³⁷ Package No. RJ-24-14/GGP-II/P/2016-17 and RJ-24-15/GGP-II/P/2016-17

8.5 Acceptance of conditional bids and improper technical evaluation/processing of tenders resulted in irregular expenditure

The Public Works Department, irregularly awarded contract against conditional offer and to non-qualified bidders due to improper tender evaluation as it awarded the contract to bidders who did not submit proper documents.

A. Rule 29 of Public Works Financial and Accounts Rules stipulates that contractors shall submit only unconditional tenders. *Conditional tenders are liable to be rejected summarily.* Chief Engineer cum Additional Secretary, Public Works Department, Jaipur issued (December 2009) instructions making submission of rate analysis in tenders of ₹150 lakh or above mandatory.

- Test check of records of the PWD Division-II, Sawai Madhopur (December 2018) revealed that the four contractors who participated in the tender³⁸ did not comply with the instructions issued by the Chief Engineer cum Additional Secretary, PWD, Rajasthan vide which submission of rate analysis had been made mandatory. Instead of submitting rate analysis, the contractors submitted conditional letters stating that rate analysis would be submitted if their respective firm became lowest. Despite the fact that offers being conditional were required to be summarily rejected, the Department considered them and finalized the tenders.

The matter was referred (March 2019) to the State Government for comments. Public Works Department, Government of Rajasthan in its reply (April 2019) stated that: -

➤ All the firms who participated in the tender had submitted a conditional declaration that ‘Rate Analysis would be submitted, if their firms became L-1’. This conditional declaration does not have any financial/technical implications on sanction of tender.

➤ In view of the tender premium received being 15.51 *per cent* below Schedule “G” based on BSR 2014, receipt of rate analysis does not seem justifiable. It is pertinent to mention that the work has been completed.

The reply is not acceptable as submission of rate analysis with tender documents was mandatory and conditional offer is in clear violation of rules; hence offers of tenderers were required to be summarily rejected. Moreover, there is no evidence on record that the Department finalized the conditional offer after proper justification and due care. The arguments being given now are more in nature of afterthought. Thus, processing of conditional tender was irregular, in violation of the Public Works Financial and Accounts Rules and the instructions issued by CE&AS PWD.

B. Principal Secretary (PWD) Rajasthan, while observing short falls in technical evaluation by subordinate offices, directed (March 2015) that all information as envisaged in technical bid evaluation checks list alongwith submission of copies of valid registration certificates, tax clearance certificates etc. of all contractors participated in the tender should be ensured. Further, Clause 4.4.5 of Section-I i.e. Instructions to Bidders (ITB) of Standard

³⁸ Gramin Gaurav Path (Package No. RJ-28-02/GGP/II/P/2016-17 in District Sawai Madhopur)

Bidding Document (SBD) of Central Road Fund (CRF) works stipulated that the applicant should own or should have assured ownership to the key items of equipment, in full working order, and must demonstrate that, based on known commitments; they will be available for use in the proposed contract

- Government of India, Ministry of Road Transport and Highways (MORTH), issued (October 2015) consolidated administrative approval of 53 works to be financed from CRF scheme including sanction of a work in Fatehpur Division, Sikar³⁹ for ₹ 12.23 crore. PWD Division, Fatehpur issued (March 2016) the work order to *M/s Surendra Kumar Bansal*, (Contractor). The Contractor has been paid ₹ 11.00 crore up to September 2018.

Test check (February 2019) of records of the Division revealed that the technical evaluation sheet prepared by the committee revealed that L-1 contractor *M/s Surendra Kumar Bansal* was declared “*Non Responsive due to Insufficient T&P*” alongwith 2 other contractors. Later, the committee, accepting the affidavit given by the contractor with the tender documents (which was in fact already available at the time of bid evaluation), declared the firm as responsive bidder, which was irregular and against the stipulated norms of qualification. Audit observed that contractor submitted the ownership documents for only 04 among the 13 items of plant and machinery. Detailed analysis is enumerated in **Appendix 8.5**.

State Government in its reply (February 2020) stated that on an initial examination of the bid documents of 10 bidders due to an inadvertent error, the affidavit submitted by the Contractor regarding the availability of machinery and equipment’s of bid evaluation sheet was not taken into account and the bidder was declared non-responsive. Later, tender evaluation committee, in view of availability of notarized affidavit with tender documents uploaded by the Contractor, declared it as responsive and it became L-1 among 8 bidders who were declared qualified under technical criteria.

The reply is not tenable as if uploading of notarized affidavit to assure proof of ownership of plant and machinery available with the bidder is the sole criteria/requirement for capacity verification, then departments’ action to declare *M/s Deep Jyoti Company, Shri Ganganagar* as “*Non-responsive*” is not in order as that firm also uploaded a notarized affidavit regarding availability (owned or leased) of required plant and machineries. Further, *M/s Surendra Kumar Bansal*, failed to prove ownership of tipper trucks, Front End Loader and Smooth Wheeled Roller. Firm did not upload the ownership documents of these construction machineries as well as confirm lease agreement to assure the availability of plant and machineries shown as leased. Department should have summarily rejected the bid of *M/s Surendra Kumar Bansal* as was done in case of *M/s Deep Jyoti Company*. Thus, it can be seen that irregular processing of tender resulted in selection of “*Non Responsive Bidder*” and irregular expenditure of ₹ 11.00 crore.

³⁹ Widening and strengthening of Sikar-Salasar Road SH-20 (5.50 meter to 7 meter) km. 39/00 to 44/00 and Ajmer Deedwana Salasar Road SH-60 (3.75 meter to 7 meter) km. 193/500 to 198/500 and construction of drain with CC pavement in village Ganeri (on SH-60) Road”

C. Instructions to Bidders (ITB) of Bid Documents for Gramin Gaurav Path Scheme stipulates that the bidder should be able to deploy the machinery and equipment as specified in Schedule-III of Bid Documents. Further it also mandated uploading of valid Tax Clearance Certificate (TCC) and stipulated that bidders have to submit Bank Certificate for 10 *per cent* of Bid cost. If a bid is not accompanied with the requisite documents or is not in accordance with the procedure specified it would be liable for rejection.

- PWD Division, Fatehpur issued (November 2017) the work order for eight roads⁴⁰ for ₹ 3.29 crore to the contractor. The contractor has been paid ₹ 2.18 crore till September 2018. Work is not yet completed (May 2020)

Test check (February 2019) of records of the Division revealed that the Office of the PWD Zone-I Jaipur invited and evaluated the tender without ascertaining correctness/validity of the essential documents submitted by the successful bidder. Audit observed that the contractor, submitted the Bank Certificate for ₹ 40 only against the requirement of Bank Certificate of value not less than 40 lakhs. Further, against the requirement of tax clearance certificate issued not prior to 6 months before the date of opening of tender, contractor submitted Tax Clearance Certificate of November 2016 with validity up to December 2016. As tender was opened in the month of August 2017, contractor should have submitted the tax clearance certificate issued in the month of February 2017 or later.

Apart from above, scrutiny of bid documents revealed that contractor had not submitted the ownership documents for the items of tools, plant and machinery. Further, contractor uploaded an affidavit for tools, plant and machinery showing them to be available on lease. However, as the affidavit submitted by the contractor did not contain signature of both parties (i.e. the party from whom the equipment was taken on lease) nor any terms and conditions, it is not a complete document under the essential conditions of a contract. The matter was brought to the notice of State government for comments (October 2019).

State Government stated (February 2020) that in view of notarized affidavit uploaded by the contractor, it was declared as successful. It also mentioned that new tax system of GST was rolled out (July 2017) at the time of NIT (23/08/2017) and contractor submitted GST registration certificate alongwith tax clearance certificate valid up to December 2016. Further, contractor uploaded the certificate of working capital issued by bank for ₹ 40/- against the requirement of ₹ 40 lakhs. Tender evaluation committee, assuming it to be a typing error, considered the offer valid as normally banks issue such certificates in lakhs.

The reply is not acceptable as the contractor failed to upload ownership documents and valid confirmed lease agreement for tools and machinery and non-completion of work till now strengthens the audit opinion about the incapability of the contractor. Further, roll out of GST does not have any effect on issue of tax clearance certificate. Moreover, reply that the committee assumed bank certificate of ₹ 40/- as ₹ 40 lakhs is an afterthought as no such

⁴⁰ Package No. RJ-29-04/5054/GGP-III/2017-18 District Sikar

comments are available in the committee's proceedings. Further, assuming a certificate to be of a particular value is fraught with danger in case the contractor does not finally complete the work. The Department should have ensured correctness of the Bank certificate and Tax Clearance Certificate before finalizing the tender.

Further, it is also pertinent to mention that these audit findings are based on our analysis of cases in selected divisions only and there is a possibility of more such cases occurring in the remaining divisions. Therefore, the Government is expected to review all other cases having possibility of similar deficiencies/irregularities and required to take corrective action.

8.6 Unfruitful expenditure on construction of road under the Pradhan Mantri Gram Sadak Yojna

The Public Works Department incurred unfruitful expenditure of ₹ 1.22 crore on construction of flush causeway at wrong chainage in the *Ramgarh Pachwara to Kanwarpura* road under Pradhan Mantri Gram Sadak Yojna, as a result a 800-metre portion of the road was washed away during rains.

Environmental Codes of Practice (ECoP) including environment management framework issued by National Rural Road Development Agency (NRRDA) Ministry of Rural Development, Government of India, details the factors to be considered during project preparation to avoid/address environmental concerns through modifications in project design and incorporation of mitigation measures. It emphasises on requirement of Hydrological Surveys in case of flood prone areas and/or areas with very flat slopes before alignment finalisation. Inputs derived from these surveys such as the need for provision of culverts/bridges or other cross/roadside drainage structures should be considered in the alignment finalisation.

Chief Engineer cum Additional Secretary, PWD issued (July 2012) instructions to strictly adhere to taking prior permission of Water Resources Department/Revenue Department in the case of construction of roads/building in catchment area of dam/ water bodies as construction of roads and buildings in catchment area causes adverse effect on free flow of water.

Administrative sanction was issued (June 2012) for *Ramgarh Pachwara to Kanwarpura* road at a cost of ₹ 1.15 crore along with three other roads works under the World Bank Assisted Pradhan Mantri Gram Sadak Yojna (PMGSY) of district Dausa.

Technical sanction was issued (July 2012) for ₹ 3.28 crore for four roads of the package. Chief Engineer (PMGSY) Rajasthan sanctioned (January 2013) the work for ₹ 3.99 crore. PWD Division, Dausa issued (February 2013) work order with stipulated date of commencement 18/02/2013 and completion 17/12/2013. Contractor was paid (September 2014) ₹ 3.14 core as per the final account bill.

Test check of records of the PWD Circle, Dausa (August 2018) revealed that the newly constructed road including cement concrete pavement, flush causeway and earthwork was washed away in the 800 meters area due to rains in August 2014. On receipt of additional estimate of ₹ 1.00 crore from PWD,

Division, Dausa for repair of damaged portion of the road, PWD Circle, Dausa asked (December 2015) the contractor to attend to the defects as road was under defect liability period. The contractor, in turn, intimated (September 2015) that chainage 1650 to 2150 were in the river area and the road work was executed earlier without any cross drainage works in the said chainage as per direction of the division and refused to attend the defects as items included in the additional estimates were not a part of the original estimate.

Audit further observed that as per hydrological survey report of the said road, chainage 1650 to 2050 were in the river area and required proper arrangement for cross drainage/flush causeway for rainwater. It was also found that the Linear Chart of the said road also included the proposal of one Flush Causeway (FCW) and one Hume Pipe Culvert (HPC) between chainage 1700 to 1900 i.e. in flood prone areas. The Damage Report of the road revealed that despite chainage 1650 to 2050 falling in the river stream, the flush causeway was executed at *chainage 2150 to 2168*. Due to disregarding the data obtained from hydrological survey and technical estimate, newly constructed road (chainage 1643 to 2168) was washed away during rains and resulted in unfruitful expenditure of ₹ 1.22 crore as well as loss of connectivity to targeted habitation.

On being pointed out (August 2018) by Audit, the Division stated that despite the fact that the road was damaged in August 2014 and 2016, the road was motorable as the contractor attended the defects and people were benefitted. The Division stated that due care to adhere to hydrological surveys and detailed project report was taken during construction of road.

The matter was referred (February 2019) to the State Government for comments. The Department in its reply (April 2019) stated that: -

- Flush causeway and protection wall work was carried out between chainage 1700 to 1900 and L-Shape drain and syphon were not constructed as there was no provision in the sanctioned estimate. Due to heavy rains on 09/08/2014 and 11/08/2014, rain fed stream in chainage 1600 to 2100 changed its way and road alongwith causeway constructed in this chainage washed away.
- Another causeway on smaller rainy stream was constructed on chainage 2150 to 2168 as per sanctioned detailed project report by the State Technical Advisor.
- With reference to prior permission of Water Resources Department (WRD) /Revenue Department in the case of construction of roads/building in catchment area of dam/ water bodies, department stated that this being a rain fed stream there was no continuous flow of water hence, permission of concerned authorities was not sought as the said road was a rural road.

The reply is not acceptable as:

- The damage report revealed construction of only one flush causeway at chainage 2150 to 2168. Details of construction/damage to flush causeway between chainage 1700 to 1900 were not found in the records. Further, Linear chart depicts provision of one flush causeway and one Hume Pipe Culvert

(HPC) at chainage 1700 to 1900 without any provision for flush causeway at chainage 2150 to 2168. Contractor's denial to attend restoration work between chainage 1600 to 2100 also corroborates that road was constructed without any cross drainage work. Linear chart furnished (February 2019) with reply was different from what was obtained by audit during the field visit as the chart furnished now does not have marking for FCW. The words "FCW" have been written by pen whereas in the original chart the FCW & HPC have been represented properly in a diagrammatical manner as is the case generally.

- According to hydrological survey report, chainage 1600 to 2100 were in rain fed stream area, hence prior permission of WRD/Revenue authorities was necessary. Further, additional proposal of ₹ 1.00 crore for cross drainage on already constructed road corroborates the audit observation that initial technical estimates were prepared without considering the parameters stated in ECoP.
- The State Government has stated that even after a lapse of five years remaining part of road was safe and quality was also up to the mark. This proves that the work in the river stream part only was not executed properly and was done without cross drainage work and flush causeway which caused massive damage to the road.

Thus, the failure to adhere to the ECoP guidelines resulted in unfruitful expenditure.

The State Government accepted (July 2019) the facts and stated that despite provisioning of HPC at chainage 1/700 to 1/900 reasons for non-construction of HPC were not available on the record. Two FCWs for which exact chainage were not specified in the DPR, were constructed at chainage 2/082 to 2/165 and chainage 2/869 to 2/931 as per site requirement. Action against erring officials is also proposed.

8.7 Advance payment to the contractor

The Public Works Department, in violation of Public Works Financial and Accounts Rules paid a sum of ₹ 0.78 crore to a contractor within a week of awarding of the work order. The work, however, was started only after a year from the award of the work order.

Rule 434 part I of Public Works Financial and Accounts Rules, 1999 (PWF&AR) stipulates that payment of advance to contractors as a rule is prohibited, and every endeavor should be made to maintain a system under which no payment is made except for work actually done.

The work order for construction of New OPD cum Emergency Block at *Umed* Hospital, Medical College Jodhpur for ₹ 2.84 crore was issued (March 2013) by PWD, Medical Division Jodhpur with stipulated date of commencement as 17/03/2013 and completion as 16/03/2014. The contractor was paid ₹ 2.44 crore for the work executed up to February 2017. The work was not completed (May 2019).

Test check (June 2016) of the records of the Division revealed that the Division paid (March 2013) a sum of ₹ 78.30 lakhs⁴¹ to the contractor for providing and fabricating reinforcement for RCC. Audit observed that as per the bills, the steel of VIZAG brand of *Rastriya Ispat Nigam Limited* (RINL) was procured during 6th March to 9th March 2013, whereas the test reports (9th March 2013) showed steel was procured from *Steel Authority of India Limited* (SAIL). The test was again conducted in March 2014 and the report showed that to the steel was of VIZAG brand. It was found that except weight of steel, no other civil work i.e. reinforcement carried out was measured as per the entry dated 11/03/2013 in the Measurement Book. Entries related to measurement of site clearance and surface dressing were made on 25/08/2013. These facts prove that the reinforcement work was not undertaken by the contractor till August 2013, however, the payment of ₹ 78.30 lakh was made for it in March 2013.

Further scrutiny of records revealed that the steel procured for RCC work was used between March 2014 and November 2015 i.e. 12 to 30 months after the payment for reinforcement work to the contractor. Though the payment made to the contractor was adjusted in subsequent running account bills, yet grant of advance to the contractor was in violation of the PWF&AR Rules. Further, use of steel, after more than a year of purchase, may adversely affect the quality of the building as the steel tends to lose its anti-corrosion properties causing deterioration in its quality with time.

The State Government, in reply (May 2019) stated that providing and fabrication for reinforcement for Reinforced Cement Concrete (RCC) work includes straightening, cutting, bending and binding of bars and requires time and labours hence immediately after the work order was placed, the contractor started the earth work and procured 128.215 metric tonnes of steel required for it. In between, the client department changed the site and the work was stopped till the new site was finalised (August 2013). Further, the client department requested for basement parking, which was not included in the original scope of sanction, which led to escalation of project cost resulting in non-completion of work. The work can be completed after receipt of the revised A&F sanction for which revised estimate of ₹ 6.86 crore was sent. The constructed portion of the building can be used by the client department.

The reply is not acceptable as it is not relevant to the audit observation that advance payment was made in violation of the PWF&AR. Scrutiny of the First Running Account Bill and Measurement Book revealed that 11/03/2013 was the actual date of commencement and completion of item which is in contradiction of the State Government's reply that item of providing and fabrication for reinforcement requires more time and labour. Thus, the Government's reply regarding straightening, cutting, bending and binding of 128.215 metric tonne steel bars in a day seems implausible.

⁴¹ Steel 124925.76Kg X ₹ 60/- per kg = ₹ 7829847/- (₹ 7495546 + TP @ 4.46 per cent ₹ 334301/-)

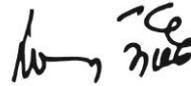
Further, the reply of the State Government revealed that even after lapse of more than 60 months from the stipulated date of completion, building was yet to be completed (January 2020) and expenditure incurred so far remained idle. The fact that the work has been unduly delayed has been incorporated under para number 3.5 of CAG's Audit Report No. 4 of 2019, Government of Rajasthan.



(ATOORVA SINHA)
Accountant General
(Audit-II), Rajasthan

JAIPUR
The 24 July 2020

Countersigned



(RAJIV MEHRISHI)
Comptroller and Auditor General of India

NEW DELHI
The 27 July 2020

