SUPREME AUDIT INSTITUTION OF INDIA
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Report of the Comptroller and Auditor General of India for the year ended March 2024

Union Government
Scientific and Environmental Ministries/Departments
Report No. 17 of 2026
(Compliance Audit)

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Preface

This report of the Comptroller and Auditor General of India for the year ended March 2024 has been prepared for submission to the President under Article 151 of the Constitution of India. The report contains the results of Compliance Audit of the Scientific and Environmental Ministries/Departments of the Union Government, their attached/subordinate offices, Autonomous Bodies and Central Public Sector Enterprises.

The instances mentioned in this report are those which came to notice in the course of test audit for the period 2023-24, as well as those which came to notice in earlier years but could not be reported in the previous Audit Reports. Matters relating to the period subsequent to 2023-24 have also been included, wherever necessary.

The Audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Overview

This report of the Comptroller and Auditor General of India (CAG) relates to matters arising from the Compliance Audit of the transactions of eight[1] Scientific and Environmental Ministries/Departments of the Government of India, as well as of Autonomous Bodies and Central Public Sector Enterprises under them. This Report contains four paras, two Subject Specific Compliance Audits (SSCAs) and two Information Technology Audits relating to unfruitful/avoidable expenditure, inadequate internal controls and governance, inefficient project and contract management and IT system and automation related matters. An overview of the main Audit findings included in this report is given below.

Subject Specific Compliance Audit of Land and Estate Management in the Department of Atomic Energy

The Department of Atomic Energy (DAE) had no comprehensive policy or nodal section to deal with land and estate management issues. Despite explicit directions of the Cabinet Secretariat issued in November 2011, DAE had not formulated a common land transfer policy even after more than 14 years and absence of such a policy resulted in non-uniform practices being followed across units. The absence of a comprehensive policy framework or a designated nodal authority led to deficiency in decision-making and weak oversight across its units. Without a centralised mechanism, critical functions such as land allocation, lease management and asset monitoring were handled inconsistently. One of the key consequences of this deficiency was the lack of a structured system for land transfers and lease administration. In several instances, land was transferred or retained without obtaining approval from the competent authority, violating established governance norms. Additionally, delays in renewing lease agreements resulted in loss of potential revenue, as properties continued to be occupied without revised terms or revised lease rent recovery. The Department also extended undue financial concessions, including retention of government accommodations beyond permissible limits, provision of rent-free housing to Public Sector Undertakings and concessional licence fees to private entities, without securing mandatory approval from the Member (Finance).

[1] *1. Department of Atomic Energy, 2. Department of Biotechnology, 3. Department of Science and Technology, 4. Department of Scientific and Industrial Research, 5. Department of Space, 6. Ministry of Earth Sciences, 7. Ministry of Environment, Forest and Climate Change and 8. Ministry of New and Renewable Energy.*

DAE had also not formulated Uniform Departmental Pool Residential Accommodation Rules applicable to all its constituent units and Aided Institutions, even after more than 71 years since its establishment in 1954. Without standardised guidelines, allotment, retention and fee recovery practices varied widely. Key provisions relating to damage rates, special licence fees, regularisation of allotment on re-transfer to the last place of posting and recovery of licence fees from associations, as featured in the various orders of the Ministry of Urban Development (Directorate of Estates), were not uniformly adopted. As a result of these systemic shortcomings, the Department faced significant operational and financial repercussions. Delays in executing valid agreements and transferring land titles led to short realisation of dues and avoidable expenditures. Inordinate delays in taking timely action for construction of residential quarters and upkeep/maintenance of buildings led to avoidable expenditure towards payment of HRA and other incidental expenditure.

(Para 2.1)

Important Recommendations

- ***DAE may formulate and notify a comprehensive land transfer and leasing policy in compliance with the directions issued by the Cabinet Secretariat.***
- ***DAE may formulate and implement Uniform Departmental Pool Residential Accommodation Rules applicable to all its constituent units and Aided Institutions on priority.***
- ***DAE may formulate suitable guidelines for the allotment of residential quarters to PSUs so that it may either recover HRA component from PSUs or assess amount of contribution to be claimed from respective PSUs towards construction cost of additional quarters occupied by them.***
- ***DAE may undertake comprehensive review towards fixation of licence fee for providing space/building to Banks/Post offices with the approval of Member (Finance).***
- ***DAE may institute a robust mechanism for monitoring timely renewal of the respective lease/licence agreements before their expiry, with revised lease rent/licence fee/ground rent.***

Information Technology Audit of Tata Memorial Centre

TMC did not have an approved IT Policy, leading to a lack of structured guidance for IT operations and security. Further, no IT Steering Committee was in place to monitor the software development life cycle process in different IT applications. The Centre also lacked any comprehensive Data Retention and Archival Policy. Weak password controls and inadequate authentication mechanisms, coupled with non-conduct of periodic Security Audit resulted in inability to prevent cyber-attacks and protect sensitive data. The Centre did not maintain cryptographic security while storing passwords and patients' Aadhaar card numbers. Systemic deficiencies included the absence of a Business Continuity and Disaster Recovery Plan, alongside critical gaps in logical access controls. Furthermore, TMC did not execute formal Service Level Agreements with vendors, resulting in continued payments despite unresolved technical issues and system malfunctions. The Centre lacked any mandatory unique identifier for registered patients and Audit also noted cases of multiple registration numbers against single patient. Absence of validation controls was observed while entering foreign patient details. Significant delays were observed in the implementation of the Hospital Information System, with several modules remaining non-functional across centres. Patient Scheme Management did not have any provision to apply for category conversion. Material Management System developed at the Centre lacked timely tracking and alert mechanisms, resulting in a stock of expired medicines. Financial Management System also did not generate essential financial reports. Consequently, these weaknesses exposed the Centre to potential data loss and compromised the efficiency of digital healthcare delivery.

(Para 2.2)

Important Recommendations

- ***IT Strategic Plan for Tata Memorial Centre may be prepared for ensuring a structured approach to technology planning and implementation.***
- ***IT Steering Committee may be formed to ensure that the goals and targets assigned to the organisation regarding the strategic plan of infrastructure, software development and cyber security are achieved.***
- ***A formal Software Development Life Cycle policy may be adopted and followed at Tata Memorial Centre for streamlined planning and in-house development, testing and deployment of software, along with proper segregation of the test environment and live server for data security.***

- ***IT Security Policy may be formulated to align with the Organisation's purpose. It may be ensured that the policy is objective-oriented, committed to compliance and focused on continuous improvement.***
- ***A strong password management policy incorporating Multi-Factor Authentication may be implemented to reduce the harm caused by phishing, credentials leak or unauthorised access attacks. The latest security patches may be installed on IT systems and regular monitoring of IT security processes may be undertaken to prevent cyber-attacks in compliance with the guidelines of the Indian Computer Emergency Response Team/Ministry of Electronics and Information Technology.***
- ***The application needs to implement checks to ensure system level validation instead of manual input of data in the system.***

Avoidable expenditure of ₹1.45 crore due to non-completion of installation sites and degradation of elevator components due to long storage

Due to non-completion of installation site for more than seven years, Directorate of Construction, Services and Estate Management incurred an avoidable additional expenditure of ₹1.45 crore on replacements and repairs of elevator components before its installation.

(Para 2.3)

Unfruitful expenditure of ₹1.52 crore due to non/sub-optimal utilisation of laser welding machine

Though the International Advanced Research Centre for Powder Metallurgy and New Materials incurred an expenditure of ₹1.08 crore towards procurement of the laser welder, it did not exercise due care in ensuring that all the infrastructure required for installing the equipment was in place. Due to this, the laser welding machine remained unutilised for prolonged periods, thereby defeating the main objective for which it was procured.

(Para 3.1)

Subject Specific Compliance Audit on 'Laboratory and Headquarter Reserve Fund' Scheme

The Laboratory and Headquarter Reserve Fund (LHRF) was created to supplement budgetary resources and provide incentives to Laboratories generating higher revenues. However, Audit observed systemic deficiencies in generation and utilisation of LHRF. Expenditure from the

LHRF was minimal, as most of the time, the sampled laboratories, including Council of Scientific and Industrial Research (CSIR) Headquarters did not utilise even the mandated one-third of the fund generated in the previous financial year. As a result, the accumulated balance in LHRF kept increasing and stood at ₹3,490.68 crore as on 31 March 2025.

CSIR adopted annual budgetary planning and long-term planning for generation and utilisation of LHRF very recently from 2024-25. Funds amounting to ₹627.71 crore under CSIR Innovation Fund, which were meant for setting up Technology Incubation Centres and Technology Parks, creating start-ups and spin-offs, *etc.*, remained unutilised. Around 48 *per cent* of LHRF receipts came from interest. This indicates the accumulation of LHRF due to insufficient utilisation and that the growth in the funds was, to a large extent, attributable to interest earned on the accumulated funds rather than to Research and Development receipts. Instances of unauthorised credit of miscellaneous receipts to LHRF, non-settlement of accounts of closed External Cash Flow projects and notional direct expenses charged from the sponsoring/funding agency under External Cash Flow projects were also noticed. Further, CSIR could not establish the mandated committee, portal and reporting mechanisms, resulting in the absence of effective monitoring and control over the utilisation of LHRF.

(Para 4.1)

Important Recommendations

- ***CSIR may endeavour to utilise accumulated funds while ensuring that at least 1/3rd of the Laboratory and Headquarter Reserve Fund generated in the previous year to supplement its budgetary resources.***
- ***CSIR and its laboratories may incorporate proposed utilisation of LHRF in annual budgetary planning.***
- ***CSIR and its laboratories may strengthen its planning and budgeting mechanism for generation and utilisation of LHRF.***
- ***CSIR may ensure that concerted efforts are made to generate funds from alternative sources such as royalties and premia arising from licensing of Intellectual Property Rights (IPR).***
- ***CSIR should ensure that Non-Research and Development Receipts are not credited in LHRF and utilised appropriately so that dependence on Budgetary support can be reduced.***

- ***CSIR may ensure that the accounts of the Externally Funded Projects are settled promptly upon expiry of their sanctioned duration and the non-refundable balances of closed projects are transferred to the LHRF without delay.***
- ***CSIR may lay down guidelines for accounting of receipts pertaining to direct costs to reduce dependence on government grants.***
- ***CSIR Headquarters may devise a robust mechanism for monitoring the generation and utilisation of LHRF, including a dedicated portal.***

Unauthorised expenditure of ₹1.99 crore on construction of photo gallery, besides excess expenditure of ₹1.86 crore on establishment of Technology Development Centres

Indian Council of Forestry Research and Education incurred unauthorised expenditure of ₹1.99 crore on constructing a photo gallery at Forest Research Institute, Dehradun, which was not included in the approved Scheme, besides incurring excess expenditure of ₹1.86 crore on establishment of Technology Development Centres from Compensatory Afforestation Funds.

(Para 5.1)

Information Technology Audit of Implementation of SAP-ERP System Functioning in Solar Energy Corporation of India Ltd

SECI envisaged an integrated SAP-ERP system to achieve automation, transparency and efficiency; however, it has not fully utilised the system as critical functionalities and key modules remained unimplemented. At the governance level, the Steering Committee, constituted to provide oversight and strategic direction, failed to effectively monitor the ERP implementation process. The absence of a Detailed Project Report further weakened the project planning. Change management processes were also found to be inadequate. The Change Management Strategy lacked depth, with no clear stakeholder mapping, risk analysis, defined roles or structured training programmes. Critical components envisaged in the Business Blueprint Plan, such as Power Scheduling, Deviation Settlement Mechanism and Dunning and Interest Calculation, were not implemented. Core processes like Viability Gap Funding disbursement, procurement workflows and financial transactions were largely handled outside the ERP system. A deficiency was noted in leveraging the system for financial automation, with 96 *per cent* of transactions related to Earnest Money Deposits and Performance Bank Guarantees still processed manually. Significant deficiencies were also observed in IT controls and system management. These included weak user access controls, excessive authorisations,

absence of periodic access reviews and inadequate documentation of changes. SECI also demonstrated over-reliance on the system integrator without developing in-house expertise. Security risks were heightened due to non-conduct of regular security audits, delayed implementation of SAP updates, insecure network configurations and absence of a structured SAP-HANA maintenance strategy. Operational inefficiencies were further compounded by incomplete master data, deficient customisation and non-utilisation of key SAP tools such as SAP Solution Manager for incident and change management. Weak backup management practices, lack of testing and inadequate documentation raised concerns regarding business continuity and data reliability. Overall, the SAP-ERP system at SECI remained underutilised, with several critical functionalities either not implemented or only partially operational. Continued reliance on manual processes, coupled with weak governance and control frameworks limited the system's effectiveness.

(Para 6.1)

Important Recommendations

- ***SECI may strengthen its IT governance framework by ensuring that the Steering Committee actively monitors ERP implementation.***
- ***SECI may strengthen its governance framework for future projects by preparing a detailed Change Management Strategy and Plan incorporating change management deliverables with measurable milestones, link them to ERP development/testing phases and provide mechanisms to track progress against timelines.***
- ***SECI may reassess and ensure that all key functionalities envisioned in the Business Blueprint Plan, including Scheduling, Deviation Settlement Mechanism and Dunning calculations, are implemented in SAP-ERP.***
- ***SECI may define memory thresholds with alert mechanisms, conduct regular system health checks, assign clear vendor responsibilities and address root cause of high memory use through proper database sizing and staff training to reduce dependence on external vendors.***
- ***SECI may implement workflow-based SAP Access Management System.***
- ***SECI may revoke unnecessary table display and modification authorisations while enforcing role-based access controls. Debugging privileges should be restricted to approved developers and unauthorised access should be removed.***

- ***SECI may expedite the development and implementation of a comprehensive SAP-based module for managing EMDs, Bank Guarantees and Performance Securities with maker-checker controls, Audit trails and automated workflows.***
- ***SECI may take immediate steps to incorporate the complete tendering process and all relevant procurement policy clauses into the Business Blueprint and ensure they are mapped into SAP-ERP.***

Unfruitful expenditure of ₹5.07 crore

Unfruitful expenditure of ₹5.07 crore due to inadequate planning and implementation of Ladakh Renewable Energy Initiative Project (Small Hydro Projects) by the Ministry of New and Renewable Energy.

(Para 6.2)

CHAPTER I

Introduction

1.1 About this Report

The mandate of the Comptroller and Auditor General of India regarding audit of accounts of Union and States, Government Companies and Corporations, Bodies and Authorities is derived from the Constitution and the Comptroller and Auditor General's (Duties, Powers and Conditions of Services) Act, 1971. The Comptroller and Auditor General of India is the sole authority prescribed in the Constitution entrusted with the responsibility of the audit of Accounts of the Union and of the States. Under Section 13 (read with Section 17) and Section 16 of the Act, it is the duty of the Comptroller and Auditor General to audit all expenditure, all receipts and other transactions of the Governments of the Union, of each State and of each Union Territory. The Comptroller and Auditor General's mandate, under the Constitution of India and under Sections 14, 15, 19 and 20 of the CAG's (DPC) Act, also covers audit of accounts of Bodies, Authorities, Government Companies and Corporations. The Audit Reports of the Comptroller and Auditor General of India are placed before Parliament or the Legislature of the State or the Union Territory, as the case may be.

The Auditing Standards adopted by the Comptroller and Auditor General of India require that the materiality level for reporting be commensurate with the nature, volume and magnitude of transactions. The findings of the Audit are expected to enable the Executive to take corrective actions and to frame policies and directives that will lead to improved financial management of the organisations, thereby contributing to better governance.

This Chapter, in addition to explaining the planning and extent of the audit, provides a brief analysis of the expenditure of the Scientific and Environmental Ministries/Departments and their financial management. Chapters II onwards present findings/observations arising out of the Compliance Audit of the Scientific and Environmental Ministries/Departments and the Research Centres, Institutes, Central Autonomous Bodies, along with Central Public Sector Enterprises (CPSEs) under their administrative control.

1.2 Audit Coverage

This Report deals with the Compliance Audit of the following eight Scientific and Environmental Ministries/Departments of the Government of India and their units, including CPSEs:

1. **Ministry of Earth Sciences (MoES)**
2. **Ministry of Environment, Forest and Climate Change (MoEF&CC)**
3. **Ministry of New and Renewable Energy (MNRE)**
4. **Ministry of Science and Technology**
    a. **Department of Biotechnology (DBT)**
    b. **Department of Science and Technology (DST) and**
    c. **Department of Scientific and Industrial Research (DSIR)**
5. **Department of Atomic Energy (DAE)**
6. **Department of Space (DOS)**

1.3 Planning and Conduct of Audit

Compliance Audit refers to the examination of the transactions relating to expenditure, receipts, assets and liabilities of the Government to ascertain whether the provisions of the Constitution of India and applicable laws, rules, regulations, orders and instructions issued by the competent authorities are being complied with and also to determine their legality, adequacy, transparency, propriety, prudence and effectiveness in terms of achievement of the intended objectives.

After completion of audit of each unit, Inspection Reports containing the Audit findings are 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, the Audit findings are either settled or further action for compliance is advised. The important Audit observations arising out of these Inspection Reports are issued separately as Draft Paras to the heads of the Administrative Ministries/Departments for their comments and processed for inclusion in the Audit Reports, which are submitted to the President of India under Article 151 of the Constitution of India.

During 2023-24, Compliance Audit of 157 out of 356 units, including Central Public Sector Enterprises, of Scientific and Environmental Ministries/Departments was conducted based on available resources and risk assessment of the units.

1.4 Budget and Expenditure Controls

The status of expenditure of the Scientific and Environmental Ministries/Departments for the year 2023-24 and the preceding year 2022-23 is given in ***Table 1*** below:

Table 1: Expenditure of Scientific and Environmental Ministries/Departments

(₹ in crore)

No.	Ministry/Department	2022-23	2023-24
1.	Department of Atomic Energy	34487.31	35885.96
2.	Department of Space	10158.48	10726.78
3.	Department of Scientific and Industrial Research	5853.37	6152.32
4.	Department of Science and Technology	4559.99	4113.11
5.	Department of Biotechnology	2121.42	1537.81
6.	Ministry of Environment, Forest and Climate Change	2837.75	3522.11
7.	Ministry of New and Renewable Energy	11121.14	12594.81
8.	Ministry of Earth Sciences	1586.08	2409.45
	Total	**72725.54**	**76942.35**

(Source: Detailed Demand for Grants)

The total expenditure of the eight Scientific and Environmental Ministries/Departments of the Government of India during 2023-24 was ₹76,942.35 crore as against ₹72,725.54 crore in 2022-23, *i.e.,* an increase of ₹4,216.81 crore (5.80 *per cent*). Of the total expenditure of ₹76,942.35 crore incurred by the Scientific and Environmental Ministries/Departments during 2023-24, 46.64 *per cent* was incurred solely by the Department of Atomic Energy. In respect of the Department of Science and Technology and the Department of Biotechnology, the expenditure during 2023-24 recorded a decline of 9.80 *per cent* and 27.51 *per cent,* respectively, as compared to the expenditure incurred during 2022-23.

A summary of the Appropriation Accounts is given below, separately for the financial year 2023-24 in ***Table 2***:

Table 2: Details of grants received and expenditure incurred by Scientific and Environmental Ministries/Departments during 2023-24

(₹ in crore)

No.	Ministry/Department	Grant/ Appropriation (including Supplementary Grant)	Expenditure	(-) Savings/ (+) Excess	*Percentage* of Unspent Provision
1.	Department of Atomic Energy	37506.05	35885.96	(-)1620.09	4.32
2.	Department of Space	13130.26	10726.78	(-)2403.48	18.30
3.	Department of Scientific and Industrial Research	6202.53	6152.32	(-)50.21	0.81
4.	Department of Science and Technology	7932.28	4113.11	(-)3819.17	48.15

No.	Ministry/Department	Grant/ Appropriation (including Supplementary Grant)	Expenditure	(-) Savings/ (+) Excess	*Percentage* of Unspent Provision
5.	Department of Biotechnology	2683.88	1537.81	(-)1146.07	42.70
6.	Ministry of Environment, Forest and Climate Change	3940.35	3522.11	(-)418.24	10.61
7.	Ministry of New and Renewable Energy	17734.97	12594.81	(-)5140.16	28.98
8.	Ministry of Earth Sciences	3324.43	2409.45	(-)914.98	27.52
Total		**92454.75**	**76942.35**	**(-)15512.40**	**16.78**

(Source: Detailed Demand for Grants)

With reference to the total budget allotment of ₹92,454.75 crore during 2023-24, the Scientific and Environmental Ministries/Departments had an overall saving of ₹15,512.40 crore, which constitutes 16.78 *per cent* of the total Grant/Appropriation. Out of the total unspent budget of ₹15,512.40 crore, the unspent budget in the Department of Science and Technology (48.15 *per cent*) was highest, followed by Department of Biotechnology (42.70 *per cent*), Ministry of New and Renewable Energy (28.98 *per cent)* and Ministry of Earth Sciences (27.52 *per cent*).

1.5 Audit of Central Autonomous Bodies

There are 85 Central Autonomous Bodies under the Scientific and Environmental Ministries/Departments. Out of these, 11 Central Autonomous Bodies[2] have been audited under Sections[3] 19(2) and 20(1) and the remaining 74 Central Autonomous Bodies have been audited under Sections[4] 14 or 15 of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act 1971. The total grants released to 74 Central Autonomous Bodies (under Sections 14 or 15) during 2023-24 were ₹7,119.90 crore ***(Annexure 1)***. The total grants released to 10 Central Autonomous Bodies (under Sections 19(2) and 20(1)) during 2022-23 and 2023-24 were ₹8,617.67 crore and ₹7,676.79 crore, respectively, as detailed in ***Table 3***.

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[2]Including Compensatory Afforestation Fund Management and Planning Authority, New Delhi, which does not receive any Grants-in-Aid. They are given budgetary support, which is eventually met/deducted from the National Compensatory Afforestation Fund.

[3]Section 19(2) - The duties and powers of the Comptroller and Auditor General in relation to the audit of the accounts of corporations (not being companies) established by or under law made by Parliament shall be performed and exercised by him in accordance with the provisions of the respective legislation.

Section 20(1) - Where the audit of the accounts of any Body or Authority has not been entrusted to the Comptroller and Auditor General by or under any law made by Parliament, he shall, if requested so to do by the President or the Governor of a State or the Administrator of a Union Territory having a Legislative Assembly, as the case may be, undertake the audit of the accounts of such Body or Authority on such terms and conditions as may be agreed upon between him and the concerned Government and shall have, for the purposes of such Audit, right of access to the books and accounts of that Body or Authority, provided that no such request shall be made except after consultation with the Comptroller and Auditor General.

[4]Section 14 - Audit of receipts and expenditure of bodies or authorities substantially financed from union or state revenues.

Section 15- Functions of Comptroller and Auditor General in the case of grants or loans given to other authorities or bodies.

Table 3: Grants released to Central Autonomous Bodies under Sections 19(2) and 20(1) during the Financial Years 2022-23 and 2023-24

(₹ in crore)

No.	Name of the Central Autonomous Body	Ministry/ Department	Amount of Grant released during FY 2022-23	Amount of Grant released during FY 2023-24
1.	Council of Scientific and Industrial Research, New Delhi	DSIR	5829.42	6141.43
2.	Sree Chitra Tirunal Institute of Medical Sciences and Technology, Thiruvananthapuram	DST	335.00	342.50
3.	Technology Development Board, New Delhi	DST	100.00	4.70
4.	Science and Engineering Research Board, New Delhi (now Anusandhan National Research Foundation)	DST	2176.00	1004.50
5.	Regional Centre for Biotechnology, Faridabad	DBT	52.45	60.00
6.	National Tiger Conservation Authority, New Delhi	MoEF&CC	52.85	24.96
7.	Wildlife Institute of India, Dehradun, including Salim Ali Centre for Ornithology and Natural History	MoEF&CC	30.60	54.82
8.	Central Zoo Authority, New Delhi	MoEF&CC	10.83	10.05
9.	National Biodiversity Authority, Chennai	MoEF&CC	17.92	16.48
10.	Commission for Air Quality Management, New Delhi	MoEF&CC	12.60	17.35
Total			**8617.67**	**7676.79**

1.5.1 Significant Audit Comments on the Accounts of the Central Autonomous Bodies for the Year 2023-24

Some of the significant Audit comments, arising from the Financial Audit of the Central Autonomous Bodies, are given below in ***Table 4***:

Table 4: Significant Audit Comments on the Accounts of Central Autonomous Bodies

No.	Name of Autonomous Body	Comments
Ministry of Environment, Forest and Climate Change		
1.	Compensatory Afforestation Fund Management and Planning Authority, New Delhi	An amount of ₹266.90 crore pertaining to releases and refunds made by National Authority was included as payments. Further, this amount was not accounted for in its annual accounts by the National Authority. This resulted in overstatement of current liabilities as well as overstatement of current assets by ₹266.90 crore.
2.	Wildlife Institute of India, Dehradun	Wildlife Institute of India had taken loan of ₹1.16 crore from its various projects to meet the expenses under Grants-in-Aid during the period 2019-23. While Wildlife Institute of India returned these amounts to the projects in 2023-24, it also booked them as expenditure amounting to ₹1.16 crore in the financial year 2023-24. This resulted in overstatement of expenditure and understatement of prior period expenditure by ₹1.16 crore.

No.	Name of Autonomous Body	Comments
Department of Biotechnology		
3.	Regional Centre for Biotechnology, Faridabad	Expenditure on account of depreciation charged on Fixed Assets was set off by booking as Deferred Income in Income and Expenditure Account, which was against the Uniform Format of Accounts.
Department of Scientific and Industrial Research		
4.	Council of Scientific and Industrial Research, New Delhi	Unreconciled credits of ₹0.21 crore and ₹0.78 crore given by the banks to National Chemical Laboratory and National Aerospace Laboratories were booked as Income in Schedule 11(Other Miscellaneous Receipts). Since the nature of these credits was not known, booking the same as Income instead of Liability resulted in an overstatement of Income and an understatement of Current Liability by ₹0.98 crore (₹0.21 crore+₹0.77 crore)
Department of Science and Technology		
5.	Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvnanthapuram	An amount of ₹6.50 crore, representing outstanding expenditure, was erroneously shown as a payment during 2023-24, although no actual payment had been made. Consequently, the 'Bank Balance – on Savings Accounts' was incorrectly depicted as ₹16.49 crore instead of ₹22.99 crore, resulting in understatement of both current assets and current liabilities.
6.	Technology Development Board, New Delhi	As per Section 9 of the TDB Act 1995, a fund namely, Fund for Technology Development and Application (FTDA) shall be constituted with prescribed sources and application of the same. However, neither the above stated fund was duly constituted by obtaining relevant permissions from the competent authority nor any rule(s) were framed for operation of the fund. Moreover, the fund was not depicted in the accounts as separate reserve while subsuming the same under Corpus/Capital Fund and even notional expenditure(s) related to depreciation, *etc.*, were being charged to this fund leading to lack of clarity in ascertaining the actual amount available with the Board for the application.

1.5.2 Delay in Submission of Accounts to Audit and Presentation of Annual Report to Parliament

The Committee on Papers Laid on the Table of the House in its First report (Fifth Lok Sabha) 1975-76 and Rule 237 of General Financial Rules 2017 mention that every Central Autonomous Body should complete its Accounts within three months after the close of the Accounting Year and make them available for Audit and that the Annual Reports along with the Audited Annual Accounts should be laid before Parliament within nine months of the close of the accounting year.

Out of the 11 Central Autonomous Bodies, three of the Central Autonomous Bodies submitted their Accounts for the year 2023-24, with delays ranging between 6 days and 32 days. The details of the same are mentioned in ***Table 5***.

Table 5: Delay in Submission of Accounts to Audit for the Financial Year 2023-24

No.	Name of Central Autonomous Body	Ministry/ Department	Date of Submission of Accounts to Audit	Delay in days
1.	Central Zoo Authority, New Delhi	MoEF&CC	15.7.2024	15 days
2.	National Tiger Conservation Authority, New Delhi	MoEF&CC	2.8.2024	32 days
3.	Regional Centre for Bio-technology, Faridabad	DBT	6.7.2024	6 days

Further, the details of the delay in the presentation of Annual Report for the Financial Year 2023-24 by Central Autonomous Bodies to Parliament are mentioned in ***Table 6*** below:

Table 6: Delay in the Presentation of Annual Report for Financial Year 2023-24 to Parliament by Central Autonomous Bodies

No.	Name of Autonomous Body	Date of Presentation of Annual Report in Parliament		Delay	
		Lok Sabha	Rajya Sabha	Lok Sabha	Rajya Sabha
1.	Central Zoo Authority, New Delhi (MoEF&CC)	21.7.2025	31.7.2025	6 months and 21 days	7 months
2.	Compensatory Afforestation Fund Management and Planning Authority (CAMPA), New Delhi, (MoEF&CC)	4.8.2025	7.8.2025	7 months and 4 days	7 months and 7 days
3.	Commission for Air Quality Management, (MoEF&CC)	10.3.2025	20.3.2025	2 months and 10 days	2 months and 20 days
4.	National Tiger Conservation Authority, New Delhi (MoEF&CC)	21.7.2025	20.3.2025	6 months and 21 days	2 months and 20 days
5.	Wildlife Institute of India, Dehradun (MoEF&CC)	11.8.2025	7.8.2025	7 months and 11 days	7 months and 7 days
6.	Technology Development Board, New Delhi (DST)	12.3.2025	20.3.2025	2 months and 12 days	2 months and 20 days
7.	Council of Scientific and Industrial Research, New Delhi (DSIR)	Yet to be presented before the Parliament (as on 31.10.2025).			

1.6 Outstanding Utilisation Certificates

Ministries and Departments are required to obtain certificates of utilisation of grants from the grantees, *i.e.,* Statutory Bodies, Non-governmental Institutions, *etc.,* indicating that the grants had been utilised for the purpose for which these were sanctioned and where the grants were conditional, the prescribed conditions had been fulfilled. According to the information furnished by the eight Ministries/Departments, 41,002 Utilisation Certificates due (as of 31 March 2024) for grants released aggregating ₹16,761.41 crore were outstanding from these seven Ministries/Departments as given in ***Table 7***.

Table 7: Outstanding Utilisation Certificates (UCs)

No.	Ministry/Department	Number of outstanding Utilisation Certificates (UCs)	Share of total outstanding UCs (*per cent*)	Amount pertaining to outstanding. UCs (*₹ in crore*)	Share of amount pertaining to total outstanding UCs (*per cent*)
1.	Department of Biotechnology (DBT)	20500	50.00	9674	57.72
2.	Department of Atomic Energy (DAE)	651	1.59	74.93	0.45
3.	Department of Space (DoS)	310	0.76	12.13	0.07
4.	Ministry of Earth Sciences (MoES)	695	1.70	75.29	0.45
5.	Ministry of Environment, Forest and Climate Change (MoEF&CC)	4733	11.54	1223.46	7.30
6.	Ministry of New and Renewable Energy (MNRE)	810	1.98	882.95	5.27
7.	Department of Science and Technology (DST)	13303	32.43	4818.65	28.74
Total		**41002**	**100**	**16761.41**	**100**

It can be seen from the table that the highest number of outstanding UCs pertains to DBT (50.00 *per cent*), followed by DST (32.43 *per cent*) and MoEF&CC (11.54 *per cent*). Ministry/Department-wise and period-wise position of outstanding utilisation certificates is given in ***Annexure 2***.

1.7 Audit of Central Public Sector Enterprises

Section 143(6) of the Companies Act, 2013, grants the Comptroller and Auditor General of India the right to conduct a Supplementary Audit of a company's financial statements within 60 days of receiving the Audit Report of the auditor appointed by it under Section 139(5) and (7) of the Companies Act 2013 and to comment on or supplement the Audit Report.

There are 26 Central Public Sector Enterprises within the Scientific and Environmental Ministries/Departments under the Audit jurisdiction of this office. It has received financial statements from 25 of these enterprises for the year 2023-24 and one CPSE, namely Andaman Islands Forest and Plantation Development Corporation Limited, Port Blair, has been struck off according to the MCA 21 database (Ministry of Corporate Affairs Digital Repository), though confirmation from the concerned Ministry is still pending.

Of the 25 Central Public Sector Enterprises, Audit comments along with a management letter were issued to one CPSE (Himachal Renewables Limited), while Non-Review Certificates were issued for eight CPSEs. Further, of the remaining 16 CPSEs, NIL comments were issued to 15 CPSEs, out of which Management letters were issued to 13 CPSEs and for one CPSE

(Bharat Immunological and Biologicals Corporation Limited), accounts were received on 12 January 2026 and Audit Certification is in process. Details have been given in ***Annexure 3.***

In respect of financial statements of Himachal Renewables Limited for the year 2023-24, there were deficiencies in approval of financial statements, as the Board had only approved Balance Sheet and Profit and Loss Account along with Accounting Policies and Notes, whereas as per Ind AS financial statements (as defined in Section 2(40) of the Companies Act, 2013) approval of Statements of Cash Flow and Statement of Changes in Equity was also required. The Statement of Changes in Equity was not prepared in format prescribed in Schedule III of the Companies Act, 2013 and no explanation for changes in the ratios by more than 25 *per cent* was given, although required by Schedule III of the Companies Act, 2013.

There were five comments issued on the Independent Auditors' Report which included Non-compliance with Standard on Auditing 700, Deficiency in reporting under Companies (Auditor's Report) Order, Companies (Audit and Auditors) Rules, 2014 and Section 143(3) of the Companies Act, 2013. The performance of the Independent Auditors was adjudged 'unsatisfactory' and it was decided not to allot any Audit to the firm for a period of one year.

1.8 Losses and Irrecoverable Dues Written off/Waived during 2023-24

Statement of losses and irrecoverable dues written off/waived during 2023-24, furnished by Scientific and Environmental Ministries/Departments, is given in ***Annexure 4***. A total amount of ₹0.11 crore was written off in 13 cases under the category 'Other reasons' in Department of Atomic Energy, Department of Scientific and Industrial Research and Department of Space.

1.9 Response of Ministries/Departments to Previous Inspection Reports

The Heads of Offices and next higher authorities are required to respond to the observations contained in Inspection Reports and take appropriate corrective action. Audit observations communicated in Inspection Reports are also discussed at periodical intervals in meetings by officers of the office of the Director General of Audit, Central Expenditure (Environment and Scientific Departments) with officers of the Scientific and Environmental Ministries/Departments.

As of 31 March 2024, 1,291 Inspection Reports containing 7,858 paras pertaining to previous years were pending for settlement and out of these, first replies had not been received in respect of 42 Inspection Reports having 445 paras as detailed in ***Table 8***:

Table 8: Details of Inspection Reports having Paras Pending for Settlement

Year	Number of IRs/Paras pending settlement as of 31 March 2024		IRs/Paras where even the first replies have not been received as of 31 March 2024	
	IRs	Paras	IRs	Paras
Up to 2018-19	781	3293	14	79
2019-20	71	533	2	32
2020-21	85	554	2	16
2021-22	121	990	4	36
2022-23	127	1261	9	129
2023-24	106	1227	11	153
Total	**1291**	**7858**	**42**	**445**

Further, Department-wise break-up of outstanding Inspection Reports and Paras are given in ***Annexure 5***.

1.10 Responses of the Ministries/Departments to Draft Audit Paras

On the recommendations of the Public Accounts Committee, Ministry of Finance (Department of Expenditure) issued directions to all Ministries in June 1960 to send their response to the Draft Audit Paras proposed for inclusion in the report of the Comptroller and Auditor General of India. The provision related to government response to Audit observations has also been prescribed under Para 142 of Regulations on Audit and Accounts, 2020, made by the Comptroller and Auditor General of India.

The Draft Paras are forwarded to the Secretaries of the Ministries/Departments concerned, drawing their attention to the Audit findings and requesting them to send their response within four weeks. Draft Paras proposed for inclusion in this Report were forwarded to the Secretaries concerned between August 2025 and October 2025 through letters addressed to them personally.

In response to one such draft paras highlighting the irregular payment of ₹2.06 crore made by the Central Pollution Control Board (CPCB), a statutory Body under the Ministry of Environment, Forest and Climate Change, to its employees in lieu of a subsidised canteen facility, the CPCB has recommended discontinuation of the canteen subsidy. Similarly, in another case, based on Audit observation, the Surveyor General of India reviewed the viability and need of running of its dispensary and recommended its closure in July 2025.

This Report contains four Paras, two Subject Specific Compliance Audits and two IT Audits. Ministries/Departments have submitted responses for all Paras/SSCAs/IT Audit Reports, which have been suitably incorporated in the report.

1.11 Follow-up on Audit Report

(a) For Civil Units

In its Ninth report (Eleventh Lok Sabha) presented to the Parliament on 22 April 1997, the Public Accounts Committee recommended that Action Taken Notes (ATNs) on all paras pertaining to the Audit reports for the year ended 31 March 1996 onwards should be submitted to them, duly vetted by Audit, within four months from the date of laying of the Reports in the Parliament.

A review of outstanding ATNs as of 31 January 2026 on the Paras included in the Reports of the CAG pertaining to the Scientific and Environmental Ministries/Departments **(*Annexure 6*)** revealed that two ATNs pending from two Ministries/Departments (DBT and MoES) were not received for the first time even after delays ranging from 5 months and 20 days to 64 months and 9 days from the date of laying of Reports in the Parliament. Also, revised ATNs that have to be uploaded by the Ministry within 20 days of getting Audit comments/clarification were pending in six cases from four Ministries/Departments (MoEF&CC, DSIR, DBT and DAE) with delays ranging from 2 months and 20 days to 26 months and 15 days as of 31 January 2026 **(*Annexure 7*).**

(b) For Commercial Units

The Lok Sabha Secretariat requested (July 1985) all the Ministries to furnish notes (duly vetted by Audit) indicating remedial/corrective action taken by them on various paras/appraisals contained in the Audit Reports (Commercial) of the CAG as laid on the table of both the Houses of Parliament. Such notes were required to be submitted even in respect of paras/appraisals that were not selected by the Committee on Public Sector Undertakings for detailed examination. The Committee on Public Sector Undertakings, in its Second Report (1998-99-Twelfth Lok Sabha), while reiterating the above instructions, recommended that each Ministry/Department should furnish a brief note on the review of the follow-up Action Taken on each of the Comptroller and Auditor General's Reports presented to the Parliament. The note may be got vetted by Audit before submission to the Committee.

A review of outstanding ATNs as of 31 January 2026 on Paras included in the CAG reports pertaining to CPSUs under these Ministries/Departments **(*Annexure 6*)** revealed that two ATNs from Department of Atomic Energy had not been received for the first time even after a delay ranging from 23 months 23 days to 58 months 8 days.

CHAPTER II

Department of Atomic Energy

2.1 Subject Specific Compliance Audit on Land and Estate Management in Department of Atomic Energy

2.1.1 Introduction

The term 'Land Management' covers maintenance of land records, control of land use, detection, prevention and removal of encroachments, maintenance of land boundaries, utilisation of land for various purposes by licensing/leasing to other organisations/parties for commercial/other uses, including afforestation, *etc*., and the term 'Estate Management' concerns matters relating to the safeguarding, utilisation, augmentation and maintenance of physical infrastructure, *viz.,* land, building, furniture and fixtures.

Land and Estate Management of the Department of Atomic Energy (DAE) units located at Mumbai and Kalpakkam/Anupuram is under the two service units of the DAE, *viz.,* (i) Directorate of Construction, Services and Estate Management (DCSEM/Directorate), Mumbai, (ii) General Service Organisation (GSO), Kalpakkam. Land and Estates of the DAE units located at places other than Mumbai and Kalpakkam/Anupuram are looked after by the concerned units themselves.

2.1.1.1 Scope of Audit

Subject Specific Compliance Audit (SSCA) on 'Land and Estate Management in DAE' was conducted to examine the systems and procedures followed by DAE and its constituent units in managing land and estate assets and compliance thereof. Audit examined the records for the period from 2019-20 to 2023-24 in respect of 11 units[5] out of 30 units of DAE, as well as the records at DAE Headquarters. In addition, certain significant observations arising from

[5]*(i) Directorate of Construction, Service and Estate Management (DCSEM), Mumbai, (ii) General Service Organisation (GSO), Kalpakkam, (iii) Nuclear Fuel Complex (NFC), Hyderabad, (iv) Raja Ramanna Centre for Advanced Technology (RRCAT), Indore, (v) Heavy Water Board (HWB), Mumbai, (including its three plants located at Baroda, Thal and Manuguru) (vi) Tata Institute of Fundamental Research (TIFR), Mumbai, (including National Centre for Biological Sciences (NCBS), Bangalore, National Centre for Radio Astrophysics (NCRA), Pune, Tata Institute of Fundamental Research, Hyderabad) (vii) Institute of Physics (IOP), Bhubaneshwar, (viii) National Institute of Science, Education and Research (NISER), Bhubaneswar, (ix) Saha Institute of Nuclear Physics (SINP), Kolkata, (x) Harish Chandra Research Institute (HRI), Prayagraj, (xi) Tata Memorial Centre (TMC), Mumbai, (including its sub-centre Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai).*

Compliance Audits of other DAE units, *viz.*, Bhabha Atomic Research Centre (BARC), Vizag and Nuclear Recycle Board (NRB), Tarapur were also incorporated in this report.

2.1.1.2 Audit Objectives

Audit aimed to assess the following:

1. Whether DAE has an effective Land and Estate Management policy in place?
2. Whether the land held by DAE had been transferred in the name of the Government of India/DAE and adequate safeguards are in place to prevent encroachment of land?
3. Whether licence fee was being recovered in respect of land/building allotted to the employees and leased out to Banks/Post Offices/Shops/Public Sector Undertakings/Private Parties in accordance with the extant rules and whether it was being reviewed periodically?
4. Whether any system for upkeep and maintenance of the buildings existed?

2.1.1.3 Audit criteria

The following criteria were adopted for the Audit:

1. Registration Act, 1908 and amendments thereof,
2. Office Memoranda/Guidelines issued by the Ministry of Finance and the Cabinet Secretariat related to Land and Estate Management,
3. Provisions of General Financial Rules 2017,
4. Delegation of Financial Powers,
5. Other Orders/guidelines issued by the Government of India/DAE from time to time,
6. Transfer of Property Act, 1882,
7. Central Public Works Department Maintenance Manual, 2019.

Audit findings have been discussed in the ensuing paras:

2.1.2 Land and Estate Management Policy

2.1.2.1 Non-formulation of Policy/Rules/Guidelines

a. Land Transfer and Leasing Policy

Ministry of Finance, in March 2011, instructed all Ministries/Departments to obtain specific Cabinet approval in each case of sale or long-term lease of land belonging to the Government or Government-controlled statutory authorities until a comprehensive policy

was framed. Subsequently, in November 2011, the Cabinet Secretariat directed all Ministries, including the Department of Atomic Energy (DAE), to place policy proposals on land transfer before the Cabinet so as to avoid case-by-case approvals.

Audit observed that, as of December 2025, no common policy governing the transfer or leasing of land existed in DAE. Land transfer and leasing were being carried out based on procedures evolved independently by individual units and Aided Institutions. The Directorate of Construction, Services and Estate Management (DCSEM) forwarded a proposal for framing a policy on long-term and short-term leasing of land held by DAE to public/private authorities, PSUs and Autonomous Bodies of State/Central Governments only in January 2025. The proposal was pending with DAE as of December 2025.

Thus, despite explicit directions of the Cabinet Secretariat issued in November 2011, DAE had not formulated a common land transfer policy even after more than 14 years. The absence of such a policy resulted in non-uniform practices being followed across units and consequent deficiencies in land management, as brought out in subsequent Audit paras.

DAE stated (December 2025) that during the initial establishment of plants in remote areas and development of infrastructure, uniform guidelines could not be followed and that efforts were made to examine policies in other Ministries, but no similar policy was found to exist elsewhere.

The reply does not address the continued non-formulation of a policy over a prolonged period despite the Cabinet Secretariat's directions. Audit further notes that other Ministries, such as the Ministry of Shipping and the Ministry of Coal, had formulated land management policy guidelines in 2014 and 2022, respectively. Furthermore, considering the various challenges faced by DAE in setting plants in remote areas, it was all the more necessary that a uniform policy on land management that factored in the challenges, was developed for clarity of project managing units and uniformity in practice.

Recommendation 1:

DAE may formulate and notify a comprehensive land transfer and leasing policy in compliance with the directions issued by the Cabinet Secretariat.

b. Residential Accommodation Rules

The Central Government General Pool Residential Accommodation (CGGPRA) Rules were first notified in May 1963 and were amended 35 times between April 1982 and March 2017. As per Allocation of Business Rules, DAE was exempted from consultation with the Ministry of Urban Development in matters relating to properties. Hence, DAE-specific uniform framework was necessary for estate related matters.

Audit observed that out of 11 sampled units of DAE, DCSEM, Mumbai and General Services Organisation (GSO), Kalpakkam had framed Residential Accommodation Rules in 1982 and 1980, respectively. Other DAE units followed these rules for allotment of Departmental Pool Residential Accommodation within their jurisdictions. Consequently, allotment of residential accommodation within DAE was governed by two different sets of rules.

Despite the existence of multiple rules and long operational experience, DAE had not formulated Uniform Departmental Pool Residential Accommodation Rules applicable to all its constituent units and Aided Institutions, even after more than 71 years since its establishment in 1954.

Audit further observed that key provisions relating to damage rates, special licence fees, regularisation of allotment on re-transfer to the last place of posting and recovery of licence fees from clubs/associations, as featured in the various orders of the Ministry of Urban Development (Directorate of Estates), were not incorporated in either of the two sets of rules. These omissions arose due to non-updating of the rules in line with subsequent revisions to the CGGPRA Rules.

DAE stated (December 2025) that it was exempted from consultation with the Ministry of Urban Development in matters relating to properties under the Allocation of Business Rules, 1961. DAE further stated that revised allotment rules of DCSEM, GSO and HWB were received in 2025 and that steps were being initiated to constitute a Committee to examine the framing of DAE Allotment Rules.

While Audit acknowledges the exemption of DAE from CGGPRA Rules, it noted that DAE had, over the years, episodically adopted various orders issued by the Ministry of Urban Development (Directorate of Estates) relating to recovery of licence fees, damage rates for unauthorised retention and categorisation of residential quarters. In the absence of a DAE-specific uniform framework, continued reliance on non-revised rules resulted in gaps and

room for discretion in implementing estate related matters, as is reported in the succeeding sections of this report.

Recommendation 2:

DAE may formulate and implement Uniform Departmental Pool Residential Accommodation Rules applicable to all its constituent units and Aided Institutions on priority.

2.1.2.2 Non uniformity in transfer/allotment of land to Public Sector Undertakings (PSUs)

The Transaction of Business Rules, 1961, stipulates that no department shall, without prior concurrence of the Ministry of Finance, issue any order which may involve any grant of land or assignment of revenue or concession or any easement or privilege in respect of such concession. Further, in terms of Rule 279(4) of the General Financial Rules, 2005, reiterated under Rule 310(4) of the General Financial Rules, 2017, the allotment of land and recovery of the cost of buildings from the PSUs is to be made at the market rate.

Audit observed that the DAE and its units allotted land to various PSUs, namely Nuclear Power Corporation of India Limited (NPCIL), Electronics Corporation of India Limited (ECIL), Indian Rare Earths Limited (IREL) and Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI), at different points in time and under varying terms and conditions, as discussed in the succeeding paras.

a. DAE allotted lands in Mumbai free of cost to ECIL for setting up of Zonal Office and NPCIL for construction office complex in Anushakti Nagar in the years 2002 and 2006, respectively. However, DAE allotted land to IREL for construction of office in Chembur (also in Mumbai) in January 2020, at a lease premium of ₹8.15 crore. Audit observed that though the DAE had taken approval from the President of India and the Ministry of Finance for allotment of land in cases of ECIL and IREL, respectively, no such approval was taken for the free of cost allotment of land to NPCIL and under GFR, it was liable to pay cost of land at market rates.

In case of the land transferred to NPCIL, DAE/NPCIL stated that (December 2025), following the reorganisation of the Nuclear Power Board (NPB) into NPCIL, the land allotment was part of the ongoing administrative and functional arrangements within the DAE and did not require a separate approval from the Ministry of Finance or the President of India.

Reply of the DAE may be viewed in the light of the fact that the land was allotted to NPCIL in 2006, long after its incorporation in 1987 and it was a profit making PSU at the time of allotment of land for an office complex. Hence, either the approval of the Ministry of Finance/President of India was required for the regularisation of land allotment free of cost or cost of land should have been recovered from NPCIL at market rates.

b. Indira Gandhi Centre for Atomic Research[6], Kalpakkam, in 2004, allocated DAE land to BHAVINI[7]free of cost and on freehold basis through a Memorandum of Understanding between IGCAR, Kalpakkam and BHAVINI. However, Audit observed that necessary approvals from the Ministry of Finance were not obtained by IGCAR, Kalpakkam and it was liable to pay cost of land at market rates.

DAE stated (December 2025) that it had directed (June 2025) BHAVINI to take up the land transfer issue with the concerned authorities in the DAE.

Recommendation 3:

DAE may obtain approval of appropriate authority for regularisation of the land allotment to NPCIL and BHAVINI and ensure consistency in respect of the transfer/allotment of land to its Public Sector Undertakings.

2.1.2.3 Allotment of land/space without approval of the competent authority to private parties

Rule 28 (ii) of GFR stipulates that, except in pursuance of the general delegation made by, or with the approval of the President, a subordinate authority shall not, without the previous consent of the Finance Ministry, issue an order which involves relinquishment of revenue in any way.

Audit, however, observed that units of DAE had allotted land/space without approval of the competent authority to private parties. Details of the cases are discussed in the ensuing paras:

a. Audit observed that (February 2024) seven private tea pantries, canteens and small shops were operating within the premises of IGCAR, free of cost using infrastructure and electrical appliances[8] provided by the IGCAR. No lease agreement had been entered into for allocation of space for these utilities. It was further observed that neither any approval was

[6] *Indira Gandhi Centre for Atomic Research, Kalpakkam, is a research and development unit of DAE.*
[7] *Incorporated as a Public Sector Undertaking in October 2003.*
[8] *Electric gas, induction, microwave.*

taken from the DAE for these allocations nor recovery of licence fees or allied charges (*e.g.*, electricity, water) was made from the occupants.

Audit further observed that in October 2025 (post audit), IGCAR prepared a set of Standard Operating Procedures to regularise the operation of these establishments and sought approval from DAE for the same. DAE, in response, instructed (October 2025) IGCAR that the running of tea pantries and canteens be done either departmentally or by placing a contract through Government approved bidding process, such as GeM/CPPP.

Thus, operation of these private tea pantries, canteens and small shops continued (December 2025) in the IGCAR without approval of competent authority.

b. DCSEM, Mumbai allotted (1985-88) seven shops to Anushakti Nagar Residence Consumer Co-operative Society with nominal licence fee of ₹1 per shop per month. As per instruction received (November 2015) from DAE, DCSEM constituted (March 2016) a committee to review the licence fee of societies/association and recommended enhancement of licence fee from ₹1 to ₹25,760 per month which was approved by the DAE in April 2017.

Audit observed that DCSEM did not recover the licence fees at the revised rates. DAE, subsequently in July 2025 (post audit) instructed to DCSEM for recovery of licence fee at the rate of ₹1 with effect from April 2017 to December 2025 with a recommendation to close the shops, taking them into possession for exploring other modalities for using them in a profitable manner from January 2026. This decision was also taken by DAE without taking the concurrence of Member (Finance).

c. Audit observed that RRCAT, Indore (from July 2001) and GSO, Kalpakkam, (From 1979) allotted shops/building/premises, *etc.,* to Centre for Advanced Technology Co-operative Consumer Society and Atomic Energy Employees Cooperative Credit Stores respectively at the rate of licence fee of ₹1 per month for each shop without obtaining the approval of Member, Finance (DAE).

DAE stated (December 2025) that the shops in question were allotted at a nominal rate of ₹1 to the society in the early years of RRCAT.

Audit concluded that in the absence of any policy, the decision of giving concessions is left to the discretion of DAE which is evidenced by the fact that varied practices have been followed by DAE for allotment of land/space to private parties, without the approval of Member Finance. DAE had also not made any efforts to review the licence fee and continues to allot its land/space at concessional rates to private parties.

Recommendation 4:

In the absence of a duly approved policy, DAE may obtain approval of Member (Finance) before allotment of any land/space to private party.

2.1.2.4 Loss of revenue due to allotment of residential accommodation to PSUs and Private parties in the absence of uniform guidelines/rules

As per standard practice, allotment of Government residential accommodation to PSUs should be based on guidelines/rules approved by the competent authority in this regard. Audit, however, observed that DAE has not framed/followed any such guidelines/rules.

In the absence of DAE-specific policies and rules governing land and estate management as of December 2025, Audit has adopted the policy framework and guidelines of the Ministry of Urban Development as a benchmark for assessing compliance and drawing Audit conclusions in the subsequent paras and noted that DAE incurred loss of revenue on allotment of its residential accommodations to PSUs/Private Parties as detailed below:

a. Loss of revenue due to allotment of Government residential quarters to PSUs at concessional rates

Audit observed that, in the absence of any uniform guidelines or rules, DAE did not frame modalities for allotment of quarters to PSUs. While in some cases DAE entered into MoUs with the respective PSUs for allotment of quarters, in other cases such allotments were made without formalisation of terms and conditions in any form. Audit further observed that even in cases where DAE entered into MoUs, the terms and conditions therein were not fully complied with.

Audit observed that DAE allotted residential accommodation[9] to NPCIL, ECIL and MAPS without consistent terms and conditions.

i. In case of NPCIL, an MoU was entered between DCSEM and NPCIL (December 1997) for sharing the residential pool accommodation under DAE at Mumbai. As per the MoU, 432 flats/quarters[10] of various types were to be constructed with the resources funded by NPCIL, which contributed an amount of ₹39.86 crore. The MoU also stipulated that future contributions by NPCIL for further construction of flats

[9] *All three PSUs (NPCIL, ECIL and MAPS) are profit making.*
[10] *Type VE-100 numbers, Type IIIC-100 numbers, Type IIB-100 numbers and Efficiency Plus Apartments-132 numbers.*

would approximately be in proportion to the relative strength of the personnel of NPCIL.

ii. In case of ECIL, no formal agreement/MoU had been entered into between ECIL and NFC towards the terms and conditions for allotment of additional residential quarters. However, ECIL had contributed (1992) ₹0.82 crore to NFC towards construction cost of 60 Type II quarters for its employees.

iii. In the third case, GSO, Kalpakkam had allotted residential quarters to the employees working at MAPS since its incorporation under NPCIL in 1987 without entering an MoU or receiving any contribution towards cost of construction.

Audit also observed that DAE allotted Government Residential Accommodation to NPCIL and ECIL during 2019-20 to 2023-24 over and above the number of quarters for which PSUs contributed. Further, in case of MAPS, quarters were allotted free of cost, without receiving any contribution towards cost of construction as detailed in the table below:

Table 9: Number of quarters allotted to PSUs

Name of the PSU	No. of units allotted for which contribution/recovery of cost is received	No. of units allotted for which no contribution/cost recovery is received
NPCIL	432	445 to 747
ECIL	60	104 to 458
MAPS	-	587 to 676

Audit noted that Rule 88 of CGGPRA Rules stipulates that the concerned Ministry or department of the Government of India shall undertake to pay to the Directorate of Estates an amount equal to the house rent allowance and licence fee, as fixed by the Central Government from time to time, in respect of all accommodations placed at their disposal for the period for which accommodations remain in the custody of the borrowing Ministry or departments. By corollary and in the absence of any policy/guidelines as mentioned above, DAE being the lending Department should recover HRA component from the borrowing PSU for its residential quarters which the PSUs are saving on payment of HRA to its employees by providing these quarters.

Audit, however, observed that DAE had not recovered HRA component from respective PSUs towards allotment of additional/residential accommodations for which no contribution was received which resulted in loss of revenue of ₹80.19 crore during the period 2019-20 to 2023-24 as detailed in the ***Table 10***.

Table 10: Loss of Revenue due to Non-Recovery of House Rent Allowance from PSUs

Name of the PSU	No. of units allotted for which no contribution is received	Loss of Revenue[11] *(₹ in crore)*
NPCIL	445 to 747	55.86
ECIL	104 to 458	13.42
MAPS	587 to 676	10.91

With regard to allotment of additional quarters to NPCIL and ECIL, DAE stated (December 2025) that there was no rule/provision/procedure which stipulated that HRA remitted from PSUs had to be credited to Government Accounts. In the case of MAPS, DAE stated (December 2025) that it was empowered to frame rules regarding the allotment of accommodation. The accommodation was categorised as General Pool Residential Accommodation (GPRA) for allotment to employees of DAE, including those of Public Sector Undertakings and Aided Institutions. Allotment of accommodation from the general pool was based on the flat rate of licence fee. In light of the above, the question of recovery of the HRA component did not arise.

The reply of the Department needs to be considered along with the fact that in absence of any provision towards recovery of HRA from PSUs in the two sets of rules being followed by DAE for allotment of residential quarters; Rule 88 of CGGPRA, which stipulates payment of an amount equal to the HRA, to the concerned Ministry or Department of Government of India towards accommodations placed at the disposal of borrowing Ministry or Departments, was to be applied. However, in the instant case, it was observed that DAE neither recovered the Government funds spent on the construction of these accommodations nor recovered the HRA component from the respective PSUs against the allotment of Government residential quarters. Thus, DAE could not safeguard the financial interests of the Government.

In a similar case at RRCAT Indore, DAE had initiated the process of recovering the unpaid HRA from ECIL in December 2025.

Recommendation 5:

DAE may formulate suitable guidelines for the allotment of residential quarters to PSUs so that it may either recover HRA component from PSUs or assess amount of

[11] *Actual amount would be much higher, calculation carried out after considering minimum pay in the respective pay matrix of the entitlement class of government accommodation for the period April 2019 to March 2024.*

contribution to be claimed from respective PSUs towards construction cost of additional quarters occupied by them.

b. Loss of revenue due to allotment of Government residential quarters to private parties at concessional rates

The Transaction of Business Rules, 1961, stipulates that no department shall, without prior concurrence of the Ministry of Finance, issue any order which may involve any grant of land or assignment of revenue or concession or any easement or privilege in respect of such concession.

Further, the Public Accounts Committee (third Lok Sabha) in its 34th Report under Para 43, recommended that the practice of giving Government accommodation to private parties should be discontinued. However, it provided that the accommodation may be given under special circumstances, as a temporary measure at the full market rate. The said recommendation was accepted by the Government.

Examination of records revealed that DAE allotted Government residential quarters to private parties at concessional rates instead of market rate/damage rate, entailing loss of revenue to the Department. Further, approval of the Member, Finance (DAE) for allotting Government residential quarters at concessional rates was also not obtained in these cases.

Table 11: Loss of Revenue due to Allotment of Government Residential Quarters to Private Parties at Concessional Rates

Loss of revenue of ₹5.33 crore due to non-recovery of licence fee at damage/market rate by HWP, Manuguru
HWP, Manuguru, had allotted residential quarters to 11 contractors at HWP, Manuguru Colony, from 2019-20 to October 2025. Audit observed that recovery of licence fee was not at par with the market rate as recommended by the PAC. HWP, Manuguru has recovered licence fee at nine times of normal licence fee instead of market rates, *i.e.*, 40 times of normal licence fee. This resulted in loss of revenue of ₹5.33 crore. DAE stated (December 2025) that the licence fee had been recovered at special rate of licence fee. It added that revisions in the rates of special licence fee will be carried out.
Short recovery of licence fee of ₹2.55 crore due to allotment of residential quarters to private parties at concessional rate by GSO, Kalpakkam
GSO, Kalpakkam, allotted 77 residential quarters[12] up to March 2024, to private[13] individuals without approval of the Member, Finance (DAE). Audit observed that instead of charging for the damage[14] rate (40 times the normal licence fee), GSO charged a concessional licence fee in respect of 75 residential[15] quarters[16]. GSO, Kalpakkam, in its reply (October 2024), stated that post-facto approval from DAE would be obtained. The DAE stated (December 2025) that all these agencies had been operating in Kalpakkam since

[12] *Type I quarters-70, Type II quarters-2 and Type III quarters-5.*
[13] *Atomic Energy Cooperative Stores, NESCO, Homoeopathy, Mahatwa, Kindergarten School, etc.*
[14] *Directorate of Estates O.M. dated 7 September 2016.*
[15] *Type I quarters-68, Type II quarters-2 and Type III quarters-5.*
[16] *Market rate (i.e., 40 times the normal licence fee) was charged by GSO, Kalpakkam, for only two residential quarters out of allotted 77 residential quarters.*

the commissioning of the projects to meet basic needs such as groceries and provisions, cooking fuel, vegetables and social or cultural activities-services essential for fostering a healthy community and supporting manpower retention.

Therefore, due to non-formulation of any framework or guidelines for the allotment of residential quarters to PSUs/private parties, there is a lack of consistency in decision-making, either with regard to the recovery of licence fee, HRA component or the recovery of contributions towards the construction cost of quarters. The difficulties mentioned by DAE in dealing with PSUs and private agencies operating from its premises make it all the more important to have a uniform policy framework, so that different units of DAE have clarity while dealing with PSUs and private parties.

Recommendation 6:

DAE may follow the recommendation of PAC for allotment of residential quarters to private parties and recover licence fee at prescribed market rates.

2.1.2.5. Loss of licence fees due to enhancement of retention period without approval of the Member, Finance (DAE) for Government residential accommodation

Rule 28(ii) of GFR, 2005 and 2017, stipulates that except in pursuance of the general delegation made by or with the approval of the President, a subordinate authority shall not, without the previous consent of the Finance Ministry, issue an order which involves relinquishment of revenue in any way.

Directorate of Estates revised the rates of damages for unauthorised occupation of Government residential accommodation through Office Memoranda issued in December 2012 and September 2016, with effect from January 2013 and July 2016, respectively. DAE endorsed these orders to all its constituent units in February 2013 and October 2016 for implementation. As per these instructions, damage charges are applicable after eight months of retention of government accommodation after transfer to a place outside the existing place. For the first month, the damage charges cost was to be recovered at the rate of 40 times the licence fee, second month-damage charges plus 10 *per cent* of the rate of damage charges, third month-damage charges plus 20 *per cent* of the rate of damage charges and fourth month-damage charges plus 40 *per cent* of the rate of damage charges. Further, the percentage rate of unauthorised occupation for each subsequent month was to increase till the accommodation was vacated by the allottee, subject to a maximum of five times of rates of damage charges during the first month of unauthorised occupation. Damage rates for Anushakti Nagar,

Mumbai, were to be charged at 50 times, as this was the rate stipulated for the cities of Mumbai and Delhi.

Audit observed that in contravention of above instructions, the DAE enhanced (December 2018 and May 2023) the maximum permissible retention limit of Government Residential Accommodation on double licence fee from eight months (as fixed by the Directorate of Estates) to two years and four years, respectively, without obtaining the concurrence of the Member, Finance (DAE).

Audit further observed that from 2019-20 to 2024-25, 93 officials[17] had retained the residential accommodation in their earlier[18] place of posting for more than the permissible period of eight months. However, only double licence fee had been recovered for their extended period in place of 40/50 times of the licence fee, which resulted in loss of revenue amounting to ₹6.01 crore to the Government exchequer.

DAE stated (December 2025) that there had not been any relinquishment of revenue as the DAE *vide* its inter-departmental transfer policy had granted retention beyond six months at double the normal licence fee and 16 times[19] of normal licence fee considering the fact that these accommodations were being retained by the Departmental employees consequent on their transfer to outstations. It further stated that the DAE, though empowered to follow its own accommodation policies, aligned to the Ministry of Housing and Urban Affairs (MoHUA) accommodation policies as far as possible, *i.e.,* licence fee rates, retention, *etc.* However, the concession extended had never been at a concessional rate and either the double rate of licence fee or if beyond the permissible period[20], the market rate of the licence fee had been recovered. It also stated that MoHUA had also extended (August 2024) the retention of accommodation up to three years.

The reply of the DAE may be viewed in the light of GFR provision mentioned *ibid*, which explicitly stipulates that no authority without the previous consent of the Finance Ministry can issue an order which involves relinquishment of revenue in any way. Moreover, up to November 2018, DAE had implemented the rates of damage as prescribed by the Directorate

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[17] 79 officials from the Department of Atomic Energy, Mumbai units, i.e., Directorate of Construction, Services and Estate Management, seven from Raja Ramanna Centre for Advanced Technology, Indore, three from General Service Organisation, Kalpakkam, two from Nuclear Fuel Complex, Hyderabad and two from Heavy Water Plant, Baroda.

[18] Employees retained government residential quarters at Mumbai/Hyderabad/Kalpakkam/Indore/Baroda and were posted/ transferred to various DAE units located at Kolkata/Tarapur/Kakrapar/Hyderabad/Mysore/Thal/Indore/Kudankulam/Manuguru/Vizag/ Kota/New Delhi/Kalpakkam/Jaduguda/Jaipur/Talcher/Tuticorin.

[19] When an employee retains departmental quarters at the old station and also occupies departmental quarters at the new station, employee owns accommodation at either the old station or the new station.

[20] Four years of retention.

of Estate. The formulation of a new policy (December 2018), which implied huge revenue loss to the public exchequer without approval of Member, Finance (DAE), was irregular. Further, the MoHUA's O.M. (August 2024) referred by DAE was only applicable when the place of posting was at a non-family station (*i.e.*, Jammu and Kashmir, Ladakh, Andaman and Nicobar Islands, Lakshadweep). However, the cases enumerated by Audit did not come under the non-family station.

Recommendation 7:

DAE may either obtain the approval of Member (Finance) for formulation of a new policy/guidelines having financial implication or follow an extant rule issued by Directorate of Estates for retention of Government accommodations.

2.1.3 Non-renewal/Non-execution of Lease/Licence Agreements leading to Loss/Short Realisation of Revenue

According to Section 17 of the Registration Act, 1908, leases of immovable property from year to year, or for any term exceeding one year, or reserving a yearly rent need to be registered.

a. Audit observed that three units of DAE[21] leased out Government land to Oil Companies, Petrol Pump, Bank and State Transport Corporation, *etc*., but suffered a loss on account of short realisation of revenue due to non-renewal of lease/licence agreements on its expiry. Details of the cases have been discussed in the ensuing paras.

Some cases of inordinate delay in renewal of licence agreement have been reported in the Para no. 3.2 of CAG Audit Report No. 2 of 2018 and Para no. 3.2 of CAG Report No. 2 of 2021. DAE, in its Action Taken Note, noted these cases for future compliance. However, even after a lapse of considerable period these licence agreements could not be renewed (December 2025) with revised lease rent, resulting in short realisation of licence fee/lease rent amounting to ₹47.27 crore during the period August 2007 to July 2025, as per details given in ***Table 12***.

[21] ***DCSEM, Mumbai, GSO, Kalpakkam and RRCAT, Indore.***

Table 12: Short Realisation of Lease Rent

No.	Name of Organisation	Licence agreement due for renewal	Revised lease rent recoverable for the period	Amount of lease rent receivable *(in ₹)*	DAE's response as per ATN
1	BPCL, HPCL and RIIL[22]	August 2007	August 2007 to July 2025	40,99,27,128	In Action Taken Note DAE stated (August 2022) that the Audit comments were noted for compliance. However, no improvement was noticed as of December 2025.
2	Tamil Nadu State Transport Corporation	October 2012	1.10.2012 to 30.6.2024	3,58,11,925	In Action Taken Note DAE stated (December 2025) that SBI and TNSTC did not agree to the retrospective revision.
3	State Bank of India	August 2013	1.8.2013 to 30.6.2024	2,69,34,979	

Thus, inordinate delay (12 to 18 years) in renewal of lease agreements with revised lease rent causing potential revenue loss of ₹47.27 crore.

Apart from the above, Audit observed that such practices continued as reflected in the cases in which licence/lease agreements were due for renewal post 2018 but no timely action was taken, which resulted in loss of revenue to DAE as discussed in the ensuing paras.

i. DAE leased out 836.13 square metres of land to Indian Oil Corporation Limited (IOCL) in 1973 at Prabhadevi, Mumbai, for an initial period of 30 years, which was further extended up to 6 July 2018 (at the rate of ₹2,28,332 per month). DCSEM approached (April 2018) DAE for renewal of the lease agreement at revise lease rent (₹9,82,801 per month[23]) for a further period of five years. Audit observed that during the period March 2019 to February 2024, several communications were exchanged between DAE and DCSEM, however, approval of MoF could not be obtained as of May 2024, due to lack of clarity of the proposal on various observations of Member (Finance).

Audit, however, observed that the Secretary, DAE, without taking the approval of member (Finance), provisionally approved the renewal of the lease agreement from 7 July 2018 to 6 July 2023 retrospectively in May 2024 to recover licence fee at revised rates based on the formula[24] arrived at by considering the land as 'commercial land'. However, the same was not finalised as of December 2025. IOCL expressed (October 2025) that the revised rate cannot be paid without a lease agreement.

[22] *Bharat Petroleum Corporation Limited, Hindustan Petroleum Corporation Limited and Reliance Industrial Infrastructure Limited.*
[23] *(Area of land in sq.m x Rate of land as per Ready Reckoner x Prime Lending Rate x 1/12), i.e., 836.13 x 1,55,000 x 9.10 x 1/12=₹9,82,801.*
[24] *Area of land in sq. m x Rate of land as per Ready Reckoner x Prime Lending Rate x 1/12.*

Thus, the short realisation of lease rent/licence fee of ₹12.98 crore (July 2018 to October 2025) was mainly attributable to the DAE taking inordinate time (*i.e*., more than seven years) and in finalising the formula for revising the lease rent agreement.

In a similar case, DAE extended the lease agreement period of land measuring 1908.885 square metre leased out to IOCL at Deonar from 18 August 2008 up to 17 August 2023 at a cost of ₹0.02 crore per month[25]. Audit observed that DCSEM conveyed (January 2023) IOCL's willingness to continue the lease to DAE for a further period of five years. Awaiting response, DCSEM sent the draft agreement for renewal of lease to DAE (May 2024), which stipulated a revised rate of lease rent at ₹0.11 crore per month. DAE in July 2024 informed that lease rent should be revised retrospectively based on the formula[26] for the period 18 August 2023 to 17 August 2028. However, the lease agreement had not been renewed till December 2025. This resulted in a loss of revenue of ₹1.75 crore to the Department.

In respect of above two cases, DAE stated (December 2025) that the proposal for renewal of the lease agreement for land leased to IOCL at Deonar and Prabhadevi had been received in the DAE. Both the proposals had not been finalised yet, due to a pending clarification sought by the Member, Finance (DAE).

Hence, due to delay in response from DAE, the lease deeds were proposed to be entered at revised rates from retrospective dates. As such, DAE allowed IOCL to utilise the Government lands at both places without any valid agreement for several years, at old lease rent rates.

ii. In 1999, DAE approved leasing 1400 square metre of land to SBI in RRCAT, Indore, on rent, at the rate of ₹8,270 *per annum* for 30 years, with the condition that the rent was to be reviewed every 10 years, based on the market value of the land at that time. A lease agreement was executed between RRCAT, Indore and SBI in December 2000 for 10 years with a provision that the rent would be increased by mutual agreement at the time of renewal of the lease. RRCAT, Indore (August 2011) offered SBI, renewal of the lease at ₹0.06 crore *per annum* based on the 2010-11 market rates. SBI disagreed and proposed (February 2012) to enhance the lease rent up to 25 *per cent* every five years, *i.e.,* ₹10,340 *per annum.* The DAE, however, instructed (December 2013)

[25] ***The original lease agreement was entered into on 1 December 1970.***
[26] ***Area of land x Ready Reckoner Rate x Marginal Cost of fund-based Lending Rate/12.***

RRCAT, Indore, to follow the Ready Reckoner of the State for calculating the lease rent. Despite repeated correspondence between DAE and SBI during the period April 2014 to October 2025, no decision could be taken to arrive at the renewed lease rent.

Thus, due to delays in renewing the lease rent, SBI continued paying ₹8,270 *per annum*, resulting in short realisation of ₹1.84 crore as of October 2025. Further, RRCAT allowed the SBI to use the Government land without a valid agreement for over 15 years.

DAE stated that (December 2025) RRCAT was making constant efforts for the renewal of the lease agreement, which was yet to be finalised.

b. Audit also observed non-execution of lease agreements between DAE/its constituent units and lessees, namely, Andhra Pradesh State Road Transport Corporation (APSRTC) and IOCL, leading to revenue loss to the exchequer as detailed in the succeeding paras.

i. NFC, with the approval of DAE (May 1984), leased out 5.937 acres of land to APSRTC for a period of 99 years for construction of a Bus Depot and a Bus Terminal in Hyderabad, on payment of lease rent[27] at the rate of ₹1,366 *per annum* with a condition that formal execution of lease deed will be done subsequently. Although a draft lease deed was vetted by DAE in 1991, the lease agreement did not materialise.

Subsequently in December 2010, DAE directed NFC to work out the lease rent based on a formula[28], as the cost factor of the land had increased. Audit observed no efforts on the part of NFC to execute a lease deed with fixation of revised lease rent till March 2018. It was only in April 2018 that NFC forwarded a draft lease deed to DAE, after a delay of more than seven years. The DAE proposed (March 2020) modification of the lease rent as the least out of the three[29] proposed formulae. Telangana State Road Transport Corporation (TGSRTC)[30], however, expressed disagreement (March 2023) in bearing the additional financial burden and requested to continue the existing annual lease rent of ₹1,366 *per annum*. No further progress towards execution of lease deed or revision of the lease rent was made by the DAE as of December 2025.

DAE, in its reply (December 2025), stated that a show cause notice was being issued due to poor response from TGSRTC with regard to the execution of the lease deed. However, it further stated that as there was no provision to increase the licence fee in

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[27] At 10 per cent per annum on the original cost of land.
[28] Rate of land x area of land x 12 per cent (Prime Lending Rate).
[29] Formula 1: Area occupied (in sq. m) x cost of land per sq. m (as per Ready Reckoner) x Prime Lending Rate=₹17,35,32,585 per annum.
Formula 2: Rate/sq. feet x Area (sq. feet) x 14 per cent=₹18,06,28,713 per annum.
Formula 3: Lease Rent=Capital Cost x 12 per cent (Prime Lending Rate)=(Rate of land x Area) x 12 per cent=₹15,48,24,611 per annum.
[30] Erstwhile APSRTC.

the allotment letter of 1984, the lease rent at the revised rate was not accepted by TGSRTC.

The contention of DAE regarding increase in licence fee may be seen in the light of the fact that such conditions could be finalised had there been a formal lease agreement entered between both the parties. Due to non-execution of a lease deed, the recovery of lease rent at revised rates could not be enforced which led to revenue loss of ₹86.39 crore[31] from 2020-21 up to October 2025. Also, TGSRTC continued to utilise Government land for commercial purpose without a valid lease agreement.

ii. In October 1987, IOCL executed an agreement with Atomic Energy Employees Consumer Co-operative Stores Limited[32] (AEECC) to allocate land belonging to GSO, Kalpakkam for consumer pumps for motor spirit and high-speed diesel in Kalpakkam Township for an initial 10 year period without obtaining the approval of DAE. Subsequently, GSO, Kalpakkam (July 2000) submitted a proposal[33] to DAE for leasing 1826 square metre of land to IOCL to convert the consumer pump into a dealer pump. The same was approved (July 2003) by the Member (Finance) (DAE) for 30 years at a market rate of ₹7,667 *per annum,* with provision of rent to be revised every five years. While approving the lease proposal, Member (Finance) had also instructed the DAE to recover appropriate lease rent from AEECC from the year 1987 onwards.

Audit, however, observed that despite DAE's approval in 2003, neither any lease agreement was executed between GSO, Kalpakkam and IOCL/AEECC till November 2024, nor any recovery of lease charges was made from IOCL at the prescribed rates from July 2003. Further, no charges towards lease rent were fixed or recovered from AEECC.

On being pointed out by Audit, the GSO, Kalpakkam, issued a demand notice in October 2024 for ₹0.57 crore to IOCL for pending lease charges from July 2003 to August 2024. However, the same was yet to be recovered. Further, a demand notice was also issued (September 2024) to AEECC for recovery of licence fee at ₹1 per month for the period 2017-18 to 2023-24 in lieu of appropriate lease rent as directed by Member, Finance (DAE).

DAE stated (December 2025) that the Petrol Retail Outlet was operated by AEECC as a dealer of IOCL. It further stated that no land had been leased to IOCL. Therefore, the

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[31] ***(₹15,48,24,611 x 5.58)-(₹1,366 x 5.58)=₹86,39,13,707.10.***

[32] ***Erstwhile Madras Atomic Power Project Employees Consumers Cooperative Society.***

[33] ***Received from Indian Oil Corporation Limited (April 2000).***

question of recovery of lease rent and renewal of the lease agreement with IOCL does not arise at all.

Reply of the DAE is not acceptable since Member, Finance's approval was towards the fixation of lease rent at ₹7,667 *per annum* from IOCL. Accordingly, a demand notice had also been issued to IOCL for recovering the lease rent. If AEECC had actually operated the IOCL petrol pump as a dealer, as per DAE's reply, the land was then utilised by AEECC for commercial purposes. Hence, either recovery of lease rent as fixed by Member (Finance) in 2003 was to be recovered from AEECC or concurrence of Member (Finance) was to be obtained for recovering a nominal lease rent (at ₹1 per month) for utilisation of DAE land for commercial purposes. Neither of these actions was undertaken.

Further, with reference to observations on non-execution/delay in execution of Lease deeds/Agreements towards leased out land, DAE stated (December 2025) that guidelines had been issued (August 2025) for timely review of lease agreements/deeds to avoid unintentional loss to the Government exchequer.

Thus, in the above cases, due to delays in decision-making by DAE and its constituent units, the lease agreements were either not entered into or were proposed to be entered into with retrospective effect, making them unacceptable to the lessees. Further, since DAE did not take action to revise these agreements before their expiry, it would be difficult for DAE to enforce a revision of the lease rent.

Recommendation 8:

The DAE may institute a robust mechanism for monitoring timely renewal of the respective lease/licence agreements before their expiry, with revised lease rent/licence fee/ground rent.

2.1.4 Periodic Review of Licence Fees

Periodic review of licence fee is essential to ensure that licence fee is being recovered in respect of residential quarters allotted to the employees or land/building leased out to Banks/Post Offices/Shops/Public Sector Undertakings/Private Parties.

2.1.4.1 Loss of revenue due to non-recovery of the licence fee

The Ministry of Home Affairs, Central Industrial Security Force (CISF) endorsed (December 2017) the Directorate of Estates' Office Memorandum wherein the Rent-Free Accommodation Allowance was abolished with effect from 1 July 2017.

Audit observed that the CISF had deposited the licence fees up to May 2019 for the staff quarters given by DAE's constituent units[34]. However, it had neither been collecting nor depositing with DAE the licence fee from its employees up to the rank of Inspector with effect from June 2019. This violated the Directorate of Estates' order, which did not entail any such exemptions.

The DAE did not take any action to recover the licence fees from the CISF, resulting in the exchequer suffering a revenue loss of ₹2.87 crore (June 2019 to October 2025).

The DAE stated (December 2025) that all Administrative Heads of constituent units/Aided Institutions/PSUs were directed (February 2025) to recover the applicable licence fee from all CISF personnel. Further, DAE had also issued an O.M (January 2026) with an instruction to recover the applicable licence fee from CISF personnel and any exemption could only be made if it was approved by the Ministry of Finance.

2.1.4.2 No uniform policy to recover licence fees from Banks/Post Offices

Rule 4(2)(b) of Transaction of Business Rules, 1961, enumerates that unless the case is fully covered by powers to sanction expenditure by any general or special orders made by the Ministry of Finance, no Department shall, without the previous concurrence of the Ministry of Finance, issue any orders which may involve any assignment of revenue or concession, or any easement or privilege in respect of such concession. The same is also reiterated by the Ministry of Finance vide the Office Memorandum dated 25 June 2010 for strict compliance and Rule 28 (ii) of General Financial Rules, 2017.

Twelve units of Department of Atomic Energy had allotted space/building for operation of Post Offices and Banks on their premises. Audit observed that DAE had formulated its own rate towards recovery of licence fee from Banks/Post Offices without the approval of Member (Finance). Scrutiny of records revealed that DAE, in case of Post Offices charged a nominal licence fee at the rate of ₹1 per month and the rate of licence charged from the banks was much lower than corresponding rates notified by the Directorate of Estates from time to time. This

[34] *Directorate of Construction, Service and Estate Management (Mumbai), General Service Organisation, (Kalpakkam and Anupuram), Nuclear Fuel Complex (Hyderabad), Heavy Water Plant (Manuguru).*

resulted in charging of licence fee at concessional rates from banks/post offices, which needed prior approval of Member (Finance).

DAE stated (December 2025) that it had considered the Audit objections and recently conveyed approval for the opening of a branch of Mumbai District Central Co-operative (MDCC) bank at the rates of the Directorate of Estates. Further, a proposal for review of the licence fee in respect of banks and post offices in line with orders of the Directorate of Estate had been received from DCSEM. Licence fee of banks was under process at the DAE and regarding the licence fee of post offices, clarification had been sought from DCSEM. On receipt of clarification from DCSEM, a decision was to be taken on whether the licence fee for the post office was to be fixed as per the orders of the Directorate of Estates.

Recommendation 9:

The DAE may undertake comprehensive review towards fixation of licence fee for providing space/building to Banks/Post offices with the approval of Member (Finance).

2.1.5 Non-Maintenance of Asset Register and Centralised Data Bank/Integrated Land Management System

a. Ministry of Finance issued guidelines (September 2017) for creating, updating and maintaining Asset Registers, including land, buildings and infrastructural assets, in Ministries and Departments of the Central Government and for the introduction of an e-Asset Register portal. The Guidelines stipulated that the Ministries/Departments are required to maintain Asset Registers in the format prescribed in the Fiscal Responsibility and Budget Management (FRBM) Rules, 2004. They are also further required to tally the expenditure incurred on land, buildings and infrastructural assets with the figures shown in the Finance Accounts. Further, Rule 213(1) of the General Financial Rules, 2017 stipulates annual physical verification of fixed assets by the Head of Office.

Audit observed that the DAE and its constituent units did not maintain Asset Registers for land, buildings and infrastructural assets. In the absence of such records, Audit could not ascertain the information on the asset location, condition and utilisation status in one place. Further, in the absence of such register, it did not tally the expenditure incurred on land, buildings and infrastructural assets with Finance Accounts figures of DAE, as required.

DAE stated (December 2025) that a comprehensive exercise to compile, verify and standardise asset data was underway.

Recommendation 10:
DAE and its units may maintain Asset Registers in respect of land, buildings and infrastructural assets as per the format prescribed by the Ministry of Finance.

b. DAE entrusted (December 2014) the job of creation of Centralised Data Bank on land records of all its constituent units (including Aided Institutions) and Integrated Land Management System (ILMS) to DCSEM, Mumbai.

Audit, however, observed that though Centralised Data Bank was established and information was collected from all the Units for the purpose of the Government Land Information System (GLIS) by DCSEM, the databank was later disbanded due to security reasons.

DAE agreed with the Audit finding. Consequently, currently, no Integrated Land Management system exists at the departmental level, which can depict a true and fair picture of the land area under the possession of DAE units even for its internal use.

2.1.6 Land transfers and safeguards against encroachment

The title of the land possessed by DAE should be transferred in the name of DAE immediately after acquisition and adequate safeguards should be in place for detection, prevention and removal of encroachments, maintenance of land boundaries and land records, *etc.* Audit observations on these issues have been discussed in the coming paras.

2.1.6.1 Non-transfer of land title in the name of DAE/President of India despite possession

Ten DAE Units[35] possessed/acquired/purchased land for the purposes ranging from the establishment of a Research and Development facility, setting up of plants, construction of residential accommodation, *etc.*, over several years in the past. Audit observed cases where the title of these lands had not been transferred in the name of DAE/President of India, even after a considerable lapse of time, as detailed below:

Table 13: List of Non-Transferred Lands

Name of the unit	Period of land acquisition	Land possessed (*in acres*)	Land not transferred in the name of DAE/President of India (*in acres*)
BARC, Vizag	2005 to 2021	4235	4235
DCSEM, Mumbai	1956 to February 2024	1433.13	72.02
NFC, Hyderabad	1967 to 1990	1182.82	421.55
RRCAT, Indore	1983 and 1988	1731.89	1731.89

[35] ***Bhabha Atomic Research Centre, Vizag, Raja Ramanna Centre for Advanced Technology, Indore, General Service Organisation, Kalpakkam, Nuclear Fuel Complex, Hyderabad, Heavy Water Plant, Thal, Heavy Water Plant, Hazira, Heavy Water Plant, Kota, Heavy Water Plant, Tuticorin, Harish Chandra Research Institute, Prayagraj.***

Name of the unit	Period of land acquisition	Land possessed (*in acres*)	Land not transferred in the name of DAE/President of India (*in acres*)
GSO, Kalpakkam	1979 to 1991	749.71	462.70
HWP, Hazira	1990	123.4	123.4
HWP, Kota	1969	149.60	80.00
HWP, Thal	1984	35.10	35.10
HWP, Tuticorin	1973 to 2012	94.83	48.06
HRI, Prayagraj	1990	55.96	55.96
Total		**9791.44**	**7265.68**

Thus, in these 10 cases out of 9791.44 acres of land possessed, the title of 7265.68 acres of land was not in the name of DAE. One significant case is discussed below:

Table 14: Non-Transfer of the Title of the Land in the Name of DAE/President of India

Heavy Water Plant (HWP), Thal
HWP, Thal was set up (1984) based on an Agreement between DAE and Rashtriya Chemical Fertiliser (RCF), which, *inter alia,* provided that ownership of land required for setting up of HWP within RCF premises and township land for the residence was to be transferred in the name of DAE. Accordingly, the DAE had made a payment of ₹0.07[36] crore in 1984 to RCF, Thal, for providing 35.096 acres of land. Audit observed that as of December 2025, the title of the land had not been transferred in the name of DAE/President of India. Also, as per Article 285(1) of the Constitution of India, the property of the Union is exempted from all taxes imposed by the State. However, it was observed that the HWB had paid (2018-2024) an amount of ₹4.08 crore[37] to the local Body Authority towards Property Tax on the subject land. DAE stated (December 2025) that the matter was being pursued with RCF for either transferring of land to the DAE or leasing it out. Thus, without ensuring the modalities to transfer the title of the land, the DAE had established HWP and Housing colonies at Thal.

Recommendation 11:

The DAE may set up a task force to undertake a special drive to transfer the title of all the land occupied/assigned to it in its name as early as possible.

2.1.6.2 Encroachment of 500 square metre land in possession of RRCAT

RRCAT, Indore acquired 37 acres of land in the village Navdapanth and 4.50 acres of land in the village Shriram Talavali from the Madhya Pradesh State Government between the years 1983-1988. Audit scrutiny revealed that approximately 500 metre of land had been encroached by huts and brick masonry wall houses and other illegal dwellers.

The DAE stated (December 2025) that RRCAT was in constant communication with District Authorities for the removal of encroachment.

[36] *₹4,63,795 for 24.156 acres land in factory premises and ₹2,10,048 for 10.94 acres land in Kurul Colony.*
[37] *Actual payment of property tax would be much higher, Audit considered payment made during last six years (2018-2024).*

2.1.7 Existence of a System for Upkeep and Maintenance of Buildings

Building, repairs and maintenance works are undertaken to keep, restore or improve the facilities of a structure or building, which includes housekeeping, civil, electrical and maintenance services, horticulture and landscaping to keep the structure and building in good condition for sustaining its utility and value. Audit observed deficiencies in the upkeep and maintenance of buildings as detailed below:

2.1.7.1 Inordinate delay in construction of staff quarters and expenditure of ₹2.51 crore on security and incidental expenses

Audit observed cases where the construction of the staff quarters was delayed, while the units of DAE kept incurring recurring expenses on these properties as detailed under:

a. Tata Memorial Centre (TMC) purchased (1968) a property of 1379 square metre and constructed residential quarters in Chembur. In March 2009, the Governing Council of TMC decided to construct new quarters in place of the old ones, as they were more than 40 years old and structurally weak. In May 2010, DAE sanctioned ₹13 crore for the construction of new quarters with the instruction to complete the same by June 2013. The said project was to be executed by DCSEM, Mumbai.

Audit observed that TMC had revised its requirements on six occasions from May 2009 to April 2014 for the construction of different types of quarters. DCSEM, however, intimated (April 2014) that the revised requirement of TMC needed approval of DAE. Moreover, DCSEM also mentioned that DAE had suggested closing the project. However, the Governing Council of TMC had advised continuing with the project. A fresh proposal in this regard was sent to the Atomic Energy Commission only in October 2025.However, approval of the same was awaited.

Thus, the delay of more than 12 years in the construction of new quarters led to recurring expenditure of ₹0.59 crore towards security and incidental expenses for electricity and water charges.

b. Similarly, TMC, Mumbai, had 300 staff quarters[38] located at Mulund, which were declared (March 2016) as dilapidated and the same were lying vacant since July 2017. However, TMC did not convey the information with respect to the disconnection of the electricity/water to the concerned authorities and continued paying the essential charges.

[38] *Type IA-160 staff quarters and Type IIB-140 staff quarters.*

This resulted in an avoidable expenditure of ₹0.31 crore[39] during the period 2018-19 to 2021-22.

c. HWP, Baroda, purchased a land (1985) measuring 7.54 acres from Vadodara Municipal Corporation\ for the construction of staff quarters, with the condition that the land can be used for the purpose of construction of staff quarters only. Accordingly, the HWP, Baroda, constructed 90 residential quarters in the year 1988. As per the assessment of structural integrity of the buildings in 2017, the quarters were considered unsafe due to severe corrosion of reinforced steel. Accordingly, after the vacation of the quarters in May 2020, HWP, Baroda, decided (January 2021) to abandon and dispose of the staff quarters. As the land was allotted for the construction of staff quarters, the Department instructed (March 2022) HWP to explore a waiver of land use conditions with the State Government. However, no final decision on land utilisation had been taken by the DAE/HWB as of October 2025. Delay in decision on the part of HWP, Baroda, to utilise the space created by demolition of the said quarters led to an avoidable expenditure of ₹0.72 crore (2021 to October 2025) on service, water, electricity and security charges.

d. NFC, Hyderabad, had purchased (1990) six flats in Hyderabad to meet the requirement of housing for senior officers at ₹0.33 crore. However, all six flats remained unoccupied since 2011. Audit observed that despite several correspondence made between NFC and DAE towards disposal/leasing out of these flats (December 2012 to May 2019), no suitable action had been taken by the DAE as of October 2025. This led to the incurring of recurring expenditure of ₹0.89 crore towards maintenance and electricity charges (2011 to September 2025)[40], as well as blocking of funds amounting to ₹0.33 crore towards purchase of six flats.

Thus, due to the lackadaisical approach of the DAE and its units, the properties in their possession remained unutilised. Meanwhile, a recurring expenditure of ₹2.51 crore towards security, incidental expenses, electricity, water charges, *etc*., was incurred on the one hand and an amount of ₹0.33 crore has remained blocked since 2011 on the other. Further, due to inordinate delays in the construction of staff quarters, the public exchequer is also suffering losses on account of the payment of HRA to employees.

DAE was silent on this observation in its reply submitted in December 2025.

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[39] ₹0.27 crore and ₹0.04 crore towards electricity charges and statutory charges, respectively.
[40] Except for the period October 2023 to March 2024, for which no data was furnished.

Recommendation 12:

The DAE may explore the effective utilisation of its land/estate resources to safeguard the financial interests of the Government.

2.1.7.2 Avoidable expenditure of ₹4.12 crore as Property Tax

Article 285 (1) of the Constitution of India stipulates that 'the property of the Union shall be exempted from all taxes imposed by a State or by any authority within a State'. Further, the Supreme Court in November 2009 instructed that the Union of India and its departments will pay service charges[41] (not property tax) for the services provided by the municipal corporations.

It was observed that four units of the DAE and two sub-centres of an Aided Institution paid property tax amounting to ₹4.12 crore during the period November 1983 to March 2026, as mentioned in the table below:

Table 15: Details of Property Tax Paid by Units and Sub-Centres of Department of Atomic Energy

No.	Name of the units	Location of property	Nature of tax	Period	Avoidable expenditure paid (*₹ in crore*)	Reply of the respective units
1.	DCSEM, Mumbai	Andheri, Mumbai	Property tax	November 1983 to October 2025	0.06	The matter was pending with the Bombay Municipal Corporation.
2.	GSO, Kalpakkam	Kalpakkam and Annupuram Townships	House tax	2019-24	0.66	The matter would be resolved in consultation with the Department and the Local Body.
3.	NFC, Hyderabad	Factory Buildings and Residential Quarters	Library tax	2022-26	0.63	No reply furnished.
4.	NRB, Tarapur	Government Residential Quarters, Tarapur	Property tax	2002-15	2.60	Payment of property tax ceased after 2015-16.
5.	Sub-centres of Tata Memorial Centre at Varanasi and Guwahati	Entire Hospital premises at Varanasi and Guwahati	Property tax/general tax/others	2023-25	0.17	Tata Memorial Centre instructed its sub-centres to apply for exemption.
Total					**4.12**	

[41] *At the rates of 75 per cent, 50 per cent and 33.33 per cent of the property tax levied on private owners.*

Thus, the internal control mechanisms in the DAE Units/Aided Institutions to safeguard the interest of the Government money were absent, which led to a loss to the exchequer.

DAE was silent on this observation in its reply submitted in December 2025.

Recommendation 13:

DAE Units/Aided Institutions should strengthen their internal control mechanisms to ensure that any payment of taxes or charges from which DAE is exempted is made only after due verification and confirmation of applicability.

2.1.8 Conclusion

There was no comprehensive policy and no nodal section in DAE to deal with land and estate management issues. This has resulted in the absence of any structured mechanism for transfer of land/space and for timely renewal of lease/licence agreements. No guidelines were framed for allotment of residential quarters to PSUs or private entities and uniform Departmental Pool Residential Accommodation Rules were not prescribed. These systemic deficiencies had a cascading effect, exposing DAE to potential and recurring loss of revenue.

The DAE extended various concessions, such as enhancement of retention period of Government Residential Accommodation, provision of rent-free accommodation to PSUs and allotment of quarters to private parties, banks and post offices at concessional licence fees without obtaining the mandatory approval of Member (Finance), DAE. Further, DAE and its units did not renew or execute lease/licence agreements with lessees even after the expiry of the stipulated period, leading to short realisation of lease rent.

Despite lapse of substantial time since acquisition, DAE and its units did not ensure transfer of title of land in the name of DAE, reflecting weak follow-up and inadequate ownership controls. In addition, inordinate delays in taking timely action for construction, upkeep and maintenance of buildings resulted in avoidable expenditure on electricity, security and related charges.

2.2 Information Technology Audit of Tata Memorial Centre

2.2.1 Introduction

Tata Memorial Centre functions as a Grants-in-Aid Institution under the administrative control of the Department of Atomic Energy, Government of India and is recognised as the national cancer centre with a mandate for service, education and research in cancer. It is registered under Society Registration Act, 1860 and Bombay Public Trust Act, 1950.

Tata Memorial Hospital, presently a sub-centre under Tata Memorial Centre, Mumbai, was initially commissioned by the Sir Dorabji Tata Trust in 1941 as a centre with enduring value and a mission for concern for the Indian People. In 1952, Indian Cancer Research Centre was established as a pioneer research institute for basic research, later called Cancer Research Institute. In 1957, the Ministry of Health temporarily took over Tata Memorial Hospital. The transfer of the administrative control of Tata Memorial Centre (Tata Memorial Hospital and Cancer Research Institute) to the Department of Atomic Energy in 1962 was the next major milestone. Tata Memorial Hospital and Cancer Research Institute merged as the two arms of Tata Memorial Centre in 1966.

In 2002, the Advanced Centre for Treatment Research and Education in Cancer at Kharghar, Navi Mumbai, was commissioned in the new campus in Kharghar with the relocation of the Cancer Research Institute. The Clinical Research Centre was subsequently inaugurated in 2005, completing the project Advanced Centre for Treatment Research and Education in Cancer. Subsequently, Tata Memorial Centre continued to set up eight[42] sub-centres across India, besides the Tata Memorial Hospital and the Advanced Centre for Treatment, Research and Education in Cancer.

Mission

The Tata Memorial Centre's mission is to provide comprehensive cancer care to one and all, through its motto of excellence in service, education and research.

Vision

As the premier cancer centre in the country, Tata Memorial Centre’s vision is to provide leadership in guiding the national policy and strategy for cancer care by:

[42] *1. Centre for Cancer Epidemiology, Maharashtra, 2. Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, Andhra Pradesh, 3. Homi Bhabha Cancer Hospital Research Centre, Mullanpur, Punjab, 4. Homi Bhabha Cancer Hospital, Sangrur, Punjab, 5. Mahamana Pandit Madan Mohan Malaviya Cancer Centre, Varanasi, Uttar Pradesh, 6. Homi Bhabha Cancer Hospital, Varanasi, Uttar Pradesh, 7. Dr B Borooah Cancer Institute, Guwahati, Assam, 8. Homi Bhabha Cancer Hospital Research Centre, Muzaffarpur, Bihar.*

- Promoting outstanding services through evidence-based practice of oncology.
- Commitment of imparting education in cancer to students, trainees, professionals, employees and the public.
- Emphasising on research that is affordable, innovative and relevant to the needs of the country.

2.2.2 Budget and Expenditure

Table 16: Budget and Expenditure of Tata Memorial Centre

(₹ in lakh)

Year	Budget Allocation/Revised Estimates	Expenditure	Revenue Generation
2019-20	81495	120161	39111
2020-21	88863	119699	25851
2021-22	100627	143174	43911
2022-23	114311	177381	62165
2023-24	130778	206252	76336

2.2.3 Manpower

As of March 2024, there were 2429 Persons-in-Position as against the Sanctioned Strength of 2839 personnel. The Sanctioned Strength and Person-in-Position includes Medical, Scientific, Technical, Administrative and Others (Sr-I/II/III/SP. Sr, Nursing and Auxiliary).

2.2.4 Organisational Structure

The Centre is under the control and direction of the Governing Council and all policy matters are discussed and approved by the Governing Council. Day-to-day matters are discussed and decided in the Collegium and various Committees.

The details of the hierarchical structure of IT Department of Tata Memorial Hospital, Mumbai, are depicted below:

Director, Tata Memorial Centre	**Director, Tata Memorial Hospital**
	Director, Academics
	Director, Centre for Cancer Epidemiology
	Director, Advanced Centre for Treatment Research and Education in Cancer
	Director, Homi Bhabha Cancer Hospital Research Centre, Vizag
	Director, Homi Bhabha Cancer Hospital, Varanasi
	Director, Homi Bhabha Cancer Hospital, Sangrur and Mullanpur
	Director, Dr B Borooah Cancer Institute, Guwahati
	Director, Homi Bhabha Cancer Hospital Research Centre, Muzaffarpur

Figure 1: Organisational Structure

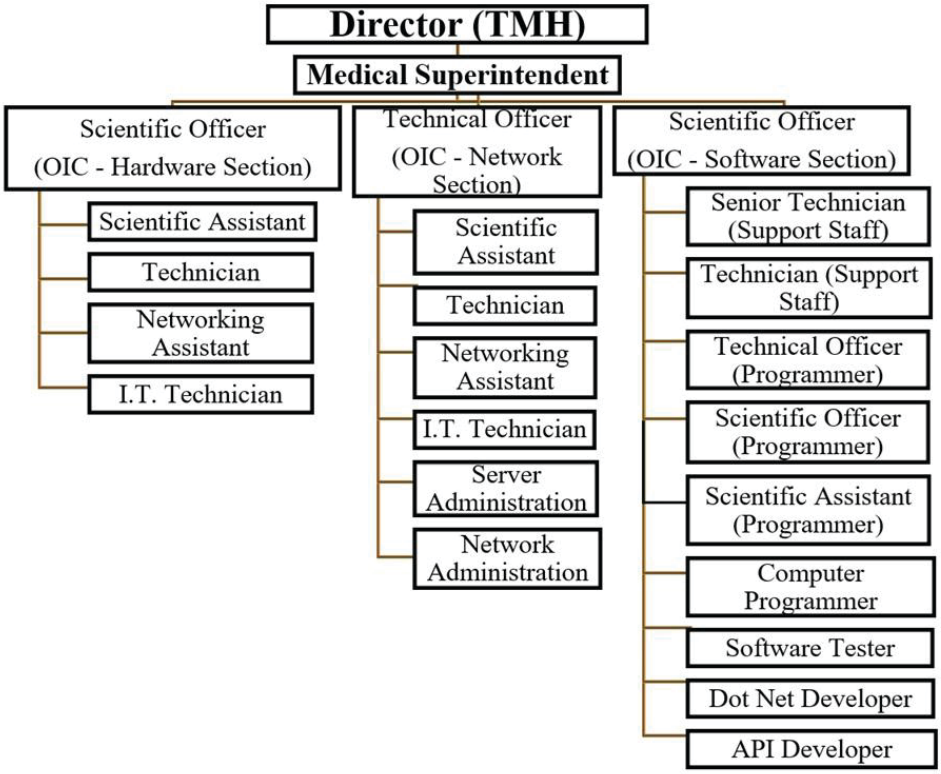

Figure 2: Hierarchical Structure of IT Department of Tata Memorial Hospital, Mumbai

The IT Departments of other hospitals under Tata Memorial Centre, Mumbai are operated by the IT personnel who report to the Medical Superintendent, who further reports to the Directors of the respective hospitals.

2.2.5 IT Applications of Tata Memorial Centre

In line with the recent advancements in information technology, Tata Memorial Centre has developed several IT applications for managing vital patient records and collating critical medical records encompassing all the administrative and functional aspects of hospital operations. The software used was initially developed by outsourcing to Electronics Corporation of India Limited and modifications were done in-house by IT department of the Tata Memorial Centre. Tata Memorial Centre had started use of IT system from 2001 onwards.

To begin with, Tata Memorial Hospital, a hospital under Tata Memorial Centre had developed Hospital Information system using COBOL as the programming language. Afterwards, application software was developed in dBase-3 plus and FoxPro programming language. Presently, all the software applications are developed in Visual Basic and .Net.

Tata Memorial Centre had implemented 35 applications[43] under which 146 sub-applications are functioning to cater to the needs of managing overall activities of the centres.

The applications and sub-applications functional at all the sub-centres of Tata Memorial Centre, Mumbai, were developed by Tata Memorial Hospital, Mumbai and have been handed over to other centres for implementation. The changes made in the Tata Memorial Hospital source code at central repository are communicated and available to all centres.

2.2.6 Audit Objective

The Audit objectives of IT Audit were to assess whether:

1. The IT systems have been implemented in compliance with the approved functionalities.
2. Adequate general controls related to operations of the IT systems and security were implemented to ensure integrity, reliability, confidentiality and security.
3. Business rules have been correctly mapped and application controls have been implemented in the system.

2.2.7 Scope of Audit

The IT Audit of the IT applications functioning in Tata Memorial Centre, Mumbai and its hospitals was conducted under Section 14 of CAG's (Duties, Powers and Conditions of Service) Act, 1971. The IT Audit was conducted under Regulations 16 to 18 of Chapter 3 of Regulations on Audit and Accounts (Amendments 2020). Audit reviewed the overall performance and value addition of the applications mentioned below.

The IT Audit of Tata Memorial Centre, Mumbai was conducted covering the period from 2019-24 emphasising the applications which deal with the patient services, financial matters and material management. Details of the applications selected for Audit are given below:

- Hospital Management Information System
- OPD Application
- Patient Scheme Management

[43] ***1. Financial, 2. Asset Management, 3. Academics, 4. Chatbot, 5. HMIS, 6. CONFERENCE, 7. DLL, 8. Document Management, 9. Donation, 10. EMPLOYEE CARD SYSTEM, 11. Employee-Portal, 12. File Tracking System, 13. Gate pass, 14. Guest house application, 15. HBCHRC Mullanpur website, 16. HBV Vaccine, 17. HL7, 18. Incident report, 19. KEVAT, 20. Material management, 21. MIS, 22. MPQAP, 23. OPD Application, 24. Patient Scheme Management, 25. Payment Gateway, 26. PENSION Application, 27. Application for postal, 28. Application for Employee on Project, 29. SMS, 30. Task Process, 31. Teleconsultation, 32. Tissue Bank System, 33. Token System, 34. Tumour Tissue Repository and 35. Application for booking of the venue in Tata Memorial Hospital.***

- Payment Gateway
- Financial Management System
- Material management

The following five hospitals were selected on the basis of data size, location of server and proximity, the details of which are given below:

- Tata Memorial Hospital, Mumbai
- Advanced Centre for Treatment Research and Education in Cancer, Khargar, Navi Mumbai
- Mahamana Pandit Madanmohan Malaviya Cancer Centre, Varanasi, Uttar Pradesh
- Homi Bhabha Cancer Hospital Research Centre, Mullanpur, Punjab
- Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, Andhra Pradesh

2.2.8 Audit Methodology

The Audit methodology involved the following:

i. An Entry Conference was held on 12.9.2024 wherein the Audit objectives, criteria, scope and Audit methodology were explained to the Director, Tata Memorial Centre, Mumbai and co-operation for conduct of Audit was solicited.

ii. Correspondence/questionnaire was issued to the Management and response was analysed.

iii. Scrutiny of source documents and system reports among other documents.

iv. Data analysis of standard and customised reports from the system using Computer Assisted Audit Technique.

v. In case of analysis of data related to patient information, joint meetings were held with the representatives of the hospitals concerned for confirming the facts and figures and minutes of the meetings were prepared.

Since the systems do not have the centralised database, non-patient related data was collected from each of the five selected hospitals and the same was analysed using data analysis tools.

An Exit Conference was held between representatives of Tata Memorial Centre, Mumbai and Office of the Director General of Audit, Central Expenditure, Environment and Scientific Departments, Kolkata Branch on 29 July 2025 through video conference wherein it was discussed that the Audit observations have been framed and incorporated in the draft report on the basis of Joint Meeting held in June 2025 in connection with the confirmation of facts and

figures of Audit findings on confidential and sensitive patient data. Tata Memorial Centre, Mumbai had discussed the Audit observations and related replies received from Department of Atomic Energy have been incorporated. The Administration of Tata Memorial Centre, Mumbai agreed to review the Audit findings as incorporated in the Report and assured to take prompt action to rectify the same in compliance with the IT guidelines prescribed by the Government of India and best practices adopted in the working of IT applications.

2.2.9 Audit Criteria

The criteria for the IT Audit were derived mainly from:

- Objectives set by Tata Memorial Centre at the time of development of software.
- Business Rules, Manuals, delegation of powers and procedures followed by the Tata Memorial Centre/Government of India.
- Best practices in IT control, development, implementation and security parameters.
- The General Principles of Information Systems Governance, Development and Maintenance.

2.2.10 Acknowledgement

Audit acknowledges the cooperation and assistance extended by Tata Memorial Centre, Mumbai and its hospitals in conducting the IT Audit.

2.2.11 Limitations of the Audit

The Tata Memorial Centre did not share patient-related data with Audit, citing privacy and confidentiality concerns under the Indian Medical Council Regulations, 2002 and the Digital Personal Data Protection Act, 2023. As a result, Audit could not conduct data analytics or verification on patient-related records. Accordingly, assurance could not be provided on these aspects and Audit coverage was confined to the information and access made available by the entity.

2.2.12 IT Governance

IT governance is an overall framework which comprises the organisational leadership, institutional structures and processes and other mechanisms that guide IT operations in an organisation to ensure that it meets current business needs and incorporates plans for future needs and growth.

2.2.12.1 Non-formulation of IT Strategy and Planning

An IT Strategic Plan is a comprehensive roadmap that outlines the goals, objectives and strategies for utilising information technology within an organisation. An IT Strategic Plan helps identify the key areas where resources should be allocated, whether it is infrastructure, software development or cybersecurity.

No documented IT Strategic Plan or any policy for the upgradation of IT application system had been formulated by Tata Memorial Centre till May 2024. Hospital Management Information System was initially developed by Electronics Corporation of India Limited and over a period of time it migrated to newer technologies to keep pace with technological upgradation and address obsolescence. The application software underwent revision based on requests received through emails and sometimes through discussions (May 2024), but Tata Memorial Centre did not furnish the copy of emails and minutes of discussion. IT Strategic Plan for Tata Memorial Centre was under preparation from May 2024.

In the absence of documented IT strategic plan, the sub-centres of Tata Memorial Centre could not formulate IT Security Plan and incorporate adequate control in IT applications, which resulted in inconsistency in patient conversion and billing processes, discrepancies related to deceased patients, *etc*. Tata Memorial Centre acknowledged the Audit observation in June 2025 and concurred with the need for a formalised IT Strategic Plan.

The Department acknowledged (December 2025) the observation and concurred with the need for a formalised IT Strategic Plan.

Recommendation 14:

IT Strategic Plan for Tata Memorial Centre may be prepared for ensuring a structured approach to technology planning and implementation.

2.2.12.2 Non-constitution of IT Steering Committees

The Centre is under the control and direction of the Governing Council. All policy matters are discussed and approved by the Governing Council. The final decision on the extent of applicability of relevant rules (applicable to Department of Atomic Energy staff) on all Tata Memorial Centre employees rests with the Tata Memorial Centre Governing Council[44].

[44] *The Governing Council of Tata Memorial Centre consists of Chairman who is the Chairman of the Atomic Energy Commission and Secretary, Department of Atomic Energy, Government of India and five members, two other members who are ex-officio, two co-opted members, seven permanent invitees and one Secretary who is the Director (Administration) of Tata Memorial Centre, Mumbai.*

The IT organisational structure often includes an IT Steering Committee comprising members of top and senior management, *inter alia,* responsible for reviewing, endorsing and committing funds for IT investments.

Out of the five selected hospitals, three hospitals, *viz.,* (1) Tata Memorial Hospital, Mumbai, (2) Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam and (3) Homi Bhabha Cancer Hospital Research Centre, Mullanpur, confirmed that no committee for the development and implementation of IT applications had been constituted. Advanced Centre for Treatment Research and Education constituted committees which were not exclusive to IT Development and Implementation.

Mahamana Pandit Madanmohan Malaviya Cancer Centre, Varanasi, constituted IT Strategy and Steering Committee in May 2022, which was an internal committee of IT Department of the Centre.

Not having an IT Steering Committee resulted in lack of monitoring of the Software Development Life Cycle process in different IT applications, gaps in workflow due to the absence of digital approvals, expired medicines remaining in stock and inconsistency in dates of procurement-related events.

The Department replied (December 2025) that Tata Memorial Centre shall form an institutional level IT Governance Committee.

Recommendation 15:

IT Steering Committee may be formed to ensure that the goals and targets assigned to the organisation regarding the strategic plan of infrastructure, software development and cyber security are achieved.

2.2.12.3 Absence of well-defined Software Development Life Cycle process, test environment and lack of formal Quality Assurance/User Acceptance Testing Framework

The Software Development Life Cycle is a structured process that guides software from initial conception through development, deployment and ongoing maintenance. ISO 27002 Control 8.31 emphasises the importance of separating development, test and production environments to prevent security risks, such as data exposure or unauthorised access.

MeITY Software Development and Re-engineering Guidelines for cloud-ready applications, *vide,* Para 2.2 states that there are a number of standards available on software engineering

lifecycles which ensure quality product development and scope of continuous improvements. The proposed solutions should be adaptable to, *inter alia,* Software Engineering Standards as good software engineering practices. Para 2.3, *ibid,* states that a key requirement for any product is its ability to interface, integrate and more importantly, be interoperable with other technology suites. The application should be developed in a manner that it should support flexible, modular and extendable services. Para 4.8 of MeITY's Guidelines for Secure Application Design, Development, Implementation and Operations provides that the applications should be developed using Security Test Driven Development approach, which incorporates security testing throughout the Software Development Life Cycle.

a. **Absence of Software Development Life Cycle process:** Tata Memorial Centre and its hospitals did not follow any Software Development Life Cycle. Advanced Centre for Treatment Research and Education stated that the end-users email their requirement which IT department freezes after further discussion and understanding their requirements. Subsequently, a prototype is prepared and demonstrated to the end-users and the system is released to the end-user for testing purposes in a limited way. After receiving the User Acceptance Testing report, the application is released at the production level.

   Audit observed that due to the absence of a structured Software Development Life Cycle, there were (a) lapses in access management, (b) data discrepancies in change of patient category, (c) incorrect patients' billing details displayed in New Bill Portal and (d) inconsistency in memo values and corresponding bill amounts. It was further observed that prescription generated against a patient in test environment has been automatically transferred to the patient account in the live server, which indicated adoption of inadequate Software Development Life Cycle process while developing the applications and non-adherence to MeITY and ISO guidelines.

b. **Absence of Test Environment and Lack of Formal Quality Assurance/User Acceptance Testing Framework:** Audit observed that three hospitals (Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, Mahamana Pandit Madanmohan Malaviya Cancer Centre, Varanasi and Homi Bhabha Cancer Hospital Research Centre, Mullanpur) did not have dedicated test servers. Application testing is sometimes performed directly on live servers (*e.g.*, at Homi Bhabha Cancer Hospital Research Centre, Mullanpur), exposing production systems to risks. Homi Bhabha Cancer Hospital Research Centre, Vizag, stated that initial development and testing are carried out at Tata Memorial Hospital and a proposal for a local test server had been submitted (October

2024). Mahamana Pandit Madanmohan Malaviya Cancer Centre, Varanasi, informed that User Acceptance Testing environments will be considered only after Disaster Recovery setup is completed. Due to the unavailability of the test server, Homi Bhabha Cancer Hospital Research Centre, Mullanpur, faced issues for testing applications migrated from Tata Memorial Hospital, Mumbai and performed testing on the test patient cases only on the live server.

In addition, Audit noted the absence of a formalised Quality Assurance and User Acceptance Testing framework. Tata Memorial Centre, Mumbai, admitted that its software development and testing processes were informal, with no documented test plans or testing reports. Homi Bhabha Cancer Hospital Research Centre, Vizag, also confirmed that no User Acceptance Testing reports are maintained. Instead of following a structured Software Development Life Cycle, user requirements were communicated informally (emails/meetings), prototypes were developed and limited testing was done before production deployment.

In the absence of quality assurance testing, security issues such as broken access control and discrepancies in validation control emerged.

The Department agreed (December 2025) with the observation and stated that Software Development Life Cycle policy needs to be adopted and due to budgetary constraints and staggered development timelines, dedicated test servers were not provisioned at all sites. However, it acknowledged the need for establishing dedicated test/user acceptance test environments and stated that the same is in process.

Recommendation 16:

A formal Software Development Life Cycle policy may be adopted and followed at Tata Memorial Centre for streamlined planning and in-house development, testing and deployment of software, along with proper segregation of the test environment and live server for data security.

Recommendation 17:

To mitigate risks, a formal Quality Assurance and testing framework under a standard Software Development Life Cycle may be implemented.

2.2.12.4 Unrestricted access of Outsourced Employees

In Tata Memorial Centre, Mumbai, Audit found that there was no designated employee officially assigned the responsibilities and privileges associated with the roles of System Administrator and Database Administrator. Moreover, activities such as software development, software testing and server and network administration were carried out by outsourced employees without any documented privilege policy.

The Department (December 2025) stated that Tata Memorial Hospital shall introduce a policy for the signing of Non-Disclosure Agreements and also for maintaining logs of activities of the outsourced employees.

2.2.12.5 Non-formulation of data retention policy

In terms of Para 6.3 of the Ministry of Electronics and Information Technology Guidelines for Production of Preservable e-records (PRoPeR), the concerned departments must define and notify the retention, disposition and access policy/rules applicable for electronic records, which should cover, *inter alia,* the following aspects:

- The types of electronic records which should be captured for preservation,
- The duration for which the e-record should be retained,
- The guidelines for e-records retention should include the legal requirements that need to be fulfilled, the procedure for disposition of e-records after retention duration is over, a list of e-records which will remain in the current e-gov system and the duration.

In the context of the formulation of data retention policy, Tata Memorial Centre, Mumbai acknowledged (February 2025) that there was no written down policy in place.

Tata Memorial Centre stated that a comprehensive Data Retention and Archival Policy, aligned to the Ministry of Electronics and Information Technology guidelines and the Digital Personal Data Protection Act 2023, would be taken up.

The Department also agreed (December 2025) with the observation and stated that Tata Memorial Centre shall formulate a policy in accordance with Ministry of Electronics and Information Technology guidelines.

Recommendation 18:

A comprehensive data retention and archival policy aligned with the Ministry of Electronics and Information Technology guidelines may be formulated at the earliest.

2.2.12.6 Absence of key documentation for IT applications

A Software Requirements Specification provides a detailed description of the software's functional and non-functional requirements.

During Audit of IT applications of Tata Memorial Centre, the organisation had provided a list of 95 applications/sub-applications whose Software Requirements Specification were not approved by the competent authority. Further, Tata Memorial Centre provided a list of 16 applications/sub-applications where the difference between dates of Go-live of the application and submission of Software Requirements Specification ranged between one to 12 years. Thus, preparation of Software Requirement Specification documents long after development of the application software opened up risks of poor software quality, increased bugs and scope creep.

The Department agreed (December 2025) with the observation and stated that Tata Memorial Centre has initiated the process of documenting new applications being developed, as well as existing applications.

Recommendation 19:

Software Requirements Specification, technical specifications and user manuals may be mandatorily prepared before deployment of any software.

2.2.13 General Controls and Security

Information security controls play an indispensable role in safeguarding valuable information assets, assuring the integrity, confidentiality and availability. This control can be grouped into a few broad categories, *viz.,* Access controls, Encryption, Firewalls and Malware protection.

2.2.13.1 Non-formulation of IT Security Policy

Clause 5.2 of ISO/IEC 27001:2022(E) outlines the requirements for establishing an Information Security Policy. It mandates that top management develop a documented policy that is aligned with the organisation's purpose, objective-oriented, committed to compliance and focused on continuous improvement.

Tata Memorial Centre, Mumbai, did not develop a formal IT Security Policy during the initial deployment of its systems, which left the organisation vulnerable to cyber threats. Over time, this gap in governance and control mechanisms became evident as the Organisation experienced three separate cyberattacks. Further, Tata Memorial Centre, Mumbai, has not yet formulated any Information Security policy till March 2025. Delay in formulation of the policy

left the Organisation exposed to further security risks. Test of the application for its security revealed the following.

Broken access control: Vulnerability is a security flaw that allows unauthorised users to access, modify or delete data they should not have access to.

Tata Memorial Centre, Mumbai granted access only to the Test environment for Audit purposes, as the Live server does not support read-only access privileges. As a result, Auditors were instructed to access the organisation's intranet applications exclusively through the Test server URL, ensuring that no direct access was provided to the Live server.

However, Auditors could log in to a specific application using the login credentials provided for accessing the Test server, A simple modification to the application's URL gave access to the Live server of the same application. This indicated that the system lacked proper access control mechanisms, highlighting inadequate segregation between environments.

Additionally, another critical vulnerability existed within the application; patient memos and billing records could be accessed simply by modifying the memo number in the URL.

While accepting the findings, Tata Memorial Centre, Mumbai, stated in May/June 2025 that it would take measures to undertake necessary hardening of the applications.

The Department acknowledged (December 2025) the criticality of a formal IT Security Policy to strengthen cyber defences and to institutionalise security governance across the organisation.

Recommendation 20:

IT Security Policy may be formulated to align with the Organisation's purpose. It may be ensured that the policy is objective-oriented, committed to compliance and focused on continuous improvement.

a. Weak User Registration and De-registration Controls

The user registration and de-registration process ensures that access rights are granted appropriately and revoked when no longer needed or when an individual’s role changes.

Audit observed that Tata Memorial Centre did not formulate any documented policy for registration and de-registration of users. Tata Memorial Hospital, Mumbai and Homi Bhabha Cancer Hospital Research Centre, Mullanpur, relied on departmental emails for user registration and deactivation, but the absence of a formal policy created governance gaps and raised concerns over employee record accuracy.

Audit analysis revealed 36 duplicate employee records with identical details, with the same first name, middle name, last name, father's name, mother's name, date of birth and date of joining all indicating retirement in April 2016. Further, the records were incomplete, as the full names of these employees were missing in the employee master database. Despite this, some transactions were processed under these dormant accounts in 2024.

This indicated that the dormant user accounts were improperly utilised to facilitate transactions, raising concerns about data misuse.

Tata Memorial Centre stated that the employee codes with identical personal details have been deactivated and the IDs used for the said transactions are actually Disease Management Group Codes and not Employee Codes. The reply needs to be viewed in the light of the fact that the Disease Management Group master does not contain six-digit numerical codes, which are essential for accessing the intranet portal.

The Department replied (December 2025) that the possibility of modifying the validations in the application would be explored by Tata Memorial Centre so that the regular Disease Management Group Code format can be used.

b. Irregular User ID Practices

Audit noticed that at Tata Memorial Centre, Mumbai and its hospitals, a standard six-digit numeric User IDs were allotted for accessing the intranet portals. However, employees performing patient related work, admission/discharge related work, BP Yojana work, billing work, medical office related work were assigned alphabetic/alphanumeric IDs deviating from the six-digit numeric user ID format without proper approval or Audit trail.

When inquired about the deviation, Tata Memorial Centre, Mumbai explained (March 2025) that the practice of alphanumeric user IDs originated from Medical Social Work department for operating Patient Scheme Management by third-party staff. However, Audit found no document in support of the same. Additionally, the irregular user IDs lacked specific details about who had authorised or created the same, raising concerns about accountability and making it difficult to monitor the user activity or assign responsibility in case of misuse.

Tata Memorial Centre accepted the Audit observation and added that implementation of a comprehensive Information Security Management System Framework is in process. It further informed that a review of all existing user IDs was underway.

The Department stated (December 2025) that the outsourced employees were previously being allotted alphanumeric Computer Code Numbers to distinguish them from permanent employees. It further stated that it is planned to gradually phase out the alphanumeric IDs at all Tata Memorial Centre units.

2.2.13.2 Weak Password Controls and Inadequate Authentication Mechanisms

Strong password policies and Multi-Factor Authentication are essential to prevent unauthorised access. The Ministry of Electronics and Information Technology mandates complex passwords (minimum 8 characters, mix of cases, numbers and symbols, avoiding predictable patterns).

a. **Absence of password controls:** Audit found instances of users setting up their user IDs as passwords. Frontend applications also displayed hints suggesting the use of the Computer Code (CC number) as the default password at first sign-in. Although users were encouraged to change passwords, there was no mechanism to enforce a mandatory first-time reset. Moreover, password change histories for Hospital Management Information System and non-Hospital Management Information System applications were not maintained, with new passwords overwriting old ones.

Audit further noted that password construction standards were weak, lacking the required minimum eight-character alphanumeric format with special characters. Advanced Centre for Treatment Research and Education in Cancer also highlighted that smart card PINs followed a predictable pattern based on registration year and patient case number, exposing them to unauthorised access.

Tata Memorial Centre, Mumbai, accepted (May 2025) the risks but stated that flexibility was given to staff for ease of use and that an ISMS-aligned strong password policy was under implementation.

Another concern was the absence of a password expiration policy, which allows compromised credentials to remain active indefinitely, increasing the risk of persistent breaches.

Audit observed that Multi-Factor Authentication was applied to web Electronic Medical Records (WebEMR), while Hospital Management Information System and other applications lacked the control.

To mitigate such risks, the Tata Memorial Centre must enforce complex passwords, periodic expiration, history tracking and Multi-Factor Authentication across all systems to strengthen security.

b. Access to the system beyond duty hours: Test check from the attendance records of the users revealed instances where users' in-time and out-time on some random dates did not corroborate the transaction time related to the category conversion of the patients on the same day. Details of the test checked cases are given below:

Table 17: Details of Test Checked Cases

User ID	Date	Day status as per attendance register		Transaction Date	Transaction Time *(hours)*
		In-time *(hours)*	Out-time *(hours)*		
651587	20.3.2024	06:56	15:22	21.3.2024	02:06
	21.3.2024	06:56	15:17		
	27.2.2023	20:57	07:07	28.2.2023	22:16
	28.2.2023	Absent on week off			
	1.3.2023	06:08	15:38		
690525	17.5.2024	Absent on weekend		18.5.2024	00:00
	18.5.2024	12:40	21:02		

Tata Memorial Centre, Mumbai, clarified that these employees had shared user IDs with newly joined staff who did not have all the authorities, as they were trainees. So, for patients, user IDs were shared by the above-mentioned employees.

Sharing user credentials reduces accountability, increases the risk of errors, misuse and non-compliance, while weak IT safeguards fail to detect such activity. Despite repeated cyberattacks and a 2021 Vulnerability Assessment and Penetration Testing recommendation, Tata Memorial Centre, Mumbai, has not implemented a strong password policy.

The Department stated (December 2025) that password policy would be adopted in alignment with Tata Memorial Centre's Information Security Management System, thereby enforcing complexity, mandatory periodic changes and password history tracking, in line with MeitY guidelines. Further, the Department added that Tata Memorial Centre shall also sensitise its users regarding the perils of sharing login credentials.

2.2.13.3 Non-conduct of periodic Security Audit

Website Security Guidelines published by the National Informatics Centre-Computer Emergency Response Team (CERT-In) stipulated that the Website is Security Audited and an Audit Clearance certificate is issued by a Computer Emergency Response Team empanelled

vendor before hosting in the production environment. The Security Audit should be conducted every six months or as and when any changes are made to the source code.

In today's environment of constant cyber threats, Vulnerability Assessment and Penetration Testing (VAPT) is critical, especially for government agencies managing sensitive data, as it proactively detects risks and prevents breaches.

Audit observed that Tata Memorial Centre, Mumbai, conducted only one cybersecurity Audit in March 2019 and one Vulnerability Assessment and Penetration Testing in April 2021. Since then, no regular internal audits or periodic Vulnerability Assessment and Penetration Testing or Security Audit have been performed for its hospitals or applications. This lack of continuous monitoring increases the risk that system misconfigurations or vulnerabilities remain undetected, leaving critical hospital systems exposed to cyberattacks, already experienced by three units under Tata Memorial Centre, Mumbai.

The Department agreed (December 2025) with the observation and stated that Tata Memorial Centre, Mumbai, has initiated the tendering process for engaging a CERT-In empanelled Vulnerability Assessment and Penetration Testing Audit agency.

2.2.13.4 Business Continuity and Disaster Recovery

Rule 19(2) of the Ministry of Information Technology of notification dated 17.10.2000 stipulated Information Technology Security Guidelines wherein para 26(1) stated that disaster recovery plans shall be developed, properly documented, tested and maintained to ensure that in the event of a failure of the information system or destruction of the facility, essential level of service will be provided. Again, para 24(2) *ibid* stated that the business continuity plan shall be developed, which, *inter alia,* includes the procedures for emergency ordering of the equipment and availability of the services.

Audit observed that despite long-standing IT systems, Tata Memorial Centre, Mumbai and its hospitals lacked a formal Business Continuity Plan/Disaster Recovery policy until October 2024, when a plan was drafted but not implemented. Among the five sampled hospitals, only Tata Memorial Hospital, Mumbai and Advanced Centre for Treatment Research and Education in Cancer, Navi Mumbai had Disaster Recovery setups, yet both relied on each other's servers located merely 40 km apart. This arrangement could not meet geo-redundancy standards, making both sites vulnerable to regional disruptions.

Additionally, no disaster recovery drills were conducted at either hospital. Disaster Recovery drills, including backup restoration exercises, are critical for testing readiness and ensuring that recovery procedures function effectively during real emergencies.

The Department (December 2025) noted the lack of geo-redundancy for the current Disaster Recovery setup and plans to initiate Disaster Recovery Drills at all units of Tata Memorial Centre.

2.2.13.5 Master Data Management

Master data management aims to establish a single, accurate and reliable source of truth for essential data entities, such as customers, products, employees, suppliers and more. A master data management strategy comes into play to ensure its accuracy, consistency and reliability.

a. Employee Data Misuse in Patient Records

Audit scrutiny revealed that staff records were improperly captured within the patient master table of Homi Bhabha Cancer Hospital Research Centre, Mullanpur. A test check found that a patient category 'S' and patient type 'SS' were intended for pre-employment medical examinations of new staff. However, Homi Bhabha Cancer Hospital Research Centre, Mullanpur, had not officially implemented this category by March 2025, despite records showing usage since July 2021. No formal master entry for category 'S' existed in Hospital Management Information System.

This practice led to inflated patient counts and inaccurate reporting of hospital statistics. The absence of proper categorisation compromises data integrity and distorts analysis, increasing the risk of data manipulation and weakening the reliability of health system records.

The Department agreed (December 2025) to introduce a formal Master Data Management Process to ensure proper governance of master records.

b. Non-standard Patient Categories

Audit also found irregularities in patient categorisation practices at Homi Bhabha Cancer Hospital Research Centre, Mullanpur. Patient master records showed 881 entries under a 'T' category, which the hospital claimed were "C plus" patients receiving higher discounts. However, Tata Memorial Centre, Mumbai, clarified that patients below the poverty line are required to be registered under the Below Poverty (BP) category in line with

government health schemes. The simultaneous existence of both 'BP' and 'T[45]' Categories for similar purposes demonstrate a lack of standardisation and weak master data management.

Further anomalies included the existence of invalid patient types 'I' and '–' in addition to approved categories.

The Department acknowledged the issue (December 2025) and stated that data needs to be cleansed and an appropriate mechanism for approvals needs to be established.

2.2.13.6 Cyber-attacks and vulnerability of sensitive data

Para 1 of Information security, cybersecurity and privacy protection-Information security management systems-Requirements (INTERNATIONAL STANDARD ISO/IEC 27001, 3rd Edition, 2022-10), *inter alia,* prescribes that the information security management system preserves the confidentiality, integrity and availability of information.

Indian Computer Emergency Response Team, in April 2022, prescribed functions in the area of cyber security, *viz*., a) collection, analysis and dissemination of information on cyber incidents, b) emergency measures for handling cyber security incidents and *inter alia,* directed that any service provider, intermediary, data centre, Body corporate and Government organisation shall mandatorily report cyber incidents to Indian Computer Emergency Response Team within six hours of noticing or being brought to notice about incidents. Based on analysis of reported incidents, the gaps in security processes can be analysed to enhance the ability of the organisations to detect and mitigate the incidents promptly.

Tata Memorial Centre and its sub-centres maintain a vast number of patient related sensitive medical records of millions of patients, including their case IDs, names, addresses, diagnoses and entire treatment details.

Indian Computer Emergency Response Team, in September 2022, circulated that the Ransomware was category of malware that gains access to systems and makes them unusable to its legitimate user, either by encrypting different files on targeted systems or locking the system's screen unless a ransom is paid and *inter alia,* recommended for hardening the system by ensuring that the latest patches are deployed on all systems.

Indian Computer Emergency Response Team published the best practices and recommendations in October 2022, on Password Management and Security. Password

[45] ***C-General Category, BP-Below Poverty, T and I-non-specific category.***

management is a combination of strong password policies and Multi-Factor Authentication to reduce the harm that could be caused by phishing, credentials leak or unauthorised access attacks.

Further, the Ministry of Electronics and Information Technology, in its password policy, *inter alia,* recommended that such passwords may be chosen so that they are difficult to guess yet easy to remember.

Scrutiny revealed that the sub-centres of Tata Memorial Centre, namely Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, Advanced Centre for Treatment Research and Education in Cancer, Navi Mumbai and Homi Bhabha Cancer Hospital Research Centre, Mullanpur, experienced three cyber-attacks during the period 2022-23, 2023-24 and 2024-25, elucidated below:

a. Non protection of sensitive data due to non-deployment of the latest patches on the systems

On 15 October 2022, the IT Team of Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, noted that the IT systems were hit by the Ransomware malware and lost all the server data and some client machines were affected badly.

The endpoint protection support team of the Centre's Symantec Team inspected on 16 October 2022 and suggested erasing everything and rebuilding the entire servers as it did not have any ransomware removal tool and no security product that could decrypt files encrypted by ransomware. The IT Team of the Centre formatted the backup base server, installed and updated it with the latest security patches for production.

The Centre reported the matter to the Cyber Crime Department, Visakhapatnam and lodged a First Information Report on 18 October 2022 after a lapse of two days after the date of the incident. The Centre informed Indian Computer Emergency Response Team on 20 October 2022, *i.e.,* after a lapse of five days, which was to be reported within six hours of noticing the incident. However, the quantum of data encrypted through the cyber-attack and its effect could not be ascertained.

Audit concluded that Centre could not conform to the Indian Computer Emergency *Response Team directions, viz., deployment of latest patch on the systems, timely reporting* of incident and though Indian Computer Emergency Response Team alerted well in advance (September 2022) about the Ransomware malware attack, the Centre could not secure its sensitive data and protect IT system from cyber-attacks.

b. Unauthorised admin login using leaked credentials

The Advanced Centre for Treatment Research and Education in Cancer, Navi Mumbai website is hosted on a Linux platform using the Drupal (v8) Content Management System framework.

Scrutiny revealed that one cybersecurity incident occurred due to unauthorised website admin login using leaked credentials and the website was found defaced on 10 November 2023. It was found from the system logs that there was a successful admin login on 10 November 2023 at 04:03:03 hrs by the attacker from the IP Address (36.68.221.214) from Indonesia.

The website was developed and maintained by M/s Silvertouch Technologies, based in Ahmedabad and was managed on a daily basis by using the admin interface provided by Drupal Content Management System, which was exposed to the internet and possessed only single-factor authentication using username and password. The password set for the admin account was simple and guessable. Advanced Centre for Treatment Research and Education in Cancer administrator used to access the interface for website updates from the office's personal computer, as well as from home laptop and personal mobile phone.

The identified system was isolated from the network. The defacing of the Advanced Centre for Treatment Research and Education in Cancer website was reported to Indian Computer Emergency Response Team at 19.07 hrs. on the same day. On recommendation, the website admin interface was blocked from the internet. Admin password was changed, enforcing complexity.

The fact remains that the Centre did not report to the Indian Computer Emergency Response Team about the cyber incident within six hours of noticing the incident. The password set for the admin account and the interface possessing only single-factor authentication was not in compliance with the prescribed guidelines.

c. Inability to protect sensitive data which was possessed by cyber hacker

On 2 December 2024, an incident (Interlock Ransomware) was experienced by Homi Bhabha Cancer Hospital Research Centre, New Chandigarh, Punjab. It was noticed that computer systems were not functioning and a pop-up message was appearing on their screens: *"Data Security Crisis. Your Organisation's most critical data is compromised, an infiltrated network, encrypted files and possessed highly sensitive information. Immediate action is required to avoid devastating consequences for your business"*.

The IT Department escalated the matter on the same day to the local authorities and the Computer and Information Security Advisory Group (CISAG) team. As of 12 December 2024, approximately 95 *per cent* of IT services had been restored and the remaining five *per cent* were to be restored to fully operationalise the IT infrastructure of the hospital.

On being enquired, the Centre stated that the root cause analysis was not carried out and mitigation measures to prevent recurrence were yet to be taken.

Despite advance alert by Indian Computer Emergency Response Team about the Ransomware malware attack, in September 2022, the actual cause behind the cyber-attack could not be identified due to non-initiation of root cause analysis by the Centre.

While acknowledging the concerns raised, Tata Memorial Centre stated, in June 2025, that internal response time and root cause analysis protocols need improvement and also stated that appropriate security measures, including Multi-Factor Authentication, are being provisioned.

The Department noted the observations (December 2025) and stated that teams have been sensitised to update the latest patches as and when notified by Cert–In. Further, it added that Chief Information Security Officer (CISO) and Dy. CISO has been designated to ensure compliance with IT security requirements at each Tata Memorial Centre unit.

Recommendation 21:

A strong password management policy incorporating Multi-Factor Authentication may be implemented to reduce the harm caused by phishing, credentials leak or unauthorised access attacks. The latest security patches may be installed on IT systems and regular monitoring of IT security processes may be undertaken to prevent cyber-attacks in compliance with the guidelines of the Indian Computer Emergency Response Team/Ministry of Electronics and Information Technology.

2.2.13.7 Fire incident

Data centres are critical hubs for IT operations, where even minor incidents can cause severe disruptions. Fires pose a particularly catastrophic risk, leading to service outages, data loss and major financial impact, making effective fire safety measures essential for business continuity.

Audit scrutiny revealed that in June 2024, a fire broke out in the IT server room of Homi Bhabha Cancer Hospital, Varanasi. The incident was traced to an exploding AC unit. Though

the fire alarm system was activated in the control room, it did not provide early detection. The fire caused damage to IT equipment valued at ₹1.91 crore, but records of data loss were unavailable.

Inquiry identified multiple technical lapses, *viz.,* (1) No standardised procedures for AC operation, (2) Absence of temperature detection units, (3) Fire alarms deactivated to avoid false alerts, (4) No CCTV in the server room to capture the sequence of events.

The inquiry, *inter alia,* recommended establishing a Disaster Recovery setup with backup services and conducting both internal and external audits of these systems.

This incident highlights serious weaknesses in data centre disaster preparedness. Lack of early detection systems and absence of Disaster Recovery infrastructure left critical IT assets highly vulnerable.

The Department stated (December 2025), post the fire incident, HBCH Varanasi took various initiatives to mitigate future risk and all affected equipment was covered under a comprehensive annual maintenance contract, due to which equipment was recovered without any additional cost.

However, no relevant comments were offered regarding early detection of fire at Tata Memorial Centre, Mumbai and its centres, as well as data losses due to fire incidents.

2.2.13.8 Lack of data protection and cryptographic security

During Audit it was observed that the original (plaintext) versions of users' passwords, as well as patients' Aadhaar card numbers, are stored in the relevant data table alongside their corresponding encrypted versions. This meant that while encryption was applied, the system also retained the unencrypted (readable) versions of these sensitive data elements within the database.

Storing plaintext passwords and Aadhaar numbers in the same location as their encrypted counterparts defeats the purpose of encryption, as it does not prevent unauthorised exposure of sensitive data.

To ensure proper security, only the encrypted versions of passwords and Aadhaar numbers should be stored, while plaintext data should be stored at a separate server with proper security in place.

The Department agreed (December 2025) with the Audit observation.

2.2.14 Mapping of Business Rules and Implementation of Application Controls

An internal control is a process designed to ensure that operations, including the use of the organisation's resources, are effective and efficient, financial reporting for internal and external use is reliable and applicable laws and regulations are followed. Application controls unique to each IT application regulate the completeness, accuracy, validity, confidentiality and availability of transactions and data when the application runs.

2.2.14.1 Hospital Management Information System

The patients coming to Tata Memorial Hospital first get registered, submitting all the required details to obtain a unique registration number, the 'Case Number'. The patients are then suggested to visit the clinic where their registration details are viewed and their medical history is recorded. The process followed at Tata Memorial Centre, Mumbai, from registration of patient till generation of final bill for outpatient has been depicted in the Hospital Management Information System workflow below. The workflow included details involving the admission of patients.

The process flow chart of the Hospital Management Information System shown in ***Figure 3***.

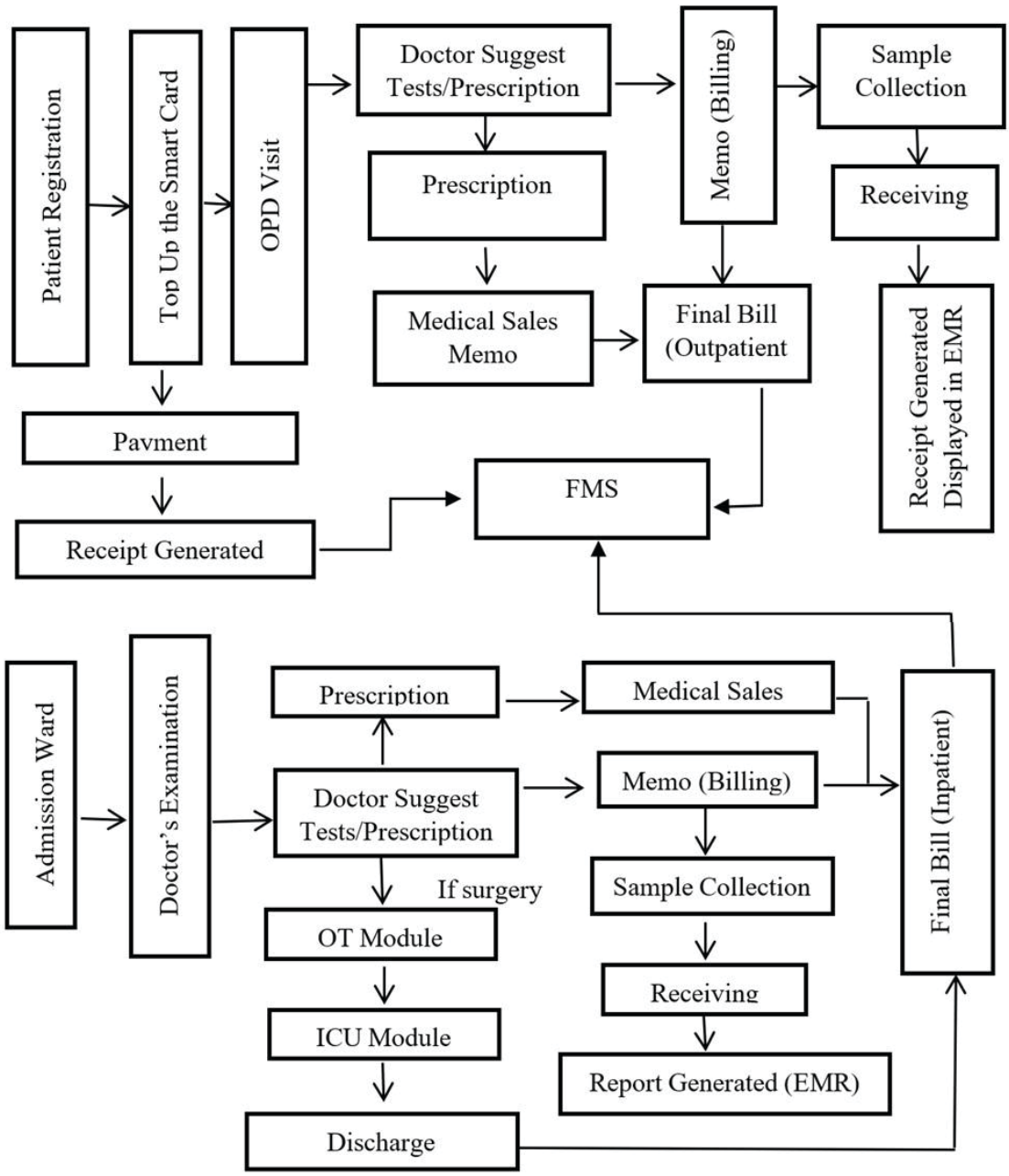

Figure 3: Hospital Management Information System Workflow

Audit of the Hospital Management Information System revealed the following observations grouped under Patient Registration and Patient Admission.

a. Patient Registration

Patients are requested to carry their Aadhaar cards of self and spouse or parents while visiting the hospital for Registration. Patient registration is done through Patient Admission Billing and Registration application. Patient Admission Billing and Registration is a web-based patient registration, admission and discharge module. Patients

are admitted to any bed to show them as inpatients. Patient registration is done and a patient category is assigned as per the category provided in ***Figure[46] 4.***

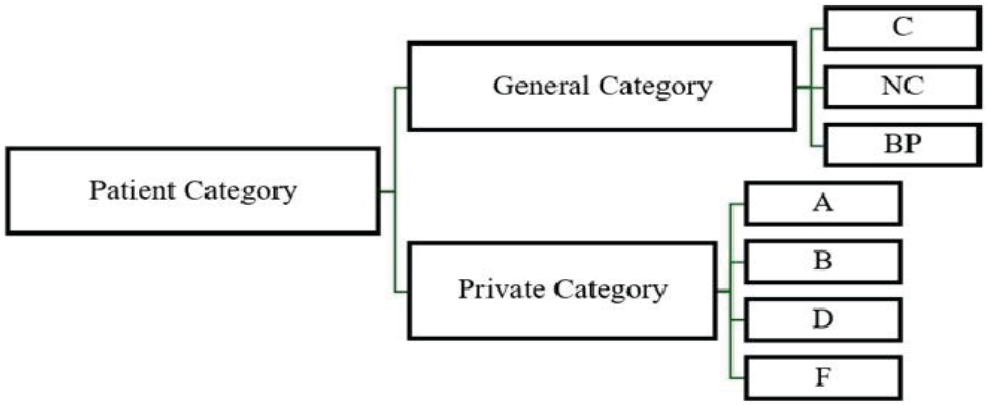

Figure 4: Patient Categories

After availing medical services, the staff generates the final bill and patients are recorded discharged in the system. Patient's Diagnosis Information system contains requisitions and memos that are generated against the patient's case number. After the generation of requisitions and memos, samples can be submitted to the respective laboratories for processing and report generation. After consultation from the Outpatient Department or an inpatient ward, the doctor can raise a prescription for patients to take medicine from the sales counter (pharmacy). The pharmacy issues medicines based on the prescription generated from the Outpatient Department and ward. The discharge module helps doctors to generate a discharge summary.

i. Lack of a mandatory unique identifier for registered patients

Unique Patient Identifiers are critical to ensure accurate medical records and prevent duplication, misidentification and treatment errors.

Scrutiny revealed that in the case of patient registration, no mandatory data field was defined in the system, which functions as the primary key to establish such uniqueness to protect against generating duplicate registration numbers against the same patient. Further, the system did not have a functionality to verify the veracity of the data entered with respect to the Aadhaar field.

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[46] C, NC- General Category patient, BP-Below Poverty Scheme Category patient. C and BP category patients are charged as per C the category charges in the Schedule of Charges and that in respect of NC category are charged as per NC category charges in Schedule of Charges. All patients are admitted to the general category ward.
A (private), B (semi-private), D (deluxe) and F (Foreign) are private category patients. A, B, D and F category patients are charged as per their respective category charges in the Schedule of Charges. All are admitted to the private category ward.

In May 2025, Tata Memorial Centre, Mumbai, stated that Aadhaar verification would be enabled with the implementation of Ayushman Bharat Digital Mission-Milestone 1. Further, in June 2025, Tata Memorial Centre also added that the Ayushman Bharat Digital Mission-Milestone 1 integration was completed at Tata Memorial Hospital and would soon be extended to all units as the Unique Patient Identifiers for all patients.

The Department agreed (December 2025) with the Audit observation.

ii. Multiple registration numbers generated against a single patient

Audit found that at Tata Memorial Centre, Mumbai, the system generated a unique number termed as registration number that followed a sequential order beginning from the start of the calendar year. It is assigned to each patient to track them in the system.

Test check of 13 and 9 patient's data at Tata Memorial Hospital, Mumbai and Homi Bhabha Cancer Hospital Research Centre, Mullanpur, respectively, revealed that there existed multiple registration numbers against a particular patient on a particular day.

However, the matter remains that duplicate patient registrations and multiple registration numbers pose risks like overloading of the system database with multiple scattered records pertaining to the same patient, hindering a complete understanding of their health and subsequent errors in diagnosis or treatment.

In this connection, Tata Memorial Centre clarified (May/June 2025) that patients could be registered multiple times based on the registration type (i.e., preventive, referral, teleconsultation, etc.). In case of the same registration type, the system has a check for alerting in case of duplicate parameters for the Mobile Number. The reply ignores the fact that in the absence of a check for a unique identifier in the system, it would not be possible to identify whether the patient is already registered. Further, it would not detect or prevent multiple registrations of a single patient on a particular day.

The Department agreed (December 2025) with the Audit observation and stated that a check for Duplicate Aadhar Number has been built in during the process of Milestone 1 integration with Ayushman Bharat Digital Mission.

Recommendation 22:

An inbuilt check may be incorporated in the system that would run a complete verification of the patient identification document prescribed for submission at the time of registration to ensure that the registration is fresh and not repeated for the same patient.

iii. Lack of Comprehensive Validation for Aadhaar and PAN as a Unique Identifier

Unique Patient Identifiers are critical to ensure accurate medical records and prevent duplication, misidentification and treatment errors.

Scrutiny revealed that in the case of patient registration, there was no mechanism to verify authenticity of the Aadhar entry. Validation was limited to syntax checks (using the Verhoeff[47] algorithm) in the Web Electronic Medical Record portal only, without confirming the accuracy of the data.

Further, the system permitted entry of duplicate Aadhaar/PAN numbers across multiple patients and invalid or random values (*e.g.,* "-", "00000000000", "NIL") were accepted in the Aadhaar field. Instances were also noted where Aadhaar numbers were recorded for foreign nationals, raising concerns over data validity.

In June 2025, Tata Memorial Centre stated that the Ayushman Bharat Digital Mission-Milestone 1 integration was completed at Tata Memorial Hospital and Aadhar verification would be enabled soon and extended to all units as the Unique Patient Identifiers for all patients.

iv. Entry of wrong data due to lack of input control

- **Input Validation Issues in Patient Name Field:** In the Advanced Centre for Treatment Research and Education in Cancer, the Patient Admission Billing and Registration system allows digits to be entered in the patient's name field.
- **Unrestricted Modification of Patient Information:** During Audit at Tata Memorial Centre, it was found that the system permitted modifications to all patient information under a case ID, including name, Aadhaar number and

[47] The Aadhaar number comprises 12 digits, out of which 11 digits are uniquely generated and the last digit is the checksum. The Verhoeff Algorithm is a checksum algorithm that calculates a checksum digit based on the input number and compares it to a predetermined value. It computes the checksum and matches the last digit of the Aadhaar number.

mobile number. However, no document of approval for the procedure was available.

Further, no mechanism existed to track or capture the history of changes made to patient information.

Tata Memorial Centre, in its reply, stated (June 2025) that the same was permitted by the system, considering the genuine requirement for modification of patient information in various fields. A log of fields was retained in the system for any modifications (e.g., Country, State, Permanent Mobile Number, etc.). However, for the sake of better traceability, they would build in a provision for keeping logs for all fields.

These gaps in data validation and system functionality pose risks to data integrity, patient privacy and efficient communication in critical situations.

The Department accepted (December 2025) the observation and stated that necessary process changes would be enabled and validations as well as log maintenance would be built into the system.

Recommendation 23:

A proper approval channel for authorising modification of patient master data may be established and a log of such changes made may be maintained.

v. Unmonitored check while filling foreign patient address details

Scrutiny of the interface pertaining to Patient Admission Billing and Registration of Tata Memorial Hospital, Mumbai, revealed that the patient details, *viz*., Correspondence Address, Kin's Details, in respect of foreign patients were allowed to be entered in the name of the state/district which is not a part of that country.

In view of the above, the Audit concluded that the above-mentioned error may occur when there is no check input in place in the names of the state/district of a particular country pulled from the dropdown menu and the same is manually entered.

The Department noted (December 2025) the observation and stated that necessary validations would be built into the application.

Recommendation 24:

The master data table with respect to the names of state/district may be linked particularly to a country and a monitoring check may be incorporated into the system.

vi. Absence of Validation Controls for selecting Disease Management Groups

The registration page lacks appropriate validation controls to ensure the correct selection of Disease Management Groups. Audit created four test patient registrations for checking the system validation of input control of Disease Management Groups, two each in Tata Memorial Hospital, Mumbai and Advanced Centre for Treatment Research and Education in Cancer. However, it was seen that Adult Disease Management Groups could be allotted to minor patients and Paediatric Disease Management Groups could be allotted to adult patients. This lapse indicated an absence of validation input control in the system to safeguard the allocation of appropriate Disease Management Groups to patients based on age criteria.

The Department noted (December 2025) the observation and stated that necessary validations would be built into the application.

Recommendation 25:

Disease Management Groups allocation may be appropriately mapped with the age of the patient and the said control may be incorporated into the system.

vii. Display of Random Patient Photos Without Upload

During the Audit process, Audit created a total of 17 test patient cases on the test server at Tata Memorial Hospital, Mumbai and Advanced Centre for Treatment Research and Education in Cancer, Navi Mumbai, without uploading any photos in the designated field. However, upon successfully generating and registering these cases, the system displayed random photos instead of a blank photo field. This discrepancy highlights a significant flaw in the system's data handling and display mechanisms.

Tata Memorial Centre acknowledged this discrepancy and stated (June 2025) that the instance happened due to some issue relating to the creation of the test

environment, owing to which the photos of the same registration number on the live server were displayed against case numbers on the test server.

The reply is silent on the fact that random photos were uploaded during new patient registration in the system, which gives wrong information. Necessary control may be introduced in the system so that no pre-uploaded random photo gets mapped with the newly generated patient registration.

The Department noted (December 2025) the observation and stated that necessary validations would be built into the application.

viii. Inconsistencies in Patient Conversion and Billing Processes

Audit scrutiny of patient conversion and billing processes at Tata Memorial Hospital, Mumbai, revealed that patients were converted from cash-paying to company-referred status without mandatory assignment to a specific company, leaving treatment costs temporarily unlinked to any responsible payer. During Audit, it was observed that patients were reverted to cash-paying and then reassigned to company-referred, creating periods of ambiguity where bills and receipts remained in an uncertain state. In one instance, a patient was converted to company-referred status but never linked to any company, yet receipts were still tagged to a company, resulting in inconsistencies and questionable revenue allocation.

The receipts for services and medicines provided during the period when the patient was not linked to any company were later associated with the company that was eventually assigned. However, there was still uncertainty about the amounts received during the time the patient was not affiliated with any company.

In another instance, a patient was converted from cash-paying to company-referred but was never assigned to a specific company. Despite this, some of the patients' receipts were linked to a company, leading to inconsistencies in billing records.

Thus, the ability to convert patients from cash-paying to company-referred status without mandatory assignment to a specific company has resulted in treatment costs being temporarily unlinked from any accountable payer. The current process design allows patient status to be altered without enforceable system controls, enabling potential manipulation of payer classification, introducing a serious governance risk, as it opens the door to intentional or unintentional deferral or avoidance of payment obligations.

In June 2025, Tata Memorial Centre, Mumbai, confirmed that the system requires a company to be assigned while converting a patient to company-referred status, except for Below Poverty category patients covered under government schemes. It was also clarified that bills are generated and memos tagged to the company before converting a patient from company-referred to cash-paying. However, due to the absence of logs, authorisation records and approval trails, it is not possible to verify correct company assignments or accurate receipt allocation.

The Department stated (December 2025) that although non-allocation of company name to Below Poverty category patients was a conscious design and not necessarily a deviation from the accepted policy, Tata Memorial Centre shall explore effecting a design change to incorporate company names for the Below Poverty category patients.

ix. Poor internal control in registering of foreign patients-lack of Visa Validation

The system did not restrict the entry of duplicate visa numbers or expired visas (which indicate an illegal stay in the country) during the registration process, raising concerns about the proper identification of the foreign patients. Expired Visas are also not flagged and this could potentially lead to legal and regulatory issues for the hospital. The system also permitted registration of patients without entering the valid visa information of the attendants, in violation of the mandatory requirement of a medical visa for attendants accompanying patients.

While accepting the observation, Tata Memorial Centre, Mumbai, stated (June 2025) that entry fields for visa number and visa expiry date in respect of patients as well as attendants were available in the system since March 2023. However, the validation checks for restricting duplicate or expired visas would be built into the system.

The Department agreed (December 2025) with the Audit observation.

b. Patient Admission

i. Discrepancies related to deceased patients

Audit revealed control lapses in the handling of deceased patient records across five hospitals. In one case, a donation was received and medications were issued under a patient's name weeks after his death. The details are given in ***Table 18***.

Table 18: Details of Discrepancies Related to Deceased Patients

Date of Death	Donation received	Prescription issued	Medicine issued
18.8.2023	13.9.2023	13.9.2023	13.9.2023

A review found that 484 deceased patients were billed for services totalling ₹0.37 crore in Tata Memorial Hospital, Mumbai, with individual memo amounts ranging from ₹0.03 crore to ₹0.05 crore, including lipid profile testing, surgeries of various grades, major and minor operation theatre procedures, ultrasonography and some recorded over two to three years post-death.

Table 19: Records of patients who were provided services post-death

Hospital Name	Number of deceased patients who were provided services after their death	Total memo number*	Total memo amount (*in* ₹)	Maximum date gap between death date and memo issued after death for a particular patient *(in days)*
TMH, Mumbai	341	2051	2970844	1165
ACTREC, Mumbai	4	4	2545	9
MPMMCC, Varanasi	100	109	47564	391
HBCHRC, Vizag	37	81	577993	819**
HBCHRC, Mullanpur	2	91	121870	335
Total	**484**	**2336**	**3720816**	**-**

** Excluding the cancelled memos, memos with the services of cash reimbursement/final settlement, miscellaneous hospital fees, medical care team charges (per day) and charges for duplicate bill printing (per bill).*

*** The service amount is zero.*

Further data analysis revealed that 145 deceased patients of Tata Memorial Hospital, Mumbai, Advanced Centre for Treatment Research and Education in Cancer, Navi Mumbai and Homi Bhabha Cancer Hospital Research Centre, Visakhapatnam, were credited a total of ₹0.44 crore donations from various trusts, funds or organisations where the credit for individual patient is ranging from ₹100 to ₹0.14 crore, even after more than three years of death.

Audit found discrepancies in medical record entries, including the following two separate cases where clinical assessments, such as patient status, vital signs, treatment plans and doctors' advice were recorded after the patients had died. This indicates either erroneous data entry or inadequate system validation controls, highlighting weaknesses in the accuracy and reliability of patient records.

Table 20: Discrepancies in Medical Entries

Patient number	Date of death	Remarks
Patient A	14.12.2021	The patient was assessed and recorded some doctor's advice in May 2022.
Patient B	29.8.2021	Patient's clinical evaluation was recorded on 2.9.2021, along with the vital values like blood pressure and some treatment advice/plan.

Thus, the system permits billing, acceptance of donations, issuance of prescriptions and entry of clinical records for patients who had already been deceased. This was due to three key deficiencies: (i) delays in updating death status, (ii) absence of automated validation or blocking mechanisms to prevent posthumous entries and (iii) lack of Audit trails to track and authorise such entries.

Although Tata Memorial Centre, Mumbai, claimed (June 2025) that system checks exist to prevent such billing, delays in marking patients as deceased, especially those who die outside the hospital, existed.

The reply needs to be viewed along with the fact that cases exist where services were recorded as provided after the patient's date of death, despite the patient having died within the hospital itself.

Tata Memorial Centre, Mumbai, admitted that some post-death entries occur for legitimate reasons but acknowledged the lack of an Audit trail to verify approvals. They agreed to strengthen controls, flag posthumous entries and prevent unauthorised donations. These findings highlight critical weaknesses in billing, patient data management and oversight, posing risks of financial mismanagement and resource misuse.

The Department concurred (December 2025) with the Audit observation and stated that suitable measures would be initiated to prevent any compromise of integrity and credibility.

These findings reflected an absence of automated safeguards in the Hospital Management Information System, which have compromised data integrity, financial accountability and the credibility of patient medical records.

ii. Discrepancy in discount or deferred payment process

Under the Patient Admission Billing and Registration application, there is a functionality for providing discounts/deferments of payment against inpatient final bills. Between financial years 2019–20 and 2023-24, 257 cases of discounts (₹0.10

crore) and 296 cases of deferred payments (₹1.31 crore) were recorded. Alarmingly, in the absence of a proper approving channel, 251 out of 257 discount approvals were granted by a Single Medical Superintendent, often allowing up to 100 *per cent* bill waivers, without adequate justification being recorded in the system due to lack of the mandatory provision for the same. Similarly, 288 deferred payment cases were both recommended and sanctioned by the same authority, revealing concentration of control without system-enforced checks. Two deferral cases were sanctioned by unauthorised personnel and six cases were neither sanctioned nor followed up, with no payment recovered.

Moreover, the system could not automatically flag or track recovery of deferred payments, resulting in outstanding dues of ₹0.38 crore remaining unpaid. The absence of in-system alerts, approval trails or recovery monitoring mechanisms reflects a critical gap in the system design.

Additionally, the extension of discount/deferment benefits to foreign nationals raises further compliance concerns, especially in the absence of systematic Audit logs or reason-capture fields for financial concessions.

In this regard, Tata Memorial Centre, Mumbai, stated that it will make a mechanism to flag these cases and follow-up would be established by the Medical Superintendent and Accounts teams going forward and also review the same in consultation with the MS's Office to make any changes to the application so that the reasons for discount/deferment can be captured in the system.

To mitigate these risks, the system must enforce role-based authorisation, mandate justification fields, maintain digital Audit trails and implement automated alerts with follow-up tracking for deferred payment recovery.

The Department agreed (December 2025) with the Audit observation.

2.2.14.2 OPD Appointment

Outpatient Department is the first point of contact between a hospital and the patient where patients receive diagnosis or treatment but are registered as inpatients.

a. Appointment Scheduling for inpatients already discharged as deceased

The system allowed appointments to be scheduled for patients who were marked as deceased at the time of their discharge. Further, a test check of the application revealed that the system

allowed all processes such as check-in, doctor's calling, consultation and check-out after scheduling of an appointment in respect of a patient declared deceased as per Tata Memorial Centre records. Therefore, validation checks of the patient's living status maintained in their own system before permitting medical workflows were found missing.

The Department agreed (December 2025) with the Audit observation.

Recommendation 26:

System checks may be developed in a way that it can identify patients who have earlier been flagged as deceased.

b. Same-Day Appointment with Retrospective Timing

During Audit, test data in the Outpatient Department application at Tata Memorial Centre revealed that the system allowed allotment of appointment time that was prior to the time already booked for an appointment on the same day. This could lead to discrepancies in patients' visit records or misuse of the system.

The Department agreed (December 2025) with the Audit observation.

Recommendation 27:

There should be a validation to prevent selection of past time slots once the current time has passed.

c. Post-Consultation Appointment Cancellation

Further, the Audit found that the system permitted the deletion of a patient's appointment records after the doctor's consultation had already taken place. This could result in loss of clinical records or inconsistencies in reporting.

The Department agreed (December 2025) with the Audit observation and stated that necessary validation would be implemented to prevent such deletion for better record keeping of patient visits.

2.2.14.3 Patient Scheme Management

Ayushman Bharat, a flagship scheme of the Government of India, was launched as recommended by the National Health Policy to move from a sectoral and segmented approach of health service delivery to a comprehensive, need-based health care service. Pradhan Mantri Jan Arogya Yojana is a component under Ayushman Bharat.

Further, the Government of Maharashtra launched the Mahatma Jyotirao Phule Jan Arogya Yojana, in July 2012, which was integrated with Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) from April 2020. This Scheme offers cashless, high-quality medical services for specified diseases through empanelled hospitals.

Further, Dr Nandamuri Taraka Rama Rao Vaidya Seva Scheme, erstwhile Dr YSR Aarogyasri scheme, implemented by the Government of Andhra Pradesh, aims to provide Universal Health Coverage to Below Poverty Line families. It is a Public Private Partnership model in health insurance, offering cashless secondary and tertiary care for identified diseases through government and private healthcare providers. The Scheme includes free screening, outpatient consultations, health camps and preventive care, supplementing government healthcare services.

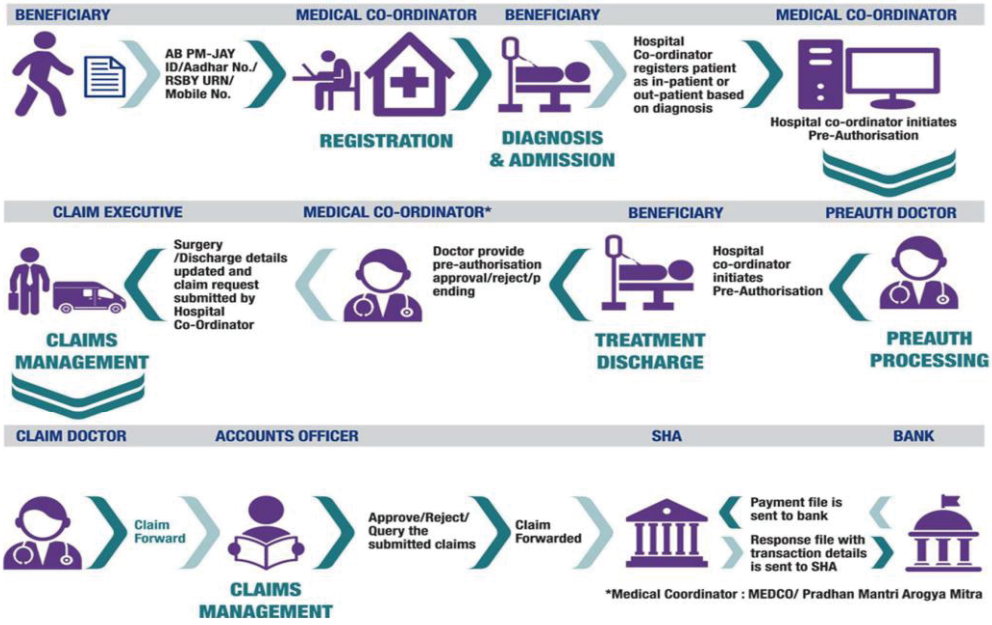

Figure 5: Workflow of Pradhan Mantri Jan Arogya Yojana/Mahatma Jyotirao Phule Jan Arogya Yojana

In all cases, Arogyamitras act as facilitators for the patients under the above-mentioned schemes in the hospitals under Tata Memorial Centre, Mumbai, from the registration process to handling claims and settlements of the package amounts and reconciling settlement amounts, including conversion of the patients to the BP category.

a. No provision to apply for category conversion

Hospitals under Tata Memorial Centre, Mumbai, have implemented the Ayushman Bharat application for converting patients to the Below Poverty category and assigning package amounts.

Audit observed that it lacked a mechanism for patients to formally apply or upload documents. This makes it unclear whether patients consented to or were aware of their enrolment. Tata Memorial Centre stated that patient enrolment under the Ayushman Bharat Scheme occurs at the claim management counter.

In the absence of a document uploading provision, Audit could not verify whether the patients were appropriately converted to the Below Poverty category and allotted the correct amount sanctioned by the National Health Authority.

The Department stated (December 2025) that the eligibility of a patient for a particular government scheme is verified by the Aarogyamitra posted by State Health Authority. Further, it has been added that Tata Memorial Centre shall work on maintaining records of verification/registration by Aarogyamitra.

b. Data discrepancy in the change of patient category

On scrutiny of information furnished by Tata Memorial Hospital, Mumbai and data shown in the category[48] transfer application regarding the number of C category patients converted to NC, the following discrepancies were noticed:

Table 21: Data Discrepancy in the Change of Patient Category

Financial year	Number of C category patients converted to NC as per the reply dated 3.10.2024	Number of C category patients converted to NC as depicted from the 'Category Transfer' application	Difference
2019-20	3502	287	3215
2020-21	2750	9	2741
2021-22	5356	23	5333
2022-23	6644	1676	4968
2023-24	6097	7588	(-) 1491

Tata Memorial Centre, Mumbai, initially (March 2025) attributed 16,257 category transfer cases (2019–2023) to a system bug, raising concerns about the reliability of system-generated reports. Tata Memorial Centre, Mumbai, should conduct a root cause analysis to identify the nature of the bugs and implement corrective action.

Tata Memorial Centre stated (June 2025) that the information provided earlier was from an incorrect source. The query has now been corrected to ensure consistent and accurate data retrieval.

[48] *Category C patients are partly charged, i.e., 20 per cent for investigations and consultations and the rest as per actuals, while Category NC patients are charged minimal charges for a few services, they are not charged for investigation or consultation and the rest charges are as per actuals.*

This contradicts its earlier statement (March 2025) attributing the issue to a system bug. The large and consistent discrepancies over five years suggest a systemic problem, not a one-time sourcing error. The fact remains that during the Audit scrutiny of patient related data in TMC system during field audit which concluded in March 2025, the discrepancy was observed and reported. Tata Memorial Centre furnished modified reply in June 2025, *i.e.,* after completion of field audit stating about the correction of query to ensure consistent and accurate data retrieval. However, Tata Memorial Centre did not provide evidence of the corrected query or actions taken to resolve the issue, leading to the reliability of system-generated reports.

The Department agreed (December 2025) with the observation and stated that Tata Memorial Centre is ready to demonstrate the revised data retrieval query to Audit. Since the field audit is completed and in absence of evidence of the corrected query or actions taken to resolve the issue, coupled with the Audit access only to the onsite Audit setup, the same will be verified in due course of the follow-up or subsequent Audit.

2.2.14.4. Material Management System

Tata Memorial Centre developed a Material Management System which includes processes for indentation, requisition for procurement of stores, purchase, sanction, order, stores receipt and issuance of stores items to end users. However, approval of the Purchase Sanction Note and verification before issuance of the Purchase Order are not mapped in the system and are done manually.

Analysis of the database and the processes related to the Material Management Systems revealed the following:

a. Expired medicines remained in stock: As per Para 7.3.4. of Procurement and Operational Manual for Medical Store Organisation and Government Medical Store Depots issued by Directorate General of Health Services, Ministry of Health and Family Welfare, the demand of consumers/indenters is met through proper issue of items on receipt of authorised issue requisitions/indents. Given that most goods have expiry dates, it needs to be ensured that actual issues are addressed on First Expiry First Out (FEFO) minimising wastage from product expiry.

Data analysis revealed that in 145 instances during the period under Audit, the return transactions were processed after passing the expiry date of the medicines, ranging between 1 and 1264 days. This indicated a lack of timely tracking and alert mechanisms within the

IT application used for managing pharmaceutical inventory and returns that would notify users of awaiting or past expiry dates.

Tata Memorial Centre, Mumbai, stated (June 2025) that the IT team reviewed cases involving transactions after medicine expiry dates. The issue occurred at sales outlets due to batch number adjustments, which led to discrepancies between actual and system-recorded expiry dates. It stated that it will review the process with the Dispensary team and implement measures to prevent such issues in the future.

The Department agreed (December 2025) with the Audit observation.

Recommendation 28:

Effective measures may be taken to flag nearing expiry medicines, which can be returned within a defined timeframe.

b. Inconsistency in the dates of procurement-related events: An analysis of the data table revealed that item receipt date, installation date and delivery challan date were recorded prior to the corresponding purchase order date. This indicated a potential lapse in the enforcement of logical date sequencing within the IT application system.

Further examination revealed that users were permitted to manually enter the installation date without system-level validation to ensure it falls after the purchase order and item receipt dates. Moreover, the application allows the "make" of the item to be edited during this process.

To ensure data accuracy and process integrity, system-level validation control during data input is necessary to avoid manual entry in the system.

The Department agreed (December 2025) with the Audit observation.

Recommendation 29:

The application needs to implement checks to ensure system-level validation instead of manual input of data in the system.

2.2.14.5 Financial Management System

a. Inability of Financial Management System to Generate Financial Reports

Audit noticed that the Financial Management System (FMS) was unable to generate essential financial reports, including the Balance Sheet, Income Statement, Cash Flow Statement and other critical financial summaries.

Upon analysis, it was found that despite transactions being recorded in the system, the report generation functionalities could not process and compile the financial data into structured reports, *viz.,* cash book for the specified period. Despite entering a date range for multiple days, the system only generates the cash book for a single day, failing to provide a consolidated view of transactions over the selected period. This lack of automated report generation prolonged the reporting process and impacted overall operational efficiency.

The Department stated (December 2025) that Tata Memorial Centre, Mumbai, would certainly deliberate with respective stakeholders to work out automated report generation and introduce more system generated reports.

Recommendation 30:

The system may be reviewed for missing functionalities or potential configuration errors. Immediate corrective action may be initiated to ensure that financial statements can be accurately generated.

b. Incorrect patients' billing details displayed on New Bill Portal

During the Audit conducted at Mahamana Pandit Madan Mohan Malviya Cancer Centre, Varanasi, it was observed that an interface, namely New Bill Portal, exhibited an inconsistency in displaying patients' billing records. When a random bill number under the BP Scheme was accessed for a given patient case number '1', the system redirected to a page displaying details of another patient case number '2' along with the memo details of patient case number '1'. Further, on accessing the bill details of the patient case number '2' in the said portal, the same bill number could be traced, showing duplication of bill number for multiple patients, which innately redirected to the same page as mentioned earlier. This reflected a basic error in linking bill details with respect to particular patient cases in the New Bill Portal.

Tata Memorial Centre, Mumbai, clarified (June 2025) that in certain scenarios, the system incorrectly combined or interchanged patient details while retaining the correct memo information, resulting in confusion and potential data mismatches. Upon review, it was found that the issue was due to a backend linkage error and a bug in the application logic.

The Department agreed (December 2025) with the Audit observation.

Recommendation 31:

The basic design of the concerned portal may be revisited and bill details with respect to patients may be properly mapped.

c. Receipts not generated against memos

Upon analysing the records related to generated memos and their corresponding receipts, Audit observed that a substantial number of memos did not have corresponding receipts generated. The total monetary value of these unreceived memos amounts to ₹34.98 crore, indicating a significant financial exposure. Details of the same are outlined below:

Table 22: Details of Receipts not Generated Against Memos

Year	TMH		ACTREC		HBCHRC, Vizag		MPMMCC		HBCHRC, Mullanpur	
	Memo count	Total amount (*in ₹*)	Memo count	Total amount (*in ₹*)	Memo count	Total amount (*in ₹*)	Memo count	Total amount (*in ₹*)	Memo count	Total amount (*in ₹*)
2019-20	7083	3819835	19105	61669762	22	-14040	1	147	-	-
2020-21	18974	3032809	15825	44767747	594	1224139	22	16186	-	-
2021-22	31409	10002436	16602	49360431	507	1505747	185	213677	-	-
2022-23	48602	34833242	15735	46118337	667	1753904	11934	12704926	669	32000
2023-24	64257	47868783	3332	6772127	722	3307225	16931	20332603	1710	526735
Total	**170325**	**99557105**	**70599**	**208688404**	**2512**	**7776975**	**29073**	**33267540**	**2379**	**558735**

The unavailability of receipts for a large number of memos raises concerns about possible revenue loss, as there is no verifiable record available in the system to confirm whether the amounts associated with the memos have been collected or remain unrealised.

Without an automated system for reconciliation of the amounts received, the risk of financial discrepancies, misstatements and potential revenue losses exists.

The Department (December 2025) clarified that cases mentioned in the observation pertained to the Below Poverty category (Government Scheme patient). The Receipt marking and income booking for these cases were done only after receipt of actual funds and reconciliation of the same. Hence, they were shown as unmarked memos.

However, the reply ignores the fact that a considerable number of unmarked memos were reflected in the system of Tata Memorial Centre, Mumbai, even during the Joint Meeting (May 2025), after the completion of Audit, which may go undetected, resulting in unreconciled entries in the Financial Management Application system of Tata Memorial Centre, Mumbai.

Recommendation 32:

An automated system of reconciliation may be implemented, which would enhance financial transparency, reduce manual intervention and ensure better internal controls to safeguard revenue and financial reliability.

d. Inconsistency in memo values and corresponding bill amounts

Tata Memorial Hospital, Mumbai, along with the other four selected hospitals under Tata Memorial Centre, Mumbai, generate service memos detailing the costs associated with the services based on the extant schedule of charges through the designated IT application. Similarly, pharmacy memos are generated from specific applications, including the prices of medicines and surgical items. In this connection, an automated scheduler is embedded in the system to facilitate the conversion of these memos into bills.

However, a test check of patient-wise view for memos and bills through the frontend interface of FMS at Tata Memorial Centre, Mumbai, revealed that discrepancies exist between the total amount of a bill and the sum of values of the memos constituting the bill. The said inconsistency among the test-checked cases varied up to ₹95,667.

In reply to the observed discrepancy between memo values and billed amounts, Tata Memorial Centre, Mumbai clarified (June 2025) that the inconsistency was due to a bug in the application, which led to Pharmacy Return memos not being reflected correctly when a bill number is accessed in the Old Bill Portal. However, documents in support of the claim have not been produced to the Audit for verification.

Further, a test review of 34 patient cases revealed that service and pharmacy memos against them have remained unbilled over a period of 13 months. This observation highlights a critical gap in the system's ability to ensure the timely transition of memos into invoices.

The automated scheduler was not configured correctly, resulting in certain memos not being processed for billing purposes. Further, inadequate monitoring or inability to conduct regular reconciliations and follow-ups on unbilled memos lead to unprocessed billing.

Tata Memorial Centre, Mumbai, stated (June 2025) that the issues leading to this have been rectified in the scheduler through system-level checks and validations. However, no evidence in this regard was furnished and the same could not be verified in Audit.

The Department agreed (December 2025) with the Audit observation.

Recommendation 33:

Auto-scheduler for converting memos to bills may be properly configured so that no memo remains unbilled for realisation.

e. Findings related to Trust Account Balance

Non-closing of Trust Account

Clause 3.2.15 (i) and (iv) of Standard Operating Procedure for opening of Trust Account, Maintenance, Settlement of Claims and Closure of Account of Trust Account Policy followed at Tata Memorial Hospital, Mumbai, states that final settlement of the Trust Account will be made, (a) at the time of death of the patient, or (b) if the account is dormant for more than 18 months.

Further, Clause 3.2.21 of Standard Operating Procedure for opening of Trust Account, Maintenance, Settlement of Claims and Closure of Account of Trust Account Policy followed at Tata Memorial Hospital, Mumbai stipulates that patients who have expired with having balance of less than ₹3,000 will be transferred to 'Poor Patient Welfare Fund'.

i. **Patient's Death:** Test check of Trust Account balances of patients with living status shown as 'Dead' in the New Bill Portal at Tata Memorial Hospital, Mumbai revealed that the settlement of the balance amount ranging from ₹47,765 to ₹69,263 has not yet been finalised despite expiry of the patient for more than 12 months till March 2025.

ii. **Dormant for more than 18 months:** Test check of Trust Account balances in respect of 10 patients revealed that balances in the said accounts ranged between ₹3,00,379 to ₹6,97,705. However, their last visit to Tata Memorial Hospital, Mumbai or Advanced Centre for Treatment Research and Education in Cancer, ranged between 23 and 68 months till March 2025. Thus, due to the non-mapping of business rules in the system

and the absence of provision of MIS/Alerts in the system, resulted in dormancy of Trust Account even after a lapse of 5 to 50 months beyond the prescribed timeline of 18 months for closure of the account.

iii. **Non transfer of trust balance of less than ₹3,000:** Test check of New Bill Portal maintained at Tata Memorial Centre, Mumbai, found that Trust Balance in respect of 13 patients with balances below ₹3,000 (ranging between ₹25 to ₹2,728) was not transferred to 'Poor Patient Welfare Fund' though their dates of expiry ranged from 485 to 2211 days till March 2025.

Tata Memorial Centre stated that meticulous examination would be initiated to set up a process for regular monitoring and implementation of the relevant Standard Operating Procedure.

Audit concluded that the absence of a proper automation mechanism within the system led to Trust Balance lying unsettled and non-transferred to the appropriate fund in violation of the clauses of the Standard Operating Procedure of Trust Account Policy of the Organisation itself.

The Department agreed (December 2025) with the Audit observation.

Recommendation 34:

The system functionality may be enhanced to ensure compliance with the SoP in a timely manner.

f. Multiple day care charges for the same patient

Bed charges for day care services required for chemo administration, blood and blood product transfusion cannot be deducted more than once during a particular day for a particular patient.

However, upon test checking of IT system and billing related to the services provided to patients, it was noted that the system permitted multiple deductions for daycare services for the same patient on a single day, which is a deviation from the standard billing protocol. This indicated a lapse in the system's ability to prevent duplicate or unnecessary charges. The process for handling day care charges did not include any provision for memo cancellation or refunds.

Tata Memorial Centre, Mumbai, stated (June 2025), that the system currently permits multiple times billing for the daycare charges for smartcard patients and hence, they identified instances of erroneous multiple intra-day billing.

The Department agreed (December 2025) with the Audit observation.

Recommendation 35:

A robust system control in the IT systems may be implemented to restrict multiple deductions for day care services for the same patient on the same day.

g. Non-adoption of unique memo number in System

Whenever a patient receives any service or pharmacy items from any hospital under Tata Memorial Centre, Mumbai, the concerned IT systems auto-generates a service memo or a pharmacy memo, respectively, which includes comprehensive information such as the patient's details, the specific service description and the corresponding service charges. Each memo is assigned a unique number, which follows a sequential and incrementally increasing order. Homi Bhabha Cancer Hospital Research Centre, Mullanpur, confirmed that a particular memo cannot be issued to more than one patient.

However, Audit observed in both the front-end interface and the relevant data tables that there were instances where a single memo number had been assigned to multiple patients across different dates. Such inconsistencies indicate underlying flaws in the system’s logic, such as weak validation controls.

Tata Memorial Centre, Mumbai, replied in May 2025 that all memos are dispensary memos. In the dispensary the uniqueness is on the transaction number and the transaction date and not on the Memo no. The memo no. is the number preprinted on the stationery of the dispensary memo, so it can have the same memo for multiple patients. The reply is not acceptable as issuance of the same memo number to different patients on different dates is not logical, as it could lead to inaccurate billing and potential financial discrepancies.

Tata Memorial Centre stated (June 2025) that it recently changed the practice of pre-printing memo numbers. The dispensary memo numbers at Tata Memorial Hospital now hold only the transaction number, which is unique to all memos. Proper controls in the system for not generating same memo from being generated for multiple patients need to be incorporated.

The Department stated (December 2025) that changes have been incorporated in the application system to print system-generated unique numbers.

h. Negative Balance in Smartcard

In the hospitals under Tata Memorial Centre, Mumbai, services and pharmacy items were provided to patients on a prepaid basis through smartcard, amount being deducted from smart card at the time of generating memos related to service delivery or medication dispensation. As per Paras 11 and 12 relating to registration of general, private and foreign patients in the patient handbook followed at Tata Memorial Centre, Mumbai, the minimum deposit in the smart card should be ₹1,000, ₹10,000 and ₹50,000, respectively.

However, Audit observed that a significant number of patients had accumulated negative balances on their smart cards. A test check of five cash-paying patients on New Bill Portal application system who last visited Tata Memorial Hospital, Mumbai or died during the years 2020 to 2022, revealed a total negative balance of ₹0.03 crore on their smart cards.

Thus, it indicated that the system lacked (i) an override/Audit trail to evidence competent authority approvals and (ii) monitoring mechanisms to track recovery of in-patient negative balances.

Tata Memorial Centre, Mumbai, stated (June 2025) that it would suitably address the issue and introduce mechanisms for regular monitoring of such cases and timely redressal. It also assured to identify retrospective cases and take necessary corrective actions with the guidance of competent authorities.

The Department agreed (December 2025) with the Audit observation.

Recommendation 36:

Balance validation controls may be implemented within the system, ensuring financial accountability and sustaining the hospital's revenue cycle management.

2.2.15 Conclusion

Tata Memorial Centre functions as a Grants-in-Aid Institution under the administrative control of the Department of Atomic Energy, Government of India and recognised as the national cancer centre with a mandate for service, education and research in cancer. Tata Memorial Centre had implemented the IT system to cater the need of managing overall activities of the centres.

Weaknesses found in IT Governance since Tata Memorial Centre, Mumbai, did not formulate IT strategy and planning, data retention policy. IT Steering Committees was not constituted. There was absence of well-defined Software Development Life Cycle process and test environment. There was also lack of formal Quality Assurance/User Acceptance Testing Framework, formulation of data retention policy and key documentation for IT applications and outsourced employees enjoying un-restricted access.

In the General Control of IT system, Tata Memorial Centre, Mumbai did not formulate IT security policy and User Registration and De-registration policy, there was irregular practice in creation of User ID. Periodic Security Audit was not conducted. Business Continuity and Disaster Recovery plan was not implemented. There was Inconsistency in maintaining Master Data Management. Tata Memorial Centre could not prevent a cyber-attack and protect sensitive data security.

There was a significant weakness in application controls in Hospital Management Information System, *viz.*, generating duplicate registration numbers against the same patient, lack of validation for Aadhaar and PAN as a unique identifier, lapses in entry of wrong data due to lack of input control, unmonitored check while filling foreign patient address details and poor control in registering of foreign patients. There was absence of validation controls in selecting Disease Management Group. Weaknesses in the application control of Patient Admission showed that there was absence of automation control in case of deceased patients. In the case of control in the Outpatient Department Appointment application, there were lapses in appointment scheduling. In the application control in Patient Scheme Management there were lapses in provision for category conversion. Further, in case of control in Material Management System and Financial Management System, there were lack in maintaining stock of medicines, lack in system level validation control in data input, inability in generating essential financial Reports, incorrect patients billing details displayed on New Bill Portal, there was inconsistency in memo values and corresponding bill amounts and non-closing of Trust Account as per the Tata Memorial Centre policy.

Since the mission of Tata Memorial Centre is to provide comprehensive cancer care to one and all, immediate corrective measures are required to ensure that the lapses and inadequate controls exist in the IT system and governance mechanisms are strengthened to prevent further gaps in the IT System to cater societal benefits towards fulfilling its vision by promoting outstanding services at an affordable, innovative and relevant to the needs of the country with protected and adequate controls in its IT system.

2.3 Avoidable Expenditure of ₹1.45 crore due to Non-Completion of Installation Sites and Degradation of Elevator Components due to Long Storage

Due to non-completion of installation site for more than seven years, Directorate of Construction, Services and Estate Management incurred an avoidable additional expenditure of ₹1.45 crore on replacements and repairs of elevator components before its installation.

As per Rule 70 of General Finance Rules, 2017, the Secretary of a Ministry/Department who is the Chief Accounting Authority is responsible for the effective, efficient, economical and transparent use of the resources in achieving the stated project objectives of that Ministry or Department, whilst complying with performance standards.

Directorate of Construction, Services and Estate Management, Mumbai awarded four Work Orders to M/s Johnson Lifts Pvt Ltd for design, fabrication, supply, installation, testing and commissioning of 18 elevators for various buildings at Anushakti Nagar, Mumbai**,** amounting to ₹5.76 crore[49]. The schedule for completion and additional expenditure made towards work orders issued under the contract was as given in ***Annexure 8***.

As per the terms and conditions, the above works of elevators were required to be completed within eight months from 15 days of issue of Work Orders. All the components of 18 elevators were supplied at the site between November 2014 to September 2015. However, elevators could not be installed due to the non-completion of installation sites and elevator components were kept on the site itself without any proper arrangement towards prevention of rusting and ageing.

It is pertinent to mention that the construction work (including civil work and electric work) of above mentioned buildings was slow from the beginning and got abnormally delayed mainly due to late issue of drawings and delay in removal of trees from site by the Directorate. Further, the Department stated (August 2023) that the contractor was not in a position to complete the balance works within a reasonable time. Hence, work was terminated in October 2017 (Type III-C, Type IV-D and Type E buildings) and May 2018 (accommodation B1 and M1) and the remaining work was again retendered during 2018-20.

Thereupon, when the civil work was nearly completed, the Department requested (2018 and 2020) the elevator contractor to depute their team for the purpose of installation. Contractor

[49] ***Including the value of work yet to be completed in Type E Building.***

submitted a list of defective/degraded components in May 2019 and October 2020 and demanded an additional amount of ₹1.66 crore (₹1.45 crore+₹0.21 crore[50]=₹1.66 crore) **(*Annexure 8)*** towards replacement of damaged materials and reconditioning of the existing elevator materials to ensure safe operations. Against this, the Directorate of Construction, Services and Estate Management released a payment of ₹1.45 crore to the contractor after completion of work phase wise. Further, ₹0.21 crore balance payment for installation of two elevators of Type V-E Building was pending because the civil works of these sites were still incomplete and was slated to be released after completion of the remaining work.

The Directorate stated (November 2025) that the civil works were already in progress, even though with certain delays, but they were not completely stalled. Since the office procedures for award of any work of this nature consumes approximately six months and with the anticipation that the civil works would be completed, the Directorate issued work orders for the installation of elevators to match the overall project completion target dates. Further, the Directorate stated that the elevator materials brought to the site were kept under the best possible covered storage arrangements by the agency at the respective site. Therefore, replacement of the components was not due to "improper storage", but because of ageing and degradation under environmental effects during their long storage period of seven years.

The reply needs to be viewed in the light of the fact that the civil works scheduled to be completed by May/August 2014, were actually completed during June 2021 to March 2022 in phased manner, except one. Even when the civil work was nowhere near completion stage, the work orders for elevators were issued during the months of November 2013 to April 2015 in disregard to the actual status of the civil works. Due to non-completion of civil work, the contractor could not install the elevators by the scheduled date and the components lay idle on site. Further, the reply of the Directorate also substantiates the fact that the elevator components degraded due to environmental effects over a long period of seven years and ageing without being put to use.

Thus, non-completion of installation sites for more than seven years, premature issue of work orders for installation of elevators without checking the actual stage of site readiness of the building and long storage of elevator components resulted in an avoidable expenditure of ₹1.45 crore on replacements and reconditioning of these components.

[50] ***₹0.21 crore yet to be paid.***

CHAPTER III

Department of Science and Technology

3.1 Unfruitful Expenditure of ₹1.52 crore due to Non/Sub-optimal Utilisation of Laser Welding Machine

The Centre incurred an unfruitful expenditure of ₹1.52 crore on a laser welder that remained unutilised for prolonged periods due to a lack of required infrastructure and technical failures.

International Advanced Research Centre for Powder Metallurgy and New Materials (Centre), an autonomous Research and Development Centre under the Department of Science and Technology, had been sanctioned a project "Development of Lithium-ion batteries for Electric Vehicle applications" at a cost of ₹17.24 crore by Science and Engineering Research Board, Department of Science and Technology, for a period of five years (from December 2011), which was later extended up to June 2017. Setting up of pilot plant facility and development of technology for fabrication of Lithium-ion battery was a major objective under the project.

Laser welding is one of the important processes used in Lithium-ion battery manufacturing. The laser welding machine is used to hermetically seal[51] the magnetic casings of the Lithium-ion cells. The Centre procured a laser welder with workstation in March 2012 under this project at a cost of ₹0.98 crore[52]. The equipment comprised of a laser source and a workstation. The equipment was due to be delivered by May 2012. Since the room in which the equipment was to be installed was not ready, the Centre delayed the pre-dispatch inspection until August 2012 and equipment was delivered in October 2012. Though the equipment was received in October 2012, the dry room and dedicated chiller (5T) were not available, even as of July 2013. Hence, the Centre carried out functionality check and initial trials with the existing cooling system (2T). The dedicated chiller arrived in September 2013, however, the Centre could not commission the equipment as of December 2015 due to issues with the Power Supply Units and Motion Controller of the laser welder equipment of the laser source. The Centre re-exported these parts to the manufacturer (December 2015) and received them back in April

[51] *A hermetically sealed item is one that is airtight, meaning no air can enter or escape.*
[52] *Cost of laser welder was ₹0.55 crore and cost of workstation was ₹0.43 crore.*

2016. Even thereafter, the Centre did not commission the equipment due to issues such as rusty chiller system, damage of cables and pipes by rodents, frequent power fluctuation, issues with the laser welder equipment software, *etc.,* resulting in non-operationalisation of the equipment for the entire tenure of the project (June 2017). The Centre incurred an expenditure of ₹1.08 crore [53] on the procurement, re-export and receipt of the equipment.

Due to the absence of the laser welder machine, the Centre fabricated the cells in polypropylene containers/stainless steel containers using outsourced welding, but it could not maintain the required dry conditions, causing rapid deterioration and poor cell quality.

Further, since the Original Equipment Manufacturer had discontinued the model, the Centre could not arrange to repair the faulty laser source. In order to salvage the equipment, the Centre procured (May 2019) a new laser source at a cost of ₹0.44 crore under the Technical Research Centre project and integrated the same (September 2019) with the welding workstation procured as part of the above laser welding equipment.

Earlier in February 2019, the Centre had justified the procurement, stating that the Technical Research Centre was a time-bound project which required production of 2000 to 3000 cells for demonstration of electric vehicles using their battery packs and laser welding was urgently needed for this purpose. Against this projected requirement, the equipment was utilised only for welding around 600 items, sporadically. Thus, even the refurbished equipment was utilised very minimally.

Department of Science and Technology replied (October 2025) that since its integration in September 2019, the upgraded laser welding system has been regularly used for optimising Lithium-ion cell fabrication and other operations. The centre developed prismatic cells and battery packs for demonstration and signed an agreement to transfer know-how for cylindrical and prismatic cell fabrication and skill development. Although the Nd-YAG[54] laser source could not be used for hermetic sealing as originally planned, it proved valuable for technical learning and several components were repurposed for maintaining other laser systems.

While the know-how transfer is well appreciated, it is a fact that this has been achieved without major contribution from either the original or the refurbished laser welder.

The Centre further reported (November 2025) that the two dry rooms available at the Centre (for Electrode fabrication and Lithium-ion Battery Cell Assembly, including the laser welding)

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[53] Consisting of 90 per cent payment for the equipment, re-export of parts and insurance.

[54] Nd-YAG (Neodymium-doped Yttrium Aluminium Garnet) is a pulsed laser source specifically designed for precision cutting and welding.

started malfunctioning from May 2022, as such, the assembly of lithium-ion cells as well as the usage of the laser welding machine were significantly reduced. The Centre also stated that owing to the delay in getting the systems required and putting back dry rooms in operational condition, optimum utilisation of the laser welding machine could not be ensured.

Thus, it could be seen that though the Centre incurred an expenditure of ₹1.08 crore towards procurement of the laser welder, it did not exercise due care in ensuring that all the infrastructure required for installing the equipment was in place. Due to this, the laser welding machine remained unutilised for prolonged periods, thereby defeating the main objective for which it was procured. Even after refurbishment, the machine could not be optimally utilised since the required infrastructure was not in place. Further, the original laser source (costing approximately ₹0.55 crore), procured in October 2012, is still lying idle, for more than 12 years without being put to use.

Consequently, the expenditure of ₹1.52 crore (₹1.08 crore for the original laser equipment and ₹0.44 crore for the new laser source) remained unfruitful.

CHAPTER IV

Department of Scientific and Industrial Research

4.1 Subject Specific Compliance Audit on 'Laboratory and Headquarter Reserve Fund' Scheme

4.1.1 Introduction

The Council of Scientific and Industrial Research (CSIR) was established as an Autonomous Body in September 1942 to address the needs of Industrial Research in the country. Over time, CSIR expanded the scope and range of its activities across several domains and is now known for its excellence in Research, Development and Innovation in Science and Technology. It has a pan-India presence through its network of 37 National Laboratories, which undertake focused basic and applied research in diverse fields of Science and Technology. In addition, CSIR has established 39 outreach centres, one innovation complex at Mumbai and three units[55]. It has about 3,376 scientists and 3,746 technical and support personnel.

CSIR laboratories generate a significant amount of external cash flow by undertaking Contract Research and Development, offering consultancy and providing knowledge-based services to a variety of clients both nationally and internationally. In 1992, CSIR Governing Body approved a proposal to create a Laboratory Reserve Fund (LRF) Scheme, with a provision to carry forward and utilise the funds for capital and revenue expenditure, thereby supplementing budgetary resources.

The objectives of the Laboratory Reserve Fund are:

- To provide adequate incentive to the Laboratories/Institutes generating higher revenues
- To segregate Research and Development and Non-Research and Development receipts for appropriate utilisation and

[55] *CSIR-Human Resource Development Centre, Ghaziabad, Unit for Research and Development of Information Products, Pune, CSIR-Traditional Knowledge Digital Library, Satsang Vihar, New Delhi.*

- To create a Laboratory Reserve and channelise its utilisation for Laboratories Research and Development efforts and to upgrade its infrastructure through systematic budgeting and to supplement the financial resources of the Laboratories.

The Governing Body of CSIR, in its 147th meeting held on 9 December 1999, approved the modification in existing Laboratory Reserve Fund Scheme with establishment of Headquarter Reserve Fund and change of nomenclature of Laboratory Reserve to "Laboratory and Headquarter Reserve Fund (LHRF[56])". The Headquarter Reserve Fund was set up along similar lines as the Laboratory Reserve Fund, to be retained, operated and utilised by CSIR Headquarters. The purpose of creation of Headquarter Reserve Fund was to meet emergent and contingent expenditure beyond those provided for in the CSIR Headquarters budget such as for purchase of equipment, upgradation of its own infrastructures and human resource development for CSIR.

CSIR has laid down guidelines for the generation, utilisation, accounting and monitoring of the LHRF through various orders issued from time to time since the setting up of the Laboratory Reserve Fund in March 1992.

The year-wise closing balance of LHRF for the last four years is given in the table below:

Table 23: Accumulated Closing Balance of LHRF at CSIR

Closing Balance as on	Closing Balance[57] *(₹ in crore)*
31 March 2022	2143.25
31 March 2023	2422.48
31 March 2024	3113.92
31 March 2025	3490.68

As of 31 March 2025, the CSIR had an accumulated balance of ₹3,490.68 crore in the LHRF ***(Annexure 9)***, spread across its 37 units and CSIR Headquarters.

[56] Though the nomenclature of this Fund was changed to Laboratory and Headquarter Reserve Fund, CSIR was interchangeably using the nomenclature as LRF/HRF/LHRF. In the report, Audit has maintained uniform nomenclature as Laboratory and Headquarter Reserve Fund (LHRF).

[57] Excluding accrued interest of ₹38.90 crore, ₹49.73 crore, ₹177.26 crore and ₹208.87 crore for financial years 2021-22, 2022-23, 2023-24 and 2024-25, respectively.

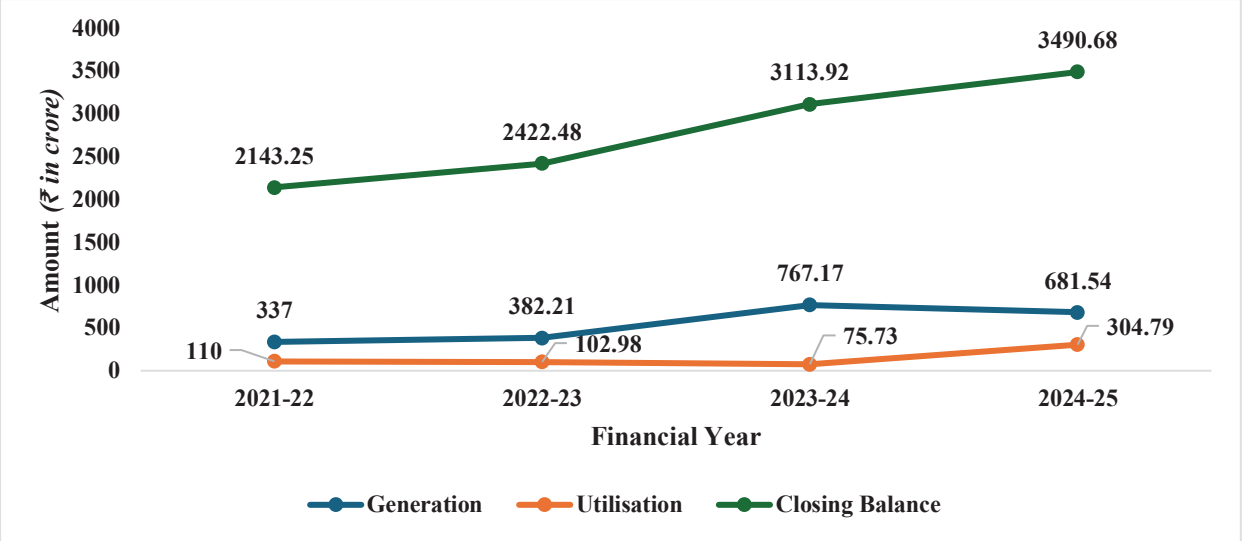


Chart 1: Generation, Utilisation and Closing Balance of LHRF

As seen from the chart above, the Generation of funds from Research and Development has increased from ₹337 crore to ₹681.54 crore (2021-25) while utilisation has remained relatively flat and low for the first three years before a sudden spike after 2023-24.

4.1.2 Audit Objectives, Scope and Methodology

The Subject Specific Compliance Audit on the LHRF examined the following aspects:

a) Whether the LHRF was adequately utilised to supplement the budgetary resources.
b) Whether there was proper planning for generation and utilisation of the LHRF.
c) Whether the receipts under LHRF were accounted under the heads mentioned in the guidelines and whether the expenditure was incurred under the approved heads.
d) Whether there was proper monitoring and review of implementation of the LHRF Scheme.

The Audit covered the generation and utilisation of LHRF during the period 2021–2024. The scope of Audit included the examination of records at the CSIR Headquarter and its sampled laboratories involved in the implementation of the Scheme. The Audit methodology primarily consisted of responses to questionnaires, examination and analysis of reports and records at these Institutes.

4.1.3 Audit Sampling

The Audit sample included 12 units, covering the LHRF amount of ₹2,384.90 crore (72.46 *per cent* of LHRF as of March 2024). The sample consisted of the top seven units in terms of LHRF closing balance (as on 31 March 2024) and five units randomly selected from the remaining 30 units, as detailed in ***Table 24***.

Table 24: List of 12 Sample Units

(₹ in crore)

No.	Laboratory/Institute	Amount of Closing Balance
1.	CSIR Headquarters	811.55
2.	Central Institute of Mining and Fuel Research, Dhanbad	679.68
3.	National Aerospace Laboratories, Bengaluru	349.10
4.	Central Electrochemical Research Institute, Karaikudi	118.10
5.	National Metallurgical Laboratory, Jamshedpur	117.58
6.	Central Road Research Institute, Delhi	109.64
7.	National Institute of Oceanography, Goa	98.69
8.	National Chemical Laboratory, Pune	48.76
9.	Indian Institute of Toxicology Research, Lucknow	20.68
10.	Institute of Genomics and Integrative Biology, Delhi	16.40
11.	Indian Institute of Chemical Biology, Kolkata	12.05
12.	Institute of Himalayan Bioresource Technology, Palampur	2.67
Total		**2384.90**

Audit Findings have been discussed in the following paras.

4.1.4 Planning and Utilisation of LHRF

As per the General Financial Rules, 2017, all autonomous organisations should be encouraged to maximise the generation of internal resources and attain self-sufficiency.

4.1.4.1 Underutilisation of LHRF

As per the Guidelines (September 2000), the LHRF utilisation in a year should not be less than one-third of the amount generated in the previous year.

Year-wise utilisation of the funds generated in previous financial year by the CSIR and its sampled laboratories for the period 2021-2025 is given below:

Table 25: Year-wise Utilisation of Funds v/s the Funds Generated by Sampled Units

(₹ in crore)

Institute/Laboratory	Year	LHRF generation during the previous financial year	LHRF utilisation during the current financial year	Percentage of LHRF utilised
CSIR-HQ	2021-22	47.85	17.94	**37.49**
	2022-23	142.25	0.91	0.64
	2023-24	73.17	3.71	5.07
	2024-25	46.64	18.43	**39.52**
Central Road Research Institute	2021-22	26.96	2.77	10.27
	2022-23	-6.98	2.76	**100**
	2023-24	9.25	0.71	7.68
	2024-25	23.5	2.66	11.32
National Chemical Laboratory	2021-22	5.95	4.94	**83.03**
	2022-23	4.69	0.66	14.07
	2023-24	9.05	3.01	33.26
	2024-25	17.12	28.42	**166**
National Aerospace Laboratories	2021-22	78.95	10.38	13.15
	2022-23	59.07	17.91	30.32

Institute/Laboratory	Year	LHRF generation during the previous financial year	LHRF utilisation during the current financial year	Percentage of LHRF utilised
	2023-24	46.04	17.97	**39.03**
	2024-25	71.53	33.75	**47.18**
Central Institute of Mining and Fuel Research	2021-22	215.96[58]	17.76	8.22
	2022-23	45.69	20.06	**43.9**
	2023-24	45.83	13.24	28.89
	2024-25	372.82	15.18	4.07
Indian Institute of Chemical Biology	2021-22	1.21	2.64	**218.18**
	2022-23	1.36	0.25	18.38
	2023-24	0.83	0.07	8.43
	2024-25	3.01	9.79	**325.25**
National Metallurgical Laboratory	2021-22	21.93	2.27	10.35
	2022-23	31.68	1.83	5.78
	2023-24	12.6	3.26	25.87
	2024-25	17.67	5.72	32.37
Institute of Himalayan Bioresource Technology	2021-22	10.98	0.54	4.92
	2022-23	-0.83	2.19	**100**
	2023-24	1.26	0.09	7.14
	2024-25	0.75	6.55	**873.33**
Central Electrochemical Research Institute	2021-22	105.71	2.1	1.99
	2022-23	-3.08	0.4	**100**
	2023-24	9.32	0.34	3.65
	2024-25	2.69	10.02	**372.49**
Institute of Genomics and Integrative Biology	2021-22	26.09	3.26	12.5
	2022-23	-0.24	0.48	**100**
	2023-24	0.74	0.86	**116.22**
	2024-25	12.63	13.91	**110.13**
National Institute of Oceanography	2021-22	8.35	4.36	**52.22**
	2022-23	13.82	3.09	22.36
	2023-24	19.97	0.726	3.64
	2024-25	13.34	10.67	**79.99**

As can be seen from the table, only 19 out of 44 instances were observed when sampled laboratories utilised more than one-third of previous year's LHRF generation. Amongst the sampled laboratories, only Institute of Genomics and Integrative Biology has crossed the threshold limit of expenditure during the period 2022-23 to 2024-25.

Audit also observed that the utilisation of LHRF on aggregated basis by CSIR (Headquarters and all its laboratories/units/institutes) was also meagre and varied between 19.81 and 39.79 *per cent* during the period 2021-22 to 2024-25 when compared to funds generation during the previous financial year, as shown in ***Table 26***.

[58] ***Total generation of 2020-21 was ₹453.49 crore minus fund transferred to Headquarter Reserve Fund (-) ₹237.53 crore=₹215.96 crore.***

Table 26: Year-wise utilisation of funds v/s the funds generated by CSIR

(₹ in crore)

Year	Expenditure from the Government Grant	LHRF generation during the previous Financial Year	LHRF utilisation during the current Financial Year	Percentage of LHRF utilised
2021-22	5174.34	453.93	110.00	24.23
2022-23	5808.59	337.00	102.98	30.56
2023-24	6107.07	382.21	75.73	19.81
2024-25	6303.45	767.17	304.79	39.79

Department of Scientific and Industrial Research (DSIR), in its reply (December 2025), acknowledged the Audit observation and stated that all CSIR laboratories/institutes have been asked to ensure that the LHRF utilisation in a year is normally not less than one-third of the amount generated in the previous year.

The reply of DSIR may be seen in light of the fact that guidelines regarding minimum 1/3rd utilisation of LHRF as compared to amount generated in previous year were issued by the CSIR in 2000. As pointed out above, the utilisation of funds out of LHRF has remained low over the years, defeating the purpose of creation of the fund.

Recommendation 37:

CSIR may endeavour to utilise accumulated funds while ensuring that at least 1/3rd of the Laboratory and Headquarter Reserve Fund generated in the previous year to supplement its budgetary resources.

4.1.4.2 Inadequate Planning Mechanism

The non-utilisation of the LHRF was manifest in the non-compliance with underlying system requiring systematic planning and budgeting as discussed below:

a. Budgetary Estimates

As per CSIR's LHRF Scheme Guidelines[59] of 2000, at the time of finalising their annual budget estimates, each laboratory is required to indicate the following in respect of LHRF:

- Opening balance of the financial year.
- Anticipated generation during the year.
- Proposed utilisation under each sub-head of budget.

The proposals made at the Budget Estimate stage were required to be reviewed and the proposed utilisation revised, if necessary, at the Revised Estimate stage. The CSIR had to

[59] *CSIR O.M. No. 1(11)/Acctt./2000-2001 dated 4 September 2000.*

include the estimated utilisation of LHRF along with other internal receipts when projecting budgetary requirements to the Ministry of Finance.

Audit observed that the CSIR, as well as the sampled laboratories, did not carry out such annual estimations of the generation and utilisation of LHRF as a part of budgeting exercise. Thus, CSIR could not institute effective budgetary planning and monitoring mechanisms.

DSIR, in its reply (December 2025) stated that from financial year 2022-23, they have been providing details of anticipated generation of LHRF to the Ministry of Finance in the prescribed format as per the Appendix VI-E of Budget circular. Prior to 2022-23, there was no prescribed format under the then applicable budget circular for reporting the estimated generation or utilisation of LHRF. DSIR further stated (December 2025) that the figures presented in Appendix VI-E of the budget circular for the period 2022-25 are compiled on the basis of actual data and projected estimates.

However, the files or detailed records regarding basis/methodology for working out figures were not produced to Audit. Moreover, Appendix VI-E does not provide any details for proposed utilisation of LHRF during the year. Further, the claim of the DSIR that the details of anticipated generation were not communicated to the Ministry of Finance since there was no prescribed format prior to 2022-23 also contradicts its own guidelines of 2000.

Thus, it took CSIR two decades to come up with a mechanism for budgeting for LHRF, which is still incomplete.

Recommendation 38:

CSIR and its laboratories may incorporate proposed utilisation of LHRF in annual budgetary planning.

b. Planning for Generation and Utilisation of LHRF

One of the objectives of the 'LHRF' Scheme is to channelise its utilisation towards the Research and Development efforts of the laboratories and to upgrade their infrastructure through systematic budgeting, thereby supplementing their financial resources. Prior to creation of LHRF, long-term resource planning was not possible due to uncertain and late budgetary allocations. Thus, long term planning was to be made an integral part of LHRF scheme.

Audit, however, observed (September 2024) that no structured mechanism is being followed for planning of generation and utilisation of LHRF, e.g., setting up of targets, review of achievement against targets, etc. As a result, the closing balance with the Council increased by 62.5 per cent, from ₹1,948.19 crore[60] to ₹3,699.55 crore[61] over 2021-2025, with significant growth being attributable to interest generated on unutilised balance.

On being pointed out, CSIR stated (September 2025) that it continues to encourage and initiate new short-term and long-term initiatives for the judicious and effective utilisation of LHRF. A notable example of such initiatives is the CSIR Special Projects Scheme (CSPS) 2024, which was launched in October 2024 as part of fulfilling the CSIR Vision 2030 and is fully funded by CSIR LHRF. Phase 1 of this initiative is already in operation (2024 to 2027) and aims to strengthen the indigenous efforts of CSIR in addressing the Amrit Kal Challenges through Vigyan Kal Technologies. As of August 2025, funding has been allocated to various projects as follows: (a) ₹33.48 crore for Research and Development Seed Fund (RDSF) Projects, (b) ₹75.35 crore for Facility Creation Project (FCP) 2.0 Projects, (c) ₹76.83 crore for Pilot Plant Projects, (d) ₹88.08 crore for Prioritised Equipment Fund (PEF) procurements and (e) ₹36.36 crore for Justified Works and Services (JWS) related works. These amounts are designated for the fiscal years 2024-25 and 2025-26. DSIR added (December 2025) that, as a long term planning, approximately ₹400 crore were committed to be utilised judiciously under CSPS.

The reply may be considered in context of the fact that, though the rationale for creation of LHRF was to have long-term resource planning, such planning has been adopted by CSIR very recently from 2024-25 onwards after initiation of Audit (6 August 2024). Further, against the allocation of ₹235.77 crore for the cited projects (excluding JWS related works[62]), CSIR could spend only ₹95.64 crore as of 31 March 2025. This indicates slow financial progress under these projects.

Recommendation 39:

CSIR and its laboratories may strengthen its planning and budgeting mechanism for generation and utilisation of LHRF.

DSIR, in its reply (December 2025), acknowledged the recommendation and stated that CSIR Laboratories are sensitised from time to time for the gainful utilisation of LHRF. A

[60] *Including accrued interest of ₹31.94 crore.*
[61] *Including accrued interest of ₹208.87 crore.*
[62] *Information not received from Council of Scientific and Industrial Research.*

letter was sent (September 2025) from FA, DSIR/CSIR on the generation and utilisation of LHRF and related matters.

c. Innovation Fund

In July 2016, the Director General, CSIR, approved the creation of the CSIR Innovation Fund by pooling 50 *per cent* each of the Laboratory Reserve Fund maintained at the concerned laboratory and the Headquarter Reserve Fund maintained at the Headquarters. The Fund was to be utilised for purposes such as setting up Technology Incubation Centres and Technology Parks, creating start-ups and spin-offs, providing seed capital to start-ups, developing collaborative projects with MSMEs, creating technology-based micro-entrepreneurship in rural areas, establishing CSIR Outreach Centres, conducting skill development programmes and other related initiatives.

Audit observed that the Council did not develop a concrete plan for utilisation of the Innovation Fund. Since its inception, the Fund was not utilised for its intended purposes and remained idle in fixed deposits. The Corpus Fund increased from ₹423 crore to ₹627.71 crore between March 2019 and March 2024.

Thus, non-operationalisation of the Innovation Fund since 2016 led to its corpus lying idle in fixed deposits, thereby defeating the very purpose of its creation.

DSIR, in its reply (December 2025), stated that the concern raised in the Audit observation has been addressed carefully and in recent months, multiple rounds of discussions have taken place to operationalise the Innovation Fund in areas such as, Innovation parks and incubation centres, Next-generation Research and Development facilities for Industrial Consortia or production partners, Joint ventures with other ministries or industries, Academia-Research Collaboration and Promoting Crazy Ideas.

4.1.5 Generation

As per Para no. 2 ‘Generation of LHRF’ of CSIR order dated 4 September 2000, various components of Research and Development receipts forming the LHRF include:

- Royalties and premia (from licensing of Intellectual Property Rights),
- Consultancy fees,
- Sponsored project fees,
- Overhead charges,
- Non-refundable balance of closed projects/job work,
- Job work charges,

- Testing and analytical charges,
- Computer charges,
- Other technical services,
- Use of laboratory infrastructure for sponsored/consultancy projects and other projects,
- Interest on investments of laboratory reserves and
- Interest on investment of sponsored/consultancy project funds.

However, as per the above CSIR order (September 2000), the following receipts are not included in the LHRF:

- Interest earned on the investment of sponsored/consultancy/Grants-in-Aid project funds that is adjustable and/or refundable to the funding agency
- Distributable portion of royalties and premia; and
- Distributable portion of consultancy/contract, Research and Development and intellectual fees from technical services.

4.1.5.1 Interest from Investments

As per CSIR guidelines (September 2000), the Research and Development receipts forming the LHRF include Royalties and Premia, consultancy fees, sponsored project fees, job work charges, testing and analytical charges, computer charges, other technical services, *etc*.

Audit observed that of the ₹1,066.94 crore generated in the LHRF during 2021–2024, ₹510.68 crore (47.86 *per cent*) came from interest on investments as detailed in the ***Annexure 10***.

This indicates the accumulation of LHRF due to insufficient utilisation and that the growth in the funds was, to a large extent, attributable to interest earned on the accumulated funds rather than to Research and Development receipts such as royalties and premia, consultancy fees, sponsored project fees and testing and analytical charges.

DSIR, in its reply (December 2025), while acknowledging the facts, figures and observations stated that they were poised to take initiatives in this regard.

Recommendation 40:

CSIR may ensure that concerted efforts are made to generate funds from alternative sources such as royalties and premia arising from licensing of Intellectual Property Rights (IPR).

4.1.5.2 Receipts from Non-Prescribed Sources

As mentioned earlier, one of the objectives for creation of Laboratory Reserve Fund was to segregate Research and Development and Non-Research and Development receipts for appropriate utilisation. The Non-Research and Development receipts (miscellaneous receipts) are not to be credited to LHRF and should be deployed for meeting the shortfalls under various heads of expenditure.

Test check of receipt vouchers for 2021-22 to 2023–24 revealed that miscellaneous receipts amounting to ₹25.35 crore were credited to the LHRF in contravention of the prescribed guidelines. The details are shown below:

Table 27: Receipts Incorrectly Credited to LHRF

(₹ in lakh)

Laboratory/Institute	Year	Particulars	Amount
National Aerospace Laboratories	2021-22	GST Input Tax Credit	1496.65
	2021-22	Distributable portion of royalty and premia	10.74
	2022-23	Distributable portion of royalty and premia	4.31
	2023-24	Distributable portion of Project fees/Intellectual fees	433.78
		Sub total	1945.48
Central Electrochemical Research Institute	2021-22	Distributable portion of royalty and premia	10.88
	2022-23	GST Input Tax Credit	370.71
	2022-23	Distributable portion of royalty and premia	33.72
	2023-24	Distributable portion of royalty and premia	3.57
		Sub total	418.88
Indian Institute of Chemical Biology	2023-24	Remittances of Term Deposit Receipt	128.47
	2023-24	Training Fee	32.98
		Sub total	161.45
Institute of Genomics and Integrative Biology	2023-24	Publication Charges	7.11
		Course/Internship Fee	1.84
		PHD Admission Fee	0.20
		Sub total	9.15
		Total	**2534.96**

This not only defeated the purpose of segregation of Research and Development and Non-Research and Development Receipts for appropriate utilisation, but also resulted in overstatement of revenue generation in LHRF.

On being pointed out, the DSIR stated (December 2025) that the transfer of unutilised GST Input Tax Credit available with the Laboratories/Institutes/Units to LHRF was not in order. Further, they have stated that corrective action has been taken by reversing the transactions relating to remittance of term deposit receipt, training fees, publication charges, course fee and PhD admission fee. Regarding the distributable portion of royalties and premia taken as Laboratory Reserve Fund receipt, DSIR stated that the distribution/sharing of monies/honoraria

among staff under any project or work in CSIR and its laboratories has been put on hold till further orders (since 26 March 2021). DSIR also stated that further guidelines are to be issued in this regard.

Recommendation 41:

CSIR should ensure that Non-Research and Development Receipts are not credited in LHRF and utilised appropriately so that dependence on Budgetary support can be reduced.

4.1.5.3 Issues noticed in closed Externally Funded Projects

The Laboratories of the CSIR generate considerable External Cash Flow (ECF) by undertaking Externally Funded Projects, *viz.*, Sponsored, Consultancy and Technical Services Projects as given below:

- **Sponsored Projects**: Projects which are wholly funded by the client having specified Research and Development objectives and well-defined expected project output/results, generally culminating in generation of intellectual property/knowledge base. Sponsored projects also cover process design and engineering, process modelling and simulation, application of computational methods, development of software, *etc*.
- **Consultancy Projects**: It comprises scientific, technical, engineering or other professional advice/assistance based on the available knowledge base/expertise of the laboratory and envisaging only minimum use of laboratory facilities for essential experimentation and computation to meet the objectives of the consultancy assignment.
- **Technical services**: They are meant to render to the clients/customers, assistance based on available knowledge, expertise, skills, infrastructure and facilities of the laboratory. Technical services thus comprise testing and analysis (including certification and calibration), routine training, technical assistance of an advisory nature, fabrication, production and supply of special products for research and development, repair and maintenance and providing information.

The costing for above projects comprises three components, *viz.*, Direct Expenses, Laboratory Share and Project Fee. The direct expenses comprise all estimated expenses related to the project. The Laboratory share charges are for CSIR investment over a period, in building and sustaining the knowledge base and facilities. The Project Fee includes the honorarium to be paid to staff.

As per CSIR guidelines for Technology Transfer and Utilisation of Knowledge base 2017, project costing is to comprise of Direct Expenses, Laboratory Share and Project Fee components in the ratio, as shown in the chart below, for each category of projects:

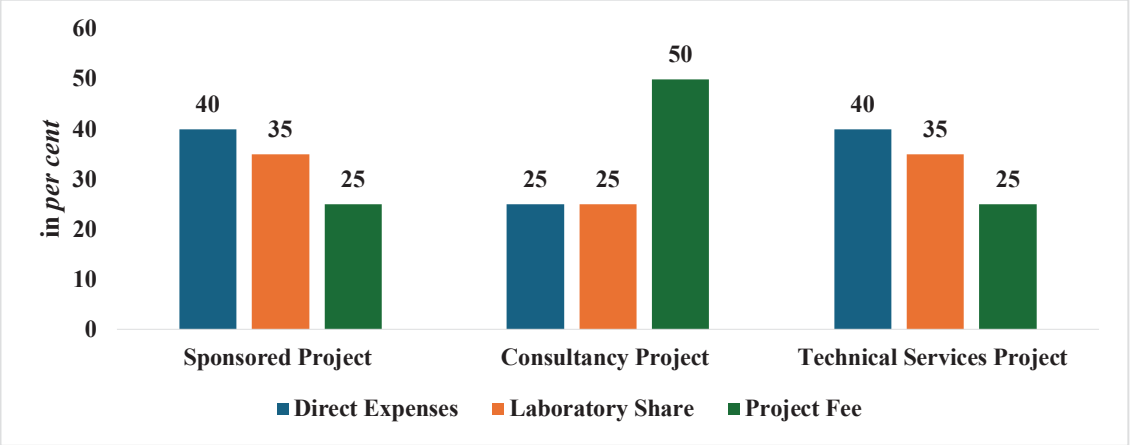


Chart 2: Components of Project Costing

a. Non-settlement of closed Projects

As per guidelines for Technology Transfer (2017), Laboratory Share, along with non-refundable balances of Direct Expenses, is to be transferred to LHRF. Audit observed that unsettled balances of ₹415.71 crore between 2021-2024 from closed External Cash Flow projects were not settled and the due amount was not transferred to LHRF. Laboratory-wise details are given below:

Table 28: Unsettled Balances of Closed External Cash Flow Projects

(₹ in crore)

Institute/Laboratory	Year				Total
	Till March 2021	2021-22	2022-23	2023-24	
Central Road Research Institute	54.19	8.82	20.00	35.82	118.83
National Chemical Laboratory	2.94	0.41	0.93	1.75	6.03
National Aerospace Laboratories	16.58	2.77	6.72	24.57	50.64
Indian Institute of Toxicology Research	Nil	0.49	0.38	0.23	1.10
National Metallurgical Laboratory	3.06	2.59	8.96	8.40	23.01
Central Institute of Mining and Fuel Research	27.82	52.12	54.56	38.90	173.40
Central Electrochemical Research Institute	7.17	0.87	1.74	1.69	11.47
Institute of Genomics and Integrative Biology	0.19	0.02	0.03	2.76	3.00
Indian Institute of Chemical Biology	0.01	Nil	Nil	Nil	0.01
National Institute of Oceanography	15.56	2.41	8.31	1.94	28.22
Grand Total					**415.71**

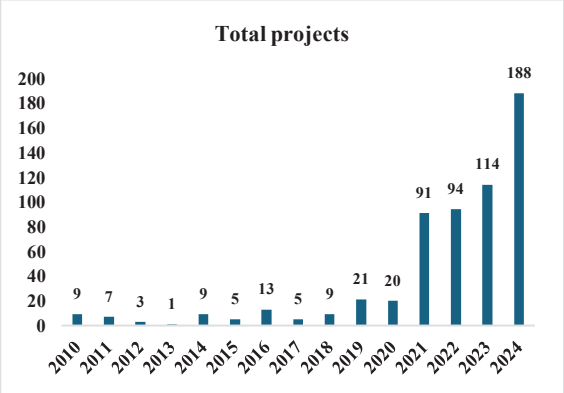
This indicates that the institutes/laboratories did not make sufficient efforts to settle these project accounts with the concerned stakeholders or funding agencies.

On being pointed out, the DSIR acknowledged (December 2025) the Audit observations and stated that corrective actions are being taken by the laboratories for settlement of closing balances of the closed External Cash Flow projects. Further, in order to take up the matter expeditiously, a detailed letter from JS&FA, CSIR (September 2025) and Head, Central Planning Directorate (CPD) (December 2025) have been issued to all the CSIR laboratories advising them to ensure full compliance with the instructions issued on the observations of the Audit.

A case study related to unspent balance of closed project relating to Central Road Research Institute (CRRI) is given below:

Central Road Research Institute (CRRI) had shown ₹118.83 crore as unspent balances in 589 closed projects as of March 2024, as indicated in the charts below:

Unsettled Closed ECF Projects



Unsettled Closing Balance in ECF Projects

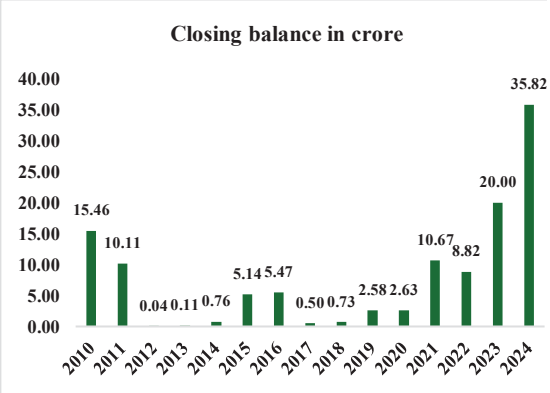


Chart 3: Closed ECF projects and Unsettled Closing Balances in them

As can be seen from the charts above, substantial amounts have been lying unsettled in the closed projects from 2010 onwards.

Further analysis of Head-wise unspent balances at CRRI revealed unrealistic project costing as shown in the table below:

Table 29: Head-wise Unspent Balances at CRRI

(₹ in crore)

Heads	Amount
Chemicals and consumables	1.78
Contingencies	7.17
Equipment	3.34
External payments	1.62
Fees	46.12
Fellowship account	0.83
Miscellaneous Capital items	0.26
Overheads	32.38
Salaries	14.75

Heads	Amount
Service tax	1.63
TA	3.01
Unclassified	5.66
Wages	0.21
Works and services	0.08
Grand Total	**118.84**

The presence of unspent balances such as ₹46.12 crore in Fees, ₹32.38 crore in Overheads, ₹14.75 crore in Salaries, ₹3.34 crore in Equipment and ₹1.78 crore in Chemicals and Consumables heads indicates that costing of the projects was unrealistic and inflated. Further, the amount of ₹5.66 crore lying under "Unclassified" head of account illustrates that proper reconciliation was not carried out.

CRRI, in its reply (September 2025), stated that out of 589 externally funded projects, 188 projects have been approved for closure. CRRI already closed 107 projects with an unspent balance of ₹10.78 crore and the due share of Lab Reserve amounting to ₹6.87 crore has been transferred to LHRF, with the remaining 81 projects targeted for closure by October 2025.

The above action by CRRI was taken after being pointed out by Audit. Further, the final outcome regarding closure of all the projects is awaited.

b. Negative balances under Externally Funded Projects

As per CSIR's instructions[63], externally funded projects should not reflect negative balances, *i.e.,* expenditure should not exceed receipts under any project.

During Audit, it was observed that under 265 Externally Funded Projects, National Aerospace Laboratories had 182 projects with positive closing balance of ₹35.73 crore ***(Annexure 11)*** and 83 projects with negative closing balance of ₹32.51 crore ***(Annexure 12)***. National Aerospace Laboratories adjusted the excess expenditure incurred under these 83 projects, with the positive balances under 182 projects. The remaining amount of ₹3.23 crore was transferred to the LHRF (in March 2023). This resulted in understatement of ₹32.50 crore as against the closing balance of ₹35.73 crore, only ₹3.23 crore was credited to LHRF.

On being pointed out, the DSIR acknowledged (December 2025) the Audit observation and directed its laboratories/institutes to strictly comply with the instructions mentioned above.

[63] ***Letter no. 41(43)/2004- IA dated 30 September 2014.***

Recommendation 42:
CSIR may ensure that the accounts of the Externally Funded Projects are settled promptly upon expiry of their sanctioned duration and the non-refundable balances of closed projects are transferred to the LHRF without delay.

c. Estimation and charging of Direct Expenses to the Projects

According to CSIR Guidelines for Technology Transfer and Utilisation of Knowledge base 2017, the direct cost of the External Cash Flow project includes the cost of man-days of the CSIR staff deployed, consumables, raw materials cost, services, utilities, equipment, computer usage, contingencies, *etc*. These direct costs are taken into account while calculating the total cost of the project and the funds are received accordingly.

The details of actual expenditure incurred against the direct expenses charged in the closed Externally Funded Projects of Central Electrochemical Research Institute (CECRI) for the period 2021–2024 are given below:

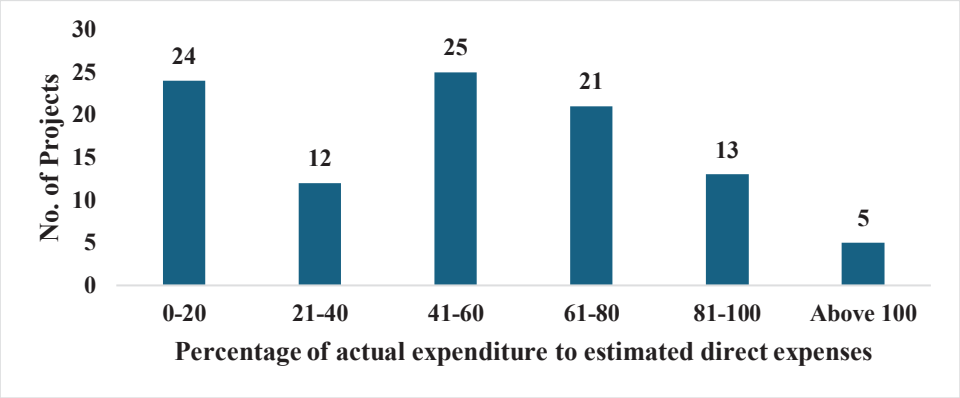


Chart 4: Direct Expenses Estimates at CECRI

As can be seen from the chart above, against the estimated direct expenses, the actual expenditure incurred on 61 projects was 60 *per cent* or less of the estimated direct expenses charged from the funding agency.

Audit observed that estimates of direct expenses included costs that were estimated on a notional basis, *e.g.,* manpower for regularly employed scientist, service and utilities and equipment and computer usage. Though these costs were recovered from sponsors under the project, no expenses were booked. Consequently, these costs were shown as unspent and taken as part of LHRF instead of being transferred to regular budget from which the cost was met.

For instance, Audit observed that Institute of Genomics and Integrative Biology signed an agreement with Cellogen Therapeutics Private Limited in December 2021 for the Project titled 'Molecular cloning and in-vitro validation of lentiviral chimeric antigen receptor constructs'. The project completion report was submitted to Cellogen Therapeutics Private Limited in February 2023. The details of the actual direct expenses incurred on the project against the estimated direct expenses are given below:

Table 30: Actual Direct Expenses Incurred on the Project Against the Estimated Direct Expenses

Head-wise Particulars	Estimated Direct Expenses (*in ₹*)	Actual Direct Expenses (*in ₹*)	Unspent Amount (*in ₹*)	Unspent Amount (*in per cent)*
Manpower	4,31,760	2,91,000	1,40,760	32.60
Chemicals/Consumables/Raw material	11,00,000	10,55,106	44,894	4.08
Service and utilities	50,000	0	50,000	100
Equipment and computer usage	52,670	0	52,670	100
External Payment	10,000	0	10,000	100
Contingencies	1,00,000	0	1,00,000	100
Total	**17,44,430**	**13,46,106**	**3,98,324**	**22.83**

From the above table, it is evident that ₹0.17 crore was charged from the funding agency for various heads of direct expenses. The total expenditure incurred on the project was ₹0.14 crore. The cost estimates under Manpower included ₹60,000 towards 10 Mandays of regular scientist of IGIB, ₹50,000 on Service and utilities, ₹53,000 on Equipment and computer usage. However, Audit observed that no expenditure was booked under these heads. Consequently, the unspent balance under these heads was transferred to LHRF, while the costs associated with regular staff and standing infrastructure and facilities continued to be borne as such on government grants.

DSIR, in its reply (December 2025), without offering comments on reduction of dependence on government grants, stated that high project value is due to notional estimation as part of direct expenses. Therefore, to rationalise the costing methodology for better cost actualisation, it has formulated a new costing framework and revised the 'Guidelines for Technology Transfer.' The revised guidelines have already been submitted to the Department of Expenditure (June 2025) and approval is currently awaited.

Recommendation 43:

CSIR may lay down guidelines for accounting of receipts pertaining to direct costs to reduce dependence on government grants.

4.1.5.4 Non-achievement of objectives of the project funded from LHRF

Central Institute of Mining and Fuel Research, under the aegis of the National Institution for Transforming India Aayog, initiated (December 2020) a project titled 'Coal-Syngas to Methanol' to promote coal-based methanol production. Initially, the project was to be completed by December 2022, which was further extended up to 31 March 2024. Subsequently, the project was further extended until 30 September 2025, but it was foreclosed in August 2024 without achieving the desired objectives.

The key deliverables of the project included the development of a syngas cleaning unit capable of handling 50 Nm^3/h of syngas, as well as a pilot-scale facility for syngas-to-methanol production with a capacity of 250 kg/day, along with the process for syngas-to-methanol conversion. However, this objective was not achieved, instead, a pilot plant with a capacity of 40 kg/day, utilising existing in-house resources was installed. This resulted in a qualitative and quantitative change in the project scope.

The expenditure under this Project, funded with ₹26.30 crore from the LHRF, was only ₹0.56 crore till August 2024. The project was foreclosed in August 2024 without achieving its objectives due to delays and scope changes.

On being pointed out, DSIR stated (December 2025) that high-priced quotations were received from vendors, however, none of the vendors responded to CSIR bid later. Thus, the project team received poor or no response from bidders in response to Notice Inviting Tenders even after multiple retendering. This created problems in implementing the objectives of development of 250 kg/day methanol plant.

The reply illustrates that the estimates were not realistic, leading to non-achievement of project objectives.

4.1.6 Monitoring

Monitoring is a systematic process of continuous oversight to ensure that activities are implemented as planned, objectives are achieved and resources are utilised effectively. It enables timely identification of issues and supports informed decision-making.

4.1.6.1 Non-constitution of Monitoring Committee

The LHRF Guidelines and various orders of the CSIR are silent on the monitoring mechanism for the generation and utilisation of the LHRF. However, in December 2019, the CSIR, while specifying additional activities eligible for support under LHRF, established a monitoring mechanism through a committee at the CSIR Headquarters to ensure compliance with annual expenditure limits on these activities and their designated purposes. The committee was responsible for determining the release of competitive funds from LHRF, monitoring the outputs generated from such funds and maintaining overall tracking of expenditure against annual limits *via* a dedicated portal.

Further, the utilisation of the LHRF for activities was to be determined at the laboratory level and compliance reported on the monitoring portal. Laboratory Directors were delegated the authority to make decisions regarding the use of the Funds up to the prescribed ceiling, subject to consolidated quarterly reporting and individual case uploads on the portal.

Audit observed that CSIR did not constitute such a committee to ensure compliance with annual expenditure limits and did not disburse any competitive fund during 2021-24. However, after initiation of Audit, CSIR launched a CSIR Special Projects Scheme (CSPS-2024) in October 2024, which has been overseen through different monitoring committees.

DSIR stated (December 2025) that CSIR is conducting Monthly Utilisation Monitoring Meetings (MUMM) with all CSIR Laboratories/Institutes/Units/Headquarters every month to monitor the utilisation of Government Grant and LHRF. Further utilisation of LHRF of each CSIR Laboratories/Institutes/Units is being regularly monitored through the reports available in accounting software of CSIR, *i.e.*, Accounts Manager Software (AMS). However Central Accounting Division – Information Technology has been requested to explore/develop a module for effective monitoring, reporting of expenditure figures, limits, targets, remittances, *etc.*, of LHRF in the present Software AMS.

The reply of DSIR with regard to monitoring of utilisation LHRF through AMS is not tenable as CSIR, itself stated (February 2026) that regarding LHRF fund monitoring, no specific data has been generated from AMS. Further, the proposal to develop a separate module remains at an exploratory stage and the absence of a dedicated portal or reporting mechanism indicates lack of effective monitoring and control over the utilisation of LHRF.

4.1.6.2 Inconsistency in Transfer of Funds

As per CSIR guidelines (October 2004), five *per cent* of the LHRF generated during the year were to be transferred from the laboratories to Headquarter Reserve Fund maintained at CSIR

Headquarters. Audit observed inconsistency in transfer of funds by some laboratories transferring less (56 instances) or none of the funds generated and others transferring excess (55 instances) amounts to the Headquarter Reserve Fund, as detailed in ***Annexure 13***. This pointed out lack of reconciliation between the accounts maintained at laboratories and CSIR Headquarters.

DSIR stated (December 2025) that, in the light of the Audit observations a comprehensive review was undertaken which revealed that ₹3.07 crore remained to be remitted by certain laboratories as their five *per cent* share of LHRF to the Headquarter for the period 2021-2024. Further, they stated that full dues have been received by CSIR.

Recommendation 44:

CSIR Headquarters may devise a robust mechanism for monitoring of generation and utilisation of LHRF, including a dedicated portal.

4.1.7. Conclusion

Expenditure from the LHRF was minimal as most of the time, the sampled laboratories (including CSIR Headquarters) did not utilise even the mandated one-third of the fund generated in the previous financial year. As a result, accumulated balance in LHRF kept increasing and stood at ₹3,490.68 crore as on 31 March 2025.

CSIR adopted annual budgetary planning and long-term planning for generation and utilisation of LHRF very recently from 2024-25. Funds amounting to ₹627.71 crore under CSIR Innovation Fund which were meant for setting up Technology Incubation Centres and Technology Parks, creating start-ups and spin-offs, *etc.,* remained unutilised. Around 48 *per cent* of LHRF receipts came from interest. This indicates the accumulation of LHRF due to insufficient utilisation and that the growth in the funds was, to a large extent, attributable to interest earned on the accumulated funds rather than to Research and Development receipts. Instances of unauthorised credit of miscellaneous receipts to LHRF, non-settlement of accounts of closed External Cash Flow projects and notional direct expenses charged from the sponsoring/funding agency under External Cash Flow projects were also noticed. Further, CSIR could not establish the mandated committee, portal and reporting mechanisms, resulting in the absence of effective monitoring and control over the utilisation of LHRF.

CHAPTER V

Ministry of Environment, Forest and Climate Change

5.1 Unauthorised Expenditure of ₹1.99 crore on construction of Photo Gallery, besides excess expenditure of ₹1.86 crore on establishment of Technology Development Centres

Indian Council of Forestry Research and Education incurred unauthorised expenditure of ₹1.99 crore on constructing a photo gallery at Forest Research Institute, Dehradun, which was not included in the approved Scheme, besides incurring excess expenditure of ₹1.86 crore on the establishment of Technology Development Centres from Compensatory Afforestation Funds.

As per section 5 of the Compensatory Afforestation Act, 2016, 10 *per cent* of all monies collected by the States and Union Territory Administrations which has been placed under the *ad-hoc* Authority and the interest accrued thereon and all fresh accrual to the National Fund, as provided in sub-section (4) of section 3 and the interest accrued thereon, shall be utilised for meeting the expenditure incurred on specific schemes approved by the Governing Body of the National Authority, *i.e.*, Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

In November 2019, the Governing Body of CAMPA approved a scheme, 'Strengthening of Forest Research for Ecological Sustainability and Productivity Enhancement' at a total cost of ₹313.67 crore for Indian Council of Forestry Research and Education, Dehradun (ICFRE) to be financed from the Compensatory Afforestation Fund. CAMPA, while conveying approval to the Scheme (January 2020), vide clause 9, clearly instructed that the amount shall be spent in accordance with the Scheme and no deviation from the approved items of expenditure shall be made without prior concurrence of the CAMPA.

One of the components of the Scheme was 'Operationalisation of Forestry Extension Strategy and action plan of ICFRE', which was to be implemented over a period of five years (2019-20 to 2024-25) at a total outlay of ₹47.88 crore. This component comprised two activities, *viz.*, Strengthening the Existing Extension Activities and New Extension Initiatives. The New

Extension Initiatives, amongst others, entailed establishment of Technology Development Centres at each institute of ICFRE for disseminating technology and research achievements of ICFRE with a budget outlay of ₹3.42 crore.

Audit observed (May 2024) that ICFRE sought an action plan from Forest Research Institute, Dehradun (FRI), an Autonomous Body under ICFRE, for executing the New Extension Initiatives component and the same was submitted by FRI in December 2019. This action plan included development of a photo gallery at an estimated cost of ₹1.54 crore in addition to establishment of Technology Development Centre at an estimated cost of ₹1.06 crore, under the New Extension Initiatives. As the development of photo gallery was not part of the Scheme approved by the Governing Body of the CAMPA, its inclusion in the action plan was irregular.

Notwithstanding above, FRI after obtaining approval from ICFRE, issued the work order to Central Public Works Department on 1 July 2020. The Central Public Works Department handed over the photo gallery to FRI in March 2022 and submitted the utilisation certificate for ₹1.99 crore in June 2022.

Audit also observed that the Technology Development Centres were to be established at each Institute (total nine[64]) of ICFRE. The ICFRE incurred an expenditure of ₹5.28 crore on establishment of eight centres[65] against the approved amount of ₹3.42 crore up to March 2025, thereby exceeding sanctioned amount by ₹1.86 crore.

The Ministry of Environment, Forest and Climate Change forwarded the reply (December 2025) received from ICFRE wherein ICFRE stated that FRI earlier maintained a Photo Gallery, which had to be relocated in 2017 to FRI's main campus. This, however, could not be done due to budgetary constraints. ICFRE further stated that the budget proposal for establishment of photo gallery along with Technology Development Centre was approved by the Director General of ICFRE only.

The reply of the Ministry may be viewed in the light of the fact that the photo gallery which could earlier not be relocated to the main campus of FRI due to the paucity of funds was done in 2019-20 under the "Strengthening Forestry Research for Ecological Sustainability and Productivity Enhancement" Scheme. Hence, establishment of photo gallery constitutes a

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[64] 1. Forest Research Institute, Dehradun, 2. Institute of Forest Productivity, Ranchi, 3. Rain Forest Research Institute, Jorhat, 4. Institute of Wood Science and Technology, Bengaluru, 5. Tropical Forest Research Institute, Jabalpur, 6. Institute of Forest Biodiversity, Hyderabad, 7. Himalayan Forest Research Institute, Shimla, 8. Institute of Forest Genetics and Tree Breeding, Coimbatore, 9. Arid Forest Research Institute, Jodhpur.

[65] Establishment of Technology Development Centre at Arid Forest Research Institute, Jodhpur, was not taken up and is under progress at two places, viz., Institute of Forest Genetics and Tree Breeding, Coimbatore and Institute of Forest Biodiversity, Hyderabad.

deviation from the approved components and violated Clause 9 of CAMPA's approval as it was not among the activities sanctioned by the Governing Body of CAMPA.

Further, the claim of ICFRE that the photo gallery was established within the approved financial outlay is also not acceptable since only ₹3.42 crore was sanctioned for establishment of Technology Development Centres on which the actual expenditure of ₹5.28 crore had already been incurred up to March 2025.

Thus, ICFRE has not only incurred unauthorised expenditure of ₹1.99 crore on establishment of a photo gallery out of CAMPA funds, which was not a part of the Scheme approved by the Governing Body of CAMPA, but has also incurred excess expenditure of ₹1.86 crore on establishment of Technology Development Centres.

CHAPTER VI

Ministry of New and Renewable Energy

6.1 Information Technology Audit of Implementation of SAP-ERP System Functioning in Solar Energy Corporation of India Ltd

6.1.1 Introduction

Solar Energy Corporation of India Limited (SECI/Company) is a 'Navratna' Central Public Sector Undertaking under the administrative control of the Ministry of New and Renewable Energy, set up on 20 September 2011, to facilitate the implementation of National Solar Mission[66]. In the present outlook of the renewable energy sector, SECI has a major role to play in the renewable energy sector's development.

In addition, SECI has ventured into solar project development on turnkey basis for Public Sector Undertakings/Government departments. The Company has a Category-1 power[67] trading license and is active in power trading domain through trading of solar power. The organisation has been named as one of India's Renewable Energy Implementing Agencies and tasked with facilitating market development and creating an ecosystem for renewable energy by conceiving/prototyping/modelling/policy advocacy with innovative project configurations, such as Solar-Wind hybrid with/without energy storage, Round the Clock power supply, Renewable Energy with assured peak power supply and Firm and Dispatchable renewable energy.

SAP-ERP system implementation

In order to achieve its Corporate objectives, SECI intended to implement an integrated IT System for effective monitoring, increasing efficiency, streamlining processes and increasing employee productivity and satisfaction. SECI envisaged following advantages through the SAP-ERP system implementation:

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[66] The National Solar Mission is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge. It will also constitute a major contribution by India to the global effort to meet the challenges of climate change.

[67] In terms of Central Electricity Regulatory Commission notification, dated 2 January 2020, considering the volume of inter-state and intra-state trading proposed to be undertaken by the applicant on the basis of the inter-state trading license, the minimum net worth of the applicant on the date of application should be ₹50 crore in respect of Category 1 power trading license and volume of electricity proposed to be traded in a financial year should be above 7,000 Mus (million units).

- To create a unified platform for Power Trading, Capex Project Lifecycle Management and subsidy management for rooftop schemes and facilitate electronic, speedy and transparent delivery of services to the customers, vendors and employees using standard business practices to reduce system maintenance and training requirements.
- To provide a Single Source of Truth and facilitate capturing of the data at the source of origin and eliminate data redundancy and duplication of efforts in entry of the same data multiple times in different forms while eliminating the complex task of bringing together data from multiple source systems and translating it into common structures and taxonomies.
- To facilitate effective financial discipline in terms of accurate financial data management and effective expenditure control, effective tracking of scheme-wise and project-wise expenditure, better management of customer receipt, investment and better cash flow management with automatic reconciliation of transactions across the departments to ensure statutory compliance.
- Provide the Management Information System and Dashboard to Management, giving them visibility of the Key Performance Indicators of the organisation and provide convenience of real-time information to stakeholders, facilitating organisation-wide policy decisions.

SECI embarked upon major computerisation by undertaking the implementation of SAP[68]-Enterprise Resource Planning (ERP)[69] Software in July 2019 and entered into an agreement with M/s Highbar Technocrat Ltd on 27 February 2020 for the project 'Implementation of ERP on Cloud Platform, Supply of Licenses including Operation and Maintenance at SECI'. The time for completion of implementation of ERP including stabilisation was within 18 months from the date of signing the contract. Go-Live of the system was finally achieved on 18 January 2021. The cost for the said project, as per agreement was as follows:

Table 31: Details of Project Cost

Description	Amount *(₹ in crore)*
ERP-License cost	6.07
Cloud-infrastructure and hosting during implementation	2.49
ERP-Implementation cost	4.70
ERP-Annual Technical Support cost	5.58
Cloud-Hosting and support cost	2.07

[68] ***Original Equipment Manufacturer.***
[69] ***ERP is an integrated software solution that incorporates the key business functions of the organisation.***

Description	Amount *(₹ in crore)*
ERP-Operation and Maintenance cost (five years after the implementation)	2.08
Total	**22.99**

As of May 2024, SECI had incurred an expenditure of ₹19.62 crore towards implementation and maintenance of the SAP-ERP system.

As per general scope of work, M/s Highbar Technocrat Ltd designed and procured the required IT infrastructure deployed on cloud to meet SECI business requirements, ERP performance requirements and service level agreements. M/s Highbar Technocrat Ltd procured the SAP licenses and other necessary support from the OEM for carrying out the project. For hosting ERP applications on cloud to leverage the performance of a dedicated server in a virtual environment and to elevate the cost-effectiveness characteristic of server hosting, CtrlS Service Pvt Ltd was chosen as the Cloud Service Provider. M/s Highbar Technocrat Ltd implemented the SAP S/4 HANA 1909 product utilising SAP GUI/Web Browser as front-end tool and SAP-HANA Database version 2.00.053.00 as backend. SECI implemented the following modules:

Table 32: Modules and their Functions

Modules	Functions
Finance and Controlling	General Ledger and process, account payable/receivable process, cash and bank process, asset processing, taxes, FI closing activities and reports, *etc*.
Human Capital Management	Maintenance of Personnel Administration, Organisational Management, Time Management, E-Recruitment, Employee Self Service and Manager Self Service, Payroll and Travel Management, *etc*.
Material Management	Tracking of invoice verification for all purchases of materials, stores and spares, consumables, capital goods, services, goods receipts and goods issue, stock transfer and physical inventory, *etc*.
Sales and Distribution	Automation in sales and distribution.
Plant Maintenance	Automation in material valuation, inventory management, planning plant, maintenance plant and production plant, *etc*.
Project Systems and Portfolio and Project Management	Automation in project activities.
Industry Specific Solution for Utilities (IS-U)	Automation of Power Trading process-billing and invoicing, scheduling data, payment processing, *etc*.

6.1.2 Organisational Structure

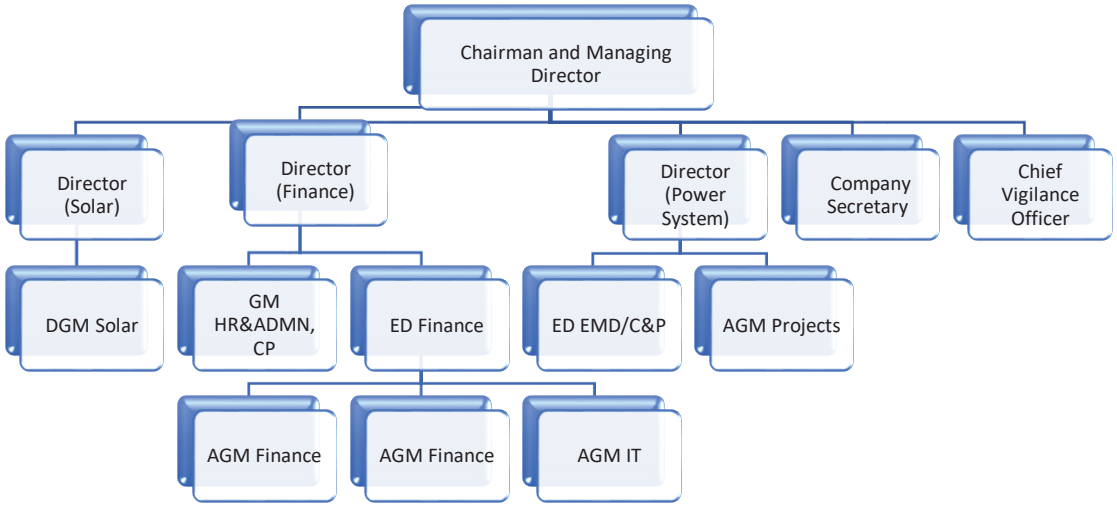

Figure 6: Organisational Structure

6.1.3 Audit Objective

The objectives of IT Audit were to get a reasonable assurance that:

- The IT system was implemented in compliance with the approved functionalities, timelines and costs.
- The general controls related to operations of the IT system were implemented, in compliance with executive instructions.
- The business rules were correctly mapped and application controls were implemented in the system to ensure compliance with executive instructions.

6.1.4 Audit Criteria

The requirement, acquisition and performance of SAP-ERP software implemented at SECI were assessed by utilising the following Audit criteria:

- Objectives set by SECI at the time of development of software.
- Agreements entered between SECI and the Contractor.
- Agenda and minutes of the meetings of the Board of Directors.
- Business Rules, Manuals, delegation of powers and procedures followed by the SECI/Government of India.
- Best practices in IT control, development, implementation and security parameters.

6.1.5 Audit Scope and Methodology

The IT Audit of the SAP-ERP system operational in SECI, New Delhi was conducted under Section 19(1) of CAG's (DPC) Act, 1971 and also under Regulations 16 to 18 of Chapter 3 of Regulations on Audit and Accounts (Amendments 2020). Out of the seven SAP modules implemented by the SECI (refer ***para 6.1.1***), three modules, *i.e.*, Finance and Controlling, Material Management and Industry Specific Solution for Utilities were selected for Audit.

Audit selected three SECI plants[70] for its material management modules. Source documents since the date of proposal for implementation of SAP-ERP system and transactions and system reports for the period from the date of Go-live, *i.e.,* 18 January 2021 to 31 May 2024 were examined in Audit.

Audit noted that several key processes envisaged in the Business Blueprint Plan, such as the Deviation Settlement Mechanism, Dunning and Interest Calculations, Scheduling process and tendering process through system-generated workflows, were either not implemented or not being used. Instead, SECI continues to rely heavily on manual or parallel systems such as e-Office and spreadsheets for critical financial and operational processes.

The table below compares the functionalities envisaged in the Business Blueprint Plan with their actual implementation status in SECI (discussed in detail in the report):

Table 33: Implementation Status of the Functionalities

Functionality Envisaged (as per Business Blueprint Plan)	**Status in SAP-ERP at SECI**
Power Scheduling Process	Not implemented
Deviation Settlement Mechanism	Not implemented
Dunning Process and Interest Calculation (overdue payments, deposits, invoicing)	Not implemented
Viability Gap Funding (VGF) Disbursement	Not utilised (manual)
Blacklisting of Vendor	Not implemented
Procurement of Assets, Services, Project Procurement	Partially implemented

The following Audit techniques were used during the field audit:

- Correspondence and questionnaires were issued to the management and feedback analysed.
- Scrutinised Power Purchase Agreements, Power Sales Agreements, Viability Gap Funding Agreements, Purchase Orders and Invoices presented by vendors for

[70] *1. 10 MW, Badi Sid, Jodhpur, Rajasthan, 2. 10 MW Defence Research and Development Organisation, Kolar, Karnataka and 3. 100 MW Rajnandgaon, Chhattisgarh.*

procurement of assets for SECI's own plants/projects, minutes of various committee meetings, source documents and system reports among other documents.

- Data analysis of standard and customised reports from the system using Computer Assisted Audit Technique.

An Entry Conference was held on 28 June 2024 with the Additional General Manager, in which the Audit objectives, scope of Audit and Audit methodology were explained. The Exit Conference was held on 6 June 2025 with the Senior Manager (IT) and the Deputy Manager (IT/ERP) of SECI, wherein the Audit findings were discussed. Views of the Ministry of New and Renewable Energy and their replies are suitably incorporated in the Report.

6.1.6. Acknowledgement

Audit acknowledges the co-operation extended by the Executive Director (IT), Senior Manager (IT), Deputy Manager (IT/ERP) and other staff members of SECI, New Delhi for the entire Audit period.

6.1.7 Governance Mechanism

Governance Mechanism refers to the framework of policies, procedures and controls that ensure the application system operates effectively, efficiently and in compliance with organisational objectives and regulatory requirements. It includes oversight of risk management, decision-making and accountability to safeguard the integrity of the system and its alignment with business goals.

6.1.7.1 Inadequate monitoring by Steering Committee

SECI for smooth and successful implementation of SAP-ERP system, decided in March 2020 to formulate, as a part of the ERP Governance Structure, *inter alia*, a Steering Committee that gives the overall direction and leadership to the implementation of ERP and it would comprise Chairman and Managing Director, Directors and General Manager. There were six phases for implementation of SAP-ERP system till stabilisation:

Table 34: Phases for Implementation of SAP-ERP System

Phase	Implementation
I	Project Preparation/Inception
II	Business Blueprint/Elaboration
III	Realisation/Construction
IV	Final Preparation/Transition
V	Go-Live/Production
VI	Post Go-Live Support (Stabilisation/Handholding).

IT department would convene meeting of Steering Committee with all Business Process Owners during Phase–II to V on monthly basis to ensure effective oversight of the SAP-ERP system implementation. The role and responsibilities of the Steering Committee were to

- allocate and commit project resources required for successful implementation;
- resolve and manage any project-wide issues and risks that were escalated by the Project Manager;
- decide on critical business processes to resolve critical interdepartmental issues;
- provide guidelines to project team for smooth implementation;
- control progress of the project; and
- ensure that business objectives are maintained.

In this regard, Audit observed the following:

- Though the implementation process of SAP-ERP system commenced in February 2020 and the system went live on 18 January 2021, the Steering Committee could carry out only two online meetings convened by IT Department which was held on 1 June 2020 and 2 November 2020.
- Out of the two meetings held, minutes were provided for only one to Audit. However, the records did not specify the number of Directors, General Managers and Business Process Owners who attended the meeting.
- Minutes of the meeting which was provided to Audit did not indicate that risk assessment and mitigation measures were discussed or documented. The input, if any, provided to Core team members; coordination for inter departmental integration issues, ensuring post Go-live SAP usage, *etc*., could not be ascertained from the minutes. Given the complexity of ERP implementations, it was critical that the Committee actively identified potential risks and developed strategies to mitigate them.
- Though as per clause 8.7 of Project Inception Report (version 2), the project manager of SECI was to identify and escalate key issues promptly and report weekly status (comprising Overall Project Status:- Details of Schedule, Scope and Quality; Task and deliverable status of review period; Task planned for coming week; Hindrances Tracking status; Risk Tracking status; Change Log if any) of the implementation of project to the Steering Committee, no such documents in support of communication received and assessed by the Steering Committee could be produced by SECI.

The absence of such discussions suggests a significant gap in governance and risk management. There is no evidence from the meeting minutes of any follow-up actions taken regarding identified risks or project challenges.

Thus, Audit was unable to derive assurance that the entire implementation had been effectively monitored by the Steering Committee.

The Ministry replied (December 2025) that the Steering Committee meetings were conducted, online on 1 June 2020 and on 2 November 2020. Additionally, a comprehensive Risk Management Policy has been in place since March 2021, with quarterly IT risk reports being submitted for management review, including ERP-related risks.

The response does not address the Audit observation that no records or minutes evidencing regular monitoring, discussion of risks, or follow-up actions during the ERP implementation phases (February 2020-January 2021) were available. The Risk Management Policy introduced post Go-live (March 2021) does not mitigate the lapse in oversight during the implementation period.

Recommendation 45:

SECI may strengthen its IT governance framework by ensuring that the Steering Committee actively monitors ERP Implementation.

6.1.7.2 Non-preparation of Detailed Project Report

Detailed Project Report (DPR) provides a comprehensive plan covering objective, scope, timelines, phased deliverables, resource requirements, governance structure, risk assessment and mitigation, financial estimates, monitoring mechanisms and performance indicators. It enables effective project execution and ensures stakeholder accountability.

SECI implemented SAP-ERP system in January 2021 through the system integrator M/s Highbar Technocrat Ltd. However, SECI did not prepare or maintain any DPR for this project. The lack of a DPR impacted SECI's project management by undermining feasibility assessment and alignment with organisational objectives. It can also lead to inadequate risk identification/mitigation planning and no defined success criteria or measurable outcomes. The absence of DPR also limits the ability to monitor progress, control costs and ensure optimal resource use and reduces accountability of the system integrator beyond contract clauses.

Due to insufficient documented evidence, Audit could not verify whether the project was effectively planned and executed and to evaluate whether identified risks were addressed during implementation. It was also difficult to determine, if resources were deployed efficiently and objectives were achieved. There were constraints in forming an evidence-based opinion on governance, controls and long-term sustainability of the SAP-ERP system. Thus, Audit could not ensure if all deliverables were properly defined and delivered. Further, the absence of a DPR also resulted in non-implementation of several key functionalities originally envisaged in the Business Blueprint Plan, as there was no structured baseline for tracking deliverables against business requirements. These functionality gaps are analysed in subsequent paras of this Report.

The Ministry replied (December 2025) that PwC Pvt. Ltd was engaged as Project Consultant for pre-implementation and implementation activities such as requirement analysis, budgeting and tender preparation. The ERP project and budget were approved by the Board in July 2018 and the work executed by PwC was considered to have fulfilled the requirements of a DPR.

The reply may be viewed in the light of the fact that the documents prepared by PwC do not constitute a formal DPR encompassing project objectives, risk assessment, monitoring mechanisms and performance indicators. The absence of a structured DPR weakened project governance, risk management and monitoring during ERP implementation.

6.1.7.3 Inadequate Change Management

In terms of Section 5.1.3.9.4 of the Tender dated 2 July 2019, the selected bidder was required to prepare a detailed Change Management Strategy and Plan covering the project lifecycle, support SECI in nominating Change Managers/Champions, prepare change management materials (newsletters, booklets, *etc*.), conduct workshops and identify process-level and role-level changes arising from ERP implementation. These activities form part of a structured change management process which, ideally, should also integrate with the DPR and include:

- Linkage to the software development lifecycle, with milestones for design, testing, training and go-live readiness.
- Detailed timelines and deliverables for each change activity and tracking mechanism to monitor deliverables until final implementation.
- Stakeholder mapping, risk assessment, communication and training strategies.

  In this regard, Audit observed the following:

- The Change Management Strategy prepared by M/s Highbar Technocrat Ltd addressed only theoretical aspects and lacked stakeholder identification, risk analysis, leadership involvement and tailored training/communication plans.
- SECI's office order (28 February 2023) nominating ERP Nodal Officers did not define change-specific roles, ownership, or performance indicators, diluting accountability.
- Although SECI claimed to have identified process and role changes, no formal documentation was available as required in the Tender document during Audit review, undermining transparency and the rigour of planning.
- Also, no centralised repository was maintained to store change management outputs, impacting continuity and knowledge transfer. No formal change management materials (newsletters, manuals, booklets) or structured training modules were prepared and the *ad-hoc* refresher sessions conducted cannot substitute for a systematic, documented training framework.
- Critical ERP functionalities such as integrated asset management, automated reconciliation and robust MIS reporting remained incomplete, indicating gaps in both project governance and change planning.

A robust DPR, if prepared and monitored as per best practices, should have incorporated change management deliverables with measurable milestones, linked them to ERP development/testing phases and provided mechanisms to track progress against timelines. This would have ensured alignment with organisational objectives, proper sequencing of activities, timely delivery of missing functionalities and user readiness.

The Ministry replied (December 2025) that the SAP-ERP implementation was executed in six structured phases that substantially covered change management activities such as module overview sessions, process-mapping, user training and stakeholder engagement. Further, ERP Nodal Officers were nominated in February 2023 and they acted as Change Champions to coordinate feedback and training needs, although no standalone repository for change management artefacts was maintained.

The reply may be viewed in the light of the fact that SECI did not prepare a comprehensive Change Management Strategy and Plan as required under the tender clause. The absence of defined roles, measurable deliverables, risk analysis and structured communication materials indicates that change management was inadequately planned and executed during ERP implementation.

Recommendation 46:

SECI may strengthen its governance framework for future projects by preparing a detailed Change Management Strategy and Plan incorporating change management deliverables with measurable milestones, link them to ERP development/testing phases and provide mechanisms to track progress against timelines.

6.1.7.4 Non-Implementation of Power Scheduling Process

Business Blueprint Plan for SECI provides the Power Scheduling Process, including Profile Management and Scheduling functionalities. These processes are essential for managing interval-related energy data for correct forecasting, scheduling and settlement in compliance with the business requirements documented in Business Blueprint Plan. Business Blueprint Plan had clearly provided for scheduling functionalities regarding profile management, data validation checks, CSV uploads, automated reporting, integration with Regional Load Despatch Centre portals and dashboards. Audit observed that SECI did not implement the scheduling functionalities as planned in the Business Blueprint Plan.

The Ministry stated (December 2025) that power scheduling operations were discontinued in 2020 and Regional Load Despatch Centre (RLDC)'s Application Programming Interfaces (APIs) were also not available for integration. Now, on the availability of RLDC APIs, M/s Highbar will integrate the Regional Load Despatch Centre APIs to automate the billing process for Round the Clock (RTC) projects in the SAP ERP system, which comprises similar functionality to power scheduling.

No formal approval or documentation supporting the exclusion of scheduling functionalities from the ERP scope, nor evidence of contractual action against the system integrator was provided by SECI. The non-implementation has resulted in loss of integration benefits and will likely lead to additional costs and rework when implemented later.

Recommendation 47:

SECI may carry out detailed assessment of the financial and operational impact of not implementing the scheduling functionalities, including the risks of rework, cost escalation and loss of integration benefits for robust governance.

6.1.7.5 Non-implementation of Deviation Settlement Mechanism as per Business Blueprint Plan requirement

The Business Blueprint Plan for SAP-ERP implementation at SECI explicitly included implementation of the Deviation Settlement Mechanism module to automate calculations of scheduled energy, actual generation, deviations and applicable charges. This requirement covered both Inter/Intra SECI projects and Round-the-Clock power projects, with provisions for data integration, automated validation and charge computation. Audit observed that the Deviation Settlement Mechanism (DSM) functionality included in the Business Blueprint Plan was not implemented in the SAP-ERP system, even though it was a documented requirement. Further, no documentation for formal approval indicating a decision to exclude scheduling from the implementation scope could be found on record.

The Ministry replied (December 2025) that the non-implementation of the DSM module in SAP-ERP does not represent a functional gap but rather reflects SECI's actual operational framework and compliance structure, as per prevailing regulatory and contractual arrangements.

The reply may be viewed in the light of the fact that decision to exclude a documented functionality from the project scope was not managed through a formal change control process which requires a clear rationale, stakeholder consultation and a documented risk assessment to be approved by a competent authority

Recommendation 48:

SECI may reassess and ensure that all key functionalities envisioned in the Business Blueprint Plan, including Scheduling, Deviation Settlement Mechanism and Dunning calculations are implemented in SAP-ERP.

6.1.7.6 Non-documentation of IT Strategic Plan and Annual Action Plan

Though computerisation should be preceded by the development of a properly documented 'Information Technology Strategy', SECI could not formulate any long-term strategic IT plan indicating the strategies, proposals and supply arrangements, their evaluation and achievement monitoring, *etc.,* covering IT aspects. It has no Annual Action plan documented showing the plan for implementing SAP-ERP system and set forth the direction for providing funds for its ERP projects and operations.

SECI relies on its IT and Cyber Security Policy as IT strategic plan, which aims to ensure staff awareness of obligations in using IT resources securely and consistently. The policy provides a framework for utilisation, security and disposal of IT infrastructure and defines user responsibilities towards safeguarding information.

Without an IT strategic plan, there's a risk that IT activities won't be aligned with broader organisational goals and objectives including the implementation of SAP-ERP system. Without a documented strategic plan, there is an increased risk of *ad-hoc* decision-making, which may hinder the efficient allocation of resources, proper evaluation of IT proposals and the organisation may face challenges in evaluating, prioritising and making informed decisions regarding IT investments potentially leading to suboptimal resource allocation and outcomes. Strategic planning typically includes risk assessment and mitigation strategies.

A documented Annual Action Plan is also essential for providing a clear financial roadmap and direction for allocating funds to support the ongoing operations and maintenance of the SAP-ERP system. Audit observed that SECI does not have any Annual Action Plan but budget data is prepared annually. While an annual budget is an essential financial allocation exercise, it cannot substitute for a documented IT Strategic Plan or Annual Action Plan. The budget merely specifies how much money is to be spent, whereas a strategic plan defines long-term IT objectives, priorities, risk assessments and mitigation strategies, ensuring alignment with organisational goals such as the successful implementation of SAP-ERP. Similarly, an Annual Action Plan translates the strategy into specific activities, timelines, responsibilities and performance indicators for effective monitoring. Without these planning documents, budget allocations risk becoming *ad-hoc*, may fail to address key IT risks and cannot provide the structured framework needed for sustainable ERP implementation, resource optimisation and preparedness against emerging technological threats. Thus, the absence of such a plan may hinder effective financial planning.

The Ministry stated (December 2025) that they are in the process of implementing a comprehensive IT Strategic Plan and Annual Action Plan to align IT initiatives with organisational objectives.

Recommendation 49:

SECI may ensure to develop and implement the comprehensive IT Strategic Plan and Annual Action Plan to align IT initiatives with organisational objectives, including successful SAP-ERP implementation and sustained operations in a time bound manner.

6.1.7.7 Non-determination of various indicators to measure efficacy of SAP-ERP

According to best practices for Information and Related Technologies, SECI should have determined various indicators such as Critical Success Factors, KPIs and Key Goal Indicators to measure the efficacy of all IT systems. The project was completed by M/s Highbar Technocrat Ltd and SAP-ERP system went live on 18 January 2021.

Audit noticed that none of the afore-mentioned matrices were designed and measured by the Management as on January 2025. It was also observed that the Company's Board played a limited role in IT Governance of the Company as the Management did not place any data on the performance of the SAP-ERP system before the Board in order to determine if the project was ultimately beneficial to the Company. While acknowledging the need for a formalised approach for a structured performance measurement system moving forward in upcoming projects, SECI replied (March 2025) that informal assessments have been used to gauge SAP-ERP system effectiveness.

Without defined performance metrics, Audit could not ensure if SECI effectively measured the success of its SAP-ERP system, identified inefficiencies or ensured alignment with business goals. The lack of Board oversight further weakens IT governance, increasing the risk of misaligned IT investments and operational inefficiencies.

Deficiencies such as non-utilisation of SAP Solution Manager (further discussed in ***Para 6.1.8.4***) and over-dependence on the vendor could have been detected and addressed at an early stage, had structured performance indicators been in place.

The Ministry replied (December 2025) that Key Performance Indicators have been prepared to monitor the efficacy of the SAP-ERP system and suitable follow-up actions shall be undertaken according to the defined frequency and parameters.

Recommendation 50:

SECI may ensure monitoring the efficacy of the SAP-ERP system in accordance with the KPIs and also undertake suitable follow-up actions according to the defined frequency and parameters.

6.1.7.8 Deficient Customisation of the SAP

As per the NIT for "Implementation of ERP on Cloud Platform, Supply of Licenses including Operation and Maintenance at SECI" dated 2 July 2019, the System Integrator was required to configure and customise the ERP system in accordance with approved business requirements, adopting standard ERP functionalities, with customisation undertaken only where necessary, so as to ensure stable and efficient operations. Further, the ERP environment is required to be appropriately configured and monitored to maintain optimal performance and system stability.

Audit scrutiny of the SAP-ERP system revealed deficient customisation and inadequate management of the system environment. Audit noticed that the Index Server, which is the core component of SAP-HANA responsible for storing data and executing queries, was found to be consuming memory at a critically high level, approaching the effective allocation limit. This created risks of table unloads, system slowdowns or out-of-memory dumps that could potentially result in performance degradation, crashes or downtime. The high memory consumption is usually attributed to poor system configuration and excessive query processing.

Audit further observed that this was compounded by the absence of trained IT professionals within SECI to properly administer and monitor the SAP-HANA environment indicating weak implementation of user rights and governance and that SECI was over-reliant on external consultants for its core administration. Together, these factors highlight systemic weaknesses in SECI's management of its SAP system ranging from inadequate customisation and memory management to deficient user authorisation controls.

The Ministry stated (December 2025) that they have informed the support vendor, M/s Highbar Technocrat Ltd, to analyse the root cause of high memory consumption and take corrective actions immediately.

Recommendation 51:

SECI may define memory thresholds with alert mechanisms, conduct regular system health checks, assign clear vendor responsibilities and address root cause of high memory use through proper database sizing and staff training to reduce dependence on external vendors.

6.1.7.9 IT organisation

As a best practice, it requires establishment of an IT organisational structure that reflects business needs, to define and identify key IT personnel and minimise reliance on a single individual performing a critical job function and Chief Information Officer being an individual responsible for IT group within an organisation. The best practice also requires segregation of duties, *i.e.,* division of roles and responsibilities which will reduce the possibility of a single individual compromising a critical process.

Audit observed that the Executive Director (Finance and IT) is the designated Chief Information Security Officer who is overall in-charge of the IT functions. SECI is unable to minimise reliance on a single individual performing a critical job function.

SECI developed (February 2023) a dedicated ERP team comprising 11 Nodal Officers from 11 Departments for smooth functioning of ERP. However, Audit noticed that while nominating 11 Nodal Officers and defining their roles and responsibilities, SECI did not define any role to address natural disasters, man-made disasters to the Company's IT Systems.

In terms of Ministry of Home Affairs' National Information Security Policy and Guidelines, the implementation of information security and its governance requires coordinated effort between designated personnel and well-defined framework for governance. The governance process and the personnel tasked with governance of information security should be stated in the security policy and brought to the notice of Information Security Steering Committee. However, SECI did not update its IT Security Policy stipulating Nodal Officers' roles and responsibilities. It has no Information Security Steering Committee to approve overall framework for IT governance and instead Chief Information Security Officer directly reports to the Director (Finance).

The Ministry replied (December 2025) that the segregation of duties within the IT Division is under implementation.

Recommendation 52:

SECI may, for good governance, establish an IT organisational structure that reflects business needs, define and identify key IT personnel and minimise reliance on a single individual performing critical job function.

6.1.8 General Controls

General Controls are the foundation of the IT control structure. These are concerned with the general environment in which the IT systems are developed, operated, managed and maintained. General IT controls establish a framework of overall control for the IT activities and provide assurance that the overall control objectives are satisfied.

6.1.8.1 Non-conducting of regular Security Audit

Third-party Audit of the IT application should be done once a year as per the Central Vigilance Commission guidelines[71]. Also, as per CERT-In guidelines, annual comprehensive security audits by empanelled agencies are mandatory for critical IT applications.

Audit observed that the Security Audit of SAP-ERP system was conducted only up to January 2021 as per 'Open Worldwide Application Security Project' (OWASP[72]) -Top 10 web application vulnerabilities for 2017'. Now that 'OWASP-Top 10 web application vulnerabilities for 2021' had been released and was in use, the additional vulnerabilities such as, insecure design, server-side request forgery, software and data integrity failure, *etc.,* using known vulnerable component, not initially covered for 2017, remained undetected for corrective action as SECI has not conducted security after January 2021.

Further, records revealed that SECI carried out Cybersecurity Audit only for host-to-host integration of SAP-ERP system with e-Banking facility during July/August 2024 by CERT-In empanelled entity.

The Ministry replied (December 2025) that SECI will conduct Cybersecurity Audits for all critical applications and the ERP system once every two years.

Recommendation 53:

SECI may incorporate a provision for periodic internal audits of IT systems into its IT and Cyber Security Policy, to complement the existing CERT-In–based external audits.

6.1.8.2 Deficiencies in Change Management in SAP-ERP System

In the SAP-ERP system, transport requests are employed to manage changes or developments in the system. Transport requests can be created to monitor and control how system

[71] *Vide Circular No.29/9/09 dated 17 September 2009.*
[72] *The OWASP Top 10 is a list of the most important security risks to web applications. It's created by the Open Web Application Security Project (OWASP), a nonprofit organisation that focuses on improving software security.*

modifications like configurations, custom developments or updates are transported between system environments.

During the Audit period from 18 January 2021 to 31 May 2024, Audit observed the following issues as corroborated in OEM report:

1. A total of 24 transport requests were directly created in the Production environment, bypassing standard change management protocols.
2. Out of 1,715 transport requests released to production, 1,141 requests (66 *per cent*) had a transition time of less than one day, indicating inadequate time for comprehensive testing and validation.
3. A total of 82 transport requests were classified as critical changes, requiring stringent review, testing and validation before deployment.
4. No testing reports or supporting documentation for transport requests were maintained. The lack of testing documentation and the rapid deployment of transport requests within one day pose significant risks, including system disruptions due to untested or incomplete changes and reduced traceability and accountability in the change management process.

The Ministry replied (December 2025) that formal ERP Change Management and Transport Request Management SOP has been approved to strengthen documentation, approvals and testing controls.

Recommendation 54:

SECI may ensure effective implementation and continuous monitoring of compliance with the approved SOP, through system-enforced controls and periodic reviews.

6.1.8.3 Delay in Implementation of Updates

SAP Notes are important updates from SAP that fix system bugs, improve functions and meet changing business and regulatory needs. These notes cover software error corrections, security updates, performance improvements and legal changes.

Audit observed that SAP issued 82 SAP Notes for system updates between 18 January 2021 and 31 May 2024. Out of these 82 notes, 71 are still in process. A significant number of pending SAP Notes indicates a delay in system updates and compliance with SAP recommendations.

Unresolved SAP Notes might leave the system vulnerable, lead to operational problems and create compliance risks. Therefore, SECI should expedite the implementation of pending SAP Notes to ensure the systems are secure and efficient.

The Ministry stated (December 2025) that OEM suggested to implement only the mandatory notes and requested SECI for criteria to identify the mandatory notes. Additionally, many of the 82 notes are either advisory or related to improvements, while critical and security-related notes are prioritised for implementation.

The response may be viewed in the light of the fact that SECI has not set any documented criteria or process to classify SAP Notes as mandatory, critical or advisory.

Recommendation 55:

SECI may create and document clear criteria for classifying and prioritising SAP notes based on their importance.

6.1.8.4 Non-utilisation of SAP Solution Manager for Incident and Change Management

SAP Solution Manager is a comprehensive Application Lifecycle Management platform designed to facilitate the implementation, maintenance and integration of SAP systems. It plays a crucial role in troubleshooting issues while ensuring that systems operate securely, efficiently and seamlessly.

a. Incident Management

The Inception Report of SECI specified that M/s Highbar Technocrat Ltd would use SAP Solution Manager for issue logging and resolution. The tool was expected to support core IT Service Management (ITSM) processes such as incident, service request, problem and knowledge management as well as Change Request Management, including transport of SAP objects, centralised change control, risk management and workflow-based implementation of business and technology changes.

Audit observed that SECI did not fully implement SAP Solution Manager for handling incidents, problem management or change request management. SECI stated (February 2025) that SAP Solution Manager was implemented in 2021 but was used solely as a helpdesk tool for logging SAP-ERP-related incidents. SECI further added that due to the complexity of SAP Solution Manager and the expertise required to manage it effectively, a

separate user-friendly IT-enabled helpdesk tool was developed and implemented by M/s Highbar Technocrat Ltd in 2023.

Non-utilisation of SAP Solution Manager for its intended purpose raises concerns regarding compliance with contractual commitments. The shift from SAP Solution Manager to a custom tool raises questions about the robustness of incident resolution processes, problem management and change management workflows, which were originally designed to be managed through a SAP-integrated platform.

b. Change Management

Audit observed that SECI does not have a central repository for change management, further weakening IT governance and control over system modifications. In the absence of a structured and centralised change management system, tracking system modifications, managing risks associated with changes and ensuring accountability for alterations to critical ERP components remain inadequate.

The Ministry replied (December 2025) that SECI will evaluate the integration of Solution Manager or equivalent ITSM functionality in the next ERP enhancement cycle to achieve comprehensive lifecycle and change management coverage.

Recommendation 56:

SECI may implement and utilise SAP solution manager for IT service management framework and establish a centralised repository for change management.

6.1.8.5 Deficiencies in User Access Management

The role and profile that a specific user will have on SAP would be defined by the role and job profile that employee has within the organisation, its authority and responsibility. Access to SAP should enable an employee to successfully undertake their tasks. However, access should also be restricted to such aspects where an employee is not expected to undertake any activity.

However, SECI did not implement workflow-based SAP Access Management System. It was informed to Audit that it is being managed by M/s Highbar Technocrat Ltd, based on emails received from departments of SECI. However, no such copies of emails were provided to Audit to verify how it was managed. Audit further observed conflicts in roles and authorisation

of users, which are discussed in the ensuing paras. Audit examination of users' access controls on SAP-ERP system revealed the following:

a. Users with incomplete master data

The user master record in the SAP system, which defines access levels, should be complete and properly maintained. The list of users with incomplete address details was provided through the (SAP SU01) transaction code. Analysis of the data revealed that a total of 83 users were found to have incomplete address details, with missing fields such as User Group, Department, etc., six users had missing email address fields and 13 users had missing function field.

Additionally, it was observed that users were provided access to SAP without restricting the same up to their retirement date or separation from the organisation.

b. Changes made to Security Authorisation

Authorisation management is a critical aspect of security in any ERP system, ensuring that users have appropriate access based on their roles.

During the Audit, a list of changes made to security authorisations was provided through the execution of the built-in SAP report (RSUSR100N). Analysis of this data revealed that 2,73,279 changes were recorded in the system. These changes included modifications to authorisation objects, roles and profiles.

However, in the absence of consolidated documentation mapping these changes to employees' designated roles, Audit could not confirm whether these changes were aligned with organisational role requirements.

c. Changes made to users' security

The user master record in SAP defines the roles and profiles assigned to each user, determining their level of access within the system. Any changes to these records should be closely monitored to ensure compliance with security policies and access controls.

During the Audit, a list of all changes made to user security was not provided. SECI stated (February 2025) that roles were assigned based on user requirements.

However, in the absence of proper documentation, Audit was unable to verify the justification for these changes or assess whether they were aligned with the users' designated job functions.

d. Lack of Periodic User Access Review in SAP-ERP

Regular review of user access is a critical control measure to ensure that employees have appropriate access rights aligned with their job responsibilities. During Audit, SECI stated (January 2025) that user access and roles were maintained within the SAP-ERP system and the nodal officer of each department was responsible for reviewing access for users in their respective departments.

However, no user security profile, access review report or any evidence of periodic reviews being conducted was provided to Audit. In the absence of documented reviews, Audit could not verify whether access rights were being regularly reassessed to prevent unauthorised access or accumulation of excessive privileges, potentially leading to security risks.

The Ministry, in its reply (December 2025) stated that Standard Operating Procedures for Master Data Management and User Access Management have been institutionalised and will be followed henceforth to ensure proper control and maintenance of requisite documentation.

Recommendation 57:

SECI may implement workflow-based SAP Access Management System.

6.1.8.6 Continued Use of User SYSTEM in SAP-HANA

The SYSTEM user is the initial user that is created during the creation of the SAP-HANA database. SYSTEM is the database superuser. It has irrevocable system privileges, such as the ability to create other database users, access system tables and so on.

The SAP-HANA Administration Guide strongly recommends that the SYSTEM user should not be used for day-to-day operations in production environments. Instead, it should be used solely for initial setup and then deactivated, with separate users created for specific administrative tasks, each assigned the minimum required privileges. Standard user accounts, such as SYSTEM, are a common target for hacking attacks due to their default availability in all systems.

Audit observed that the standard user account SYSTEM remains active and from 18 January 2021 to 31 May 2024, a total of 5,34,793 activities were performed by User SYSTEM pertaining to specific 61 activities. Audit though could not verify the nature of these activities in the absence of access to the SAP-HANA back-end.

The Ministry stated (December 2025) that SECI have instructed the implementation partner to immediately deactivate the SYSTEM user and shift all administrative functions to individual role-based accounts.

Recommendation 58:

SECI may deactivate user SYSTEM and enforce role-based access controls.

6.1.8.7 Excessive and Unauthorised User Access to Critical SAP Functions

SAP provides table maintenance transactions[73], which allow users to display and modify sensitive table data. This access provides user to view and extract confidential business and financial data and modify critical master data and changes to configuration tables.

Audit observed that 75 out of 105 valid users in the SAP system had been assigned both the excessive developer-level authorisations[74] and access to modify or display all tables in the system.

SAP debugging functionality is typically reserved for developers and system administrators to analyse code execution and troubleshoot errors. However, when users are granted debugging and replace authorisations, they can bypass SAP's built-in authorisation checks and modify data during transaction processing, which could lead to manipulation of business-critical data and security breaches. This authorisation enables users to override SAP security checks, granting access to restricted transactions and sensitive data. It allows dynamic data modification in memory, posing risks of fraudulent transactions and data falsification.

Additionally, it can bypass SAP security logs, making unauthorised activities difficult to detect. These risks were exacerbated by the absence of Audit trail, which makes unauthorised activities even more difficult to detect.

The Ministry stated (December 2025) that role and authorisation matrix is being reviewed in consultation with the engaged consultants of M/s Highbar Technocrat Ltd.

Recommendation 59:

SECI may revoke unnecessary table display and modification authorisations while enforcing role-based access controls. Debugging privileges should be restricted to approved developers and unauthorised access should be removed.

[73] SE16, SE16N, SE17, SM30 and SM31.
[74] S_DEVELOP authorisation with ACTVT=02 (Change) and OBJTYP=DEBUG.

6.1.8.8 Unauthorised Granting of DATA ADMIN Privilege in SAP-HANA

The DATA ADMIN system privilege in SAP-HANA allows users to modify and delete objects across all schemes. This makes it a very sensitive privilege that needs strict access control. Audit observed that this privilege has been granted to additional users beyond the default users[75], who inherently possess this privilege and from whom it cannot be revoked.

The absence of strict control over such a critical privilege can lead to unauthorised changes to database structures, potential data integrity issues and an increased risk of malicious activity or accidental deletions.

The Ministry replied (December 2025) that DATA ADMIN privilege has been revoked from all non-default users.

6.1.8.9 Allocation of SAP-ERP Licenses to external vendor

SECI procured 100 SAP-ERP licenses at a total cost of ₹6.07 crore as part of its SAP-ERP system implementation. Additionally, SECI paid ₹5.58 crore for Annual Technical Support and ₹2.08 crore for Operation and Maintenance services to M/s Highbar Technocrat Ltd. Further, there is no specific clause in the tender stating that SECI must provide SAP-ERP licenses to M/s Highbar Technocrat Ltd.

Audit observed that five SAP-ERP licenses, intended for SECI's use, were allocated to M/s Highbar Technocrat Ltd employees. Though M/s Highbar Technocrat Ltd was already paid separately for Operation and Maintenance services, this allocation resulted in an avoidable expenditure of ₹0.24 crore (₹4,85,723.8 per license x 5 licenses).

No alternative access method (*e.g.*, shared access or temporary credentials) was evaluated before allocating SECI's licenses to M/s Highbar Technocrat Ltd employees. SECI stated (February 2025) that SAP will be requested to seek benchmarking and guidance regarding best practices for third party vendor to ensure compliance and efficient utilisation of resources.

The Ministry replied (December 2025) that external consultant access has been reduced from 5 to 4 and OEM has been pursued to provide best practice guidance.

Recommendation 60:

SECI may review its SAP-ERP licensing strategy and seek SAP's guidance on vendor access alternatives.

[75] ***SYSTEM and _SYS_REPO.***

6.1.8.10 Deficiencies in Backup Management for SAP-ERP System

As per SECI's Backup Policy, all user-level and server-level data must be backed up periodically and backups for cloud servers maintained by MEITY-empanelled vendors should be scheduled in consultation with the respective vendors or as per the contract. Additionally, backup data should be used for restoration testing to verify its effectiveness.

Audit observed that out of 4,817 data backup attempts made between 18 January 2021 and 31 May 2024, a total of 510 were unsuccessful, indicating a failure rate of approximately 10.60 *per cent*. The monitoring and resolution of unsuccessful backups are managed by M/s Highbar Technocrat Ltd. However, no detailed documentation or evidence of specific corrective actions taken to resolve backup failures was provided to Audit.

Further, SECI did not furnish a clear schedule or frequency for testing backup and recovery procedures and no latest test report or evidence to show the effectiveness of backup restorations was presented for review. The lack of periodic testing and validation raises concerns about the reliability of SECI's backup management practices, since there is no assurance that data can be successfully restored in case of a failure, a situation that poses considerable risks to data availability and business continuity.

The Ministry stated (December 2025) that SECI will formulate a structured Backup Management and Restoration Validation Procedure in coordination with the cloud service provider and M/s Highbar Technocrat Ltd.

Recommendation 61:

SECI may analyse and document the root causes of backup failures and establish a mechanism for timely resolution.

6.1.8.11 Non-secure Network Configuration for SAP-HANA System Replication Communication

System replication communication in SAP-HANA should be restricted to dedicated network interfaces and encrypted using Transport Layer Security to prevent unauthorised access and ensure data integrity. Parameters[76] should be appropriately configured to enforce secure communication.

[76] ***enable_ssi, ssl and listen interface.***

Audit observed that the current configuration of SAP-HANA system replication communication allows the use of the default (public) network route. The listen interface parameter is set to 'global', which does not strictly restrict replication communication to dedicated hosts. Additionally, Transport Layer Security encryption is not enabled for system replication communication.

The current configuration exposes SAP-HANA system replication communication to security vulnerabilities, allowing potential unauthorised access and data tampering. It also increases the risk of cyber threats due to unencrypted replication traffic.

The Ministry stated (December 2025) that they have directed the existing support vendor, M/s Highbar Technocrat Ltd, to take immediate steps to secure system replication communication by implementing encryption and restricting access to authorised hosts only and reviewing and configuring the network settings as per recommended security standards.

Recommendation 62:

SECI may take immediate steps to secure system replication communication.

6.1.8.12 Lack of SAP-HANA Maintenance Strategy and Delayed Upgrade

An effective SAP-HANA maintenance strategy will provide assurance with regard to system security and stability and adherence to SAP's best practices. Regular upgrades address security vulnerabilities, enhance performance and improve functionality.

Audit observed that SECI does not have SAP-HANA maintenance strategy policy. The lack of a structured approach to upgrades raises concerns about SECI's ability to ensure system security, timely updates and performance optimisation.

The SAP Early Watch Report highlighted that the current revision of the SAP-HANA database will reach the end of security maintenance by August 2025. Already, published and unpublished critical security fixes are missing due to the outdated revision. Furthermore, SAP may soon stop analysing vulnerabilities for the current version, thereby increasing the risk of exposure to undisclosed security threats.

Without timely upgrades, the system remains exposed to cyber threats, data breaches and compliance risks. SAP recommends an upgrade to the latest revision of HANA at least once per year, a practice that has not been followed.

The Ministry replied (December 2025) that Guidance has been sought from OEM and the implementation partner to define a structured SAP HANA maintenance and Upgrade Policy. Further, preparatory steps have been initiated to upgrade the existing SAP HANA database to the latest supported revision in consultation with OEM.

Recommendation 63:

SECI may establish a structured SAP-HANA maintenance policy and upgrade to the latest SAP-HANA revision.

6.1.9 Business Rules Mapping and Application Control

Business Rules Mapping refers to the process of identifying and documenting the specific rules that govern business operations within an application system while, Application Controls are specific controls unique to each computerised application.

According to Business Blueprint Plan, processes related to procurement of assets, services, invoice verification and goods receipt and goods issue are to be implemented in Material Management (MM) Module. During Audit period, Audit noted that MM module implemented by SECI handled procurement of assets, services and projects which involved raising purchase requisition and creating purchase order after completion of tendering process conducted outside the system. Invoice Verification process is done by Finance Division by using Service Entry Sheet or Good Receipt note number manually.

Further, MM module handled invoicing process for power developers (both for Joint Meter Reading and Inter-State Transmission System projects). For Joint Meter Reading projects, Joint Meter Reading bill data is entered manually into the SAP-ERP system and for Inter-State Transmission System projects by downloading regional energy account data from Regional Power Committee website and feeding the data into SAP-ERP through window-based utility. The implementation status of key processes in the selected modules, namely Industry Specific Solution for Utilities, Finance and Controlling and Material Management, is summarised in ***Table 35***.

Table 35: Implementation Status of Key Processes in Selected Modules

Implementation Status in Industry Specific Solution for Utilities Module			
No.	**Process in Industry Specific Solution for Utilities Module**	**Implementation Status**	**Remarks/Comments**
1.	Power Scheduling Process	Not Implemented	Scheduling functionalities envisaged in the Business Blueprint Plan were not implemented.
2.	Deviation Settlement Mechanism	Not Implemented	Deviation Settlement Mechanism functionality was not configured in SAP-ERP system.
3.	Dunning Process and Interest Calculation (overdue payments, deposits, invoicing)	Not Implemented	Dunning notices and Interest Calculations are carried out manually, as the corresponding system-based functionalities are not available.
Implementation status in Finance and Controlling Module			
No.	**Process in Finance and Controlling Module**	**Implementation Status**	**Remarks/Comments**
1.	Viability Gap Funding (VGF) Disbursement	Not Utilised	VGF disbursements were processed outside SAP-ERP system.
2.	Management Reporting and Automated Tracking of Scheme-wise Expenditure.	Implemented	Standard financial reports are generated from SAP-ERP system.
Implementation status in Material Management Module			
No.	**Process in Material Management Module**	**Implementation Status**	**Remarks/Comments**
1.	Procurement of Assets, Services, Project Procurement	Partially	Purchase requisitions and purchase orders are created in the MM module, but complete tendering process is conducted outside the system.
2.	Invoice Verification	Implemented	The Finance Division performs invoice verification manually using Service Entry Sheets or Goods Receipt Note numbers generated through SAP-ERP system.
3.	Goods Receipt/Goods Issue	Not Utilised	Standard SAP functionality.
4.	Invoicing Process for Joint Meter Reading Power Developers	Partially implemented	Joint Meter Reading bill data is entered manually into SAP-ERP system.
5.	Invoicing Process for Inter-State Transmission System Power Developers	Implemented (through utility)	Data is downloaded from the Regional Power Committee website and uploaded to SAP-ERP system using a window-based utility.

Some of these issues are further discussed in the paras below.

6.1.9.1 Minimum utilisation of IT-enabled services with respect to Earnest Money Deposit, Performance Bank Guarantee and Performance Security in SAP-ERP System

SECI managed funds amounting to ₹9,820.13 crore from Earnest Money Deposits, Performance Bank Guarantees and Performance Securities received from various vendors between 18 January 2021 and 31 May 2024. These transactions were expected to be processed through SAP-ERP to ensure automation, transparency and financial control.

However, Audit observed that a significant portion of these transactions was handled manually instead of using SAP-ERP system. Only four out of 348 Earnest Money Deposits, zero out of 370 Performance Bank Guarantees and 25 out of 62 Performance Security transactions were processed through SAP-ERP, resulting in 96 *per cent* of transactions being managed outside the system.

This heavy reliance on manual processes defeats ERP's intended benefits of automation, transparency and embedded business rules, creates high control risks, absence of system-generated Audit trails, vulnerability to unauthorised changes, increased potential for error and prevents independent verification of completeness, accuracy and authorisation of transactions due to non-availability of system reports.

The Ministry stated (December 2025) that paper-based or electronic Bank Guarantees and similar instruments like Earnest Money Deposits or Performance Securities are tracked in Excel to facilitate release, extension, or invocation requests. Ministry further stated that the existing functionality in SAP lacked the maker-checker feature and remark fields and development of a new solution is under progress.

Recommendation 64:

SECI may expedite the development and implementation of a comprehensive SAP-based module for managing EMDs, Bank Guarantees and Performance Securities with maker-checker controls, Audit trails and automated workflows.

6.1.9.2 Non-inclusion of clauses of SECI's Procurement Policy into Business Blueprint and simultaneously non-mapping into SECI's SAP-ERP system

In terms of Clause A1.3.1(g) of SECI's Procurement Policy (implemented on 29 September 2018), optimum use of IT and IT-enabled services is to be ensured for efficiency, effectiveness and transparency in procurement. However, Audit observed that SECI finalises L1 bidders outside the SAP system and the Request for Quotation process is not included in SAP ERP system. Several key provisions from Chapters 4 to 10 of the Procurement Policy covering areas such as preparation of NIT and cost estimates, bidder qualification requirements, bidding documents, procurement methods, bid evaluation, contract award and pre-award issues were

not incorporated during the Business Blueprint phase of SAP-ERP implementation[77]. They were also not mapped into SAP-ERP despite SECI's procurement policy being implemented much before the date of acceptance of Business Blueprint plan.

The Ministry stated (December 2025) that a revised version of Procurement Policy was approved in March 2025 and the same will be included in the SAP Business Blueprint.

Recommendation 65:

SECI may take immediate steps to incorporate the complete tendering process and all relevant procurement policy clauses into the Business Blueprint and ensure they are mapped into SAP-ERP.

6.1.9.3 Non-use of blacklisting/debarment functionality in SAP-ERP

SECI's Procurement Policy mandates use of IT-enabled systems to ensure transparency, integrity and exclusion of vendors engaged in corrupt or unethical practices, including blacklisting/debarment (Clauses A1.3.1(g), A1.3.3 and B5.8.2).

Audit scrutiny of the Material Management module in SAP-ERP revealed that SECI's SAP-ERP lacked integrated functionality for vendor blacklisting and debarment in the Business Blueprint, with no system-based execution, Audit trail, or robust role-based access and maker–checker controls.

Although SECI stated (October 2024) that no agencies were blacklisted, three vendors were debarred from participating in non-scheme-based tenders, without furnishing evidence of their debarment in the ERP system, details of authorised approvers, period of debarment or system reports for forfeiture of bid security/contract performance guarantees. However, a report generated by the SAP-ERP system provided the following details regarding blocked vendors:

Table 36: Details of Blocked Vendors in SAP-ERP System

No.	Name	Created by	Created on	Changed on	Changed by	Valid From	Valid To
1	Arms Peripherals	MMADMIN	14.12.2020	21.10.2021	100118	00.01.1900	31.12.9999
2	52000327	100118	16.2.2021	26.7.2024	100118	00.01.1900	31.12.9999
3	Bharat Electronics Ltd (Karnataka)	SDADMIN	14.12.2020	17.8.2021	100118	00.01.1900	31.12.9999

[77] *As per the Procurement Policy, these include specific procedural, financial and evaluation criteria such as turnover, working capital, net worth, payment terms, liquidated damages, competitive bidding methods, responsiveness tests, evaluation reports, contract performance guarantees, eligibility/ineligibility rules and grievance redressal mechanisms.*

No.	Name	Created by	Created on	Changed on	Changed by	Valid From	Valid To
4	XYZ	100178	18.9.2024	18.9.2024	100178	00.01.1900	31.12.9999

But, SECI did not furnish supporting documents on the blocking actions, identify the competent authority, clarify whether the users recorded as MMADMIN, SDADMIN, 100118 and 100178 were authorised to debar vendors, debarment period or confirm if Sl. No. 4 (XYZ) was test data. Audit observed that the system displayed a validity period, it reflected default values (valid from 00.01.1900 and valid to 31.12.9999), indicating that no actual or authorised time frame for blocking/debarment was defined or recorded. SECI stated that system has feature to block the vendor, however, the request is not forwarded to next approval authority.

The Ministry replied (December 2025) that the three debarred bidders have been deactivated in the ERP system.

6.1.9.4 Non-Implementation of Dunning and Interest Calculation Process in SAP-ERP

The Business Blueprint Plan for SAP-ERP implementation at SECI had envisaged the automation of Dunning and Interest Calculation processes to improve financial discipline and transparency in revenue collection. The dunning functionality was intended to systematically generate reminders and notices for overdue payments, while the interest calculation functionality was designed to apply standardised rules across mass runs, individual items, dunning notices and invoicing. Together, these processes were aimed at reducing manual effort, ensuring timely recovery of dues and strengthening compliance with financial policies.

Audit observed that SECI has not implemented the automated Dunning and Interest Calculation functionalities in SAP-ERP system as required in the Business Blueprint Plan. Instead, SECI continues to rely on manual interest calculations for overdue payments.

SECI continues to rely on manual intervention, which increases workload for finance teams who must manually track overdue payments and calculate interest. If the functionalities had been implemented in ERP, SECI would have benefited from automated generation of payment reminders, consistent application of due dates, accurate and transparent interest calculations and reliable Audit trails, all of which would have strengthened revenue realisation and reduced dependency on manual intervention.

Additionally, no manual records of dunning calculations were provided for verification and only a general outstanding balance report was furnished. As a result, Audit could not derive assurance regarding the dunning process.

The Ministry replied (December 2025) that they need to reduce manual intervention and improve process efficiency and are reviewing the existing process and exploring the standardisation of due date and interest logic to enable future automation. SECI also added that implementation of these functionalities will be taken up in a phased manner for financial process automation.

Recommendation 66:

SECI may expedite the implementation of automated Dunning and Interest Calculation functionalities in SAP-ERP.

6.1.9.5 Incomplete Master Data

The SAP Material Management (MM) module is a core component of the SAP ERP system that handles all aspects of procurement and inventory management for an organisation. Its primary goal is to ensure that the right materials are available in the right quantities at the right time and cost, optimising the supply chain, production and logistics processes.

The analysis of Vendor Master Data highlighted critical deficiencies, including 735 vendors out of 2402 without an updated Tax Number (PAN or GST). Further, 1,192 vendors out of 2402 had incomplete address details.

Similarly, an examination of the Material Master Data revealed that valuation type was missing for all 583 material records. Further, 400 out of 583 records had no purchasing group assigned, which affects procurement tracking and accountability.

The Audit of Asset Master Data revealed that 875 out of 2,631 records did not have an acquisition year, impacting asset lifecycle tracking. Additionally, 854 out of 2,631 records were missing measurement type, making proper asset classification difficult. 2,527 out of 2,631 records lacked an inventory number, severely affecting traceability and asset management. Further, in the Customer Master Data, 629 out of 921 customer records were found to be missing PAN details.

The Ministry replied (December 2025) that the process is underway for completion and uploading of master data to the ERP.

Recommendation 67:

Mandatory data validation protocols need to be enforced by SECI to ensure that key fields such as tax numbers and asset details are complete before records are finalised.

6.1.9.6 Non-utilisation of SAP-ERP for Viability Gap Funding Disbursements process

Audit scrutiny of the Viability Gap Funding (VGF) process revealed that out of 34 sanction letters received from the Ministry of New and Renewable Energy during the period 18 January 2021 to 31 May 2024, only three were processed through SAP-ERP.

The Ministry stated (December 2025) that VGF disbursements were being carried out with the approval of the competent authority in e-Office, but no supporting documentation, workflow records or reconciliations demonstrating how these payments were tracked outside the system were furnished to Audit.

Recommendation 68:

SECI may take immediate steps to ensure that all critical processes envisaged in the Business Blueprint Plan are configured and utilised through SAP-ERP and manual or parallel processing need to be phased out.

6.1.10 Conclusion

Several important features that were initially envisioned in the Business Blueprint Plan were either not implemented or only partially utilised, resulting in a continued reliance on manual processes and inefficiencies in crucial operations, even with an expenditure of ₹19.62 crore.

The absence of Scheduling and Deviation Settlement Mechanism, Dunning Calculations and non-utilisation of Viability Gap Funding disbursement from the SAP-ERP system is a major deviation from the original project scope. Similarly, the SAP-ERP system did not map the essential procurement processes, even though SECI's procurement policy required automation for efficiency and transparency. Important features like contract management, bid evaluation, vendor blacklisting and tendering were either partially or not at all implemented in the system.

Despite implementing SAP-ERP system, core financial transactions related to Earnest Money Deposits, Performance Bank Guarantees and Performance Securities remained outside the system, with 96 *per cent* of transactions still processed manually. This indicates that the

system for financial automation and control could not be leveraged, undermining the primary objective of implementing an ERP solution.

The lack of formal change management and training further limited the adoption of SAP-ERP system. Security risks were also amplified due to inadequate access controls and monitoring, with unauthorised high-privilege roles assigned to system integrator and default system accounts still being used. SECI's dependence on M/s Highbar Technocrat Ltd for SAP-ERP administration without developing in-house expertise has left the organisation vulnerable to vendor dependency.

The overall findings indicate that SECI has not fully utilised SAP-ERP system to achieve its intended objectives of automation, transparency and efficiency. The non-implementation of critical functionalities, limited usage of key modules and continued reliance on manual processes have undermined the effectiveness of the ERP system leading to operational inefficiencies and increased risks. Immediate corrective measures are required to ensure that the system is fully utilised, functionalities are implemented as originally planned and governance mechanisms are strengthened to prevent further gaps in ERP utilisation.

6.2 Unfruitful Expenditure of ₹5.07 crore

Unfruitful expenditure of ₹5.07 crore due to inadequate planning of Ladakh Renewable Energy Initiative Project (Small Hydro Projects) by the Ministry of New and Renewable Energy.

The Cabinet Committee on Infrastructure approved a project named 'Ladakh Renewable Energy Initiative' of the Ministry of New and Renewable Energy in April 2010 to meet energy requirement of the region and reduce dependence on non-renewable resources of energy. The Project envisaged setting up of Small Hydro Power Projects, Solar Photovoltaic, Solar Thermal Systems, *etc*. The responsibility of implementing the projects/systems was assigned to Ladakh Autonomous Hill Development Councils Leh and Kargil. Both the Councils had to get these projects executed through concerned renewable energy agencies and their engineering wings. A Steering Committee under the chairmanship of Secretary, Ministry of New and Renewable Energy was constituted by the Ministry in April 2010 to oversee and monitor the activities of the Project. The Ministry of New and Renewable Energy gave administrative approval to this Project in June 2010 at a total cost of ₹473 crore, out of which, an allocation of ₹266.80 crore was sanctioned for Small/Micro Hydro Projects.

The Project aimed at setting-up of 30 small hydel projects in Leh and Kargil districts with a total capacity of 23.68 MW (11.18 MW in Leh and 12.50 MW in Kargil). Out of these, Ladakh Renewable Energy Development Agency, one of the executing agencies, had to set up 22 small hydel projects with a total capacity of 11.18 MW in Leh district. However, after survey, investigation and preparation of the Detailed Project Report for 22 proposed small hydel projects in April 2012, the Agency undertook the execution of only 10 small hydel projects at a total estimated cost of ₹87.67 crore in view of time and cost constraints. The initial targeted date of completion of this Project was December 2013.

The Ministry of New and Renewable Energy released ₹63.37 crore from June 2011 to February 2025 for the Project while extending it in a phased manner up to December 2025 against the initial targeted date of completion by December 2013. Out of 10 Projects, five projects[78] were stated by the Ministry as commissioned and one project[79] was near completion as of October 2025. The remaining four projects have been scrapped by the Ministry as detailed in ***Annexure 14***.

In September 2017, as per the decision in the 5th Steering Committee meeting, a Committee constituted to review progress of the projects visited the sites and submitted its Report in October 2017, recommending scrapping of four out of the 10 small hydel projects. These were located in Durbuk, Sumda-Dho, Shayok and Waris III. However, the Ministry decided to engage Indian Institute of Technology (IIT), Roorkee (August 2018), for assessment of all small hydel projects.

IIT, Roorkee, submitted a project-wise evaluation report to the Ministry in November 2018. In the report, IIT, Roorkee recommended closure of three projects at Durbuk, Sumda-Dho and Shayok on techno economic basis and it could not visit the project at Waris due to long term road breakdown. The Ministry did not take any action on the report submitted by IIT, Roorkee, regarding closure of these Projects.

The Ministry, after a considerable lapse of time, in March 2023 again decided to get the earlier report of IIT, Roorkee, submitted to the Ministry in 2018 updated. In the meantime, the Ministry had neither taken any steps for resolution of issues nor made effective interventions to deliver on the Projects, as evidenced by the fact that no expenditure has been incurred on these four Projects during the period November 2018 to March 2023. IIT, Roorkee submitted

[78] ***Tsati, Henache, Chamshen, Chalungkha and Turtuk-I.***
[79] ***Bogdang.***

the updated report in July 2023 and recommended the closure of these four projects. The details of recommendations of IIT, Roorkee and items of expenditure incurred are shown in ***Annexure 14***.

Hence, the Projects undertaken by MNRE were marred by poor planning and faulty designs, which led to flawed execution and a mere progress of civil works and electromechanical works was made in all four Projects. While the Projects at Waris and Durbuk were allotted to the contractors two years after the tendering, the proposal of constructing a masonry dam in Shayok project made it techno-economically unviable. On 22 September 2023, the Steering Committee recommended closure of these four Projects. The Ministry accepted the recommendation and closed the four Projects after incurring an expenditure of ₹6.49 crore.

In reply to Audit's observation, the Ministry stated (December 2024) that an amount of ₹1.42 crore has been recovered from the contractor of Waris III SHP by encashing the Bank Guarantee. Further, the Ministry stated that the Projects being developed by Ladakh Renewable Energy Development Agency were in high altitude and rough terrain and the implementing agencies faced several issues, *viz.,* weather issues, implementation of Goods and Services Tax, disturbances by the separatists, rainfall and landslides in several areas, COVID-19 pandemic, *etc*.

The reply needs to be seen in the light of the fact that the Ministry was aware of the geography, weather and disturbances in the area beforehand and took up only 10 projects for execution out of 22 projects after survey and investigation. Therefore, approvals were granted with the knowledge of these challenges. Also, COVID-19 pandemic struck from 2020 to 2023, while the recommendation for closure of these four Projects had been given as early as October 2017 by a Committee of the Ministry constituted by the Steering Committee. The major reasons for closures of these Projects were poor planning and faulty designs, as has been reported in evaluation report submitted by the Indian Institute of Technology, Roorkee, in 2018 and 2023.

The Ministry further replied (October 2025) that project selection, Detailed Project Report preparation and execution were handled by Ladakh Renewable Energy Development Agency, while it only monitored progress based on reports, as it could not physically inspect all sites. The justification needs to be viewed in the light of the fact that the Steering Committee, was responsible for overall oversight and monitoring, which should handle the issues related to planning and execution of projects from the beginning itself. Seven meetings of the Steering Committee were held between 2010 and 2023; however, the Committee decided to visit the

project sites only in September 2017, after a considerable lapse of time, by which point substantial expenditure had already been incurred.

Thus, the lax approach of the Ministry towards overseeing and guiding the planning and implementation of the project resulted in unfruitful expenditure of ₹5.07 crore.

New Delhi
Dated: 10 July 2026

(Dr Kavita Prasad)
Director General of Audit, Central Expenditure
(Environment and Scientific Departments)

Countersigned

New Delhi
Dated: 16 July 2026

(K. Sanjay Murthy)
Comptroller and Auditor General of India

ANNEXURES

Annexure 1
(Refer Para 1.5)
Grants released to Central Autonomous Bodies auditable under Sections 14 and 15 of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971

No.	Ministry/Department Name of Autonomous Body	Amount of grants released in FY 2023-24 *(₹ in crore)*
Central Autonomous Bodies under the Department of Space		
1.	Physical Research Laboratory, Ahmedabad	211.00
2.	National Atmospheric Research Laboratory, Gadanki	42.84
3.	North Eastern Space Applications Centre, Umian	40.04
4.	Indian Institute of Space Technology, Thiruvananthapuram	115.31
Sub-Total		**409.19**
Central Autonomous Bodies under the Department of Atomic Energy		
5.	Atomic Energy Education Society, Mumbai	125.00
6.	Harish Chandra Research Institute, Prayagraj	42.15
7.	Institute of Mathematical Science, Chennai	81.36
8.	Institute of Physics, Bhubaneswar	42.77
9.	Institute for Plasma Research, Gandhi Nagar	301.09
10.	Saha Institute of Nuclear Physics, Kolkata	145.02
11.	Tata Institute of Fundamental Research, Mumbai	824.29
12.	Tata Memorial Centre, Mumbai	1311.81
13.	National Institute of Science Education and Research, Bhubaneswar	190.89
14.	Homi Bhabha National Institute, Mumbai	7.15
15.	Centre for Excellence in Basic Sciences, Mumbai	39.63
Sub-Total		**3111.16**
Central Autonomous Bodies under the Department of Science and Technology		
16.	Agharkar Research Institute-MACS, Pune	39.14
17.	Aryabhatta Research Institute of Observational Sciences, Nainital	49.19
18.	Bose Institute, Kolkata	90.00
19.	Birbal Sahni Institute of Palaeosciences, Lucknow	103.51
20.	Centre for Nano and Soft Matter Sciences, Bengaluru	15.93
21.	Indian Association Cultivation Sciences, Kolkata	159.12
22.	Indian Institute of Astrophysics, Bengaluru	119.16
23.	Indian Institute of Geomagnetism, Navi Mumbai	54.64
24.	Institute of Advanced Study in Science and Technology, Guwahati	38.27
25.	Institute of Nano Science and Technology, Mohali	37.31
26.	International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad	83.31
27.	Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru	105.16
28.	Raman Research Institute, Bengaluru	68.51
29.	Satyendra Nath Bose National Centre for Basic Sciences, Kolkata	50.10
30.	Wadia Institute of Himalayan Geology, Dehradun	44.56
31.	Technology Information, Forecasting and Assessment Council, New Delhi	20.12
32.	National Innovation Foundation- India, Gandhinagar	18.08
33.	North East Centre for Technology Application and Research, Shillong	18.67
34.	Vigyan Prasar, Noida	10.06
35.	Indian Academy of Sciences, Bengaluru	12.82
36.	Indian National Academy of Engineering, New Delhi	3.00
37.	Indian National Science Academy, New Delhi	27.13

No.	Ministry/Department Name of Autonomous Body	Amount of grants released in FY 2023-24 *(₹ in crore)*
38.	Indian Science Congress Association, Kolkata	4.96
39.	The National Academy of Sciences, Prayagraj	4.13
Sub-Total		**1176.88**
Central Autonomous Bodies under the Department of Biotechnology		
40.	National Institute of Immunology, New Delhi	105.17
41.	National Centre for Cell Science, Pune	80.00
42.	Centre for DNA Fingerprinting and Diagnostics, Hyderabad	56.00
43.	National Brain Research Centre, Gurgaon	39.50
44.	National Institute for Plant Genome Research, New Delhi	71.80
45.	Institute of Bio-resources and Sustainable Development, Imphal	22.61
46.	Institute of Life Science, Bhubaneswar	45.50
47.	Translational Health Science and Technology Institute, Faridabad	97.09
48.	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	131.00
49.	National Institute of Biomedical Genomics, Kalyani	45.37
50.	National Agri-food Biotechnology Institute, Mohali	41.00
51.	Institute For Stem Cell Science and Regenerative Medicine, Bengaluru	66.23
52.	National Institute of Animal Biotechnology, Hyderabad	36.30
53.	Centre for Innovative and Applied Bioprocessing, Mohali	13.50
Sub-Total		**851.07**
Central Autonomous Bodies under the Ministry of Environment, Forest and Climate Change		
54.	Indian Council of Forestry Research and Education, Dehradun	230.00
55.	Central Pollution Control Board, New Delhi	105.00
56.	G.B. Pant National Institute of Himalayan Environment, Almora	25.00
57.	Indian Institute of Forest Management, Bhopal	18.46
58.	National Centre for Sustainable Coastal Management, Chennai.	124.75
59.	Salim Ali Centre for Ornithology and Natural History, Coimbatore.	10.06
60.	Institute of Forest Genetics and Tree Breeding, Coimbatore.	25.51
61.	Padmaja Naidu Himalayan Zoological Park, Darjeeling	Not applicable
62.	Tropical Forest Research Institute, Jabalpur	22.27
63.	Institute of Forest Productivity, Ranchi	10.33
64.	Rain Forest Research Institute, Jorhat	19.72
65.	Forest Research Centre for Bamboo and Rattan, Aizawl	0.23
66.	Forest Research for Livelihood and Extension, Agartala	32.77
Sub-Total		**624.10**
Central Autonomous Bodies under the Ministry of New and Renewable Energy		
67.	National Institute of Wind Energy, Chennai	10.14
68.	National Institute of Bio Energy, Punjab	7.40
69.	National Institute of Solar Energy, Gurugram	20.75
Sub-Total		**38.29**
Central Autonomous Bodies under the Ministry of Earth Sciences		
70.	National Centre for Polar Ocean Research, Goa	280.48
71.	India Institute of Tropical Meteorology, Pune	205.00
72.	National Institute of Ocean Technology, Chennai	266.69
73.	Indian National Centre for Ocean Information Services, Hyderabad	135.95
74.	National Centre for Earth Science Studies, Thiruvananthapuram	21.09
Sub-Total		**909.21**
Grand Total		**7119.90**

Annexure 2
(Refer Para 1.6)
Outstanding Utilisation Certificates

No.	Ministry/Department	Period to which grants relate (up to March 2023)	Utilisation Certificates outstanding in respect of grants released up to March 23 which were due by 31 March 2024 (in nos.)	Amount *(₹ in crore)*
1.	**Department of Atomic Energy**			
		Up to March 2014	207	15.81
		2014-22	398	53.28
		2022-23	46	5.84
		Sub-Total	**651**	**74.93**
2.	**Department of Space**			
		Up to March 2014	120	3.28
		2014-22	144	6.69
		2022-23	46	2.16
		Sub-Total	**310**	**12.13**
3.	**Department of Science and Technology**			
		Up to March 2014	--	--
		2014-22	13172	4732.61
		2022-23	131	86.04
		Sub-Total	**13303**	**4818.65**
4.	**Department of Biotechnology**			
		Up to March 2014	--	**--**
		2014-22	20054	9270
		2022-23	446	404
		Sub-Total	**20500**	**9674.00**
5.	**Ministry of Environment, Forest and Climate Change**			
		Up to March 2014	3787	160.91
		2014-22	723	738.97
		2022-23	223	323.58
		Sub-Total	**4733**	**1223.46**
6.	**Ministry of New and Renewable Energy**			
		Up to March 2014	116	80.96
		2014-22	676	748.03
		2022-23	18	53.96
		Sub-Total	**810**	**882.95**
7.	**Ministry of Earth Sciences**			
		Up to March 2014	460	31.41
		2014-22	235	43.88
		2022-23	0	0

No.	Ministry/Department	Period to which grants relate (up to March 2023)	Utilisation Certificates outstanding in respect of grants released up to March 23 which were due by 31 March 2024 (in nos.)	Amount *(₹ in crore)*
		Sub-Total	**695**	**75.29**
		Total	**41002**	**16761.41**

Annexure 3
(Refer Para 1.7)
List of Central Public Sector Enterprises

No.	Name of CPSE	Supplementary Audit completed up to FY 2023-24
Ministry of New and Renewable Energy		
1.	Himachal Renewables Limited, Shimla	Audit Comments along with Management letter issued
2.	Indian Renewable Energy Development Agency Limited, Delhi	Nil comments along with Management letter issued
3.	Solar Energy Power Corporation of India Limited, Delhi	Nil comments along with Management letter issued
4.	Lucknow Solar Power Development Corporation Limited	Non-review certificate
5.	Rewa Ultra Mega Solar Limited, Corporate Office	Nil comments along with Management letter issued
6.	Karnataka Solar Power Development Corporation Limited, Bengaluru	Non-review certificate
7.	Renewable Power Corporation of Kerala Limited, Kasargod	Non-review certificate
8.	Andhra Pradesh Solar Power Corporation Private Limited, Vijayawada	Nil comments along with Management letter issued
Department of Biotechnology		
9.	Biotechnology Industry Research Assistance Council, Delhi	Nil comments
10.	Bharat Immunological and Biologicals Corporation Limited, Delhi	Audit Certification is in process
11.	Indian Vaccines Company Limited, Delhi	Nil comments
Department of Scientific and Industrial Research		
12.	Central Electronics Limited, Ghaziabad	Non-review certificate
13.	National Research Development Corporation, New Delhi	Nil comments along with Management letter issued
Ministry of Environment, Forest and Climate Change		
14.	Andaman Islands Forest and Plantation Development Corporation Limited, Port Blair	MCA 21 database shows that the CPSE has been struck off but it is yet to be confirmed by the concerned Ministry.
Department of Space		
15.	Antrix Corporation Limited, Bengaluru	Non-review certificate
16.	New Space India Limited, Bengaluru	Nil comments along with Management letter issued
Department of Atomic Energy		
17.	Bhartiya Nabhikiya Vidyut Nigam Limited (Bhavini), Kalpakkam	Nil comments along with Management letter issued
18.	Electronics Corporation of India Limited, Hyderabad	Nil comments along with Management letter issued
19.	Anushakti Vidyut Nigam Limited, Corporate Office, Mumbai	Non-review certificate
20.	Indian Rare Earth (India) Limited, Head Office, Mumbai	Nil comments along with Management letter issued
21.	Nuclear Power Corporation of India Limited - Indian Oil Nuclear Energy Corporation Limited, Mumbai	Non-review certificate

No.	Name of CPSE	Supplementary Audit completed up to FY 2023-24
22.	Nuclear Power Corporation of India Limited, Corporate Office, Mumbai	Nil comments along with Management letter issued
23.	IREL-IDCOL Limited, (Corporate Office)	Non-review certificate
24.	Uranium Corporation of India Limited, (UCIL Corporate Office)	Nil comments along with Management letter issued
25.	AIC-IPR Plasmatech Innovation Foundation	Nil comments along with Management letter issued
26.	AIC-RR CAT PI-HUB Foundation	Nil comments along with Management letter issued

Annexure 4
(Refer Para 1.8)
Statement of Losses and Irrecoverable Dues Written off/Waived during 2023-24

(₹ in lakh)

Name of Ministry/ Department	Write-off of Losses and Irrecoverable Dues due to									
	Failure of system		Neglect/Fraud, *etc.*		Other reasons		Waiver of Recovery		*Ex-gratia* Payments	
	Cases	Amount	Cases	Amount	Cases	Amount	Cases	Amount	Cases	Amount
Department of Atomic Energy	-	-	-	-	10	8.11	-	-	-	-
Ministry of New and Renewable Energy	NIL									
Department of Bio-Technology	NIL									
Department of Science and Technology	NIL									
Department of Scientific and Industrial Research	-	-	-	-	2	1.91	-	-	-	-
Department of Space	-	-	-	-	1	0.55	-	-	-	-
Ministry of Earth Sciences	NIL									
Ministry of Environment, Forest and Climate Change	NIL									
Total	**-**	**-**	**-**	**-**	**13**	**10.57**	**-**	**-**	**-**	**-**

Annexure 5
(Refer Para 1.9)
Department/Ministry wise break-up of outstanding Inspection Reports and Paras

No.	Ministry/ Department	No. of IRs/Paras pending as of 31 March 2024										Grand Total	
		Environment		Inspection		Kolkata		Mumbai		Bangalore			
		IR	Para	IR	Para	IR	Para	IR	Para	IR	Para	IR	Para
1.	Department of Atomic Energy	0	0	0	0	75	363	80	563	28	222	183	1148
2.	Department of Space	0	0	0	0	4	15	0	0	140	932	144	947
3.	Department of Scientific and Industrial Research	0	0	22	112	56	265	11	73	68	413	157	863
4.	Department of Science and Technology	0	0	18	90	107	421	8	70	62	543	195	1124
5.	Department of Biotechnology	0	0	26	153	21	86	1	8	13	78	61	325
6.	Ministry of Earth Sciences	0	0	18	144	23	75	18	118	40	261	99	598
7.	Ministry of Environment, Forest and Climate Change	177	1325	**0**	**0**	140	557	9	46	58	410	384	2343
8.	Ministry of New and Renewable Energy	58	418	**0**	**0**	**0**	**0**	1	3	9	89	68	510
Total		**235**	**1748**	**84**	**499**	**426**	**1782**	**128**	**881**	**418**	**2948**	**1291**	**7858**

Annexure 6
(Refer Para 1.11)
Summarised position of the first Action Taken Notes awaited from various Ministries/Departments as of January 2026

No.	No. and Year of Report	Para No.	Para title	Date of laying in the Parliament	Delay in submission of ATNs
Department of Biotechnology					
1.	6 of 2020	14.2	Extra expenditure towards grant of allowances	23.9.2020	64 months 9 days
Ministry of Earth Sciences					
2.	8 of 2025	Full Report	Activities of Indian National centre for Ocean Information Services	12.8.2025	5 months 20 days
	Commercial Units				
Department of Atomic Energy					
3.	2 of 2021	4.5	Payment of inadmissible family planning allowance to employees.	24.3.2021	58 months 8 days
4.	24 of 2023	8.2	Contract and Material Management in Nuclear Power Corporation of India Limited	9.2.2024	23 months 23 days

Annexure 7
[Refer Para 1.11(a)]

Summarised position of Revised Action Taken Notes awaited from various Ministries/Departments on which Audit has given comments/observations as of January 2026

No.	No. and Year of Report	Para No.	Para title	Date of issue of vetting comments on the ATN	Delay in submission of revised ATNs
Ministry of Environment, Forest and Climate Change					
1.	4 of 2022	Entire Report	Performance report on 'Conservation of Coastal Ecosystem'.	25.7.2025	6 months 7 days
Department of Scientific and Industrial Research					
2.	2 of 2021	11.1	Functionality of IT Application System 'One CSIR'	12.11.2025	2 months 20 days
3.	21 of 2022	4.1	Irregular grant of incentives and allowances	17.11.2023	26 months 15 days
4.	24 of 2023	4.1	Deficient contract management leading to avoidable expenditure of ₹0.94 crore	19.6.2025	7 months 13 days
Department of Bio-technology					
5.	24 of 2023	3.1	Inadmissible payment of ₹0.68 crore on travelling allowance	10.1.2025	12 months 22 days
Department of Atomic Energy					
6.	24 of 2023	8.1	Functioning of Institute for Plasma Research	30.9.2025	4 months 2 days

Annexure 8
(Refer Para 2.3)

Details of Work Orders of elevators and extra expenditure incurred on t

Civil work					Elevators wo			
No.	**Name of the Building where elevators were to be installed**	**Date of issue of Work Order**	**Scheduled Date of Completion of Civil Work**	**Actual date of completion of Civil Work**	**Date of issue of Work Order**	**Scheduled date of completion of elevators work**	**Date of supply of Elevator's components**	**Actu com**
1	Bachelor's Accommodation at Homi Bhabha National Institute (B1)	25.4.2012	8.5.2014	28.2.2022	23.1.2014	5.10.2014	21.11.2014	29.1
2	Married students' Accommodation Building at Homi Bhabha National Institute (M1)	25.4.2012	8.5.2014	15.3.2022	28.1.2015	10.10.2015	19.9.2015	28.
3	Type III-C Building	8.8.2012	21.8.2014	30.6.2021	13.11.2013	26.7.2014	26.11.2014	31.1
4	Type IV-D Building	8.8.2012	21.8.2014	31.3.2022	16.4.2015	29.12.2015	26.9.2015	31. 31.
5	Type E Building	8.8.2012	21.8.2014	Not completed	16.4.2015	29.12.2015	26.9.2015	Con
Total								

Annexure 9
(Refer Para 4.1.1)
Generation, Utilisation and Closing Balance of LHRF

No.	Laboratory/Institute	2021-22			2022-23			2023-20	
		G*	U*	CB*	G*	U*	CB*	G*	U*
1.	CSIR Headquarters[80]	142.25	17.94	696.47	73.17	0.91	768.73	46.64	3.71
2.	Central Institute of Mining and Fuel Research, Dhanbad	45.69	17.76	294.34	45.83	20.06	320.12	372.82	13.26
3.	National Aerospace Laboratories, Bengaluru	59.07	10.38	267.41	46.04	17.91	295.54	71.53	17.97
4.	Central Electrochemical Research Institute, Karaikudi	-3.08	2.10	106.83	9.32	0.40	115.75	2.69	0.34
5.	National Metallurgical Laboratory, Jamshedpur	31.68	2.27	92.40	12.60	1.83	103.17	17.67	3.26
6.	Central Road Research Institute, Delhi	-6.98	2.77	80.35	9.25	2.76	86.85	23.50	0.71
7.	National Institute of Oceanography, Goa	13.82	4.36	69.18	19.97	3.09	86.06	13.34	0.72
8.	National Environmental Engineering Research Institute, Nagpur	9.82	3.84	36.47	36.86	4.26	69.07	18.88	6.61
9.	Indian Institute of Chemical Technology, Hyderabad	6.20	0.42	28.45	11.42	2.47	37.40	22.42	0.59
10.	National Geophysical Research Institute, Hyderabad	4.82	0.39	28.72	20.80	2.19	47.33	11.11	0.71
11.	Structural Engineering Research Centre, Chennai	0.18	2.60	22.63	3.71	2.32	24.02	30.81	0.11
12.	National Chemical Laboratory, Pune	4.69	4.94	26.26	9.05	0.66	34.65	17.12	3.01
13.	National Physical Laboratory, Delhi	8.82	3.33	35.73	14.73	9.27	41.18	9.02	2.88
14.	Central Leather Research Institute, Chennai	-0.60	0.42	41.27	8.87	4.07	46.06	1.30	0.62
15.	Institute of Minerals and Materials Technology, Bhubaneshwar	-3.11	3.20	35.79	8.16	6.44	37.51	9.43	2.19
16.	Central Building Research Institute, Roorkee	-2.25	2.18	29.30	2.39	4.11	27.58	15.79	3.20

[80] *Including Closing Balance of ₹0.11 crore at Human Resource Development Centre, Ghaziabad (a central training establishment of Council of Scientific and*

No.	Laboratory/Institute	2021-22			2022-23			2023-20	
		G*	U*	CB*	G*	U*	CB*	G*	U*
17.	Indian Institute of Petroleum, Dehradun	1.47	1.06	27.75	5.58	1.07	32.26	5.84	0.23
18.	Institute of Microbial Technology, Chandigarh	1.83	1.09	23.58	1.88	0.75	24.72	4.72	1.76
19.	Centre for Cellular Molecular Biology, Hyderabad	5.96	3.72	6.19	10.06	0.44	15.81	9.33	0.14
20.	Central Glass Ceramic Research Institute, Kolkata	3.91	1.01	19.24	2.95	0.57	21.63	3.48	0.23
21.	Central Salt Marine Chemicals Research Institute, Bhavnagar	1.25	1.08	21.09	1.90	1.30	21.69	3.08	1.18
22.	Central Mechanical Engineering Research Institute, Durgapur	1.51	5.97	16.88	3.21	0.19	19.89	3.38	0.25
23.	Central Food Technological Research Institute, Mysore	4.99	1.39	16.40	3.91	0.98	19.33	3.74	1.13
24.	Indian Institute of Toxicology Research, Lucknow	0.92	0.61	11.95	1.86	0.92	12.90	9.39	1.61
25.	Central Drug Research Institute, Lucknow	2.33	0.09	11.96	4.29	0.14	16.11	4.34	0.06
26.	Institute of Genomics and Integrative Biology, Delhi	-0.24	3.26	4.37	0.74	0.48	4.63	12.63	0.86
27.	North-East Institute of Science and Technology, Jorhat	2.90	0.40	14.69	1.56	4.09	12.17	3.38	0.04
28.	Central Scientific Instruments Organisation, Chandigarh	3.78	2.04	10.62	3.19	1.56	12.25	1.96	0.96
29.	Indian Institute of Chemical Biology, Kolkata	1.36	2.64	8.53	0.83	0.25	9.11	3.01	0.07
30.	Central Electronics Engineering Research Institute, Pilani	2.65	2.35	11.03	1.84	0.65	12.22	1.36	2.53
31.	Central Institute of Medicinal Aromatic Plants, Lucknow	-1.65	0.29	5.62	2.68	0.51	7.80	2.37	0.22
32.	National Botanical Research Institute, Lucknow	-2.14	2.08	6.99	1.15	0.15	7.99	1.76	0.00
33.	National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram	2.82	0.27	9.01	2.40	3.22	8.18	3.62	4.15
34.	Indian Institute of Integrative Medicine, UT of Jammu and Kashmir	-3.59	0.32	8.90	-4.09	0.24	4.57	2.38	0.16

No.	Laboratory/Institute	2021-22			2022-23			2023-20	
		G*	U*	CB*	G*	U*	CB*	G*	U*
35.	Advanced Materials and Processes Research Institute, Bhopal	-0.94	0.41	4.76	0.70	0.39	5.08	0.71	0.01
36.	Fourth Paradigm Institute, Bangalore	1.47	0.35	2.96	0.85	0.01	3.80	0.13	0.09
37.	Institute of Himalayan Bioresource Technology, Palampur	-0.83	0.54	2.94	1.26	2.19	2.01	0.75	0.09
38.	National Institute of Science Communication and Policy Research, New Delhi.	-3.81	0.13	6.20	1.27	0.14	7.34	1.73	0.09
	Total	**337.00**	**110.00**	**2143.25**	**382.21**	**102.98**	**2422.48**	**767.17**	**75.73**

**G - Generation during the year, *U - Utilisation during the year, *CB - Closing Balance.*

[81] ***Excluding accrued interest of ₹38.90 crore, ₹49.73 crore, ₹177.26 crore and ₹208.87 crore for financial years 2021-22, 2022-23, 2023-34 and 2024-25, respec***

Annexure 10
(Refer Para 4.1.5.1)
Total Fund generation and Interest from Investments for the period 2021-2024

Laboratory/Institute	Year	Total generation *(₹ in crore)*	Interest from investment *(₹ in crore)*	Percentage of LHRF generated from interest
CSIR Headquarters	2021-22	142.25	39.25	27.59
	2022-23	73.17	20.83	28.47
	2023-24	46.64	42.00	90.05
Central Road Research Institute	2021-22	-6.98	8.78	100.00[82]
	2022-23	9.25	9.25	100.00
	2023-24	23.50	15.98	68.00
National Aerospace Laboratories	2021-22	59.07	9.79	16.57
	2022-23	46.04	21.89	47.55
	2023-24	71.53	30.71	42.93
National Chemical Laboratory	2021-22	4.69	2.02	44.07
	2022-23	9.05	3.85	42.54
	2023-24	17.12	4.64	27.10
National Institute of Oceanography	2021-22	13.82	5.99	43.34
	2022-23	19.97	4.10	20.53
	2023-24	13.34	6.30	47.22
Indian Institute of Chemical Biology	2021-22	1.36	0.19	13.97
	2022-23	0.83	0.84	101.20
	2023-24	3.01	0.40	13.29
National Metallurgical Laboratory	2021-22	31.68	7.26	22.93
	2022-23	12.60	6.34	50.32
	2023-24	17.67	9.62	54.44
Institute of Himalayan Bioresource Technology	2021-22	-0.83	0.00	0.00
	2022-23	1.26	0.00	0.00
	2023-24	0.75	0.00	0.00
Central Electrochemical Research Institute	2021-22	-3.08	0.94	100.00
	2022-23	9.32	0.80	8.58
	2023-24	2.69	1.02	37.92
Central Institute of Mining and Fuel Research	2021-22	45.69	47.60	104.18
	2022-23	45.83	62.99	137.44
	2023-24	372.82	147.30	39.51
Total		**1066.94**	**510.68**	**47.86**

[82] *Excluding the fund transfer to Headquarters.*

Annexure 11
(Refer Para 4.1.5.3 b)
Positive Balance in Projects

No.	Project No.	Amount *(in ₹)*
1	SSP0141	90651044.81
2	SSP0855	13921926.26
3	SSP0151	11033217.81
4	SSP2065	9558076
5	SSP2698	8128457
6	SSP0636	8073783.08
7	SSP1945	7928811
8	SSP2682	7521639.42
9	SSP2682	7518695
10	SSP2666	7214278.7
11	SSP3642	6916557.15
12	SSP2712	5785154
13	SSP2047	5413779
14	SSP0852	5101068.85
15	SSP2058	5038401.38
16	SSP0253	4125118.65
17	SSP3641	4061855.5
18	SSP1724	3934452
19	SSP0142	3915223.29
20	SSP2049	3805612
21	SSP3724	3698399
22	SSP3650	3574041.9
23	SSP1631	3287403
24	SSP2735	2878001
25	SSP3295	2832712.5
26	SSP0642	2795558
27	SSP2051	2782923
28	SSP0665	2649501
29	SSP3735	2589455
30	SSP2689	2526207
31	SSP2056	2525176
32	SSP0650	2371701.01
33	SSP2655	2336673.5
34	SSP2506	2289000
35	SSP2042	2279363.6
36	SSP0640	2243655.39
37	SSP1281	2192006
38	SSP2721	2126537
39	SSP2672	2042401
40	SSP2688	1995002
41	SSP0858	1964100.43
42	SSP0682	1909282
43	SSP3802	1904788.83
44	SSP3318	1903572
45	SSP2043	1882131
46	SSP1829	1854628.79
47	SSP5607	1848084
48	SSP3803	1767791.32
49	SSP0660	1671579.26
50	SSP3646	1668611
51	SSP2677	1665139
52	SSP0669	1622274
53	SSP1289	1612500
54	SSP3680	1579039
55	SSP0643	1440780.56
56	SSP1286	1439097
57	SSP2729	1407823
58	SSP2068	1351077
59	SSP2692	1335097
60	SSP0661	1312582
61	SSP3684	1300000
62	SSP0641	1282643.6
63	SSP0639	1273774.45
64	SSP2620	1268828
65	SSP1709	1208359.46
66	SSP2654	1203330.5
67	SSP0155	1196458
68	SSP1287	1192766
69	SSP0865	1183484
70	SSP2663	1113497
71	SSP2675	1090474
72	SSP0664	1080937
73	SSP9660	958390
74	SSP3821	932674
75	SSP3719	907542.9
76	SSP0646	900841.75
77	SSP2732	897990
78	SSP5804	892500
79	SSP2661	869825
80	SSP3290	851403.23
81	SSP3317	847315.8
82	SSP1714	833355.04
83	SSP1285	830322
84	SSP2718	789013
85	SSP5608	779456.12
86	SSP2681	777400
87	SSP5615	769899
88	SSP0647	755543
89	SSP3814	738073.8
90	SSP3816	727931.78
91	SSP2077	707000
92	SSP5612	683195
93	SSP3804	646649.24
94	SSP1618	640703
95	SSP3722	632022
96	SSP3810	628804.2
97	SSP3737	604092
98	SSP0673	601837
99	SSP3663	564475
100	SSP2048	560617.85
101	SSP3725	555083.5
102	SSP2719	542507
103	SSP1610	539257.5
104	SSP1405	503286
105	SSP5901	493031.5
106	SSP0856	485855
107	SSP0837	478187
108	SSP0652	477696
109	SSP1293	472973.43
110	SSP2707	463183
111	SSP3818	440110
112	SSP2738	427184
113	SSP3738	427163
114	SSP2741	414675

No.	Project No.	Amount *(in ₹)*
115	SSP1290	409717.45
116	SSP2665	401903
117	SSP1634	401210
118	SSP2725	390000
119	SSP2685	377432
120	SSP2731	371823
121	SSP3289	369898
122	SSP3688	369764
123	SSP2696	368730
124	SSP3645	317838
125	SSP2743	298875
126	SSP1824	291965
127	SSP1291	289775.39
128	SSP3807	280782.55
129	SSP2683	267400
130	SSP3661	262874.4
131	SSP3294	253733.2
132	SSP1727	237142
133	SSP1299	230923.78
134	SSP1628	228760
135	SSP3674	227476
136	SSP2054	218987
137	SSP2739	217177
138	SSP0666	198707
139	SSP0859	193767
140	SSP2071	191318
141	SSP5606	188727.9
142	SSP1408	185460
143	SSP1621	166731.06
144	SSP0256	164325.08
145	SSP2037	163804
146	SSP0258	152400
147	SSP3297	140731.45
148	SSP3668	119565
149	SSP1622	118507.75
150	SSP2740	117270
151	SSP1715	116033
152	SSP3685	115305
153	SSP2687	112750
154	SSP1294	109655
155	SSP2684	108948
156	SSP1723	57674.25
157	SSP3902	52586
158	SSP1708	46074
159	SSP3808	42520.03
160	SSP2073	35000
161	SSP3826	33741
162	SSP1711	31954.7
163	SSP5610	28177
164	SSP1716	17585
165	SSP2046	6826.3
166	SSP0658	2971
167	SSP0255	1.63
168	SSP5613	1.5
169	SSP3811	1.17
170	SSP0863	1.14
171	SSP5803	1.06
172	SSP0656	1
173	SSP0657	1
174	SSP0866	1
175	SSP1630	1
176	SSP2717	1
177	SSP3809	0.97
178	SSP0653	0.8
179	SSP3651	0.62
180	SSP2060	0.29
181	SSP3652	0.2
182	SSP3405	0.1
Total		**357349776.41**

Annexure 12
(Refer Para 4.1.5.3 b)
Negative Balance in Projects

No.	Project No.	Amount (*in* ₹)
1	SSP1607	-0.10
2	SSP2059	-0.58
3	SSP2664	-69.60
4	SSP1718	-643.50
5	SSP2694	-1169.00
6	SSP0842	-1539.00
7	SSP3657	-6692.00
8	SSP3659	-8037.42
9	SSP2372	-9647.00
10	SSP2633	-15000.00
11	SSP0655	-33560.00
12	SSP1402	-48167.40
13	SSP1295	-57233.00
14	SSP1624	-74026.00
15	SSP2052	-78544.91
16	SSP0250	-79586.00
17	SSP1726	-79867.00
18	SSP2680	-93989.00
19	SSP3644	-120197.00
20	SSP3648	-139270.90
21	SSP1721	-152658.00
22	SSP1627	-168321.00
23	SSP0649	-185219.34
24	SSP2727	-198826.00
25	SSP1826	-220723.00
26	SSP3653	-223937.00
27	SSP1297	-232034.00
28	SSP1710	-241346.83
29	SSP1617	-243747.50
30	SSP1830	-252090.40
31	SSP1292	-253449.49
32	SSP0862	-351529.04
33	SSP1823	-520916.02
34	SSP3293	-528842.80
35	SSP0645	-545041.52
36	SSP0651	-602490.00
37	SSP0254	-770118.50
38	SSP2679	-782776.00
39	SSP1284	-829802.00
40	SSP3801	-892456.85
41	SSP0648	-917261.00
42	SSP0119	-932773.00
43	SSP3287	-989422.50
44	SSP0644	-1011634.50
45	SSP2063	-1076275.00
46	SSP2062	-1111178.00
47	SSP3647	-1246786.34
48	SSP3655	-1285540.72
49	SSP3721	-1311756.50
50	SSP2733	-1320068.00
51	SSP2045	-1602941.00
52	SSP2021	-1618218.00
53	SSP1620	-1678766.00
54	SSP3726	-1711406.56
55	SSP2053	-1911014.00
56	SSP1825	-1915306.00
57	SSP5701	-2005847.00
58	SSP3723	-2032057.75
59	SSP3649	-2099712.45
60	SSP1706	-2357022.87
61	SSP3638	-2358426.40
62	SSP3901	-2388126.91
63	SSP3603	-2453208.73
64	SSP1827	-2469244.00
65	SSP3285	-2526518.20
66	SSP0149	-2534779.15
67	SSP0257	-2561481.00
68	SSP1251	-3092058.00
69	SSP1278	-3200979.72
70	SSP0663	-3351685.00
71	SSP1707	-3386466.25
72	SSP0851	-4260656.72
73	SSP3316	-5715929.04
74	SSP1623	-8003555.00
75	SSP1221	-8099120.16
76	SSP0847	-9461790.00
77	SSP5801	-14602696.01
78	SSP0840	-15086785.45
79	SSP3315	-15488011.34
80	SSP3654	-15600608.72
81	SSP3453	-30536918.22
82	SSP0047	-36612648.00
83	SSP2014	-92121223.13
Total		**-325091467.04**

Annexure 13
(Refer Para 4.1.6.2)
Transfer of Funds from Laboratories to CSIR Headquarters

2021-22					
No.	Lab Name	Generation (₹ *in lakh*)	*5 per cent* of Generation (₹ *in lakh*)	Fund received at CSIR HQ out of *5 per cent* generation (₹ *in lakh*)	Excess/Less (₹ *in lakh*)
1	IIP	146.92	7.35	137.34	129.99
2	CRRI	-697.75	-34.89	76.08	110.97
3	IMMT	-310.82	-15.54	53.42	68.96
4	SERC	18.01	0.9	62.8	61.9
5	IHBT	-82.91	-4.15	54.89	59.04
6	IMTECH	183.03	9.15	58.62	49.47
7	CLRI	-59.62	-2.98	39.27	42.25
8	CBRI	-225.39	-11.27	17.24	28.51
9	CECRI	-307.61	-15.38	11.05	26.43
10	CSMCRI	125.43	6.27	32.66	26.39
11	IIIM	-359.36	-17.97	3.19	21.16
12	NPL	882.07	44.1	63.25	19.15
13	IGIB	-23.99	-1.2	16.05	17.25
14	IITR	92.25	4.61	21.46	16.85
15	CIMAP	-165.28	-8.26	7.16	15.42
16	NBRI	-213.79	-10.69	0	10.69
17	CMERI	150.73	7.54	17.54	10
18	CGCRI	390.7	19.54	27.29	7.76

2022-23					
No	Lab Name	Generation (₹ *in lakh*)	*5 per cent* of Generation (₹ *in lakh*)	Fund received at CSIR HQ out of *5 per cent* generation (₹ *in lakh*)	Excess/Less (₹ *in lakh*)
1	NML	1260.27	63.01	156.21	93.2
2	NAL	4604.29	230.21	260.35	30.14
3	IIIM	-408.9	-20.45	7.05	27.5
4	IGIB	73.93	3.7	9.53	5.83
5	CFTRI	390.88	19.54	24.93	5.39
6	CGCRI	295.14	14.76	19.11	4.35
7	4 PI	85.08	4.25	7.36	3.11
8	NIIST	239.58	11.98	14.12	2.14
9	IIP	557.57	27.88	29.39	1.51
10	NEIST	156.49	7.82	8.93	1.11
11	HRDC	0	0	0	0
12	IMTECH	188.37	9.42	9.15	-0.27
13	CIMFR	4583.33	229.17	228.43	-0.74
14	IICB	83.16	4.16	3.37	-0.79
15	AMPRI	70.44	3.52	2.68	-0.84
16	CSIO	318.8	15.94	14.61	-1.33
17	CDRI	429.15	21.46	19.12	-2.34
18	NIScPR	127.41	6.3705	3.89	-2.48

No.	Lab Nam
1	CIMFR
2	NML
3	NIO
4	NEERI
5	CLRI
6	NGRI
7	CSIO
8	CGCRI
9	NPL
10	CCMB
11	CIMAP
12	CDRI
13	NEIST
14	CEERI
15	NBRI
16	CMERI
17	4 PI
18	NIScPR

2021-22					
No.	**Lab Name**	**Generation *(₹ in lakh)***	***5 per cent* of Generation *(₹ in lakh)***	**Fund received at CSIR HQ out of *5 per cent* generation *(₹ in lakh)***	**Excess/Less *(₹ in lakh)***
19	AMPRI	-93.57	-4.68	2.79	7.47
20	NGRI	481.71	24.09	30.67	6.58
21	NCL	469.2	23.46	29.75	6.29
22	NEERI	981.69	49.08	54.63	5.55
23	CEERI	265.25	13.26	14.14	0.88
24	HRDC	0	0	0	0
25	NIScPR	-380.35	-19.02	0	0
26	NIIST	282.38	14.12	12.95	-1.17
27	CDRI	233.22	11.66	10.17	-1.49
28	IICB	136.16	6.81	4.79	-2.02
29	NEIST	290.2	14.51	11.15	-3.36
30	4 PI	147.2	7.36	0.49	-6.87
31	CFTRI	498.59	24.93	16.14	-8.79
32	IICT	620.47	31.02	19.32	-11.7
33	CSIO	378.03	18.9	6.37	-12.53
34	CCMB	595.82	29.79	12.67	-17.12
35	NIO	1382.2	69.11	47.75	-21.36
36	NML	3168.44	158.42	109.64	-48.78
37	NAL	5907.08	295.35	233.57	-61.78
38	CIMFR	4568.56	228.43	0	-228.43
Total		**19474.9**	**974.48**	**1316.3**	

2022-23					
No.	**Lab Name**	**Generation *(₹ in lakh)***	***5 per cent* of Generation *(₹ in lakh)***	**Fund received at CSIR HQ out of *5 per cent* generation *(₹ in lakh)***	**Excess/Less *(₹ in lakh)***
19	CSMCRI	189.98	9.5	6.27	-3.23
20	IITR	186.23	9.31	4.61	-4.7
21	NBRI	115.29	5.76	0	-5.76
22	IHBT	125.69	6.28	0	-6.28
23	CEERI	184.44	9.22	1.5	-7.72
24	CMERI	320.73	16.04	6.92	-9.12
25	IMMT	816.26	40.81	30.29	-10.52
26	CBRI	239.13	11.96	0	-11.96
27	CIMAP	268.37	13.42	0	-13.42
28	SERC	370.53	18.53	0.9	-17.63
29	NCL	904.68	45.23	23.46	-21.77
30	IICT	1141.75	57.09	31.02	-26.07
31	NIO	1997.34	99.87	71.49	-28.38
32	NPL	1472.68	73.63	44.1	-29.53
33	CECRI	931.86	46.59	14.53	-32.06
34	CLRI	886.65	44.33	8.94	-35.39
35	CCMB	1006.45	50.32	12.01	-38.31
36	CRRI	925.35	46.27	0	-46.27
37	NGRI	2079.97	104	17.53	-86.47
38	NEERI	3685.93	184.3	49.08	-135.22
Total		**30904.3**	**1545.21**	**1140.88**	

No.	**Lab Nam**
19	IMTECH
20	AMPRI
21	CFTRI
22	HRDC
23	IIIM
24	IIP
25	IHBT
26	CSMCR
27	NIIST
28	IICB
29	IMMT
30	NCL
31	CECRI
32	IITR
33	CBRI
34	IGIB
35	CRRI
36	IICT
37	SERC
38	NAL
Total	

Annexure 14
(Refer Para 6.2)
Details of Scrapped Projects

No.	SHP project name	Recommendation by Indian Institute of Technology, Roorkee	Expenditure incurred *(₹ in crore)*	Item of expenditure incurred
1	Waris III SHP	Due to very low progress in civil work and delay and absence of 33 kV local grid power evacuation line to the nearby villages, *etc.,* Waris Project is a reflection of poor planning and execution and should be discarded.	2.74	• Civil works including power house, desilting and forebay, power channel, tail race, *etc.* • Penstock including related civil works • Electromechanical works • Site office expenses
2	Shayok SHP	Shayok Project is a reflection of poor planning, design and execution and should be discarded in its present shape.	2.49	• Civil works including power house, desilting and forebay, power channel, tail race, *etc.* • Penstock including related civil works • Electromechanical works
3	Durbuk SHP	On account of flood and relocation of works, several other factors, including the re-tendering of the project, *etc.,* led to delay in execution of project works and the Project is recommended for closure.	0.64	• Civil works including power house, desilting and forebay, power channel, tail race, *etc.* • Penstock, including related civil works • Electromechanical works
4	Sumda Dho SHP	Due to requirement of re-design on account of flood, dispute between contractor and developing agency, Ladakh Renewable Energy Development Agency over cost concerns, *etc.,* the Project got delayed and is recommended for closure.	0.62	• Civil works including power house, desilting and forebay, power channel, tail race, *etc.* • Penstock, including related civil works • Electromechanical works
Total			**6.49**	

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