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**Report of the  
Comptroller and Auditor General of India  
for the year ended March 2016**



**Union Government  
Scientific and Environmental  
Ministries/Departments  
Report No. 17 of 2017  
(Compliance Audit)**

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Presented to Lok Sabha on.....  
Presented to Rajya Sabha on.....

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# Contents

	Paragraph No.	Page No.
Preface		iii
Overview		v
<b>CHAPTER I- INTRODUCTION</b>		
About this Report	1.1	1
Audit coverage	1.2	1
Planning and conduct of Audit	1.3	2
Budget and expenditure controls	1.4	3
Audit of accounts of Autonomous Bodies	1.5	4
Outstanding Utilisation Certificates	1.6	7
Departmentally Managed Government Undertakings - Position of Proforma Accounts	1.7	8
Losses and irrecoverable dues written off/waived	1.8	8
Response of the Ministries/Departments to Draft Audit Paragraphs	1.9	8
Follow-up on Audit Reports	1.10	9
<b>CHAPTER II- DEPARTMENT OF ATOMIC ENERGY</b>		
Avoidable expenditure on purchase of medicines without tendering process	2.1	11
Management of Human Resources in Autonomous Bodies of Department of Atomic Energy	2.2	13
Blocking up of funds due to non-installation of equipment	2.3	24
Irregular construction of residential flats and diversion of grant funds	2.4	25
<b>CHAPTER III- DEPARTMENT OF BIO-TECHNOLOGY</b>		
Irregular expenditure on premises transferred to another organisation	3.1	27
Unauthorised expenditure due to excess appointments and grant of advance increments to employees	3.2	28
Overpayment of Transport Allowance	3.3	30

	Paragraph No.	Page No.
<b>CHAPTER IV-DEPARTMENT OF SCIENCE AND TECHNOLOGY</b>		
Inadequate implementation of National Map Policy 2005	4.1	33
<b>CHAPTER V-DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH</b>		
Management of Human Resources in Council of Scientific and Industrial Research	5.1	39
Non-installation of equipment	5.2	50
Non-operationalisation of Automatic Visual Range Assessor Systems	5.3	51
Avoidable expenditure due to non-disposal of unutilised land	5.4	52
<b>CHAPTER VI- DEPARTMENT OF SPACE</b>		
Management of VSAT services	6.1	55
Irregular expenditure on pre-project activities	6.2	66
Lack of financial prudence and improper contract management in the delivery of commercial spacecraft	6.3	68
Infructuous expenditure in purchase of ecologically fragile land	6.4	71
<b>CHAPTER VII-MINISTRY OF EARTH SCIENCES</b>		
Non-recovery of fuel charges due to improper contract management	7.1	75
Irregular implementation of promotion scheme	7.2	77
<b>APPENDICES</b>		81-90

## **Preface**

*This report of the Comptroller and Auditor General of India for the year ended March 2016 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 Union Government Scientific and Environmental Ministries/Departments.*

*The instances mentioned in this report are those, which came to notice in the course of test audit for the period 2015-16 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 2015-16 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

## Introduction

This report of the Comptroller and Auditor General of India (C&AG) relates to matters arising from compliance audit of the transactions of seven Scientific and Environmental Ministries/Departments of the Government of India. The report contains 18 paragraphs involving ₹ 782.11 crore relating to weaknesses in procurement and contract management, inefficient project management, irregular financial benefits extended to employees, deficient internal controls, etc.

An overview of the specific audit findings included in this report is given below:

### **Avoidable expenditure on purchase of medicines without tendering process**

Medicines worth ₹ 29.52 crore were purchased during 2012-16 without following the process of open tendering. Consequently, Bhabha Atomic Research Centre could not avail of higher discounts as received in purchases made through tendering process, resulting in avoidable extra expenditure to the extent of ₹ 2.36 crore.

*(Paragraph 2.1)*

### **Management of Human Resources in Autonomous Bodies of Department of Atomic Energy**

Autonomous Bodies under administrative control of Department of Atomic Energy did not follow Government rules and regulations in matters relating to creation of posts, appointments, promotions, revision of pay and allowances, entitlements and grant of extension of service. This resulted in irregular expenditure amounting to ₹ 74.59 crore in seven test checked Autonomous Bodies.

*(Paragraph 2.2)*

### **Blocking up of funds due to non-installation of equipment**

Saha Institute of Nuclear Physics, Kolkata and Tata Memorial Centre, Mumbai failed to ensure readiness of site due to which the equipments procured at a cost of ₹ 1.98 crore and ₹ 1.08 crore respectively could not be installed.

*(Paragraph 2.3)*

### **Irregular construction of residential flats and diversion of grant funds**

National Centre for Biological Sciences, Bengaluru, a centre of the Tata Institute of Fundamental Research, constructed residential flats without obtaining approval of component authority and diverted ₹ 18.33 crore from Extra Mural Grants for funding the construction.

(Paragraph 2.4)

### **Irregular expenditure on premises transferred to another organisation**

Centre for DNA Fingerprinting and Diagnostics, Hyderabad continued to incur recurring expenditure of ₹ 3.18 crore on maintenance of the unutilised premises established at ₹ 9.27 crore already transferred to Survey of India.

(Paragraph 3.1)

### **Unauthorised expenditure due to excess appointments and grant of advance increments to employees**

Translational Health Science and Technology Institute, Faridabad recruited 11 persons in excess of sanctioned posts during 2009-15, resulting in unauthorised expenditure of ₹ 1.03 crore. The Institute also irregularly granted one to five advance increments to 22 employees resulting in unauthorised expenditure of ₹ 79.91 lakh.

(Paragraph 3.2)

### **Overpayment of Transport Allowance**

National Institute of Immunology, New Delhi paid Transport Allowance at higher rates to non-entitled Scientists, which led to overpayment of Transport Allowance of ₹ 68.68 lakh.

(Paragraph 3.3)

### **Inadequate implementation of National Map Policy 2005**

Even after 11 years of approval of the National Map Policy 2005, Survey of India, the National Surveying and Mapping Organisation of the country, failed to develop and maintain the National Topographical Data Base of the country. Of the seven series of maps envisaged under the policy, only one series in the scale 1: 50,000 was prepared. Printing of the maps was achieved for only 52 per cent of the country. As a result, topographic data was not disseminated to the end users.

(Paragraph 4.1)

### **Management of Human Resources in Council of Scientific and Industrial Research**

Council of Scientific and Industrial Research failed to comply with Government instructions on abolition of vacant posts, grant of advance increments on initial appointment, surrender of posts, grant of promotions to scientific staff, upgraded posts and granted higher pay and allowances without the approval of Ministry of Finance which resulted in irregular expenditure of ₹ 24.31 crore.

*(Paragraph 5.1)*

### **Non-installation of equipment**

Failure of National Metallurgical Laboratory, Jamshedpur to assess site and logistics requirements resulted in non-installation of equipment (IMSW) procured at a cost of ₹ 1.44 crore. Further expenditure of ₹ 2.68 crore was made on additional items for its installation, all of which remained uninstalled.

*(Paragraph 5.2)*

### **Non-operationalisation of Automatic Visual Range Assessor Systems**

National Aerospace Laboratories, Bengaluru could not successfully operationalise Automatic Visual Range Assessor Systems at Indian Navy establishments even after more than 14 years resulting in unfruitful expenditure of ₹ 1.10 crore.

*(Paragraph 5.3)*

### **Avoidable expenditure due to non-disposal of unutilised land**

Failure of Central Fuel Research Institute, Dhanbad to dispose of land after closure of its Regional Unit at Raniganj, West Bengal for 13 years resulted in avoidable recurring expenditure of ₹ 97 lakh towards security and maintenance expenses.

*(Paragraph 5.4)*

### **Management of VSAT services**

Department of Space allocated satellite capacity for VSAT users without framing a transponder allocation policy for the allocation of transponders to various users. Consequently, there was no prescribed procedure for allocation of satellite capacity for VSAT services. There were instances of loss due to non-revision of transponder charges, under-pricing of transponder charges for VSAT services, payment of higher service charges to Antrix Corporation Limited; deficiencies in contract management leading to idling of satellite capacity, non-realisation of dues, undue benefits to VSAT users due to downward revision of prices, etc. amounting to ₹ 421.05 crore in the test checked cases.

*(Paragraph 6.1)*

**Irregular expenditure on pre-project activities**

Expenditure of ₹ 136.88 crore on pre-project activities for the Indian Manned Space Programme was incurred without obtaining approval of the competent authority.

*(Paragraph 6.2)*

**Lack of financial prudence and improper contract management in the delivery of commercial spacecraft**

Indian Space Research Organisation developed two commercial spacecraft for a foreign client at a price that was lower than its cost of production, which resulted in under recovery of ₹ 54.44 crore. In addition, improper contract management resulted in further loss of ₹ 29.03 crore.

*(Paragraph 6.3)*

**Infructuous expenditure in purchase of ecologically fragile land**

Department of Space incurred expenditure of ₹ 3.70 crore in purchase and construction work on 81.50 acres of ecologically fragile land in Thiruvananthapuram, Kerala which was rendered infructuous as the Department was ultimately evicted from the land by the State Government.

*(Paragraph 6.4)*

**Non-recovery of fuel charges due to improper contract management**

Failure to incorporate suitable clauses to safeguard the interest of Government in a charter hire agreement resulted in non-recovery of ₹ 63.23 lakh (USD 1,39,359) towards fuel charges for more than five years.

*(Paragraph 7.1)*

**Irregular implementation of promotion scheme**

Ministry of Earth Sciences implemented a career progression scheme with higher benefits for its four Autonomous Bodies without obtaining approval of Ministry of Finance. The four Autonomous Bodies promoted 132 employees under the scheme and incurred expenditure of ₹ 1.84 crore towards their increased pay and allowances, which was irregular.

*(Paragraph 7.2)*

## CHAPTER - I

# Introduction

### 1.1 About this Report

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

The primary purpose of the Report is to bring to the notice of the Parliament, important results of audit. Auditing Standards require that the materiality level for reporting be commensurate with the nature, volume and magnitude of transactions. The findings of Audit are expected to enable the Executive to take corrective actions as also to frame policies and directives that will lead to improved financial management of the organisations, thus, contributing to better governance.

This chapter, in addition to explaining the planning and extent of audit, provides a brief analysis of the expenditure of Scientific and Environmental Ministries/Departments, position of outstanding utilisation certificates, position of proforma accounts of Departmentally Managed Government Undertakings, losses and irrecoverable dues written off/waived and follow-up on Audit Reports. Chapters II to VII present findings/observations arising out of the compliance audit of Scientific and Environmental Ministries/Departments and research centres, institutes and Autonomous Bodies under them. Weaknesses that exist in the system of project management, financial management, internal controls, etc. in various scientific and environmental institutions are also highlighted in the report.

### 1.2 Audit coverage

The office of the Principal Director of Audit, Scientific Departments is responsible for audit of following Scientific and Environmental Ministries/Departments of the Government of India and their units:

- 1) Department of Atomic Energy (DAE)**
- 2) Ministry of Science and Technology**
  - a) Department of Bio-Technology (DBT)**
  - b) Department of Science and Technology (DST); and**
  - c) Department of Scientific and Industrial Research (DSIR)**
- 3) Department of Space (DOS)**
- 4) Ministry of Earth Sciences (MoES) including India Meteorological Department**
- 5) Ministry of Environment, Forest and Climate Change (MoEFCC)**
- 6) Ministry of New and Renewable Energy (MNRE)**
- 7) Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWRRD&GR)**

This report covers the audit findings in respect of the above Scientific and Environmental Ministries/Departments and their subordinate/attached offices and Autonomous Bodies.

### **1.3 Planning and conduct of Audit**

Compliance audit is conducted in accordance with the principles and practices enunciated in the auditing standards promulgated by the C&AG. The audit process starts with the assessment of risk of the Ministry/Department as a whole and each unit based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of internal controls and concerns of stakeholders. Previous audit findings are also considered in this exercise. Based on this risk assessment, the frequency and extent of audit are decided. An annual audit plan is formulated to conduct audit on the basis of such risk assessment.

After completion of audit of each unit, Inspection Reports containing 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, 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 2015-16, compliance audit of 157 out of 464 units of Scientific and Environmental Ministries/Departments was conducted.

## 1.4 Budget and expenditure controls

The comparative position of budget and expenditure of the Scientific and Environmental Ministries/Departments during 2015-16 and preceding two years is given in Table 1.1.

**Table 1.1: Details of budget and expenditure of Scientific and Environmental Ministries/ Departments**

(₹ in crore)

Ministry/ Department	2013-14		2014-15		2015-16	
	Budget Estimates	Actual Expenditure	Budget Estimates	Actual Expenditure	Budget Estimates	Actual Expenditure
1) DAE	15,124.70	13,437.26	16,147.00	14,281.21	17,702.09	16,380.66
2) DBT	1,502.07	1,291.32	1,517.24	1,346.97	1,625.16	1,554.27
3) DST	3,395.39	2,610.22	3,567.13	2,906.18	3,861.85	3,658.53
4) DSIR	3,571.01	3,159.54	3,707.17	3,393.52	4,038.01	4,028.60
5) DOS	6,792.07	5,168.95	7,241.06	5,821.37	7,388.23	6,920.01
6) MoES	1,693.77	1,248.15	1,702.23	1,301.35	1,622.72	1,328.28
7) MoEFCC	2,884.74	2,158.80	2,594.52	1,862.17	2,122.73	2,024.70
8) MNRE	2,847.71	1,633.52	3,057.39	2,518.10	4,303.25	4,244.78
9) MoWRRD&GR	2,102.68	1,094.71	15,389.06	5,524.47	9,272.89	7,906.85
<b>Total</b>	<b>39,914.14</b>	<b>31,802.47</b>	<b>54,922.80</b>	<b>38,955.34</b>	<b>51,936.93</b>	<b>48,046.68</b>
<b>Percentage increase/decrease</b>		<b>+9<sup>1</sup></b>		<b>+22</b>		<b>+23</b>

Source : Appropriation Accounts of the respective years

The total expenditure of the above listed Ministries/Departments of the Government of India during 2015-16 was ₹ 48,046.68 crore. Of this, 34 per cent was incurred by DAE, followed by MoWRRD&GR (16 per cent) and DOS (14 per cent).

While there was an increase of nine per cent in the overall expenditure of the Scientific and Environmental Ministries/Departments during 2013-14 over 2012-13, there was a significant increase in total expenditure by 22 per cent during 2014-15 over 2013-14. Again, during 2015-16, there was a significant increase in total expenditure by 23 per cent. This was due to an increase of more than 40 per cent in the expenditure incurred by two Ministries, namely MNRE and MoWRRD&GR.

Details of savings/excess for 2015-16 in respect of Scientific and Environmental Ministries/Departments is given in Table 1.2.

<sup>1</sup> Calculated on the basis of expenditure of ₹ 29,063.90 crore incurred in 2012-13.

**Table 1.2: Details of budget provision and expenditure incurred by Scientific and Environmental Ministries/Departments***(₹ in crore)*

Ministry/Department	Grant/ Appropriation (including Supplementary Grant)	Actual Expenditure	(-) Savings/ (+) Excess	Percentage of Unspent Provision
1) DAE	17,702.09	16,380.66	1,321.43	7.46
2) DBT	1,625.16	1,554.27	70.89	4.36
3) DST	3,861.85	3,658.53	20.32	0.52
4) DSIR	4,038.01	4,028.60	9.41	0.23
5) DOS	7,388.23	6,920.01	468.22	6.34
6) MoES	1,622.72	1,328.28	294.44	18.14
7) MoEFCC	2,122.73	2,024.70	98.03	4.62
8) MNRE	4,303.25	4,244.78	58.47	1.36
9) MoWRRD&GR	9,272.89	7,906.85	1,366.04	14.73
<b>Total</b>	<b>51,936.93</b>	<b>48,046.68</b>	<b>3,707.25</b>	<b>7.14</b>

Source: Appropriation Accounts of the Ministries/ Departments for 2015-16

It can be seen from the above table that with reference to total budget allotment of ₹ 51,936.93 crore, the Scientific and Environmental Ministries/ Departments had an overall savings of ₹ 3,707.25 crore which constitutes 7.14 per cent of the total grant/appropriation. Out of total savings of ₹ 3,707.25 crore, savings of ₹ 2,687.47 crore (72 per cent) were in only two Ministries/Departments namely MoWRRD&GR and DAE. In proportion to the total budget allotment, the highest savings were by MoES (18.14 per cent) followed by MoWRRD&GR (14.73 per cent).

## 1.5 Audit of accounts of Autonomous Bodies

Principal Director of Audit, Scientific Departments is the sole auditor of 14 Autonomous Bodies (ABs) for which Separate Audit Reports (SARs) are prepared on their annual accounts under sections 19(2) and 20(1) of the C&AG's (DPC) Act, 1971. The total grants released to these 14 ABs during 2015-16 were ₹ 7,432.79 crore, as detailed in Table 1.3.

**Table 1.3: Details of grants released to Central Autonomous Bodies***(₹ in crore)*

Autonomous Body	Ministry/ Department	Amount of Grant released during 2015-16
1) Science and Engineering Research Board, New Delhi	DST	696.69
2) Sree Chitra Tirunal Institute of Medical Sciences and Technology, Thiruvananthapuram	DST	116.04
3) Technology Development Board, New Delhi	DST	105.04
4) Council of Scientific and Industrial Research, New Delhi	DSIR	4,028.50
5) Animal Welfare Board of India, Chennai	MoEFCC	15.42
6) Central Zoo Authority, New Delhi	MoEFCC	10.02



Autonomous Body	Ministry/ Department	Amount of Grant released during 2015-16
7) National Biodiversity Authority, Chennai	MoEFCC	18.06
8) National Mission for Clean Ganga, New Delhi	MoEFCC	2,200.00
9) National Tiger Conservation Authority, New Delhi	MoEFCC	11.65
10) Wildlife Institute of India, Dehradun	MoEFCC	27.57
11) Betwa River Board, Jhansi	MoWRRD&GR	23.08
12) Brahmaputra Board, Guwahati	MoWRRD&GR	88.09
13) Narmada Control Authority, Indore	MoWRRD&GR	19.34
14) National Water Development Agency, New Delhi	MoWRRD&GR	73.29
<b>Total</b>		<b>7,432.79</b>

*Source: Separate Audit Reports/Annual accounts of the Autonomous Bodies for the year 2015-16*

In addition, supplementary/superimposed audit of ABs are conducted under Sections 14 or 15 of the C&AG's (DPC) Act, 1971. The total grants released to 69 ABs during 2015-16 were ₹ 5,612.11 crore. The details are given in **Appendix I**.

### 1.5.1 Delay in submission of accounts

The Committee on Papers Laid on the Table of the House recommended in its First Report (Fifth Lok Sabha) 1975-76 that after the close of the accounting year, every AB should complete its accounts within a period of three months and make them available for audit and that the reports and the audited accounts should be laid before Parliament within nine months of the close of the accounting year.

Out of the 14 ABs, four ABs<sup>2</sup> submitted their accounts for the year 2015-16 after delay of one month or more.

Some of the important issues highlighted in SARs on the accounts for the year 2015-16 are listed below:

### 1.5.2 Non-adoption of accrual based accounting system

As per approved format of accounts for ABs, annual accounts of the ABs was to be made on accrual basis. Betwa River Board, Jhansi (BRB) continued to maintain its accounts on cash basis. Further, BRB, Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum (SCTIMST), National Tiger Conservation Authority, New Delhi (NTCA); National Mission for Clean Ganga, New Delhi (NMCG); Animal Welfare Board of India, Chennai (AWBI) and National Biodiversity Authority, Chennai (NBA) did not make provisions for Retirement Benefits in their accounts which is required as per the accrual system of accounting.

<sup>2</sup> Technology Development Board, New Delhi, National Mission for Clean Ganga, New Delhi, National Tiger Conservation Authority, New Delhi, and Brahmaputra Board, Guwahati.

### 1.5.3 Other comments

- (i) As per the accounting practice in Council of Scientific and Industrial Research (CSIR), all payments either made on account of advances or final expenditure out of deposits/grants received from various Government Departments/agencies towards externally funded projects were booked as final expenditure in its books of accounts. It was noticed that advances amounting to ₹ 15.11 crore granted by five Laboratories/Institutes were booked as final expenditure and neither shown under current assets nor liability against the deposits for externally funded projects. It resulted in understatement of Current Assets and Current Liabilities each by ₹ 15.11 crore.
- (ii) Six Laboratories/ Institutes of CSIR booked interest earned/ accrued on grants-in-aid amounting to ₹ 17.11 crore as their 'Income'. Consequently, these Laboratories/Institutes understated their Current Liabilities towards 'Unspent grant refunded to Government' and overstated their Income each by ₹ 17.11 crore.
- (iii) Six Laboratories/Institutes of CSIR accounted for interest amounting to ₹ 4.64 crore earned on "Deposit in margin money for opening of LC" made out of Government grants and savings account respectively as their income in 'Income and Expenditure Account'. Consequently, these Laboratories understated their Current Liabilities towards unspent grants refunded to Government and overstated their Income each by ₹ 4.64 crore.
- (iv) CSIR booked the expenditure of ₹ 286.96 crore as expenditure on Extra Mural Research and Scientist Pool for the period 2015-16. It was noticed that the refunds of unspent balance were being received every year out of total funds released under this head. Thus, the booking of whole of releases under this head as expenditure was not proper and against the basic accounting principles that only expenditure incurred should be booked as expenditure instead of funds released.
- (v) Fund of ₹ 31.59 crore for Provident Fund payments was not shown in the annual accounts of BRB. This fund was required to be disclosed suitably in the annual accounts.
- (vi) Deferred revenue expenditure of ₹ 94.22 crore which was to be written off/ adjusted over a period of five years from the period it was incurred i.e. 2005-06 as disclosed in BRB's accounting policy, was not adjusted. This point was also raised in previous reports.

- (vii) NMCG deposited its subscription of Employees Provident Fund in May 2016 after the completion of financial year 2015-16. Hence, NMCG was not regular in payment in statutory dues.
- (viii) In the accounts of SCTIMST, receivable of ₹ 84.03 lakh from Employees Provident Fund Organisation was due for more than five years.
- (ix) In the accounts of AWBI, ₹ 1.61 crore shown under an Earmarked/Endowment fund was not approved by the Government.
- (x) NTCA did not conduct physical verification of assets and library books since its inception.
- (xi) Wildlife Institute of India, Dehradun did not conduct physical verification of inventories since its inception.
- (xii) No internal audit was conducted after 2011-12 in Central Zoo Authority, New Delhi.

## 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 nine Ministries/Departments, 56,748 Utilisation Certificates (UCs) due by March 2016, for grants aggregating ₹ 15,781.17 crore were outstanding, as given in **Appendix II**.

Ministry/Department-wise position of outstanding UCs is given in Table 1.4.

**Table 1.4: Utilisation Certificates outstanding as on 31 March 2016**

(₹ in crore)

Ministry/Department	For the grants released up to March 2015	
	Number	Amount
1) DAE	1,611	134.99
2) DBT	17,509	4,158.43
3) DST	28,876	8,509.13
4) DSIR	761	1,292.85
5) DOS	268	12.02
6) MoES	897	273.04
7) MoEFCC	6,228	442.03
8) MNRE	316	442.71
9) MoWRRD&GR	282	515.97
<b>TOTAL</b>	<b>56,748</b>	<b>15,781.17</b>

It can be seen from the above table that the maximum number of outstanding UCs relate to DST and DBT. In terms of period of pendency, maximum number and value of UCs outstanding for more than five years were seen in MoEFCC.

## **1.7 Departmentally Managed Government Undertakings - Position of Proforma Accounts**

Rule 84 of the General Financial Rules, 2005 stipulates that Departmentally Managed Government Undertakings of commercial or quasi-commercial nature will maintain such subsidiary accounts and proforma accounts as may be prescribed by the Government in consultation with the C&AG.

There were two Departmentally Managed Government Undertakings of commercial or quasi-commercial nature as of 31 March 2016 under DAE, viz. Nuclear Fuel Complex, Hyderabad (NFC) and Heavy Water Board, Mumbai (HWB). The financial results of these undertakings are to be reported through proforma accounts generally consisting of Trading Account, Profit and Loss Accounts and Balance Sheet.

Audit of proforma accounts of NFC for the year upto 2010-11 were completed. Proforma accounts for the years 2011-12 and 2012-13 were found to be incomplete, as DAE had not included the rate of imported fuel in the same. The proforma accounts of HWB for the period up to 2012-13 were received for audit. Accounts for the subsequent years were not received for audit.

## **1.8 Losses and irrecoverable dues written off/waived**

Statement of losses and irrecoverable dues written off/waived during 2015-16 furnished by eight Ministries/Departments is given in **Appendix III** to this Report. In DST, amounts of ₹ 3.48 lakh and ₹ 0.97 lakh were written off due to 'neglect/fraud, etc.' and 'waiver of recovery' respectively. In DST and DOS, amounts of ₹ 0.05 lakh and ₹ 1.50 lakh were written off towards 'ex-gratia payments'. In DAE and DOS, total amount of ₹ 29.81 lakh was written off in 39 cases for 'other reasons'.

## **1.9 Response of the Ministries/Departments to Draft Audit Paragraphs**

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 Paragraphs proposed for inclusion in the Report of the C&AG within six weeks. This time frame has also been prescribed under Para 207 (1) of Regulations on Audit and Accounts, 2007 made by the C&AG.

The Draft Paragraphs 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 six weeks. Draft Paragraphs proposed for inclusion in this report were forwarded to the Secretaries concerned between July 2016 and January 2017 through letters addressed to them personally.

This report contains 18 paragraphs in Chapters II to VII. The replies of concerned Ministries/Departments were received in respect of 12 paragraphs. The responses received have been suitably incorporated in the Report.

### **1.10 Follow-up on Audit Reports**

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

A review of outstanding ATNs on paragraphs included in the Reports of the C&AG pertaining to Scientific and Environmental Ministries/Departments as of 31 December 2016 (details in **Appendix IV**) revealed that a total of 11 ATNs pending from five Ministries/ Departments were not received even for the first time. Also, revised ATNs of 31 cases were pending from seven Ministries/ Departments for periods ranging up to 116 months as of December 2016 (**Appendix V**).



## CHAPTER – II

# Department of Atomic Energy

### 2.1 Avoidable expenditure on purchase of medicines without tendering process

**Medicines worth ₹ 29.52 crore were purchased during 2012-16 without following the process of open tendering. Consequently, Bhabha Atomic Research Centre could not avail of higher discounts as received in purchases made through tendering process, resulting in avoidable extra expenditure to the extent of ₹ 2.36 crore.**

The Medical Division of Bhabha Atomic Research Centre, Mumbai (BARC) provides health care facilities through its hospital and dispensaries under Contributory Health Service Scheme (CHSS) of Department of Atomic Energy (DAE). The responsibility for procurement of drugs and medicines for the BARC hospital and dispensaries is entrusted to Directorate of Purchase and Stores, Mumbai (DPS) which is the centralised purchase and stores organisation of DAE.

Annexure 1C of the DAE Purchase Manual consisting of the standing order (June 2000) issued by BARC stipulates that procurement of drugs, medicines, injections, etc. which are common and in regular demand and whose value exceeds ₹ 25,000 in a year would be through rate/running contracts concluded through DPS with the primary manufacturers or their authorised representatives. In the event of non-materialisation of normal supplies through rate contracts, local purchase of the medicines not normally exceeding ₹ three lakh in a month could be done through DPS following normal purchase procedure. To meet immediate unforeseen requirements or in emergency, cash purchase of drugs/medicines from authorised wholesale distributors of the manufacturers or stockists was permissible. DPS Stores Procedure, 1983 also stipulates that each store unit should ensure adequate stock of common user items by fixing maximum and minimum for each item in stock.

Medical Division of BARC empanelled (November 2006) four suppliers for supply of medicines in emergency as well as those medicines not available in stores after inviting quotations for allowing appropriate discount on the Maximum Retail Price (MRP). The contracts were entered initially for a period of one year, which were subsequently extended year after year. During the period 2012-16, BARC purchased medicines valued at ₹ 67.96 crore, of which medicines worth ₹ 29.52 crore i.e. 43 per

cent of the total purchase were purchased locally from the empanelled four local chemists.

Audit observed that the contract for local purchase from the four suppliers empanelled during 2006 was extended year after year for nearly 10 years without inviting fresh quotations. Audit further observed that for medicines procured through DPS, BARC received discounts ranging from 20 per cent to 96 per cent on the MRP whereas for medicines supplied by local chemists, maximum discount was only 12 per cent on MRP. Based on the minimum variation of eight per cent, the extra avoidable expenditure on account of the local purchases of medicines worked out to ₹ 2.36 crore<sup>3</sup>.

By extending contracts of the empanelled vendors without inviting fresh quotations, BARC lost the opportunity to avail of higher discounts on MRP as obtained under purchases through DPS. Besides, procurement of out of stock medicines on local purchase basis as a matter of routine was in contravention of DAE purchase and stores procedures.

BARC stated (December 2015) that commonly used medicines were purchased on cash basis as the rate contract was not finalised. BARC further stated (October 2016) that it became inevitable to purchase the medicines from local pharmacies in order to avoid out of stock/shortage of medicines arising due to delay in supply of medicines by the firms, sudden spurt in consumption pattern during seasonal spurt in infectious diseases, expiry of medicines, etc.

The reply indicates weakness in assessment of day to day requirement of medicines, lead time of supply by empanelled vendors and stocking of essential medicines. Further, the value of medicines purchased through local chemists, instead of being an exception, constituted 43 per cent of the total purchases.

Thus, routine procurement of medicines on cash basis against contracts finalised nearly 10 years ago resulted in loss of opportunity to avail of prevailing discount rates and avoidable expenditure of ₹ 2.36 crore.

The matter was referred to DAE (September 2016); its reply was awaited as of February 2017.

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<sup>3</sup> Eight per cent of total payment of ₹ 29.52 crore made to local chemists during 2012-16.



## 2.2 Management of Human Resources in Autonomous Bodies of Department of Atomic Energy

**Autonomous Bodies under administrative control of Department of Atomic Energy did not follow Government rules and regulations in matters relating to creation of posts, appointments, promotions, revision of pay and allowances, entitlements and grant of extension of service. This resulted in irregular expenditure amounting to ₹ 74.59 crore in seven test checked Autonomous Bodies.**

### 2.2.1 Introduction

Department of Atomic Energy (DAE) was established in 1954. DAE supports nine autonomous institutes engaged in research in basic sciences, astronomy, astrophysics, cancer research and education. These institutes are Autonomous Bodies (ABs) substantially funded by DAE through Government grants. The ABs are managed by Governing Body (GB)/ Governing Council (GC), which includes representatives of the AB and DAE as well as experts from external agencies. Directors of the ABs function as the Chief Executives of ABs.

Service conditions of staff are governed to the extent of relevant provisions contained in the respective Bye laws, leave rules, etc. of the ABs. Matters relating to creation of posts, recruitment, promotions, superannuation, pay and allowances, other entitlements and any other service conditions are governed as per Bye laws, leave rules, etc. which are to be framed in accordance with the relevant provisions of General Financial Rules (GFR), Fundamental Rules and Supplementary Rules (FRSR) and extant orders of the Ministry of Finance (MoF), Department of Personnel and Training (DoPT) and DAE.

Audit objective was to examine the provisions relating to service conditions of employees working in ABs of DAE to assess whether these were in consistence with Government of India (GoI) Rules and instructions. Out of nine ABs under DAE, records of seven<sup>4</sup> ABs pertaining to the period 2010-11 to 2015-16 were reviewed.

<sup>4</sup> (1) Tata Institute of Fundamental Research, Mumbai (TIFR) including a centre viz. National Centre for Biological Sciences (NCBS) in Bengaluru; (2) Tata Memorial Centre, Mumbai (TMC); (3) Saha Institute of Nuclear Physics, Kolkata (SINP); (4) Institute of Plasma Research, Gandhinagar (IPR); (5) Institute of Physics, Bhubaneswar (IOP); (6) Harish Chandra Research Institute, Allahabad (HRI); and (7) National Institute of Science Education and Research, Bhubaneswar (NISER)

## 2.2.2 Audit findings

The Audit findings are discussed below:

### 2.2.2.1 Governing Rules and Bye laws

#### (a) Non-incorporation of restrictive clauses in Bye laws

MoF instructed (October 1984) that rules and Bye laws of ABs which are fully or partly funded by GoI should invariably incorporate restrictive clauses relating to the powers of the GBs of such organisations in matters of creation of posts, revision of pay and allowances of their staff and similar establishment expenditure and provide for prior approval of the Central Government in specific cases. Further, a clause may be incorporated in the relevant Bye laws/Rules/Regulations of the ABs that proposals relating to employment structure would need the prior approval of GoI in consultation with MoF.

Audit noticed that restrictive clauses with respect to creation /upgradation of posts and extension of service were not incorporated in the Bye laws of ABs as indicated in **Appendix VI**. Irregularities noticed in this regard are discussed in subsequent paragraphs.

#### (b) Rules framed/amended without approval

Bye laws approved by GC of TMC in March 1968 were amended/ revised in 1978, 1988, 2000 and 2006. In 2000, TMC formulated Staff Service Rules which were amended in 2008. In addition, TMC formulated (2006) Deputation Rules. Audit observed that approval of DAE was not obtained for framing the above Bye laws/Rules and their amendments.

TMC stated (September 2016) that Secretary, DAE was also Chairman of GC, which means that decision taken at GC are taken with concurrence of DAE. The reply is not acceptable as presence of Secretary, DAE in ex-officio capacity in GC cannot be construed as approval of Administrative Ministry. This was also clarified by DAE (January 2014) that approval of Chairman, GC may not be construed as approval of DAE.

#### (c) Inconsistency in Recruitment Rules

GC of SINP approved (August 2004) the revised norms of recruitment for Academic and Technical categories which were further revised in February 2009. Subsequently, SINP did not revise its recruitment and promotion rules in line with the "Recruitment and Promotion Guidelines" issued by DAE in 2010. Audit noticed dissimilarities between these two norms as shown in **Appendix VII**.

SINP stated (July 2016) that the recruitment/promotion guidelines of DAE were meant for the DAE units only and were not applicable to it as SINP is an aided Institute supported by DAE. The reply is not tenable as being an Institute under DAE,

approval of the Administrative Department i.e. DAE to the recruitment/promotion guidelines was required, which was not obtained by SINP.

**(d) Incorrect provisions for appointment of Chief Executives in Bye laws**

DoPT instructed (July 2007) that ABs were to constitute Search Committee<sup>5</sup> mandatorily for appointment of senior post at the level of Director and above, the composition of which was required to be approved by DoPT. For all appointments to the post of Chief Executive and carrying a pay scale of ₹ 18,400-22,400, approval of Appointments Committee of the Cabinet (ACC<sup>6</sup>) was required. All ABs were required to modify their Memorandum of Association (MoA) and Rules and Regulations, Bye laws, etc. to incorporate these guidelines fully as prescribed by DoPT. Audit observed deviations from the above instructions, as listed below.

(i) Audit noticed that in IPR, though the appointment of Chief Executive was being done with the approval of ACC, clause 9.1 of MoA and 4.1 of Bye laws provided that GC of IPR was empowered to appoint the Director on the recommendation of a Selection Committee, which was not in consonance with Gol instructions.

(ii) Rule 18 of NISER Rules and Bye laws stated that a Search-cum-Selection Committee was empowered to appoint the Director of NISER. Further, Rule 21 empowered Board of Governors to appoint a person on Officiating or Temporary appointment in the absence of a Director. Rules and Bye laws neither mentioned about approval of DoPT on composition of this committee, nor about authority of ACC. NISER appointed two regular Directors and one Acting Director without adhering to DoPT's instructions.

NISER stated (July 2016) that amending of its Bye laws and rules was not required because these had the approval of DAE which has Finance Ministry representative.

The reply is not acceptable as the provisions of the Bye laws of NISER were not in accordance with Gol instructions.

(iii) The draft Bye laws of IOP, submitted to DAE in March 2015, had no provision regarding the approval of ACC for the appointment of Chief Executive and officials who were appointed in the pay scale of ₹ 18,400-22,400 and above.

**2.2.2.2 Creation and upgradation of posts**

In terms of Rule 253(4) of GFR 2005, all proposals for increase in emoluments for an existing post(s) shall be referred to the MoF for approval. MoF clarified (April 1994) that posts equivalent to Group A could be created in ABs with the approval of

<sup>5</sup> Search Committee appointed by ABs needs to approved by DoPT. Composition of the Committee includes Secretary of the Ministry who is the Chairman and four more members.

<sup>6</sup> ACC is the standing committee of the Cabinet which consists of such Ministers as the Prime Minister may specify from time to time.

Department of Expenditure and the posts equivalent to Group B to D could be created with the approval of the Administrative Ministry. DAE also issued instructions (January 2004) that the authority for creation of posts is vested with the MoF and all proposals for creation of posts must be forwarded to the Department with full justification and with the approval of GC. As per instructions of MoF (1991), for upgradation of post, the same procedure as prescribed for creation of posts, was to be observed.

Audit observed deviations from GoI and DAE instructions in this regard as discussed in the subsequent paragraphs.

**(a) Unauthorised continuation of posts**

DAE sanctioned (May 2004) four posts of faculty members for IOP and stipulated (October 2005) to fill up the posts before May 2006 failing which these would be lapsed. IOP was unable to fill up the posts; consequently, the four posts stood lapsed as at the end of May 2006. However, IOP continued to include the four posts in its sanctioned strength.

Further, against actual sanctioned strength of faculty members of 24, IOP depicted (September 2010) its sanctioned strength as 31, including the above four posts and three excess posts. Approval of DAE for the excess seven posts was not available on record.

IOP stated (August 2016) that four new posts cannot be considered as lapsed because action was initiated in due time for filling up the posts. The reply is not acceptable as DAE had specifically instructed to fill up the posts by May 2006 failing which the same would lapse. IOP remained silent on the issue of the additional three posts shown in excess of the sanction.

**(b) Upgradation of post without approval of the competent authority**

- (i) Audit observed that during 2010-16, out of 35 non-Scientific posts, TMC upgraded six posts. However, TMC did not obtain the approval/ concurrence of DAE for the said upgradation.
- (ii) Against 24 sanctioned posts of Lower Division Clerk (LDC) with Grade Pay (GP) of ₹ 1,900, NISER appointed 20 Office Assistants with higher GP of ₹ 2,000 without obtaining DAE's approval for change of designation and higher GP. DAE declined (May 2011) the post facto approval for the said upgradation and instructed NISER to revise and make recovery of overpayment made. NISER, however, did not follow DAE's instructions. The upgradation of scale without approval of competent authority resulted in extra expenditure of ₹ 26.42 lakh towards pay and allowances of the 20 persons appointed against these posts.

NISER stated (July 2016) that it had requested DAE to upgrade those posts to Upper Division Clerk (UDC) with GP of ₹ 2,400 and the proposal was pending with DAE. The reply confirms that NISER acted in contravention of DAE's instructions/GFRs for these recruitments.

### 2.2.2.3 Recruitment

#### (a) Irregular appointment of Chief Executives of ABs

DoPT instructed (July 2007) Ministries as well as Autonomous/statutory organizations to constitute Search-cum-Selection Committee mandatorily, in appointing the Chief Executive and staff in the scale of pay ₹ 18,400-22,400 or above. It instructed (July 2006) that in case of anticipated vacancies, approval of ACC was required for assigning additional charge of the post and in cases of unanticipated vacancies, the Administrative Ministries/Departments, may with approval of the Minister-in-charge, assign the additional charge for the initial six months with effect from the date of occurrence of the vacancy. Approval of ACC was, however, required in extending the additional charge arrangement beyond these six months.

Audit observed irregularities in the appointment of Chief Executives/Directors as discussed below.

- (i) GC of IPR appointed (January 2013) an Acting Director for the Institute. Although the Acting Director had attained the age of 60 in September 2011, his service was extended with the approval of GC in spite of a ban on extension of services beyond the age of 60 years. Thus, extension of his service beyond the age of 60 years was irregular. Further, the incumbent continued to hold this post for more than three years. IPR did not obtain approval of ACC for extending the charge beyond six months, which was in contravention of Gol instructions. Further, the Acting Director was promoted (December 2014) as Sr. Professor retrospectively from 01 July 2008 in the GP ₹ 10,000 and again promoted as Sr. Professor in HAG scale with effect from 01 July 2011. On both occasions, approval of ACC was not obtained.

IPR stated (July 2016) that pending approval of ACC for this appointment, the person was appointed as Acting Director. The reply is not acceptable as IPR did not obtain ACC approval for this appointment against anticipated vacancy and for extension of tenure beyond six months which was against the DoPT instructions.

- (ii) GC of TMC appointed five officials as Directors (GP ₹ 10,000) during 2010-14 based on the recommendations of a Selection Committee. This was irregular, as these appointments were to be made through Search-cum-selection committee constituted by the Department with the concurrence of the DoPT. TMC stated (September 2016) that three Directors were appointed with the approval of GC and two Directors were appointed by Search-cum-selection

committee constituted by GC. The reply is not acceptable, as the committee was constituted without the approval of DoPT.

- (iii) In IOP, one person officiated as Director on two occasions. On the first occasion, the person officiated (March to June 2006) against an anticipated vacancy but IOP did not obtain approval of ACC. On the second occasion, the incumbent officiated (June to November 2009) against an unanticipated vacancy after pre-mature repatriation of the regular Director. On this occasion also, charge was not assigned through DAE as required under DoPT instructions.

Similarly, another person was appointed (May 2013) in officiating capacity for six months against an anticipated vacancy and IOP further extended his tenure (November 2013) without the approval of ACC. Thus, these appointments were in violation of GoI instructions.

IOP accepted (June 2016) that approval of ACC was not taken. It further stated (August 2016) that officiating Directors were appointed on the approval of GC. The reply is not acceptable as the approval of ACC/DAE was mandatory for such appointments.

**(b) Irregular grant of advance increment at the time of appointment**

FR 27 stipulates that any authority might grant a premature increment on a time-scale of pay if it had power to create a post in the same cadre on the same scale of pay. DAE instructed (January 2004) that the authority for the creation of posts is vested with the Member Finance/ Finance Ministry and hence ABs did not have the power to grant premature increments. However, Audit observed that in 106 cases, all the seven selected ABs granted one to ten additional increments at the time of initial appointment without obtaining approval of DAE. The seven ABs incurred expenditure of ₹ 2.79 crore on pay and allowances in the 106 cases.

Further, Audit observed that two persons who were granted advance increments in TMC were already working in TMC (GP ₹ 10,000) at the time of their appointment to the post of Director. The advance increments extended to above two officials were irregular as the same can be granted only at the time of initial recruitment.

NCBS<sup>7</sup> and NISER stated (June/July 2016) that advance increments were granted with an intention to attract qualified Scientists. IPR, SINP, HRI, IOP and TMC justified (July/August/September 2016) grant of additional increments as being in accordance with the norms of recruitment and granted with the approval of competent authority.

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<sup>7</sup> While NCBS furnished replies to audit observations (June 2016), no reply was furnished by TIFR, Mumbai to audit observations.

These replies are not acceptable as ABs did not have authority to grant advance increments without approval of Administrative Department.

#### **2.2.2.4 Promotions and upgradation of pay scales**

In terms of MoF OM (October 1984), matters relating to creation of post, revision of pay and allowances, etc. of ABs should conform to the general pattern of the Central Government. Accordingly, any deviation from this norm would require prior approval of the Central Government.

Audit observed deviations from the above instructions as discussed below:

##### **(a) Irregular upgradation of pay scales**

On the basis of the recommendation of a Committee, IPR, with the approval of its GC, placed (July 2014) 113 Scientists at one/two steps higher from their present GP. The posts were upgraded retrospectively from July 2009 and financial benefits were allowed from July 2014 to these Scientists. IPR did not obtain approval of DAE before carrying out the upgradation of pay scales for which it incurred expenditure of ₹ 3.45 crore. Upgradation of pay scales without approval of DAE was irregular. IPR stated (July 2016) that upgradation in the pay scales was allowed with the approval of GC. The reply is not acceptable as it was against instructions of MoF.

##### **(b) Grant of promotions with retrospective effect**

DoPT introduced (November 1998) Flexible Complementing Scheme (FCS) for Scientists wherein promotion could be granted after consideration by Assessment Board constituted for the purpose. DoPT clarified (July 2002) that in FCS cases promotions may not be granted with retrospective effect and further reiterated (September 2012) the same.

Audit observed that in 518 cases, officials at three Institutes viz. IPR, TIFR and TMC were granted promotion/financial upgradation in the GP ranging from ₹ 4,200 to ₹ 10,000 retrospectively. Giving the benefit of promotions from a retrospective date without timely assessment was against the instructions issued by DoPT for implementing FCS. In addition, NCBS granted promotions from retrospective date to 16 officials in Administrative Cadres which was not correct. Total inadmissible payment on this account was ₹ 1.48 crore.

IPR stated (July 2016) that it would strictly follow the instructions and would ensure promotion from prospective date. TMC also stated (September 2016) that efforts were being made to shorten the length of review process to give benefit of promotion at the earliest. TIFR stated (June 2016) that delay in decision making by the Departmental Promotion Committee (DPC) for seeking the feedback from the Faculty Members were not treated as retrospective.

The replies are not acceptable as the promotions are to be made effective from the prospective date after the competent authority has approved the same.

**(c) Irregular promotions in Academic cadre**

The Board of Governors of NISER in its meeting (2010/2015) approved the Promotion Policy of its Faculty Members. Audit observed that the minimum residency prescribed for Faculty members of NISER for promotions to various scientific and academic posts<sup>8</sup> was kept at two to four years against minimum residency period of four five years for similarly placed scientific staff of DAE. During the period 2012-15, NISER promoted 45 Faculty members with the lower residency period. Audit observed that approval of DAE/MoF for the relaxed residency period was not obtained. Promotion with irregular relaxation of residency period resulted in excess pay and allowances amounting to ₹ 3.25 crore.

NISER stated (May 2016) that job profile of its faculty was different from the Scientific and Technical staff of DAE but similar to job profile in respect of IIT and IISERs and its Promotion Policy cannot be compared to those of Scientific Officers in DAE. NISER further stated (July 2016) that the previous experience of the persons in a given position was taken into account to calculate the residency period.

The reply is not acceptable as approval of DAE was not obtained before granting the relaxation in minimum residency period. Moreover, there is no provision in DAE's promotion policy to count the previous experience of the persons to arrive at residency period.

**2.2.2.5 Entitlements**

**(a) Irregular expenditure towards foreign tours**

MoF issued orders (July 2006, September 2007 and September 2013) containing guidelines for expenditure management and economy measures and stated that it would be responsibility of Secretary of each Ministry/ Department to ensure that foreign travel is restricted to most necessary and unavoidable official engagements. No proposal for participation in workshop/seminar/conference, etc. abroad at Government cost shall be entertained except those that are fully funded by sponsoring agencies. On test check, Audit observed that Scientists from all seven selected ABs were permitted on foreign tours for attending seminars/workshops, etc. during the period 2010-16 at Government cost. These foreign tours were approved by the respective Institute Directors instead of the Secretary of DAE in violation of the instructions of Government. An amount of ₹ 10.10 crore was incurred in all selected ABs on such tours.

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<sup>8</sup> Promotion from Scientific Officer (SO(E) to SO(F) /Assistant Professor to Reader F (corresponding GP ₹ 7,600 to ₹ 8,700), promotion from SO(F) to SO(G)/ Reader F to Associate Professor (₹ 8,700 to ₹ 8,900) and promotion from SO(G) to SO(H)/ Associate Professor to Professor (₹ 8,900 to ₹ 10,000).



TIFR, IPR and NISER justified (June/July 2016) the foreign travels on ground of research, to have visibility and international recognition. TMC stated (September 2016) that expenditure on foreign tour was incurred from the Academic fund created out of share in hospital income. IOP stated (August 2016) that its policy provided extension of financial support to its staff for international travel for academic and research activities. HRI stated (July 2016) that foreign travel is not an entitlement but an incidence of service based on functional necessity and budget availability. SINP stated (July 2016) that foreign travel proposals were approved by the Director.

The replies may be viewed in the light of Gol instructions prohibiting such foreign tours. Further, the ABs did not obtain permission from Secretary, DAE for such tours.

**(b) Irregular reimbursement of moving expenses on initial appointment**

According to SR 2 (18) of FRSR Part II, Travelling Allowance (TA) on transfer is admissible when a Government employee is transferred from one place to another place in public interest. Similarly, Transfer TA is also admissible to permanent Central and State Government servants appointed to posts under the Central Government either on the results of competitive examination or after an interview for appointment to such posts. During the period 2010-16, TIFR paid transfer TA of ₹ 15.54 lakh including travelling cost and cost of transportation of personal effects of 17 officials who were working abroad, on their direct recruitment to TIFR. As the staff were not transferred from any other previous headquarters, the moving expenses/ transfer TA was not admissible.

**(c) Inadmissible payment of Transport Allowance**

- (i) MoF allowed (August 2008) slab-wise Transport Allowance of ₹ 3,200, ₹ 1600 and ₹ 600 plus Dearness Allowance (DA) thereon to employees residing at A1/A cities and ₹ 1,600, ₹ 800 and ₹ 400 plus DA thereon for employees residing in other cities. Further, it stipulated that officers drawing GP of ₹ 10,000 and ₹ 12,000 and those in HAG+ scale, who were entitled to the use of official car in terms of OM dated January 1994 shall be given the option to avail themselves of the existing facility or to draw the Transport Allowance at the rate of ₹ 7,000 plus DA thereon per month and as such only Chief Executive of /ABs is entitled for use of staff car.

Audit observed that in TMC and NISER, the higher rate of Transport Allowance of ₹ 7,000 was granted to 10 officials who were not entitled to receive the same in terms of the above orders of MoF. The Institutes incurred expenditure of ₹ 30.53 lakh towards excess Transport Allowance paid to these officials.

TMC stated (May 2016) that above officials were allowed to avail staff car facility as they were heading separate units of TMC. NISER clarified (July 2016) that three of its officers were not availing the staff car facility. The reply of TMC is not acceptable as separate approval of Gol was not obtained prior to grant of

higher rate of Transport Allowance. The reply of NISER is also not acceptable as the officials were paid over and above the entitlements.

- (ii) MoF vide its OM (February 2002) clarified that Transport Allowance is not admissible to employees who remained absent from duty for a complete calendar month(s) due to leave/training/tour, etc. Audit observed that during 2010-16, SINP paid Transport Allowance to 22 employees who remained absent from duty for full calendar month(s) and thus incurred inadmissible expenditure of ₹ 2.66 lakh. SINP accepted (June 2016) the Audit observation and stated that the Institute would take necessary action towards recovery of the inadmissible amount.

**(d) Irregularities in account for leaves in Leave Account**

- (i) Rule 29 (a) of Central Civil Services (Leave Rules) prescribes that Half Pay Leave (HPL) account of every Government servant shall be credited in advance, in two instalments of 10 days each on the first day of January and July of every calendar year. However, employees of TIFR were given credit of HPL in two instalments of 15 days each on the first day of January and July of every calendar year which was in contravention of Gol rules.
- (ii) DAE advised HRI (December 2003) to follow CCS Leave Rules 1972 in respect of different kinds of leave available (other than study leave and sabbatical leave) for its academic and non-academic staff. It further added that for non-academic staff, study leave as admissible under CCS Leave Rules 1972 may be adopted and for academic staff, study leave and sabbatical leave as followed in TIFR may be adopted. HRI framed Leave Rules (January 2005) and Sabbatical Leave Guidelines 2014 (October 2014) for its academic staff. However, the Leave Rules of HRI were not in line with the Gol Rules as discussed below:
- a. According to Rule 28(1) (b) of CCS (Leave Rules), if a Government servant serving in vacation department avails a portion of vacation in a year, he shall be entitled to EL in such proportion of 30 days as the number of days of vacation not taken bears to the full vacation. The Leave Rules of the Institute provided for vacation leave of 30 days per calendar year. However, Clause D 1(8) and (9) of Revised (April 2006) Bye laws of the Institute provided for vacation leave of 70 days with full salary per year, which was in contravention of CCS (Leave Rules) 1972. The Bye laws further stated that if, in the exigencies of work, the Director and academic staff members avail only a part of vacation of 70 days, they shall earn leave equal to the number of days they were actually in duty and shall be permitted to accumulate such earned leave according to Central Government Rules. Accordingly, during 2010-15, the earned leave account

of 35 academic staff was credited with 30 days of earned leave even though they availed themselves of full or partial vacation of 70 days.

HRI stated (July 2016) that the as per the approved Leave Rules, the staff were entitled for 30 days of earned leave per year in addition to vacation leave of 30 days per year with effect from 1 January 2005. The reply is not acceptable as 30 days each of vacation leave and earned leave was against Rule 28 of CCS Leave Rules.

- b. HRI Leave Rules provides Academic Leave up to 50 days per calendar year which can be availed at any time during the calendar year for academic purposes. However, the said Rules do not have any provision for Duty Leave. Audit observed that during 2010-15, HRI granted 35 academic staff the benefits of availing of Duty Leave in addition to Academic Leave of 50 days, even though the same was not incorporated in its Leave Rules.

HRI stated (July 2016) that the matter would be referred to DAE and action would be taken accordingly.

#### **2.2.2.6 Irregular grant of extension of service**

DoPT issued instructions (May 1998) enhancing age of retirement of employees of ABs from 58 years to 60 years and mentioned that there shall be complete ban on extension in service beyond the age of superannuation (except in case of medical and scientific specialists). These instructions were also applicable for ABs where their Rules and Regulations differed from those of the Central Government.

DoPT further instructed (July 2006) that the authority for approval of extension of tenure of Chief Executives of ABs vests with the ACC. Extension in tenure of officers other than the Chief Executives was to be considered by Search-cum-Selection Committee and their recommendations were to be implemented by the Ministry/ Department. Any deviation would require approval of the ACC. DAE also, from time to time set up Peer Committee for considering proposals for extension in service of Scientists/Engineers beyond the age of 60 years with a stipulation that the recommendations of the Peer Committee will be submitted to the ACC for obtaining approval.

Audit, however, observed that in 113 cases in all seven selected ABs, services of employees were extended beyond the age of superannuation with the approval of respective GCs only. The approval of DAE and ACC was not obtained for such extension of services. Expenditure of ₹ 52.76 crore was incurred on pay and allowances for the extended period in these cases.

IPR stated (July 2016) that all the cases of extension were granted with the approval of GC. SINP, TMC, NISER and IOP stated (July/August 2016) that extension of service

was granted in accordance with the Bye laws of the Institutes. The replies are not acceptable as approval of ACC was required for grant of extension of services.

### 2.2.3 Conclusion

Autonomous Bodies did not obtain concurrence of DAE for framing their rules and restrictive clauses were not incorporated therein. Selection Committees were not formed as per DoPT instructions and posts were created and appointments were made without proper authorisation. Promotions and upgradation of posts were made without approval of DAE/Ministry of Finance. Irregular expenditure was incurred on Transport Allowance and foreign tours. Leave Rules of ABs were not in conformity with the Gol rules. Further, grant of extension of service in ABs was in violation of Gol rules.

The matter was reported to the Department of Atomic Energy in December 2016; their reply was awaited (February 2017).

## 2.3 Blocking up of funds due to non-installation of equipment

**Saha Institute of Nuclear Physics, Kolkata and Tata Memorial Centre, Mumbai failed to ensure readiness of site due to which equipments procured at a cost of ₹ 1.98 crore and ₹ 1.08 crore respectively could not be installed.**

**2.3.1** Saha Institute of Nuclear Physics, Kolkata (SINP), undertook a project during 11<sup>th</sup> Five Year Plan (2007-12) to procure, inter-alia, two equipment viz. Plasma Enhanced Chemical Vapour Deposition (PECVD) Unit and Reactive Ion-beam Etch (RIE) system. SINP also proposed to construct a Clean Room<sup>9</sup> for installation of the said equipment.

SINP placed purchase orders (December 2009) for procurement of the equipment i.e. (i) PECVD System and (ii) Chlorine based Inductively Coupled Plasma RIE system at a cost of GBP 1.14 lakh and GBP 1.67 lakh respectively. The warranty period of both the equipment was 12 months from the date of installation or 15 months from the date of shipment whichever was earlier. The equipment were received in June 2010 and SINP made full payment (July 2010) of ₹ 1.98<sup>10</sup> crore for both the items.

The equipment could not be installed as the Clean Room for their installation was completed only in January 2014. Meanwhile, the warranty period of the equipment expired in September 2011. Even after completion of the clean room, SINP was unable to install the equipment pending fulfilment of a few site requirements. As a result, the equipment remained uninstalled as of October 2016.

<sup>9</sup> Clean Room is an environment with a low level of pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors.

<sup>10</sup> GBP 1,14,285 at the rate of ₹ 70.33 plus GBP 1,66,675 at the rate of ₹ 70.35 plus charges (₹ 35,019)

While accepting that the Institute could not make a realistic time line assessment and that it suffered in terms of its scientific research, SINP stated (October 2016) that the delay in installation of the equipment was due to longer time taken in civil construction work, involvement of various agencies in the project and other unanticipated problems.

DAE replied (January 2017) that it has instructed SINP authorities to take due precautions in future for non-occurrence of such situations.

**2.3.2** Tata Memorial Centre, Mumbai (TMC) procured (September 2014) a Telecobalt machine for ₹ 1.08 crore but could not install it as the site for installation was not ready and the building was later declared (August 2015) as 'not structurally sound'. DAE, while endorsing the reply of TMC, stated (January 2017) that the machine was stored in warehouse due to non-readiness of site. DAE further stated that the machine was diverted for installation at Government Cancer Hospital, Aurangabad after approval of Department of Atomic Energy.

Thus, equipment procured at a cost of ₹ 1.98 crore by SINP and ₹ 1.08 crore by TMC could not be put to use resulting in blocking up of funds and non-achievement of desired deliverables of the project.

## **2.4 Irregular construction of residential flats and diversion of grant funds**

**National Centre for Biological Sciences, Bengaluru, a centre of the Tata Institute of Fundamental Research, constructed residential flats without obtaining approval of competent authority and diverted ₹ 18.33 crore from Extra Mural Grants for funding the construction.**

Rule 129 of the General Financial Rules states that no works shall be commenced or liability incurred without obtaining administrative approval from the appropriate authority and incur expenditure without obtaining sanction from the competent authority. As per the delegation of powers of DAE (July 2010), Head of Department of constituent unit of DAE on recommendation of Council/ Board after consideration by Tender Committee, in case of open tender, could exercise financial powers up to ₹ six crore.

National Centre for Biological Sciences, Bengaluru, (NCBS), a centre of the Tata Institute of Fundamental Research (TIFR), a Charitable Trust under DAE, signed (August 2011) a Memorandum of Understanding with Institute for Stem Cell Biology and Regenerative Medicine (INSTEM), an Autonomous Body under Department of Bio-Technology for construction of housing facility with 100 residential units. The estimated cost of the project was ₹ 40.50 crore, of which, ₹ 20.53 crore was to be contributed by INSTEM and balance by NCBS, TIFR.

NCBS floated open tender and awarded (November 2011) work at a cost of ₹ 38.64 crore. The work was completed (November 2014) after incurring expenditure of ₹ 37.16 crore. Of this, ₹ 18.83 crore was contributed by INSTEM and ₹ 18.33 crore was contributed by NCBS, TIFR.

In this regard, Audit noted that NCBS, TIFR, in contravention of GFR, did not obtain administrative approval and financial sanction from Member for Finance, Atomic Energy Commission for construction of residential flats. Audit further observed that NCBS, TIFR diverted Extra Mural Grants (EMG) for funding the construction project.

While accepting that administrative approval and financial sanction of competent authority was overlooked, which resulted in irregular diversion of funds besides affecting the project for which extramural fund was intended, NCBS stated (February 2016) that the proposal seeking post facto approval of competent authority was sent to DAE in December 2015. However, the same was not received as of January 2017.

Thus, NCBS, TIFR constructed flats without obtaining approval of competent authority by diverting ₹ 18.33 crore from grant funds received, which was not only in contravention of GFR but also affected the projects for which the EMG funds were intended.

The matter was referred to DAE (November 2016); its reply was awaited (February 2017).

## CHAPTER – III

## Department of Bio-Technology

### 3.1 Irregular expenditure on premises transferred to another organisation

**Centre for DNA Fingerprinting and Diagnostics, Hyderabad continued to incur recurring expenditure of ₹ 3.18 crore on maintenance of the unutilised premises established at ₹ 9.27 crore already transferred to Survey of India.**

Centre for DNA Fingerprinting and Diagnostics, Hyderabad (CDFD), an autonomous body of the Department of Bio-Technology (DBT) under Ministry of Science and Technology (MST) was allotted (March 1998) 10 acres of land in Himayat Nagar, Ranga Reddy District for its operations by the Government of Andhra Pradesh. CDFD had shifted (April/August 2005) its dry operations<sup>11</sup> to newly constructed premises at Himayat Nagar but could not shift its wet operations<sup>12</sup> as Andhra Pradesh Pollution Control Board (APPCB) raised objection<sup>13</sup> to its activities. CDFD continued its wet operations at rented premises in Nacharam, about 40 km from Himayat Nagar.

CDFD shifted (December 2008) its operations<sup>14</sup> to new premises at Tuljaguda Complex, Nampally and abandoned the premises at Himayat Nagar which was constructed at a cost of ₹ 9.27 crore. With a view to utilise the facilities at Himayat Nagar campus, CDFD entered (April 2011) into a Memorandum of Understanding (MoU) with Survey of India (Sol), a subordinate office of Department of Science and Technology (DST), also under MST, for transfer of the said property to Sol for research, education and training activities.

The MoU was valid for a period of 40 years from the date of agreement. As per the MoU, Sol was to provide 20 acres of land to CDFD in Sol campus at Uppal, Hyderabad and Sol would utilise the Himayat Nagar campus for its Indian Institute of Surveying and Mapping (IISM). Sol was to incur all costs for maintenance of land and buildings including payment of property tax and land tax and other taxes at Himayat Nagar

<sup>11</sup> Includes Computer records of DNA Finger Printing Analysis, Offices, HRD, Residence for Staff, Guest House and Hostel for students, etc.

<sup>12</sup> Housing of laboratories using chemicals.

<sup>13</sup> The lab generates waste water from lab washings & sanitary and its location comes within 10 km radius of Osman Sagar lake wherein polluting industries, major hotels, residential colonies or other establishments that generate pollution are prohibited.

<sup>14</sup> Except Guest House, Hostel, Canteen, Director's office, Auditorium, Library, Committee Room, Sub-Station, Security Office and Stores which continued to function from Himayat Nagar Campus.

Campus of CDFD during the period of tenure of the MoU. The Himayat Nagar Campus was formally handed over to IISM/Sol in June 2011.

Audit observed that although the Himayat Nagar Campus was handed over to Sol, CDFD continued to incur recurring maintenance expenditure viz. electricity, telephone, security, AMC, Housekeeping, etc. on the campus. The total irregular expenditure incurred on maintenance of the campus since April 2011 (upto July 2016) was ₹ 3.18 crore.

DBT stated (October 2016) that though the Himayat Nagar campus was handed over to Sol in June 2011, Sol continued to show reluctance to take over and maintain the campus. DBT further stated that the process of handing over and taking over of the property was completed in August 2016 and it was being maintained by Sol. It was also stated that Sol had been requested to refund the expenditure incurred for its maintenance by CDFD.

While accepting that the facility remained unutilised because neither CDFD nor Sol had any use of the same, DST stated (November 2016) that it had now decided to lease out the building in whole or parts to interested parties in order to generate funds for its maintenance as well as to recover expenditure incurred on construction over a period of few years.

Thus, the property established for ₹ 9.27 crore remained unutilised for over five years and CDFD made an irregular payment towards its maintenance amounting to ₹ 3.18 crore.

### **3.2 Unauthorised expenditure due to excess appointments and grant of advance increments to employees**

**Translational Health Science and Technology Institute, Faridabad recruited 11 persons in excess of sanctioned posts during 2009-15, resulting in unauthorised expenditure of ₹ 1.03 crore. The Institute also irregularly granted one to five advance increments to 22 employees resulting in unauthorised expenditure of ₹ 79.91 lakh.**

Translational Health Science and Technology Institute, Faridabad (THSTI), an Autonomous Body under administrative control of Department of Bio-Technology (DBT), was established in July 2009 under the Societies Registration Act XXI of 1860. DBT proposed in the note to the Cabinet (August 2007) 96 posts under different categories<sup>15</sup> for THSTI for managing its affairs, wherein it was stated that necessary approval for creation of the posts may be obtained from Ministry of Finance (MoF) as per usual procedures. MoF approved 28 posts of Scientific/Technical/Administrative

<sup>15</sup> Faculty/ Scientific: 35 posts, Technical: 40 posts and Administrative: 21 posts.



nature<sup>16</sup> in September 2008 and eight more posts<sup>17</sup> were approved subsequently by MoF in December 2015.

As per FR 27, an authority may grant a premature increment to a Government servant on a time-scale of pay, if it has power to create a post in the same cadre on the same scale of pay. Also, GoI order 3 below Rule 27 clarifies that in case of initial appointments to these posts (whether temporary or permanent) which are created with the concurrence of MoF, the Administrative Ministry concerned may, subject to the conditions specified, grant a higher initial pay, not exceeding five increments in the scale of pay applicable to the post.

Further, guidelines issued by Ministry of Science and Technology, DST (January 1999)<sup>18</sup> on delegation of powers to Autonomous Bodies inter-alia specified that Governing Councils/Bodies of Autonomous R&D institutions did not have the powers of creation of posts and that they shall exercise financial powers subject to the provisions of GFR, restrictions in DFPRs and other GoI orders issued from time to time.

- (A)** Scrutiny of records revealed that against the sanction of 11 posts (one Professional expert, eight Technical and two Administrative cadres), THSTI recruited 22 employees (two Professional experts, 10 Technical and 10 Administrative) during the period December 2012 to February 2015. Further, THSTI recruited two employees against one sanctioned post of Professional Expert (Technical category). These 11 excess employees were appointed on consolidated pay<sup>19</sup> and an amount of ₹ 1.03 crore was paid towards pay and allowances to them during December 2012 to March 2016.
- (B)** Further, of the 14 Scientists/Technical Officers recruited between December 2009 and December 2013, THSTI fixed their initial pay after granting one to five advance increments in the related scale of pay. Similarly, against 70 posts sanctioned by DBT under three Plan projects of THSTI, the Institute appointed eight persons and fixed their initial pay with one to five advance increments.

THSTI granted advance increments to these 22 incumbents with the approval of its Governing Body, but without approval of its Administrative Department i.e. DBT in violation of FR 27 and extant GoI orders. This resulted in unauthorised payment of ₹ 79.91 lakh during 2009-16.

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<sup>16</sup> 17 Scientific, one Professional expert, eight Technical and two Administrative.

<sup>17</sup> Two Scientific, four Technical, two Administrative.

<sup>18</sup> Guidelines for enhancement of functional autonomy of R&D institutions under the S&T Departments/Institutions issued vide OM no. AI/Misc./002/98 dated 27 January 1999 by Department of Science and Technology, Ministry of Science and Technology, Government of India.

<sup>19</sup> Including one post of Administrative Officer which was filled on regular pay scale of ₹ 15,600-3,9100 (PB 3) with Grade Pay of ₹ 6,600.

In case (A) THSTI stated (January 2016) that 11 posts were sanctioned against the 68 posts approved by the Cabinet. In case (B) they stated (July 2016) that as per Bye laws of National Institute of Immunology<sup>20</sup> adopted by it, Governing Body/ Executive Director of THSTI had the special power to fix pay at the time of initial appointment of incumbent at higher stage than the minimum of the scale but limited to five increments in any case.

The reply of THSTI is not acceptable as specific approval for creation of 11 posts was not obtained from MoF and only Administrative Department i.e. DBT is empowered to grant advance increments and its approval was not taken by THSTI.

The issue in (A) and (B) was reported to DBT in October 2016 and February 2016 respectively; their reply was awaited as of February 2017.

### 3.3 Overpayment of Transport Allowance

**National Institute of Immunology, New Delhi paid Transport Allowance at higher rates to non-entitled Scientists, which led to overpayment of Transport Allowance of ₹ 68.68 lakh.**

Ministry of Finance, Department of Expenditure Office Memorandum (OM) of August 2008<sup>21</sup>, inter alia states that Central Government employees drawing grade pay of ₹ 5,400 and above were entitled to Transport Allowance (TA) at the rate of ₹ 3,200 plus Dearness Allowance (DA) (in A1/A cities) thereon with effect from 01 September 2008. Further, as per para 3 of the OM, officers drawing grade pay of ₹ 10,000 and ₹ 12,000 and those in the Higher Administrative Grade+ (HAG+) scale who are entitled to the use of official car in terms of OM of January 1994<sup>22</sup> shall be given the option to avail themselves of existing facility or to draw TA at the rate of ₹ 7,000 per month plus DA thereon. The OM of January 1994 states that the Head of Departments of Central Government in the Senior Administrative Grade and the Chief Executives of Statutory/Autonomous Bodies are entitled for use of staff car. Thus, the officers other than Chief Executives of Autonomous Bodies were not entitled for use of staff cars and TA of ₹ 7,000 per month plus DA thereon.

Audit examination of records of National Institute of Immunology, New Delhi (NII), an Autonomous Body under administrative control of Department of Bio-Technology (DBT) revealed that Scientists who were in the grade pay of ₹ 10,000, ₹ 12,000 and in HAG+ scale but were not Chief Executives were paid TA at higher rate of ₹ 7,000 per

<sup>20</sup> An institute under DBT.

<sup>21</sup> Government of India, Ministry of Finance, Department of Expenditure OM dated 29 August 2008 on Grant of Transport Allowance to Central Government employees.

<sup>22</sup> Government of India, Ministry of Finance OM dated 28 January 1994 defined use of staff cars for senior officers of Government of India, Heads of Department and Chief Executives of Statutory/Autonomous Bodies.

month plus DA during the period from September 2008 to February 2016 by treating them at par with Chief Executive of the Autonomous Body. The payment of TA at enhanced rate to non-entitled Scientists was in violation of instructions of Ministry of Finance and resulted in overpayment of TA of ₹ 68.68 lakh.

In view of the audit observation, NII revised (March 2016) the rate of TA payable to the Scientists from ₹ 7,000 per month to ₹ 3,200 per month. DBT stated (February 2017) that as most of the concerned Scientists had either superannuated/left or had drawn the excess payment for more than five years, recovery of the excess amount was being examined in view of Department of Personnel and Training (DoPT) orders<sup>23</sup> on the same.

The fact remained that overpayment of TA of ₹ 68.68 lakh was made to non-entitled Scientists in violation of instructions of Ministry of Finance.

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<sup>23</sup> DoPT O.M dated 02.03.16 states that recoveries of wrongful and excess payment made to Government employees would be impermissible in cases of (i) recovery from retired employees; (ii) employees who were due to retire within one year of the order of recovery; and (iii) recovery from employees when the excess payment has been made for a period in excess of five years before the order of recovery is issued. It also states that wherever the waiver of recovery in the above-mentioned situations is considered, the same may be allowed with the express approval of the Department of Expenditure.



## CHAPTER – IV

## Department of Science and Technology

### 4.1 Inadequate implementation of National Map Policy 2005

Even after 11 years of approval of the National Map Policy 2005, Survey of India, the National Surveying and Mapping Organisation of the country, failed to develop and maintain the National Topographical Data Base of the country. Of the seven series of maps envisaged under the policy, only one series in the scale 1: 50,000 was prepared. Printing of the maps was achieved for only 52 per cent of the country. As a result, topographic data was not disseminated to the end users.

#### 4.1.1 Introduction

Survey of India (Sol), under the Department of Science and Technology (DST), is the National Surveying and Mapping Organisation of the country. Government of India (GoI) approved a new National Map Policy (NMP) in May 2005 which mandated Sol to provide, maintain, allow access and make available the National Topographic Database (NTDB) of the country in analogue and digital forms and to promote the use of geospatial knowledge by all sections of the society.

The Headquarters of Sol is located in Dehradun and is headed by Surveyor General of India. There are six Specialised Zones, 22 Geo-Spatial Data Centres, four Printing Groups, one GIS Technology Centre and one Survey and Mapping Centre located in different parts of the country.

Audit reviewed the progress of implementation of National Map Policy 2005 by Sol in May 2016. Audit findings are discussed in the subsequent paragraphs.

#### 4.1.2 Implementation of NMP 2005

##### 4.1.2.1 Inadequate preparation of Open Series Maps and non-maintenance of National Topographical Data Base

Sol issued (2005) detailed guidelines for implementing the NMP. As per NMP 2005 Sol was to create, develop and maintain the National Topographical Data Base (NTDB) in analogue and digital forms. The Open Series Maps (OSMs) were to be derived from the NTDB. It was stipulated in the guidelines that layout of OSM sheets would be projected on Universal Transverse Mercator<sup>24</sup> (UTM) and WGS-84

<sup>24</sup> The UTM conformal projection uses a two dimensional system to give locations on the surface of the Earth. Like the traditional method of latitude and longitude, it is a horizontal position representation, i.e. it is used to identify locations on the Earth independently of vertical position. In order to standardise topographic mapping, the UTM Grid System has been recommended by United Nations Cartography Committee.

Datum<sup>25</sup>. The guidelines envisaged 32 grids to cover the entire country with six-degree longitude zones each. Each zone was to be divided into 24 squares and to be measured in the scale of 1:10,00,000. Each square out of 24 was further sub-divided into 16 squares and to be measured in the scale of 1:2,50,000. Similarly, each square was further subdivided in series to obtain OSMs of the 1: 50,000, 1: 25,000, 1: 10,000 and 1: 2,000 scales. NMP, 2005 mandated Sol for producing, maintaining and dissemination of the topographical map data base for the whole country on all these scales.

Audit observed that

- i) Maps published (as of November 2015) by Sol on scale 1:10,00,000, 1:2,50,000 and 1: 25,000 scale were in the earlier projection system (projection polyconic, Datum-Everest Spheroid<sup>26</sup>) and not in UTM projection and WGS- 84.
- ii) Only maps in 1:50,000 scale were prepared in the UTM projection and WGS- 84 Datum as required and were available in digital form. In the printed form, these maps were available with Sol only for 52 *per cent* area of the country.
- iii) For 1:25,000 scale, Sol completed 60 *per cent* of mapping and preparation of data base was still in progress.
- iv) Sol had submitted (September 2011) a detailed project report to Ministry of Science and Technology (MST) for mapping of the entire country on 1: 10,000 scale under National GIS project at an estimated cost of ₹ 1,824.03 crore. The approval of MST was awaited as of September 2016. Since the approval of MST to proposal of preparation of OSM in 1:10,000 scale was pending, work for the same had not been started.
- v) Town/city maps in 1:2,000 scale were made only as per indenter's<sup>27</sup> demand.

Thus, against the series from 1: 10,00,000 scale to 1: 2,000 scale, OSMs in only 1: 50,000 scale were available with Sol in digital form and in printed form only for 52 *per cent* area of the country. As a result, NTDB of the Sol suffered from two serious handicaps –

- a) The scale in which Sol maintained the NTDB i.e. 1:50,000 scale only was too small for planning any development activity; and
- b) The data contained therein was outdated, in some cases as old as 25 years.

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<sup>25</sup> WGS-84 datum is coordinate system being adopted universally as the standard form of Geographical Coordinates Representation System and this coordinate system is referred in Global Positioning System.

<sup>26</sup> Everest ellipsoid datum is the Indian coordinate system locally best fitted for Indian subcontinent. With the advent of satellite technology worldwide mapping has been shifting towards WGS-84 datum.

<sup>27</sup> Under National Urban Information Scheme (NUIS) project of Gol.

The NTDB available with Sol did not have as much relevance in digital environment as it could not support the kind of details that were required by present map users such as depiction of utility buildings like hospitals, schools, police stations, post office, etc. Non-availability of higher scale maps may impose constraints in applications such as disaster management, assessment of natural resource endowments, agricultural practices, grazing lands, village forests, rural development, etc. for which larger scale maps were essential.

DST stated (February 2017) that Digital Topographical Database was prepared in the scale of 1:50,000 as part of NTDB and updation of the same was in progress.

The fact remained that preparation and dissemination of maps and maintenance of NTDB in all the scales from 1: 10,00,000 to 1: 2,000 was not done, as envisaged in NMP, 2005.

#### **4.1.2.2 Inadequate printing**

After the digitised data base of OSM was ready, it was to be sent for printing to different Printing Groups of Sol. Sol worked out a requirement of 5,060 sheets in the scale 1: 50,000 so as to cover the entire country.

The printing work of Sol was entrusted to its four Printing Groups. Audit observed that out of total 5,060 sheets 2,648 sheets i.e. 52 *per cent* only had been printed till 2015-16. Audit noticed that no timeline was fixed for completion of the printing work. Further examination of records revealed that there was shortfall of 35 to 100 *per cent* in printing of maps by the four Printing Groups during the period from 2011 to 2016. The shortfall was attributed to non-availability of printing papers and repairing of printing machine.

Thus, even after 11 years of introduction of NMP, 2005, printed maps were not available in any scale except 1: 50,000 which was also 48 *per cent* incomplete.

DST accepted the fact and stated (February 2017) that the main reason for limited printing of OSM during 2011 to 2015 was non-availability of Map litho paper. DST added that since 2015, Map litho paper was being procured and printing had begun. DST further stated that printing setup in Sol had limited capacity with two colour printing machines operational at Western Printing Group and Southern Printing Group only. The printing machines available in Northern Printing Group and Eastern Printing Group were un-operational being very old.

The reply indicates that Sol did not modernise its infrastructure to meet the requirements of the NMP, 2005. Audit noticed that Sol also did not take action to obtain better infrastructure as no budgetary proposals were sent to Gol for modernisation.

#### 4.1.2.3 Non-establishment of online Map Transaction Registry

As per NMP 2005, Sol was to establish an online Map Transaction Registry (MTR) for recording of all transactions relating to digital maps. The ownership of all digital data vested solely with Sol and would be given only under license against indent and on payment. Unauthorised copying and distribution of Sol digital data were strictly prohibited. All licenses would be issued through the MTR. Sol's digital data would be licensed based on the usage such as digital license, publishing license, internet license, media license and value addition license.

Audit, however, observed that Sol was unable to develop online MTR as required in NMP 2005 and was, therefore, unable to issue internet and media licenses for dissemination of the database.

Sol stated (July 2016) that development of MTR work was entrusted to NIC in June 2012. However, Audit noticed that no specific timelines were fixed for completion of the work. In the absence of online MTR, Sol continued to issue licenses through manual record keeping.

While accepting the fact that MTR was being maintained in offline mode, DST stated (February 2017) that digital data licenses were being issued to the users.

The fact remained that Sol did not develop online MTR as envisaged under NMP 2005.

#### 4.1.3 Deployment of manpower

As of March 2016, against the total sanctioned strength of Sol, there was shortage of staff in all categories as shown in Table 4.1.

**Table 4.1: Deployment of Manpower in Sol**

Category	Sanctioned Strength	Persons in Position	Percentage shortfall
Group A	394	115	71
Group B	611	480	21
Group C-I	1,600	1,314	18
Group C-II	2,917	686	76
Ministerial Establishment	1,214	674	44
Group D	4,448	1,724	61

However, in Eastern Printing Group, Kolkata (EPG) and Western Printing Group, New Delhi (WPG), there was excess manpower in Group B (Non-Gazetted) and Group C categories every year from 2011-12 to 2015-16. As of March 2016, against the sanctioned strength of 25 and 17 in Group B (Non-Gazetted) in EPG and WPG, there were 28 and 25 persons in position, resulting in excess strength of three persons and eight persons respectively. Similarly, against the sanctioned strength of 26 and 18 in



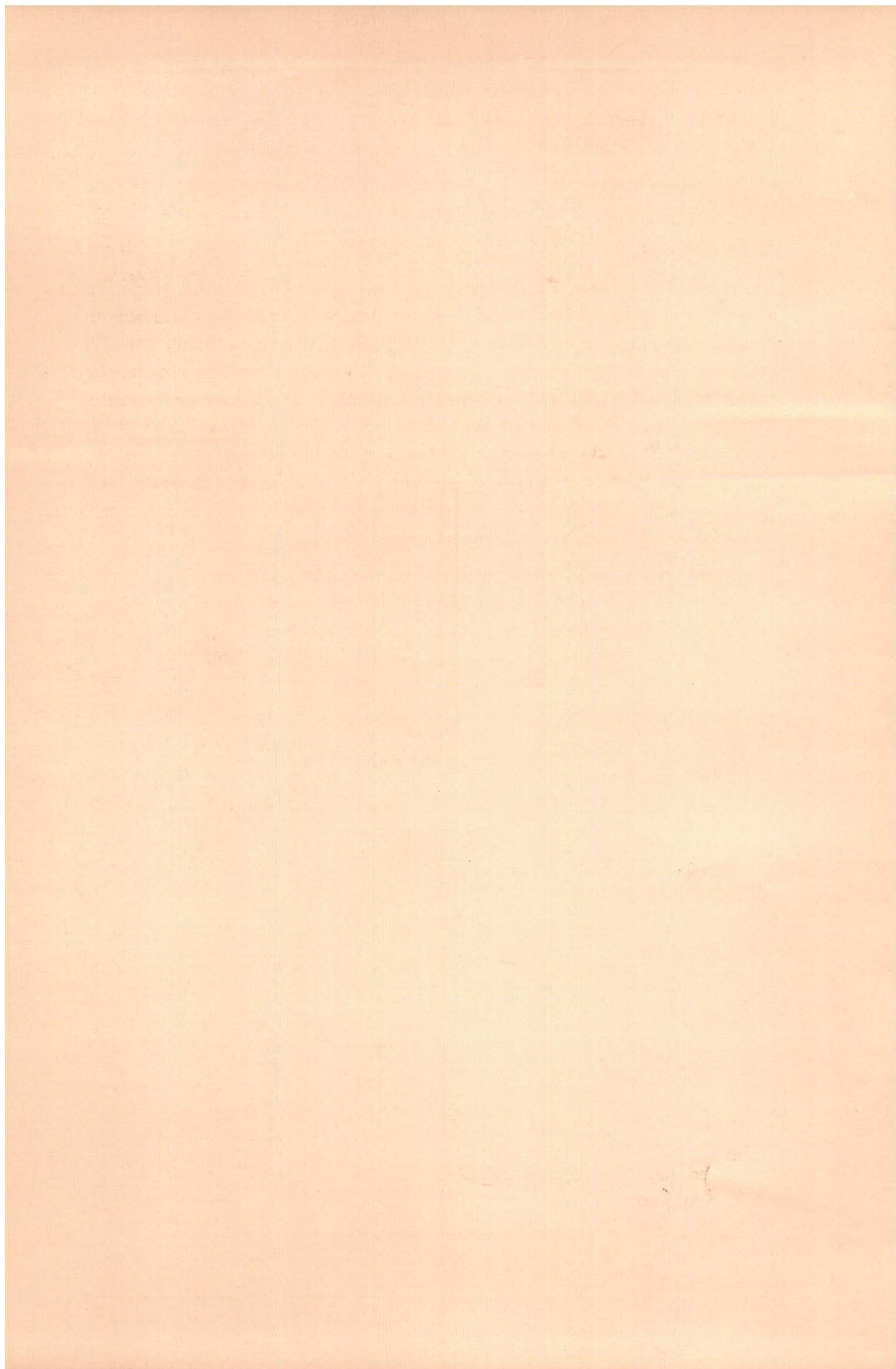
Group C (Non-Gazetted), there were 30 and 27 persons in position, resulting in excess strength of four persons and nine persons in EPG and WPG respectively.

While accepting the fact DST stated (February 2017) that steps were being taken for transferring the posts from other Printing Groups.

#### **4.1.4 Conclusion**

The objective of creating, developing and maintaining National Topographical Data Base (NTDB) in analogue and digital forms was not achieved as Sol was unable to prepare maps in the series defined under the National Map Policy (NMP), 2005. Of the seven series of maps envisaged, Sol prepared maps in the required projection in scale 1: 50,000 only. NTDB of Sol suffered from handicaps as the scale was too small for planning any development activity and data contained therein was as old as 25 years. Sol was also unable to print the required number of maps in the scale 1: 50,000 due to absence of infrastructure. Sol also did not establish an online Map Transaction Registry for recording of all transactions relating to digital maps and continued to issue licenses through manual record keeping.

Thus, even after 11 years of having in place a National Map Policy, Sol could not provide, maintain, allow access and make available the National Topographical Data Base of the country to the end users.



## CHAPTER – V

# Department of Scientific and Industrial Research

## 5.1 Management of Human Resources in Council of Scientific and Industrial Research

**Council of Scientific and Industrial Research (CSIR) failed to comply with Government instructions on abolition of vacant posts, grant of advance increments on initial appointment, surrender of posts, grant of promotions to scientific staff, upgraded posts and granted higher pay and allowances without the approval of MoF which result in irregular expenditure of ₹ 24.31 crore.**

### 5.1.1 Introduction

Council of Scientific and Industrial Research (CSIR) is an Autonomous Body (AB) under the administrative control of the Department of Scientific and Industrial Research (DSIR) having 40 laboratories/ institutes located all over the country. CSIR is administered, directed and controlled by a Governing Body (GB) headed by Director General (DG), as its Chairperson.

CSIR is fully funded by grants-in-aids received from DSIR. During the period 2011-12 to 2015-16, CSIR received ₹ 16,457.56 crore as grants-in-aid and earned receipts of ₹ 665.73 crore through contribution, donation and revenue receipts. Of this, CSIR incurred expenditure of ₹ 6,683.01 crore<sup>28</sup> on account of pay and allowances, wages and pension.

The sanctioned strength of CSIR in Scientific, Technical and Administrative Cadres as of 1 April 2015 was 6,130, 9,605 and 6,050 against which 3,785, 6,804 and 3,279 persons were in position respectively.

CSIR and its constituent laboratories follow the provisions of Merit and Normal Assessment Scheme (MANAS) and Administrative Services (Recruitment & Promotion) Rules 1982 in matters relating to recruitment, promotions, superannuation, pay and allowances, other entitlements, etc. of Scientific & Technical staff and Administrative staff respectively, approved by its GB.

The audit was conducted between May 2016 to October 2016 covering the period from 2011-12 to 2015-16. However, records prior to the year 2011-12 were also examined wherever required. Audit also included a follow up of the observations made in CAG's Audit Report No. 5 of 1998 on Manpower audit of CSIR. Out of 40

<sup>28</sup> Excluding expenditure for 2011-12.

laboratories of CSIR, CSIR Headquarters (HQ) and eight<sup>29</sup> laboratories were selected on the basis of quantum of manpower.

### 5.1.2 Follow up of major observations made in previous Audit Report

In the CAG's Audit Report No. 5 of 1998 on Manpower Audit of CSIR, issues relating to non-evolving of standard norms for assessment of staff, creation of posts/ upgradation of pay scales without approval of Ministry of Finance (MoF)/ Department of Personnel and Training (DoPT), non-compliance of Government of India (GoI) instructions for abolition of posts lying vacant for over one year, etc. were reported. Audit observed that CSIR did not take remedial action on several audit observations. The details of major audit observations made in the Report, on which action was pending as of December 2016 are given in Table 5.1.

**Table 5.1: Status of major observations in previous Audit Report**

Para No.	Audit finding	Status in CSIR
2.1.7(a)	CSIR failed to evolve any mechanism for systematic assessment of its manpower requirement including setting up of Internal Work Study Unit (IWSU), with core members drawn from the Staff Inspection Unit (SIU) of Ministry of Finance.	An internal committee on this issue was constituted (December 2000) by CSIR. In its report (January 2001) the committee recommended for surrender of 986 posts, so that staff strength of CSIR could be limited to the level of 21,190, as against the existing staff strength of 22,176. However, CSIR did not adhere to the recommendation of the committee for ceiling of its staff strength to the level of 21,190.  CSIR stated (February 2017) that the task of review of staff strength was subsequently entrusted to another internal committee. However, recommendations of the committee and action taken thereon was not provided.
2.1.7(b)	The ratio of scientific to non-scientific staff in six laboratories was much higher than the ratio of 1:1.5 recommended by a committee appointed to review the functions and structure of CSIR.	CSIR in its reply to ATN (2001) stated that Peer review of each laboratory was conducted and a three years (1987-90) perspective plan was approved for ceiling of S&T manpower till 1990. However, even after 29 years, CSIR did not scale down its non-scientific manpower to the recommended ratio of 1 : 1.5 and the actual ratio of scientific and non-scientific

<sup>29</sup> (1) Central Drug Research Institute (CDRI), Lucknow; (2) Central Glass and Ceramic Research Institute (CGCRI), Kolkata; (3) Central Scientific Instruments Organisation (CSIO), Chandigarh; (4) Indian Institute of Chemical Technology (IICT), Hyderabad; (5) National Institute of Oceanography (NIO), Goa; (6) National Metallurgical Laboratory (NML), Jamshedpur; (7) National Chemical Laboratory (NCL), Pune and (8) National Physical Laboratory (NPL), New Delhi.

Para No.	Audit finding	Status in CSIR
		<p>manpower of CSIR and its constituent laboratories during the years 2011-12 to 2015-16 was 1 : 2.68.</p> <p>CSIR justified (February 2017) the ratio of scientific to non-scientific staff citing the increase in the activities of the organisation. CSIR added (February 2017) that there was a considerable reduction in the overall ratio from 1:3 to 1: 2.68. However, the fact remained that there was a marginal decrease in ratio from 1:3 to 1:2.68 in comparison to recommended ratio of 1:1.5.</p>
2.1.7(d)	Government orders for abolition of posts lying vacant for over one year were not complied with in respect of administrative posts.	In order to seek exemption from these orders, CSIR approached (November 2006) MoF which, in turn, agreed (April 2007) to exempt CSIR from reporting such vacancies and seek revival of posts lying vacant for more than a year but for scientific and technical staff only with the condition that CSIR would conduct an in-house exercise of annual reviews of all posts for optimal utilization of its manpower resources.
2.1.7 (e)	Government's directives for 10 per cent reduction in posts were not complied with, in respect of administrative posts.	<p>Audit observed that CSIR did not conduct annual reviews of its all posts. Further, administrative posts ranging between 2,106 and 2,771, which were lying vacant for more than a year, but were also not abolished as of March 2016.</p> <p>CSIR stated (February 2017) that it initiated restructuring of administrative cadres in 2012 and was presented before the Governing Body in November 2016.</p> <p>The fact remained that 2,771 administrative posts were lying vacant for more than a year as of March 2016 and were not abolished.</p>
2.1.7 (f)	In spite of large number of vacancies in respective cadres, Scientists/ Technical Staff were assigned non-R&D work.	<p>Audit observed that despite shortage of Scientific/ Technical manpower in five<sup>30</sup> test-checked laboratories five to 16 scientists/ technicians were deployed in work of non-R&amp;D nature (Finance, Establishment, Library and Guest House wing). Besides, at CSIR HQ where no R&amp;D work was undertaken, 208 to 229 Scientists and technical personnel were deployed on non-R&amp;D work. In CSIO, six technical personnel were inducted from non-technical cadre to technical cadre but were deployed on non-R&amp;D work.</p> <p>CSIR stated (February 2017) that</p>

<sup>30</sup> CDRI, CSIO, IICT, NML and NPL.

Para No.	Audit finding	Status in CSIR
		instructions to not use scientific/technical manpower on non-scientific work were issued earlier, however, to stop the practice, fresh order was being issued.
2.1.9(a)	The assessment promotion scheme, similar to the Flexible Complementing Scheme (FCS) providing in situ promotion, though meant for scientists only, was extended to entire engineering and technical staff upto the lowest level and also to some categories of administrative staff classified as technical, resulting in undue benefits of time bound assessment promotion.	No action was initiated by CSIR for obtaining the approval of MoF. Audit observed that CSIR continued to grant promotions under FCS to technical staff. CSIR also did not discontinue the practice of granting promotions under FCS retrospectively, as detailed in para (5.1.3.2(b)).
2.1.9(d)	All promotion schemes for S&T staff were implemented retrospectively.	
2.1.9(e)(ii)	CSIR created 278 new (additional) posts and upgraded 1,740 posts through successive cadre reviews to provide promotional avenues comparable to S&T staff to its administrative staff, without approval of the MoF.	No action was taken by CSIR for regularisation of these posts from MoF.
2.1.9(f)	Pay scales of the Assistants, Senior Stenographers, Assistants (Finance and Accounts) and Stores and Purchase Assistants were revised upward, in defiance of directives of MoF/ DoPT.	No corrective action was taken by CSIR in this regard. We further observed that CSIR granted higher pay scales to Hindi Officers/Sr. Hindi Officers despite reservations expressed by MoF. The details are discussed in para (5.1.3.3(c)).

Other specific audit observations are discussed in the subsequent paragraphs.

### 5.1.3 Audit findings

#### 5.1.3.1 Non-inclusion of restrictive clause in the Rules and Bye laws

MoF advised (1973) CSIR to provide in its Bye laws, stipulations regarding applicability of the rules and orders of Gol to its staff in respect of all recruitment and promotions, etc. MoF further directed (November 1973) CSIR to make provision for recruitments, appointments, promotions and transfers to all posts in accordance with the rules and orders similar to those obtaining in the Government of India for corresponding posts.

Subsequently, MoF issued (October 1984) orders that ABs were to incorporate a clause in their relevant Bye laws/Rules/Regulations that proposals relating to employment structure i.e. adoption of pay scales, allowances and revision thereof and creation of post above a specified pay level would need the prior approval of Gol in consultation with MoF.

Audit observed that CSIR did not include the aforesaid provision in their Bye laws and continued to deviate from Gol instructions.

CSIR stated (February 2017) that the audit observation will be tabled before the competent authority.

The deficiencies noticed in manpower related issues are discussed in the following paragraphs.

### **5.1.3.2 Recruitment and Promotion**

#### **(a) Unauthorised grant of advance/ premature increments on recruitment**

As per FR 27 an authority may grant a premature increment to a Government servant on a time-scale of pay, if it has power to create a post in the same cadre on the same scale of pay. Also, Gol order 3 below FR 27 clarifies that in case of initial appointments to these posts (whether temporary or permanent) which are created with the concurrence of MoF, the Administrative Ministry concerned may, subject to the conditions specified, grant a higher initial pay, not exceeding five stages/increments in the scale of pay applicable to the post.

Further, guidelines issued by Ministry of Science and Technology, DST (January 1999)<sup>31</sup> on delegation of powers to Autonomous Bodies inter-alia specified that Governing Councils/Bodies of Autonomous R&D institutions did not have powers of creation of posts and that they shall exercise financial powers subject to the provisions of GFR, restrictions in DFPRs and other Gol orders issued from time to time.

Audit observed that during 2011-12 to 2015-16, CSIR sanctioned two to five advance/premature increments to its 47 Scientific/ Technical staff posted in six<sup>32</sup> test-checked laboratories on their initial recruitment with the approval of its GB but without the approval of Administrative Ministry/Department which was in violation of FR&SR 27 and extant Gol orders and resulted in irregular payment of ₹ 81.90 lakh on account of advance/ premature increment and dearness allowance thereon.

CSIR stated (February 2017) that the increments were granted as per the Recruitment Rules approved by the GB of CSIR and concurrence of MoF is not envisaged in the operation of these rules.

The reply is not tenable as according to Gol rules and orders, only Administrative Department is empowered to grant advance increments, but approval of DSIR was not taken by CSIR and Recruitment rules should have been revised accordingly.

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<sup>31</sup> Guidelines for Enhancement of functional autonomy of R&D Autonomous Institutions under the S&T Departments/Institutions issued vide OM No. AI/Misc./002/98 dated 27 January 1999 by Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

<sup>32</sup> CDRI, CSIO, CSIR HQ, IICT, NCL and NIO

**(b) Retrospective benefit of promotion to Scientists**

Rule 209 (6) (iv) (a) of General Financial Rules states that all grantee institutions or organisations which receive more than 50 *per cent* of their recurring expenditure in the form of grants-in-aid, should ordinarily formulate terms and conditions of service of their employees which are, by and large, not higher than those applicable to similar categories of employees in Central Government.

DoPT issued (November 1998) instructions on modification of the existing Flexible Complementing Scheme (FCS)<sup>33</sup> for in-situ promotion of Scientists working in various Scientific Departments of Gol. DoPT, in response to references seeking clarification on the date from which such promotions were to be given, communicated (July 2002) that in-situ promotions under FCS should be effective from a prospective date after the competent authority has approved the same. Subsequently, based on recommendations of Sixth Central Pay Commission (Sixth CPC), DoPT further modified (September 2010) FCS and introduced revised pay scales and assessment procedures. However, DoPT reiterated (September 2012) its earlier position regarding date of grant of promotion under FCS, clarifying that promotion cannot be made with retrospective effect.

Audit noticed that during the period 2011-12 to 2015-16, CSIR HQ and eight<sup>34</sup> test-checked laboratories granted promotions to 582 Scientists and Technical staff retrospectively and extended irregular benefits to the extent of ₹ 12.34 crore on account of arrears of pay and allowances.

CSIR stated (February 2017) that the promotions were made in accordance with the Assessment Promotion Scheme approved by the GB of CSIR.

The reply is not tenable as the grant of promotion from retrospective effect was in violation of DoPT instructions.

**5.1.3.3 Creation/ upgradation of posts**

**(a) Creation/ upgradation of posts without surrender of identified posts**

(i) MoF upgraded (January 2001) 28 posts of Scientist 'G'/ 'H' (₹ 18,400-22,400) to the scale of Additional Secretary (₹ 22,400-24,500) with the condition that matching savings for upgraded posts would be provided by CSIR to the satisfaction of its Financial Advisor. However, as of March 2016 CSIR did not provide any matching savings to MoF and therefore operated these upgraded posts irregularly since January 2001.

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<sup>33</sup> An in-situ promotion scheme for Scientists and Technologists holding Group-A scientific posts in Science and Technology Departments and who are engaged in scientific and technical activities and services.

<sup>34</sup> CDRI, CGCRI, CSIO, IICT, NIO, NML, NCL, NPL



- (ii) MoF agreed (May 2008) to a proposal of CSIR for operation of 62 posts in Scientists 'H' grade of ₹ 24,000-24,500 and 30 posts of Distinguish Scientists in the HAG+ grade of ₹ 24,050-26,000 by upgrading the existing posts of Scientists 'G' and 'H', with the condition that 190 posts of Group 'C' and 'D' will be surrendered by it, against the required matching savings. However, CSIR surrendered only 114 posts and since May 2008 irregularly operated the remaining 76 posts of Group 'C' and 'D', in violation of the approval of MoF.
- (iii) CSIR sent (January 2005) a proposal to MoF for creation of one isolated post of Staff Officer for DG, CSIR in the pay scale of ₹ 14,300-18,300 to be filled up from officers of the level of Deputy Secretary and equivalent in the cadre of General Administration, Finance & Accounts, Store & Purchase and General, CSIR. For creation of this post, CSIR proposed matching saving by abolishing one post of Deputy Secretary and one post of Sr. Stenographer, which was approved (October 2005) by MoF. However, CSIR did not abolish the said posts and thereby irregularly operated the post of Staff Officer since October 2005.

In respect of (ii) above, CSIR stated (February 2017) that it had abolished 190 posts of Group 'C' and 'D' to provide matching savings. The reply is not acceptable, as only 114 posts were reduced against 190 posts. In respect of (iii) above, CSIR stated that MoF will be approached for formal orders based on continued requirement of the post. No reply was furnished in respect of (i) above.

**(b) Irregular upgradation of posts**

DoPT issued (November 2003) an order to grant Non-Functional Scale (NFS) of ₹ 8,000-13,500 to the Section Officers (SOs)/ Private Secretaries (PSs) of Central Secretariat Service (CSS) and Central Secretariat Stenographer Service (CSSS), retrospectively with effect from January 1996 on notional basis and actual benefit from October 2003, after completion of four years of service in that grade.

Accordingly, CSIR submitted (April 2005) a proposal to MoF for extending the benefit of NFS to its SOs, in line with SOs of CSS cadre, which was not agreed (May 2005). In spite of the non-approval of MoF, CSIR introduced (May 2006) the NFS for its SOs with effect from October 2003. Although MoF issued (June/ August 2006) specific instructions to CSIR to roll back the same but CSIR continued its correspondence with MoF justifying its earlier stand. MoF, however, reiterated (July 2007) that in spite of its clear directions, CSIR had implemented the NFS to its SOs, which was irregular and in violation of extant provisions.

It was noticed that despite repeated instructions of MoF, CSIR did not roll back its decision of grant of NFS to its SOs as of March 2016. Moreover, it extended (October 2008) the benefit of NFS to its PSs also retrospectively with effect from October 2003. Test check of nine test-checked laboratories showed that 63 SOs/ PSs were granted NFS during 2011-12 to 2015-16 and an irregular expenditure of ₹ 65.91 lakh was

incurred by these laboratories towards payment of pay and dearness allowance to them.

CSIR stated (February 2017) that the matter was under correspondence with MoF for consideration. The fact remained that CSIR implemented NFS to its SOs/PS in violation of extant provisions and decision of MoF.

**(c) Irregular introduction of higher grade pay to Hindi Officers**

Consequent upon acceptance of recommendations of Sixth CPC by Gol, MoF notified (August 2008) the Central Civil Services (Revised Pay) Rules 2008, which was also introduced (September 2008) for the staff of ABs. In respect of Hindi Officers and Sr. Hindi Officers, pay scale of ₹ 9,300-34,800 with Grade Pay (GP) ₹ 4,200 and ₹ 15,600-39,100 with GP ₹ 5,400 respectively were admissible in the revised pay structure. However, CSIR granted (October 2008) higher pay scale of ₹ 15,600-39,100 with GP ₹ 5,400 and ₹ 6,600 to 22 Hindi Officers and 12 Sr. Hindi Officers respectively.

Subsequently, CSIR approached (August 2011) MoF to regularize its decision and to seek pay parity with the staff of Central Secretariat Official Language Service (CSOLS). In its reply MoF advised (March 2012/ August 2013) CSIR to first examine the feasibility of merging the posts of Hindi Officer with Sr. Hindi Officer, as the official language posts existing in CSIR were not comparable with the posts in CSOLS in terms of hierarchy. CSIR did not follow the advice of MoF and continued to pursue the issue of reconsideration of the higher grade pay to its Hindi Officer/Sr. Hindi Officer without merger of both posts. Ultimately, MoF rejected (February 2016) CSIR's proposal on ground of disparity in hierarchy in CSIR's official language cadre, which had not been sorted out despite its clear instructions.

However, as of March 2016, CSIR neither merged both the posts nor withdrew the higher GP already granted by it to its 34 Hindi Officers/ Sr. Hindi Officers. As of March 2016, an excess/ inadmissible payment of ₹ 91.88 lakh was made by CSIR to these officers, on account of GP and Dearness Allowance only.

CSIR stated (February 2017) that the matter would be taken up again with MoF. The fact remained that CSIR continued to grant higher pay scales to Hindi Officers/ Sr. Hindi Officers in spite of rejection of the same by MoF.

**(d) Irregular waiver of excess payment made to staff on grant of higher grade pay**

MoF issued (30 September 2008) the order for implementation of recommendations of Sixth CPC for ABs. CSIR sent (18 September 2008) a proposal to MoF in advance for placing its Junior Technical Assistant (JTA) Gr.III (1) who were in the pay scale of ₹ 4,500-7,000 (pre-revised) to a higher pay scale of ₹ 5,500-8,000 (pre-revised).

Audit observed that CSIR did not wait for concurrence of MoF and even without approval of its GB, issued (October 2008) the orders for implementation of recommendations of Sixth CPC in all its laboratories. Further, CSIR not only upgraded the pay scale of its JTA, but also upgraded the pay scale of Gr.I (1 to 3) technical staff and placed them in a revised pay band/ scale retrospectively, with effect from 01 January 2006, as detailed in Table 5.2.

**Table 5.2: Comparison of pay scales admissible and allowed by CSIR**

Group/Grade	Pay Scale/ Band + GP admissible (₹)		Pay Scale/ Band + GP allowed by CSIR through unauthorised upgradation (₹)	
	Pre-revised	Revised as per CCS (RP) Rules 2008	Pre-revised	Revised as per CCS (RP) Rules 2008
Gr. I – Non-technical	2,550–3,200	PB-1 with GP 1,800	3,050–4,590	PB-1 with GP 1,900
Gr. I(2) – Technical	2,650–4,000	PB-1 with GP 1,800	3,050–4,590	PB-1 with GP 1,900
Gr. I(3) – Technical	3,050–4,590	PB-1 with GP 1,900	3,050–4,590	PB-1 with GP 2,400
Gr. III(1) – Jr. Technical Assistant	4,500–7,000	PB-1 with GP 2,800	5,500–8,000	PB-2 with GP 4,200

Though CSIR placed (August 2009) the matter before its GB for ratification, however, GB did not ratify the same as it was not consistent with the provisions of Central Civil Service (Revised Pay) Rules, 2008. Consequently, CSIR issued (July 2010) a modified order withdrawing the higher GP of ₹ 1,900 and ₹ 2,400 granted to its Gr.I staff but did not recover excess payment already made. CSIR waived off (October 2012) all the pending recoveries due from its Gr.I staff, with the approval of DG, CSIR in violation of financial powers delegated to DG.

CSIR continued to approach MoF for reconsideration of higher GP of ₹ 4,200 already granted to JTA Gr.III(1). After protracted correspondence, MoF finally agreed (February 2011) to the proposal but with prospective date<sup>35</sup> and subject to the condition that to avoid disturbance of vertical relativities, the posts of JTA Group III(1) would be merged with higher post of Group III(2). On the instructions of MoF, although CSIR merged the posts of JTA Gr.III(1) with Technical Assistant Gr.III(2), it did not effect recoveries of excess payment from its Gr. III(1) staff as of March 2016.

In nine test-checked laboratories excess payment of ₹ 1.53 crore was made on account of higher GP and Dearness Allowance thereon to 475 ineligible staff, of which ₹ 45.00 lakh was irregularly waived off by CSIR without the approval of MoF.

CSIR stated (February 2017) that waiver of excess pay to Gr. I employees was effected with the concurrence of the Legal Advisor and Financial Advisor and the matter regarding waiver of excess payment made to Gr.III employees would be placed before the competent authority.

<sup>35</sup> With effect from February 2011, i.e. the date on which MoF accorded approval to the proposal of CSIR.

The reply is not acceptable, as Legal and Financial Advisors of CSIR were not competent to waive the payments of excess pay and allowances and the decision to waive off the excess payment made to JTA Gr.III(1) is pending.

#### 5.1.3.4 Incorrect pay fixation

- (i) DoPT issued (March 2010) an order that at the time of their promotion to the higher grade of Deputy Secretary (PB-3 –GP ₹ 7,600)/ Sr. Principal Secretary (PB-3 –GP ₹ 7,600), the pay of Under Secretary (PB-3 –GP ₹ 6,600)/ Pr. Private Secretary (PB-3 –GP ₹ 6,600) of Central Secretariat Service (CSS)/ Central Secretariat Stenographer Service (CSSS), will be fixed by granting an amount equal to two increments (six *per cent*) plus ₹ 1,000 i.e the difference of GP of their existing post and higher post, retrospectively from 01 January 2006.

In a test-check, it was noticed that during 2011-12 to 2015-16, 10 persons in the post of Dy. Secretary/ Under Secretary/ Dy. Financial Advisor/ Controller of Store & Purchase of CSIR HQ were granted the benefit of two increments, as against one admissible to them. This was irregular, as benefit of two increments on pay fixation was applicable to personnel of CSS/ CSSS only. Further, CSIR allowed this benefit to its staff without obtaining the approval of MoF, resulting in excess payment of ₹ 14.17 lakh on account of pay and Dearness Allowance.

- (ii) On the recommendation of Fifth CPC, the pay scales of Director and Scientist 'G'/ 'H' (₹ 18,400-22,400) of CSIR laboratories were merged in the new pay scale of ₹ 22,400-24500. CSIR placed (June 2004) 28 persons serving in the post of Director to the upgraded pay scale of ₹ 22,400-24,500 (mentioned in the Para 5.1.3.3(a)(i)) and fixed their pay under FR 22(i)(a)(i) by granting one notional increment. However, as there was no change in their present roles/ responsibility, benefit of one notional increment was not admissible to these Directors in the upgraded pay scale.

In respect of (i) above, CSIR stated (February 2017) that it has been maintaining historical parity with the CSS in respect of its officers in Administration and the increments were granted in view of the similarity in nature of work. The reply is not acceptable, as MoF had categorically stated in the case of grant NFS to SOs/ PSs of CSIR and higher pay scales to official language posts, that CSS /CSOLS scales were not applicable to ABs, as these posts were not comparable in terms of hierarchy. This indicates that there was no parity between the staff of CSIR with CSS.

In respect of (ii) above, CSIR stated that placement of Directors in the higher grade amounted to promotion; hence their pay was fixed accordingly. The reply is not acceptable, as placement of existing Directors in the higher pay scale cannot be treated as promotion, as there was no change in their duties and responsibilities.

### 5.1.3.5 Other significant issues

#### (a) Excess payment of Transport Allowance

Consequent to Government's acceptance of the recommendations of Sixth CPC, MoF modified (August 2008) the rules relating to grant of Transport Allowance to Central Government employees. These instructions stipulated that officers drawing GP of ₹ 10,000, ₹ 12,000 and those in HAG+ scale, who are entitled<sup>36</sup> to the use of official car, shall be given option to avail facility of official car or to draw Transport Allowance at the rate of ₹ 7,000 per month plus Dearness Allowance thereon.

CSIR issued (November 2008) orders for applying these instructions for its Scientists. Subsequently, CSIR issued (December 2008) a clarification stating that only Directors/Acting Directors of its laboratories were designated as Heads of Department and entitled to use of staff car as per rules.

However, none of the test-checked laboratories, including CSIR HQ followed these instructions and regularly paid Transport Allowance at the higher rate to 319 ineligible Scientists who were neither Directors nor Acting Directors, resulting in inadmissible payment of ₹ 7.90 crore. On being pointed out by Audit, CSIR issued (April 2014) specific orders for stopping the payment. However, payment already made was not recovered from these employees as of March 2016.

CSIR stated (February 2017) that the excess payment of TA has already been stopped and appropriate action for recovery will be taken. However, the fact remained that even after lapse of more than two years the recovery is still pending.

#### 5.1.4 Conclusion

CSIR did not follow instructions of MoF with regard to including restrictive clauses in its Bye laws and Rules and Regulations. Other instructions of MoF on creation/upgradation of posts after surrendering posts against matching savings and abolishing of vacant posts were also not complied with. CSIR did not follow the recommendation of its own review committee to scale down the ratio between scientific and non-scientific personnel from the existing 1:3 to 1: 1.5. Recoveries on account of excess payment of pay and allowances to its staff towards promotions granted without approval of MoF were waived off in contravention of delegation of powers. Transport Allowance at higher rate was paid to ineligible Scientists.

<sup>36</sup> Government of India, Ministry of Finance O.M dated 28 January 1994 defined use of staff cars for senior officers of Government of India, Heads of Department and Chief Executives of Statutory/ Autonomous bodies.

## 5.2 Non-installation of equipment

**Failure of National Metallurgical Laboratory, Jamshedpur to assess site and logistics requirements resulted in non-installation of equipment (IMSW) procured at a cost of ₹ 1.44 crore. Further expenditure of ₹ 2.68 crore was made on additional items for its installation, all of which remained uninstalled.**

National Metallurgical Laboratory, Jamshedpur (NML), undertook (April 2010) a grant-in-aid project funded by Ministry of Steel for duration of three years to procure a Spiral Washing and Classification System at estimated cost of ₹ 1.25 crore and to integrate the Instrumented Multi Spiral Washer System (IMSW) with an existing 30 year old wet washing circuit (gravel washer) located inside the integrated pilot plant.

NML placed (September 2011) a purchase order for supply, installation and commissioning of IMSW system at a cost of ₹ 1.52 crore, to be installed within six months i.e. by June 2012. As per the purchase order, NML was responsible for construction of site for installation of the equipment as per technical and environmental specifications defined by the supplier.

On receipt of the equipment drawings from supplier, NML found (March 2012) that the space identified for installation of the system was insufficient and unsuitable as the structure of the site was more than 50 years old and unviable for placing an equipment with high loads (of nearly seven tonnes). Meanwhile, the system was received (April 2012) and payment of ₹ 1.44 crore was released to the supplier. Pending preparation of site, the IMSW system remained uninstalled at NML. The project for which it was procured was completed in June 2014 by using old gravel washer.

For commissioning the new equipment, NML constituted (October 2014) a Technical Expert Committee (TEC) which selected a separate site. Further, as the systems in old washer circuit were very old, these could not be dismantled and installed at the new site for integration with IMSW. The committee therefore, recommended to create a new washing circuit compatible with the IMSW system.

NML constituted (January 2015) another Technical Committee (TC) which recommended (March 2015) to procure the wet washing circuit from the same supplier to ensure Original Equipment Manufacture compatibility. Accordingly, NML placed (June 2015) a supply order for a compatible Wet Washing Circuit (WWC) at a price of ₹ 2.10 crore and Micron Filtration system (MFS) at price of ₹ 69 lakh. The compatible WWC was delivered (November 2015) and payment of ₹ 1.99 crore being 95 per cent of the total value of the system was released. However, as of January 2017, the IMSW system was not installed.

Audit noted that NML failed to properly assess the site and logistics requirements prior to placing the supply order of IMSW. NML sought to integrate the IMSW system

with a wet washing circuit without considering compatibility issues. Hence, the project for which it was procured was completed by using old gravel washer. Further, expenditure of ₹ 2.68 crore was done to make use of the already procured IMSW which also has not been installed.

NML stated (February 2016) that use of the decades old washer for the project was not envisaged in the project plan. NML further stated that being a national laboratory, the facility created with funds of one project would be useful for other future projects. CSIR added (February 2017) that integration of IMSW was planned for a later phase with the understanding that IMSW would be commissioned by then.

The reply of NML/CSIR is not tenable as selection of site and related structural requirements especially where integration and compatibility issues between IMSW and existing washer circuit was concerned, was to be assessed carefully. The justification given for utilisation of facilities with funds sanctioned under a sponsored project on other future projects is an afterthought and this also was not installed.

Thus, due to non-finalisation of site and logistics requirements, equipment worth ₹ 1.44 crore remained uninstalled for more than four years besides further expenditure of ₹ 2.68 crore, all of which remained uninstalled (January 2017).

### 5.3 Non-operationalisation of Automatic Visual Range Assessor Systems

**National Aerospace Laboratories, Bengaluru could not successfully operationalise Automatic Visual Range Assessor Systems at Indian Navy establishments even after more than 14 years resulting in unfruitful expenditure of ₹ 1.10 crore.**

National Aerospace Laboratories, Bengaluru (NAL) developed an Automatic Visual Range Assessor (AVRA) MK-2 System to be used at airports for assessing visibility by the pilots during landing and take-off. After successful trials, on the request of Indian Navy, NAL submitted (March 2000) quotations for two AVRA MK-2 Systems (for INS Hansa, Goa and INS Garuda, Kochi) for ₹ 1.05 crore to Indian Navy. Indian Navy placed the order in February 2002 for two systems to be delivered by June 2002 at the quoted price. As per payment terms, 15 *per cent* was payable as advance against indemnity bond, 80 *per cent* after commissioning and five *per cent* after end of warranty period of two years from installation. Accordingly, Indian Navy made (August 2002) payment of ₹ 15.70 lakh against indemnity bond furnished by NAL.

In the meantime, prior to the scheduled delivery of systems, NAL conducted (May 2002) a Design Review Committee meeting comprising of NAL scientists, external experts and clients of AVRA MK-2 including Indian Navy. The committee suggested extensive modifications in the system design. These modifications necessitated further Research and Development (R&D). Consequently, after carrying out the modifications suggested by the Design Review Committee, NAL installed AVRA MK-2

systems at INS Hansa and INS Garuda, in September 2005 and February 2006 respectively after a delay of 39 and 44 months of the scheduled delivery. The systems were not handed over to Indian Navy and could not be operationalised due to malfunctioning.

In view of the problems in AVRA MK-2, NAL upgraded (October to December 2006) the system with 'Drishti-1' System developed by it. Even after upgradation, technical problems in the systems persisted, the equipment remained inconsistent and unreliable and could not be operationalised. NAL offered (March 2010) to install 'Drishti-2' version at both places and requested for release of some payment due to them. Indian Navy, however, communicated its acceptance to the installation of the 'Drishti-2' version at no additional cost and as per the original contractual terms of payment i.e. 80 *per cent* after commissioning and five *per cent* after end of warranty period of two years from installation. NAL continued correspondence with Indian Navy in this regard and no response was received from Indian Navy as of February 2017. NAL incurred expenditure of ₹ 1.10 crore towards installation and maintenance of the AVRA systems at Indian Navy premises.

CSIR stated (February 2017) that with a view to get future orders from Indian Navy and to receive the money due to NAL, it was decided to upgrade the systems to Drishti-2.

The reply is not tenable as NAL took upon major modifications in the system without engaging with the Indian Navy to modify the contract. NAL failed to successfully operationalise the systems for more than 14 years since receipt of work order after the expenditure of ₹ 1.10 crore.

#### **5.4 Avoidable expenditure due to non-disposal of unutilised land**

**Failure of Central Fuel Research Institute, Dhanbad to dispose of land after closure of its Regional Unit at Raniganj, West Bengal for 13 years resulted in avoidable recurring expenditure of ₹ 97 lakh towards security and maintenance expenses.**

The Government of West Bengal acquired (April 1960) 13.76 acres of land at Raniganj, West Bengal and transferred (January 1961) the said land to Central Fuel Research Institute, Dhanbad<sup>37</sup> (CFRI), a constituent unit of Council of Scientific and Industrial Research (CSIR) for creation of a Regional Centre including office campus and colony.

On the suggestion of the Planning Commission for consolidating, refurbishing and modernising its infrastructure set up, CSIR constituted (July 2001) a Review

<sup>37</sup> Presently merged with another unit viz. Central Mining Research Institute, Dhanbad and renamed as Central Institute of Mining and Fuel Research under the Council of Scientific and Industrial Research.



Committee to review the performance, relevance and utility of Centres/Units under various CSIR laboratories. The Review Committee inter alia, recommended (September 2001) to close units of CSIR including CFRI unit at Raniganj. The Committee also recommended that immovable assets such as land, building, etc. either be utilised or disposed of. The recommendation of Review Committee was accepted (March 2002) by the Governing Body (GB) of CSIR and it was decided that action for closure of the unit and disposal of immovable assets should be completed by August 2002 and March 2003 respectively.

Audit observed that after closure of the Regional Centre at Raniganj, West Bengal, CFRI did not dispose of the land as decided by the GB of CSIR. The institute did not take action for sale or lease of the property as per extant Rules and Regulations. As a result, the property remained unutilised for 13 years as of March 2016 besides avoidable recurring expenditure of ₹ 97 lakh towards maintenance of the property every year.

CSIR stated (September 2016) that the winding up of the Raniganj unit could not materialise for want of different legal and statutory requirements. CSIR further stated that a proposal for usage of the infrastructure at Raniganj through creation of multi utility centre for coal sampling and analysis and skill development training centre was approved (May 2016) by the Management Council of the Institute, which would be sent for appraisal to the Governing Body of CSIR.

The fact remained that CFRI failed to dispose of the land and took inordinately long time of 13 years after closure of the centre to put up proposal for alternate use of land, which resulted in the land remaining unutilised besides avoidable expenditure of ₹ 97 lakh towards maintenance of the property.



## CHAPTER – VI

# Department of Space

### 6.1 Management of VSAT services

Department of Space allocated satellite capacity for VSAT users without framing a transponder allocation policy for the allocation of transponders to various users. Consequently, there was no prescribed procedure for allocation of satellite capacity for VSAT services. There were instances of loss due to non-revision of transponder charges, under-pricing of transponder charges for VSAT services, payment of higher service charges to Antrix Corporation Limited; deficiencies in contract management leading to idling of satellite capacity, non-realisation of dues, undue benefits to VSAT users due to downward revision of prices, etc. amounting to ₹ 421.05 crore in the test checked cases.

#### 6.1.1 Introduction

Department of Space (DOS) provides national space infrastructure through satellite transponder capacity to meet the telecommunication, broadcasting and security requirements of the country. The Indian National Satellite (INSAT<sup>38</sup>) System is the domestic communication satellite system with 10<sup>39</sup> operational communication satellites (excluding user specific satellites) in space. As of March 2016, satellite capacity of 240 transponders<sup>40</sup> was available on these satellites. This satellite capacity is used for various satellite based communication and broadcasting services.

##### 6.1.1.1 Very Small Aperture Terminal services

Very Small Aperture Terminal (VSAT) service is a satellite based telecommunications service to provide data connectivity within a Closed User Group (CUG). VSAT is operated with 'C' / 'Extended C' / 'Ku' band transponders through a centralised hub. VSAT service licenses are granted by Department of Telecommunications (DOT) on non-exclusive basis for a period of 20 years extendable one time by 10 years. Popular applications using VSAT are bank Automated Teller Machines (ATMs), cellular mobile back-haul links, digital cinema, commercial outlets, stock market terminals, corporate offices, etc. As on March 2016, about 2.73 lakh VSAT terminals with varied capabilities were in use in India.

<sup>38</sup> DOS also uses the term GSAT for its communication satellites developed from Government funds.

<sup>39</sup> INSAT-3C, INSAT-4A, INSAT-4B, INSAT-4CR, GSAT-8, GSAT-10, GSAT-12, GSAT-14, GSAT-15 and GSAT-16.

<sup>40</sup> One standard transponder is equivalent to 36 MHz of satellite capacity/ space segment capacity.

### 6.1.1.2 Institutional mechanism for providing satellite capacity

Satellite capacity to VSAT users is allocated in accordance with the Satellite Communication (SATCOM) policy<sup>41</sup>. Satellite capacity for VSAT services were allocated by DOT up to 30 June 2003. From 01 July 2003 onwards, satellite capacity allocation was taken over by DOS. The satellite capacity for VSAT services is allotted by the Satellite Communication and Navigational Programme Office (SCNPO) at Indian Space Research Organisation Headquarters (ISRO). As per the existing procedure, SCNPO of ISRO issues allotment letter for getting clearance from regulatory authorities like Network Operations Control Center (NOCC)<sup>42</sup>/ Wireless Planning and Coordination Wing (WPC)<sup>43</sup>/DOT. DOS/ISRO enters into a Transponder Lease Agreement/Memorandum of Understanding (MoU) with the VSAT service providers/users to provide satellite capacity (transponders) for the VSAT services. DOS charges transponder lease charges/ space segment charges for the satellite capacity provided.

The agreements/MoUs are managed by Antrix Corporation Limited (Antrix), a public sector undertaking, which is the commercial arm of DOS. Antrix collects money from the VSAT users and transfers the same to DOS for crediting to Government Account. A specific percentage (15 per cent) of the revenue realised is paid to Antrix as service charges.

Under the SATCOM policy, VSAT services could be provided through both Indian and foreign satellites, with the condition that proposals envisaging use of Indian satellites would receive preferential treatment. In case of non- availability of the capacity on INSAT satellites, Antrix, after aggregating the requirements of users, would enter into back to back agreements with foreign satellite owners for short term periods, so that the service could be brought back to INSAT system as and when Indian satellite capacity was available. During the period from 2011-12 to 2015-16, DOS/Antrix entered into 63 INSAT contracts and 17 back to back contracts. During 2011-12 to 2015-16, DOS realised revenue of ₹ 1,302.43 crore from VSAT services.

Audit reviewed the role of DOS in allocating, contracting and managing satellite capacity allocated to the VSAT service providers/ users, covering the period from 2011-12 to 2015-16. Out of 63 INSAT contracts and 17 back to back contracts entered

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<sup>41</sup> A policy for the allocation of satellite capacity to various users formulated by DOS in consultation with other Government Ministries/Departments such as Department of Science and Technology, Ministry of Finance, Ministry of Industry, Ministry of Defence, Ministry of Home Affairs and Ministry of Information and Broadcasting and approved by the Union Cabinet in January 2000.

<sup>42</sup> Network Operations Control Center (NOCC) under DOT provides the network clearances before start of operations from any earth station accessing satellite and also carries out the monitoring and on line operational control and co-ordination.

<sup>43</sup> Wireless Planning and Coordination (WPC) wing of the Ministry of Communications is the National Radio Regulatory Authority which issues licenses to establish, maintain and operate wireless stations.

during the period, Audit reviewed 26 INSAT contracts and 14 back to back contracts. The Audit findings are discussed in the succeeding paragraphs.

## 6.1.2 Audit findings

### 6.1.2.1 Allocation of transponders for VSAT services

#### (a) Satellite capacity earmarking and allocation process not complied with

Government of India (GoI) instituted the INSAT Coordination Committee (ICC)<sup>44</sup> in 1977 for coordinating and monitoring the implementation of space and ground segments of INSAT projects. In terms of Article 2.5.2 of SATCOM Policy, ICC shall earmark at least a certain percentage of satellite capacity for use by non-governmental users who have been authorised by law to provide various telecommunications services including broadcasting. Article 2.6.2 of SATCOM Policy further stipulated that once capacity is earmarked by ICC for non-governmental users, DOS/INSAT was to provide this capacity to the non-governmental users by following its own procedures. In case the demand exceeded available capacity, DOS was to evolve suitable transparent procedures for allocation of capacity, which could be any equitable method such as auction, good faith, negotiation or first come first served basis.

Audit observed that ICC did not earmark satellite capacity to be used by Non-Government users since formulation of SATCOM Policy in January 2000 till March 2016. DOS allocated satellite capacity to Non-Government users of VSAT services with effect from 01 July 2003 without the same being earmarked by ICC. Further, DOS did not frame a policy approved by the Union Cabinet for allocation of satellite capacity for VSAT services to Non-Government users. In the absence of such a policy, there was no prescribed procedure within DOS for allocation of satellite capacity for VSAT services.

Thus, DOS allocated satellite capacity to non-Government users for VSAT services without earmarking of the same by ICC and without an approved transponder allocation procedure. A similar para was reported under Para 3.1 and 3.3 of Report No. 22 of 2014 regarding non-earmarking of satellite capacity by ICC for DTH<sup>45</sup> service. The Public Accounts Committee in its 40<sup>th</sup> Report placed in Parliament took a serious note of non-earmarking of the satellite capacity by ICC.

DOS stated (February 2017) that ICC had delegated the responsibility of capacity allocation to DOS.

<sup>44</sup> ICC is a high level multi-departmental control mechanism consisting of Secretaries of 10 Departments viz. DOS, Department of Economic Affairs, Department of Telecommunications, Department of Expenditure, Ministry of Information and Broadcasting, Planning Commission, Ministry of Defence, Department of Science and Technology and Department of Information Technology and representative of Telecom Regulatory Authority of India.

<sup>45</sup> Direct to Home

The fact remained that earmarking of satellite capacity for various services was not done by ICC in accordance with the provisions in the SATCOM policy approved by the Union Cabinet.

**(b) SATCOM Policy not amended**

The Norms, Guidelines and Procedures (NGP) for implementation of framework of SATCOM policy were approved by Union Cabinet in January 2000. At that time, VSAT services were being dealt with by DOT. SATCOM Policy stipulated (Article 2.6.2) that INSAT satellite capacity for VSAT users would be allocated by DOT. The policy (Article 2.6.5) further stipulated that DOT would enter into transponder lease agreement. Satellite capacity for VSAT services were allocated by DOT up to 30 June 2003. From 01 July 2003 onwards, the satellite capacity allocation was taken over by DOS. Though DOS took over the satellite capacity allocation from DOT and was entering transponder lease agreements with VSAT users, the relevant provisions of the SATCOM Policy were not amended as of March 2016.

DOS stated (February 2017) that ICC had delegated the responsibility of capacity allocation to DOS.

However, as the SATCOM Policy was approved by the Union Cabinet, changes in its provisions are required to be formally amended by the Union Cabinet.

**(c) Loss due to delayed allocation of satellite capacity**

GSAT 16 satellite was launched on 07 December 2014 and became operational from 01 April 2015. DOS allocated satellite capacity to VSAT customers from 06 May 2015 to 10 December 2015 and reported the same to ICC. Of the allocated capacity, 12 transponders were for establishing new networks for BSNL and 13 transponders were allocated to existing/waitlisted customers between 03 July 2015 to 10 December 2015. Thus, DOS delayed the allotment to existing/waitlisted customers ranging from 93 to 253 days (worked out from 01 April 2015). Loss due to idling of the 13 transponders allocated to existing customers/ waitlisted customers amounted to ₹ 19.28 crore.

DOS stated (March 2017) that due to early decommissioning of INSAT 3E satellite, its replacement satellite GSAT-16 was considered for establishing newer networks and to maintain the exhausted capacity of INSAT System. DOS added that when newer networks are added to the satellite 'fill factor' needs to be considered to meet time required for occupancy and migration.

Reply of DOS is not acceptable, as 13 transponders of GSAT 16 were allocated either for replacement to the existing networks or towards those networks for which a request already existed from the year 2012 onwards and thus the issue of fill factor was not relevant.

### 6.1.2.2 Pricing of Transponders

#### (a) Loss due to non-revision of transponder lease charges

DOS fixed (May 2008) charges for lease of INSAT transponders per unit for a period of three years i.e up to March 2011. However, DOS delayed in revising the prices of transponders and took decision (March 2012) after one year to raise its prices by 15 *per cent*. The delay of one year from 01 April 2011 to 31 March 2012 in revision of prices resulted in loss of ₹ 91.20 crore in 26 test checked contracts.

The prices fixed in March 2012 did not indicate the period. Subsequently, Space commission deliberated (December 2013) on periodicity of price revision and payment terms and decided that cost recovery based prices and benchmarked prices should be revised at least once in every two years. However, DOS did not revise prices further. Meanwhile, revised Norms, Guidelines and Procedures (NGP) of SATCOM policy for allocation and pricing of transponders was initiated (November 2012) by ICC. Department of Expenditure, Ministry of Finance accorded (June 2015) interim clearance for continuation of existing scheme of pricing of transponders but the ratification of methodology for fixing of lease charges of the transponders by the competent authority was awaited. As such, the validity of existing prices of various transponder lease agreements was extended till March 2016.

Considering 15 *per cent* increase of prices every three years, the non-revision of transponder lease charges after March 2012 resulted in revenue loss of ₹ 60.33 crore to Government for the period from April 2015 to March 2016.

DOS stated (February 2017) that prices were revised with effect from April 2012 with requisite approvals. In respect of non-revision beyond April 2015, DOS stated that the transponder pricing was guided by recommendations of DOS level pricing committee with requisite approvals.

The reply of DOS did not address the issue of delay of one year from April 2011 to March 2012 in revision of prices and contracts are required to contain enabling provisions for revision of the same within a specified period. DOS may, therefore, pursue the revised NGP for transponder allocation and pricing policy with the Government.

#### (b) Under-pricing of VSAT services

Audit scrutiny of 26 contracts revealed instances of non-fixation of prices of C Band capacity and underpricing of transponder lease charges which are detailed in the succeeding paragraphs.

##### (i) Under-charging of transponder lease charges of Normal 'C' band

VSAT service providers were allocated satellite capacity on 'C' band, Extended 'C' band and Ku band. DOS fixed (May 2008 effective from 01 April 2008) tariffs for Extended 'C' band and Ku band satellite capacity for various services, including VSAT

services. DOS fixed (May 2008) a minimum price of ₹ four crore per unit towards lease charges of 'C' band transponders allocated to TV service providers. However, it did not fix prices for 'C' band satellite capacity allocated to VSAT users. Consequently, VSAT service providers utilising 'C' band capacity were charged arbitrary prices ranging from ₹ 2.54 crore to ₹ four crore per unit.

In four cases (ERNET, ONGC, NTPC and ERNET/KVK), Audit noticed that during the period from April 2008 to March 2012, DOS charged ₹ 2.45 to ₹ 2.82 crore per unit for C Band capacity allocated to the users against the minimum price of ₹ four crore per unit for TV service providers. The loss due to under charging for three years (2008-11) was to the extent of ₹ 18.40 crore.

DOS stated (February 2017) that a conscious decision was taken to keep the space segment tariffs low so that the VSAT industry could prosper. The reply is not acceptable as DOS did not fix prices for VSAT users for 'C' band transponders, resulting in charging of arbitrary prices by DOS.

**(ii) Non-recovery of revised transponder lease charges**

The transponder pricing committee of DOS revised the prices in March 2012 for C band from ₹ 2.54 crore per transponder to ₹ 4.61 crore per transponder per annum. DOS however recovered payment at the old rates and did not collect the revised prices from BSNL. The loss due to non-collecting of applicable transponder prices from 01 April 2012 to 31 March 2015 was ₹ 156.80 crore.

While accepting the audit point DOS stated that (February 2017) it was in the process of collecting outstanding dues.

**(iii) Transponder capacity allocated free of cost**

It was reported in the ICC meeting (January 2002) that GoI had approved the principle of 'User pays' for space segment capacity allocated. Therefore, all users including Government users were to pay for the usage of its satellite capacity. DOS allotted (April 2005) 27 MHz satellite capacity to Department of Information and Technology for running 'Vidyavahini Project', however, did not levy charges for the capacity allocated. This resulted in non-realisation of revenue of ₹ 35.09 crore (at the rate of ₹ 2.74 crore from April 2005 to March 2008<sup>46</sup> and at the rate of ₹ four crore from April 2008 to March 2016) from April 2005 to March 2016.

DOS stated (February 2017) that the decision to offer free capacity to Department of Information and Technology for running 'Vidyavahini Project' was taken by ICC. DOS added (March 2017) that a policy decision was taken to provide satellite capacity free of cost for the national project. Reply is not acceptable, as ICC had approved for only

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<sup>46</sup> DOS charged ₹ 2.74 crore per unit towards satellite capacity leased to ERNET (an autonomous body under Department of Information Technology) under the same contract.



nine MHz to be offered free of cost and approval of ICC and Member (Finance) of the Space Commission to provide 27 MHz free of cost for the project was not taken. The under realisation of revenue of ₹ 35.09 crore worked out in the para is excluding this capacity.

**(c) Higher service charges for managing VSAT contracts**

In terms of Article 2.6.5 of SATCOM Policy, the use of INSAT capacity by non-governmental parties would be based on a formal lease agreement signed between DOS/INSAT and the party which will spell out the technical, financial, contractual and management clauses. In such transponder lease agreements, DOS provided all technical support whereas invoicing and collection of payments was done by Antrix for which Antrix charged service charges of 15 *per cent* from DOS.

In contrast, under the back to back agreements entered by Antrix with VSAT users for foreign satellite capacity, Antrix charged service/ management charges of 7.5 *per cent* from the VSAT users. Though DOS offered substantial technical support in the allocation and leasing of satellite capacity to VSAT users, no remuneration was claimed by DOS from back to back contracts. On the contrary, the effective realisation of revenue by DOS through leasing of INSAT capacity in VSAT contract was also reduced due to payment of 15 *per cent* as service charges to Antrix against 7.5 *per cent* charged in back to back contracts.

A similar issue was also reported in Para 4.1 of Report No. 22 of 2014 regarding earmarking of satellite capacity to DTH service. The PAC in its 40<sup>th</sup> Report placed in Parliament, under Para 6 (i) of the Part II of the report on the observation and recommendation the report, took a serious note of DOS not claiming any compensation from Antrix though the Department provided substantial technical support to Antrix in back to back arrangements. In its Action Taken Note (September 2016) DOS stated that it would relook the existing arrangement between the Department and Antrix.

**6.1.2.3 Contract Management**

Contract management issues noticed in review of the INSAT and back to back Contracts entered by DOS/Antrix with VSAT users are discussed below.

**A-Contract management issues in INSAT Contracts for VSAT service providers**

**(a) Non-reconciliation of allocated satellite capacity**

As per the terms of the contract, transponder lease charges were payable from the date of the letter for allocation of satellite capacity issued by SCNPO. VSAT users could surrender or terminate full or part of the leased capacity by giving at least three months' notice to DOS, specifying the effective date of termination in the notice. The date of termination would be effective upon acceptance of the same by DOS.

DOS entered (April 2012) into an agreement with BSNL for providing satellite capacity (C band transponders) upto 1,013 MHz which was extended up to 31 March 2017 at slab rates which were amended from time to time.

DOS/ Antrix raised invoices for capacity utilisation ranging from 680 MHz to 1013 MHz during the period from April 2012 to December 2015 against which BSNL made payment for capacity utilization ranging from 682 to 998 MHz only. This resulted in loss of revenue to the extent of ₹ 29.95 crore.

DOS stated (February 2017) that ISRO and Antrix are in a regular dialogue to settle the accounts due to which the process is streamlined since January 2015. However, the reply was silent on the recovery of outstanding dues for the period prior to January 2015.

**(b) Loss due to non-charging of satellite capacity**

INSAT 3A approached the end of its operational life on 10 December 2015. On the advice of DOS, HCL Comnet, which was utilising 85.5 MHz in INSAT 3A, decided (August 2015) to migrate to GSAT 16. The user was allowed to re-locate from INSAT-3A to GSAT 16. HCL Comnet had 16,000 terminals which were required to be migrated at the rate of 150 terminals per day, to be completed in four months' time.

SCNPO issued (December 2015) the letter of allocation of 90 MHz at the rate of ₹ 4.45 crore per unit on GSAT 16 after the migration had been completed by the user. The allocation letter had no provision for number of days allowed for dual illumination on both satellites INSAT 3A and GSAT 16.

Audit observed that the user was not charged for the allocated satellite capacity on GSAT 16 for the entire period of four months from August 2015 to December 2015, against the practice of allowing 45 days for the same. This resulted in loss of ₹ 2.17 crore towards non-realisation of space segment charges for the period in excess of 45 days for migration from INSAT 3A to GSAT 16.

DOS stated (March 2017) that during the migration period the capacity used by the customer would shrink in the old satellite (INSAT 3A) and would increase in the new satellite (GSAT 16).

Reply is not acceptable as DOS allowed a period of four months for migration against its standard practice of permitting a dual illumination period of 45 days only.

**(c) Downward revision of transponder lease charges**

DOS entered (December 2010) into a contract with Indian Railways Project Management Unit (IRPMU) for a period of three years (up to December 2013) for leasing nine MHz of Ku band capacity on INSAT 4CR and additional nine MHz of Ku band capacity from 27 April 2012. The transponder lease charges agreed to in the contract were ₹ 5.72 crore with an escalation in the price of five *per cent* every year.

As such, the lease charges were to increase to ₹ six crore (December 2011), ₹ 6.31 crore (December 2012) and ₹ 6.62 crore (December 2013) under the terms of the contract. Meanwhile the high power committee of DOS revised transponder lease charges with effect from 01 April 2012 reducing the same to ₹ 5.59 crore per unit.

DOS entered into a fresh contract (January 2013) in lieu of the old contract and implemented the revision of prices in the same retrospectively with effect from 01 April 2012. This fresh contract was drawn based on transponder lease charges fixed by DOS with effect from 01 April 2012. Audit observed that there was no provision in the original contract for revision of prices during the period of the contract except annual increment in lease charges. When the contract was valid up to 31 December 2013, downward revision of prices retrospectively from 01 April 2012 was against the contract terms. This resulted in loss of ₹ 77.67 lakh to DOS besides extending of undue benefit to the VSAT user.

DOS stated (February 2017) that for the purposes of maintaining uniformity of pricing and to provide fair and equitable treatment to end user after April 2012, it was decided to adopt DOS pricing committee recommendation.

The reply is not acceptable, as there was no provision in the original contract for revision of prices during the period of the contract. Entering into a fresh agreement and extending benefit of price with retrospective effect resulted in loss of ₹ 77.67 lakh to DOS besides undue benefit to the VSAT user.

**(d) Outstanding dues**

- (i) In terms of article 10 (a) of the transponder lease agreements entered with VSAT users, all sums payable by VSAT users must commence from the commencement date and shall be due and payable before the fifth day of every quarter for the quarterly period in question. There were outstanding dues (including penal interest) of ₹ 326.53 crore (March 2016) in respect of 49 contracts for the period ranging from January 2005 to March 2016 from VSAT users as reported by DOS/Antrix. This indicates that DOS/ Antrix did not collect space segment charges in advance resulting in outstanding dues.
- (ii) DOS entered (November 2009) into a contract with Investwell Merchants Pvt. Ltd. for leasing nine MHz of Extended C band capacity valid up to 31 December 2012. The user surrendered (April 2012) six MHz and a fresh agreement was entered into for leasing three MHz up to 31 March 2017. Though the contract provided for quarterly advance payment, the user defaulted in payment of ₹ 2.21 crore to Antrix/DOS towards transponder lease charges (inclusive of penal interest) up to January 2017.

As per the contract, if user defaults on payments any time during the tenure of the agreement, DOS could black out the provisioned capacity or part thereof on a temporary/short term basis. DOS also had the right to terminate the

agreement including encashment of Bank Guarantee if the user failed to make two consecutive periodic payments for space segment capacity. Further, if the space segment capacity was blacked out for a period exceeding 10 days and user failed to rectify the payment status despite written notice by Antrix, the decision of DOS to terminate the agreement under such contingencies would be final and binding on the user.

However, no action was initiated by DOS/Antrix for the default in payment of space segment charges by the VSAT user since January 2012. Inaction to deal with the bad debts according to terms of the contract resulted in default in payment of revenue and loss to DOS of ₹ 2.21 crore.

DOS stated (February 2017) that the it had since de-allocated the capacity to the user and was working towards recovering the outstanding dues.

### **B-Contract management issues in back to back contracts**

#### **(a) Loss due to reserving of satellite capacity without financial commitment**

DOS allocated nine MHz of Ku band capacity on INSAT 4CR to Skyline Telemedia Pvt. Ltd. (Skyline) at ₹ 6.30 crore per transponder per year through an agreement (December 2008) that was valid till 31 December 2011. Indian Railway Project Management Unit (IRPMU), that was using nine MHz on INSAT 4 CR, expressed (May 2010) urgent requirement of additional nine MHz Ku band transponder capacity on INSAT 4CR.

In order to accommodate IRPMU, Skyline was requested (June 2010) to migrate to ASIASAT 5. An internal arrangement was worked out and it was agreed that IRPMU would use INSAT 4CR but shall pay the prices of ASIASAT 5 and Skyline would use ASIASAT 5 capacity but pay for INSAT 4 CR price till 31 December 2011. Thus IRPMU agreed to bear the higher price of transponder lease charges of USD 46,741 per MHz per annum for reserving capacity on ASIASAT 5 as against transponder charges of ₹ 5.72 to ₹ six crore on INSAT 4CR till the validity of Skyline agreement on INSAT 4CR i.e. 31 December 2011.

DOS allocated nine MHz Ku band vacated in INSAT 4CR to the urgent requirement of IRPMU only on 27 April 2012. Thus, the capacity on INSAT 4CR remained idle from 01 July 2010 to 26 April 2012. The loss due to idling of satellite capacity for the period was ₹ 3.79 crore. As foreign satellite capacity was hired on back to back basis by Antrix, reservation of satellite capacity without ensuring timely allocation of the satellite capacity to IRPMU resulted in further loss of ₹ 3.26 crore.

DOS stated (February 2017) that taking into account failure of transponders, it was considered prudent to keep capacity as backup and subsequently when the scenario improved, IRPMU was allotted additional nine MHz on April 27, 2012. DOS added

(March 2017) that its intent was to facilitate a Government public service provider by migrating existing user to alternate capacity with the consent of the migrating user.

However, DOS did not provide the details of failed transponders due to which the requirement of IRPMU was kept on standby. The fact remained that DOS delayed in allocating satellite capacity to the urgent requirement of the Government public service provider and incurred losses on account of idling capacity as well as charges for capacity hired on foreign satellite for the migrating user.

**(b) Outstanding dues from back to back agreements**

DOS entered into back to back agreements for VSAT customers BSNL, Hughes, Tatanet, Bharti Airtel, etc. In terms of the back to back agreements, payments were to be made in advance on a monthly basis before the 10<sup>th</sup> of each monthly period. Audit observed that transponder lease charges to the tune of ₹ 90.25 crore (including penal interest) remained to be recovered from these parties for the period ranging from March 2009 to March 2016. Outstanding dues in back to back agreements suggest that in these cases Antrix did not collect money in advance from users as per the conditions of the transponder lease agreements and allowed them to make payment on credit basis, thereby extending undue favour and resultant accumulation of transponder lease charges.

DOS stated (February 2017) that other than BSNL, all of the remaining users had submitted applicable Bank Guarantee to Antrix.

The fact remained that there were outstanding dues to the tune of ₹ 90.25 crore from these users.

**(c) Reluctance of VSAT service provider to return to INSAT system**

Both Indian and foreign satellites were allowed to be used to provide VSAT services, with the condition that proposals envisaging use of Indian satellites would receive preferential treatment. In the event Indian satellite capacity was not available, DOS would acquire and allocate necessary transponder capacity from foreign satellites to meet the specific requirements of users. Antrix, after aggregating the requirements of the Indian users, would enter into back to back agreements with foreign satellite owners for short term periods, so that the service could be brought back to INSAT system as and when Indian satellite capacity was available.

DOS/ISRO informed (May 2016) Hughes Communication India Ltd. that as per the prevailing SATCOM policy and associated guidelines, if transponder capacity was available on INSAT satellites, it was necessary for the users operating in foreign satellites to move to INSAT system for their transition from foreign satellite to Indian satellite. However, Hughes Communication India Ltd. expressed reluctance (July 2016), to migrate from existing foreign satellites to INSAT system stating that it was a complex, disruptive and cost intensive process which would impact critical services provided to their users. Eventually, with the launch of GSAT 16, when satellite

capacity was available (December 2014) on INSAT/GSAT satellites, DOS still could not bring VSAT service provider back to INSAT/GSAT system who, by then, had established on the foreign satellite.

DOS stated (February 2017) that in order to satisfy the increasing demand, leasing of foreign capacity was inevitable. DOS added that the capacity availability on indigenous system had improved in the last two years and it was expected to improve over the years to come.

The fact remained that DOS could not bring the VSAT service provider accommodated on foreign satellite back to Indian satellite as envisaged.

### **6.1.3 Conclusion**

INSAT Coordination Committee did not earmark the satellite capacity between Government Users and Non-Government/ Private users as required under SATCOM Policy. DOS allocated the satellite capacity on its own without framing a transponder allocation policy for the allocation of satellite capacity to Non-Government users. In the absence of such a policy, there was no prescribed procedure within DOS for allocation of satellite capacity for VSAT services.

There were instances of loss due to non-revision of transponder charges and underpricing of transponder charges for VSAT services. In the agreements entered by Antrix with VSAT users for allocation of foreign satellite capacity, no remuneration was claimed by DOS for technical support rendered in the allocation and leasing of satellite capacity to VSAT users. In contrast, DOS paid service charges of 15 per cent to Antrix in the transponder lease agreements for INSAT systems entered with VSAT users by DOS towards invoicing and collection of payments.

There were deficiencies in contract management leading to idling of satellite capacity, non-realisation of dues, undue benefits to VSAT users, inability to bring the VSAT user from foreign satellite to INSAT system etc.

## **6.2 Irregular expenditure on pre-project activities**

**Expenditure of ₹ 136.88 crore on pre-project activities for the Indian Manned Space Programme was incurred without obtaining approval of the competent authority.**

Rule 22 of General Financial Rules (GFR) stipulates that no authority may incur any expenditure or enter into any liability involving expenditure or transfer of moneys for investment or deposit from Government unless the same has been sanctioned by the competent authority. For meeting expenditure on pre-project activities, Ministry of Finance (MoF) issued instructions (May 2003), stating that the approval of the main project sanctioning authority is required to be obtained for such pre-project activities

beyond ₹ two crore. This limit was subsequently revised to ₹ 10 crore (November 2007), ₹ 25 crore (April 2010) and ₹ 50 crore (August 2014).

Department of Space (DOS) initiated (November 2006) a proposal for Indian Manned Space Programme with the objective to demonstrate the capability for carrying humans to space. The programme was proposed with an outlay of ₹ 12,400 crore. The project envisaged design, development and performance demonstration of critical technologies leading to manned space missions and would establish the necessary infrastructure, carry out qualification tests including flight testing with test vehicles (PSLV and GSLV) and finally demonstrate the first Indian Human Space Flight. While according 'in principle' approval to the proposed project, the Space Commission observed (November 2006) that the outlay of the mission appeared a little large and had to be weighed against national priorities. The proposal was yet to be approved by the competent authority viz. Union Cabinet as of November 2016.

Pending approval of the programme from Union Cabinet, DOS obtained the sanction of the Space Commission for its pre-project activities in three spells viz. ₹ 95 crore (May 2007), ₹ 50 crore (July 2011) and ₹ 28 crore (September 2015) totalling to ₹ 173 crore. Against this sanction of ₹ 173 crore, the expenditure incurred from April 2007 to March 2016 was ₹ 136.88 crore (March 2016).

As the expenditure was beyond ₹ 50 crore, approval of the project sanctioning authority (viz. Union Cabinet) was mandatory. Audit however, observed that DOS did not take approval of the Union Cabinet to incur expenditure of ₹ 136.88 crore on pre-project activities, which was a part of the Programme (main project). This was in contravention of the GFRs and instructions of MoF.

DOS stated (October 2016) that pre-project activities envisaged concept of pilot experiments towards the main project, therefore approval of the Space Commission being the appropriate authority with respect to quantum of estimates, was obtained from time to time.

Reply of DOS is not acceptable as approval of the competent authority viz. Union Cabinet for meeting expenditure beyond the prescribed limit of ₹ 50 crore was not obtained. The reply is also viewed in the context of the deliberations in the Space Commission meeting (November 2006) in which it was opined that the outlay of the mission appeared a little large and had to be weighed against national priorities.

### 6.3 Lack of financial prudence and improper contract management in the delivery of commercial spacecraft

**Indian Space Research Organisation developed two commercial spacecraft for a foreign client at a price that was lower than its cost of production, which resulted in under recovery of ₹ 54.44 crore. In addition, improper contract management resulted in further loss of ₹ 29.03 crore.**

Article 2.7 of the Satellite Communication (SATCOM) Policy of Department of Space (DOS) states that DOS may build in satellite capacity for a non-Governmental party, at its request, based on commercial considerations and if technically feasible.

Indian Space Research Organisation (ISRO) is the research and development unit of DOS. Antrix Corporation Limited (Antrix) is a public sector undertaking and commercial arm under administrative control of DOS that commercially markets the products and services emanating from the Indian Space Programme.

With a view to develop a collaboration in the manufacture and marketing of commercial communication satellites, Antrix entered (June 2005) into a Memorandum of Agreement (MoA) with European Aeronautic Defence and Space Astrium (Astrium) for the global marketing of commercial communications satellites using Indian satellite platforms<sup>47</sup> and Astrium payloads. While Antrix was to provide satellite platform, integration and post launch support; Astrium was to play the role of prime contractor, supplier of payload and marketing agency. Based on the MoA, Antrix entered (February/April 2006) into two sub-contracts with Astrium for the development of W2M<sup>48</sup> and HYLAS<sup>49</sup> satellites at total cost of ₹ 292.71 crore i.e. ₹ 166.63 crore (USD 31.05 million) and ₹ 126.08 crore (USD 24.50 million) respectively. The satellites were meant for Eutelsat, France and Avanti Space Limited, United Kingdom respectively, who were clients of Astrium. ISRO was to ship W2M and HYLAS satellites for launch by March and November 2008 respectively.

The delivery of W2M and HYLAS spacecraft was delayed and the same was actually completed in October 2008 and October 2010 respectively. Against the two sub-contracts, Antrix received an amount of ₹ 235.75 crore from Astrium. An amount of ₹ 48.78 crore was deducted towards Liquidated Damages for the delayed delivery and penalties for performance failure<sup>50</sup> of W2M satellite. An amount of ₹ 8.17 crore was receivable from Astrium as of October 2016.

<sup>47</sup> A communication satellite comprises of satellite platform and payload. The platform supports the payload which performs the intended function to achieve the mission goal.

<sup>48</sup> The name of the spacecraft developed by ISRO for Eutelsat, France.

<sup>49</sup> The name of the spacecraft developed by ISRO for Avanti Space Limited, United Kingdom.

<sup>50</sup> A major anomaly affecting the satellite's power system that occurred during the satellite's transfer from the location used for in-orbit tests to its position at 16 degrees east was reported in January 2009.



Towards implementation of the sub-contracts entered with Astrium, Antrix and ISRO Satellite Centre, Bengaluru<sup>51</sup> (ISAC) entered (June 2006) into a Memorandum of Understanding (MoU) for the supply of W2M and HYLAS spacecraft integrated with the payload provided by Astrium at a total cost of ₹ 90.40 crore i.e. ₹ 40 crore and ₹ 30 crore respectively for the satellites plus transportation and network support charges of ₹ 20.40 crore for both satellites. The duration of the MoU was 36 months or till the time last supply was completed.

Audit observed deficiencies in the execution of the two contracts as under:

**A. Short realisation of price**

- (i) Audit observed that as against the total contracted price of ₹ 292.71 crore including ₹ 166.63 crore (USD 31.05 million) and ₹ 126.08 crore (USD 24.50 million) for W2M and HYLAS, the corresponding international prices of platforms for similar class of satellites was ₹ 286.14 crore<sup>52</sup>(USD 64.65 million) and ₹ 214.90 crore<sup>53</sup>(USD 47.44 million) respectively, totalling ₹ 501.04 crore. Thus, the contracts entered by Antrix/DOS for development of W2M and HYLAS were under-priced as compared to prevailing international prices.

The basis on which the above costs were worked out by Audit was provided (March 2017) to DOS. DOS stated (March 2017) that Audit brought in launch insurance cost of USD 3.25 million pertaining to the year 2011 in place of USD 25 million for the launches occurred in the year 2008/2010. Reply is not acceptable, as insurance charges paid by DOS during the year 2007 and 2011 were 15 *per cent* and five *per cent* respectively. Insurance cost of USD 25 million worked out by DOS would be 38.5 *per cent* which would be unreasonable. Even after considering the insurance cost of the year 2007 (15 *per cent* of the launch cost) as the bench mark for the launches occurred in 2008/2010, the price of two satellites would be ₹ 470.85 crore against which the amount received by Antrix was only ₹ 235.75 crore.

Further, DOS also failed to recover the actual cost of development of the satellites, as discussed in the next paragraph.

- (ii) Audit observed that while working out the cost of the satellites, overheads component (salary, administrative and facility) of ₹ 54.44 crore, which was incurred by DOS from its budget, was not included to arrive at the cost of production of the satellites. Audit obtained information from ISRO on the project cost and overheads (salary, administrative and facility), from which the total cost of satellites was worked out as ₹ 144.84 crore, including ₹ 83.60 crore and ₹ 61.24 crore for W2M and HYLAS respectively. Against this, ISAC received

<sup>51</sup> The lead centre of ISRO for satellite technology.

<sup>52</sup> Exchange rate of 1 USD= ₹ 44.26 as on the date of agreement viz. 11 February 2006.

<sup>53</sup> Exchange rate of 1 USD= ₹ 45.30 as on the date of agreement viz. 13 April 2006.

an amount of ₹ 90.40 crore only from Antrix, resulting in under-recovery of the cost of satellites to the extent of ₹ 54.44 crore.

Audit further observed that no margin for DOS was added to the cost of the satellite. This resulted in short realisation of Selling Price by ₹ 76.17 crore considering DOS margin of 15 per cent<sup>54</sup>.

DOS stated (March 2017) that expenditure incurred towards salary components, administrative and facility overheads and DOS margin were already included in the overheads of the sub-systems.

The reply is not acceptable, as project sub-system expenses were directly incurred from the external project head whereas salary, administrative and maintenance expenses were incurred from the respective heads of the Consolidated Fund of India (CFI); as such these expenses were to be apportioned, then recovered and credited to CFI. DOS did not credit these overheads incurred from the CFI from project head to CFI. Thus, overheads were to be included in the satellite cost in addition to the project element cost. Further, the amount apportioned as DOS margin was to be recovered and credited to CFI. DOS did not credit the margin to the CFI from its project head in the deposit account<sup>55</sup>.

## **B. Loss in operation and maintenance charges**

Master Control Facility, Hassan (MCF), a unit of ISRO, is responsible for post-launch operations including monitoring and control of satellites.

Under the contracts entered by Antrix with Astrium, all activities up to handover of the satellite such as Launch and Early Orbit Phase (LEOP<sup>56</sup>), Platform in-orbit tests, final orbit positioning of the satellite and all activities related to the performance of the in orbit support of the satellite throughout the first year of operation were to be carried out by ISRO. Antrix was to receive ₹ 8.28 crore<sup>57</sup> (USD 925,000) towards LEOP charges for each satellite.

Audit observed that Antrix did not enter into MoU with MCF for the LEOP services to be rendered. Further, Antrix did not transfer any amount received towards LEOP services provided by MCF, resulting in loss of ₹ 8.28 crore.

<sup>54</sup> DOS margin of 15 per cent is a standard practice in the lease of communication satellite capacity. 15 per cent of ₹ 144.84 crore is ₹ 21.73 crore.

<sup>55</sup> Head of Account: 8443.00.117-Antix Projects-W2M/HYLAS

<sup>56</sup> Support to the satellites in their launch and early orbit phase prior to the operational phase of the spacecraft.

<sup>57</sup> In respect of agreement for W2M: USD 9.25 lakh at the rate of ₹ 44.21 as on the agreement date of 11 February 2006 amounting to ₹ 4.09 crore; and in respect of agreement for HYLAS: USD 9.25 lakh at the rate of ₹ 45.30 as on the agreement date of 13 April 2006 amounting to ₹ 4.19 crore.

After launch of W2M and HYLAS satellites, MCF entered (September 2013) into an MoU with Antrix to provide in-orbit support services (IOS)<sup>58</sup> for the satellites retrospectively from May 2009 and September 2011 for a period of five years and three years to W2M and HYLAS respectively. Towards this, DOS had estimated (August 2011) that operational and maintenance cost (in-orbit support services) of a communication satellite by MCF / ISRO would be ₹ three crore per satellite per year. However, against DOS estimate of charges of ₹ 24 crore<sup>59</sup> for in-orbit support services, MCF received only ₹ 3.25 crore, resulting in loss of ₹ 20.75 crore.

DOS stated (February 2017) that the role of MCF was limited to 'on call' contingencies where technical consultancy was provided on need basis. DOS further stated that an amount of ₹ 6.34 crore was paid towards TTC Network Support from international stations.

The reply contradicts the provision in the MoU entered by MCF with Antrix for providing comprehensive and round the clock in orbit service support for the two satellites. The amount of ₹ 6.34 crore was received towards TTC Network support for tracking the launch vehicle from the launch site up to injecting of the satellite into orbit. The fact remained that MCF was paid only ₹ 3.25 crore towards IOS services.

Thus, ISRO offered a low and attractive price to the foreign commercial client resulting in short realisation of ₹ 76.17 crore. Improper contract management further resulted in loss of ₹ 29.03 crore.

#### **6.4 Infertuous expenditure in purchase of ecologically fragile land**

**Department of Space incurred expenditure of ₹ 3.70 crore in purchase and construction work on 81.50 acres of ecologically fragile land in Thiruvananthapuram, Kerala which was rendered infertuous as the Department was ultimately evicted from the land by the State Government.**

Indian Space Research Organisation (ISRO), Department of Space (DOS) proposed (September 2006) to set up an Indian Institute of Space Science and Technology, Thiruvananthapuram (IIST) to provide quality manpower and academic research support for its future space programmes.

After inviting tenders and evaluating (February 2007) the bids received, it was decided (March 2007) to purchase 219 acres of land at Merchiston Estate at Ponmudi hills owned<sup>60</sup> by Southern Field Ventures Limited (SFVL). A cost of ₹ four lakh per acre was negotiated and DOS issued (July 2007) financial sanction of ₹ eight crore for purchase of 219 acres of land from SFVL.

<sup>58</sup> In orbit support to the satellites when the satellite is in operational phase.

<sup>59</sup> W2M: ₹ three crore per year for five years = ₹ 15 crore, plus HYLAS: ₹ three crore per year for three years = ₹ nine crore

<sup>60</sup> The property was purchased (2005) from Jay Shree Tea and Industries.

While ascertaining the legal position of the land (March 2007), it came notice of DOS that the Merchiston Estate had been notified<sup>61</sup> (January 2001) as Ecologically Fragile Land (EFL) under Kerala Forest (Vesting and Management of Ecologically Fragile Lands) Act, 2003 (EFL Act, 2003). SFVL requested (March 2007) the custodian of EFL to de-notify the Merchiston Estate. DOS also requested (May 2007) the State Government to speed up the process of de-notification of the Merchiston Estate. Based on the request of SFVL, the custodian of EFL ordered (June 2007) to maintain an area of 24.409 hectares of land as EFL/ reserve forest and remaining as non-EFL land. Consequently, ISRO decided to purchase 81.50 acres of land and executed (July 2007) a sale deed with SFVL. Expenditure of ₹ 3.33 crore was incurred by ISRO towards cost and stamp duty for registration.

During the same time, challenging the order of the custodian of EFL (June 2007) a series of petitions were filed before the Honourable High Court of Kerala seeking a relief to declare the entire Merchiston Estate as EFL. Subsequently, the custodian of EFL revoked (September 2007) the order of June 2007 and the revenue department of Government of Kerala cancelled (October 2007) the transfer of registry. The Department has not claimed refund of payment from SFVL due to cancellation of transfer of registry.

Meanwhile, DOS also requested (July 2007) Government of Kerala to issue instructions to the concerned to construct helipad at the proposed site for IIST since the Hon'ble Prime Minister was likely to lay the foundation stone for the campus during September 2007. The Government of Kerala decided that the work of constructing the helipad would be undertaken by the State Public Works Department (PWD) and that ISRO would bear 50 *per cent* of the construction cost, which was agreed to by VSSC.

ISRO started work on the said land but was served (September 2007) with an eviction notice by the Forest Department of State Government to vacate the land within 30 days from the date of issue of notice. Although DOS and SFVL filed writ petitions in the Hon'ble High Court of Kerala to set aside the eviction notice issued by the Forest Department, the Hon'ble Court upheld (November 2014) the constitutional validity of EFL Act of 2003 and ordered the custodian of EFL to take a decision considering its observations. Accordingly, the custodian of EFL passed a fresh order (January 2016) that the land under the possession of ISRO was an EFL/ Vested Forest.

Consequent to the eviction notice served by the Forest Department, construction of the helipad was stopped (September 2007) when the work was nearly half way

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<sup>61</sup> Government of Kerala promulgated an Ordinance namely Kerala Forest Vesting and Management of Ecologically fragile lands Ordinance 2000, which was followed by Ordinance 3 of 2001 and 16 of 2001. Subsequently, Kerala Forest (Vesting and Management of Ecologically Fragile Lands) Act 2003 came into force with retrospective effect from 02 June 2000.

through. Of the total claim of ₹ 75.42 lakh for the work done, ISRO paid (June 2011) its share of ₹ 37.07 lakh. Meanwhile, IIST was established (September 2007) at ISRO land<sup>62</sup> in Valiamala near Thiruvananthapuram.

Thus, DOS/ISRO purchased land notified as EFL and incurred expenditure of ₹ 3.33 crore which became unfruitful. Further, due to abandonment of construction work midway, expenditure of ₹ 37.07 lakh was also rendered infructuous.

Audit observed that though ISRO was aware of the fact that the estate was notified as ecologically fragile land and its ownership should rest with the State Forest Department, it did not examine the issues relating to ownership of the property and proceeded with registration of the same. Procurement of land having dispute on its title and construction work done on the same resulted in imprudent investment and infructuous expenditure of ₹ 3.70 crore.

DOS stated (November 2016/February 2017) that the issue was being vigorously pursued in the Forest Tribunal at Quilon to get a favourable remedy through judicial process.

Reply needs to be seen in the light of the fact that a decision had already been taken by a higher court i.e. Hon'ble High Court of Kerala upholding the status of the said land as EFL.

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<sup>62</sup> ISRO was in possession of 313.56 acres of land at Valiamala hills, out of which 53.43 acres of land was handed over to IIST. Government of Kerala allocated additional land of 44.19 acres at Valiamala and 20 acres at Ponmudi free of cost for IIST.



## CHAPTER – VII

# Ministry of Earth Sciences

### 7.1 Non-recovery of fuel charges due to improper contract management

**Failure to incorporate suitable clauses to safeguard the interest of Government in a charter hire agreement resulted in non-recovery of ₹ 63.23 lakh (USD 1,39,359) towards fuel charges for more than five years.**

Rule 158 of the General Financial Rules stipulates that to ensure due performance of a contract, Performance Security for an amount of five to ten *per cent* of the value of the contract should be obtained from every successful bidder. Rule 159 relating to payment terms of a contract stipulates that while making any advance payment to supplier for services rendered or supplies made, adequate safeguards in the form of bank guarantee etc. should be obtained from the firm.

Ministry of Earth Sciences (MoES) entered (May 2007) into a charter hire agreement through the Chartering Wing of Department of Shipping, Ministry of Shipping, Road Transport and National Highways, with V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Russian Academy of Sciences, Russia (owners) for chartering the Research Vessel Akademik Boris Petrov (vessel). The vessel was to be utilised by National Centre for Antarctic and Ocean Research, Goa (NCAOR), for a period of 280 days (+/-) 30 days in charter option against charter hire charges of USD 6,400 per day. NCAOR is an autonomous Research and Development Institution of MoES engaged in research activities in polar and Southern Ocean realms. Subsequently, MoES approved (August 2009) hiring of the vessel for a further period of 280 days plus 30 days during 2009-11 for implementation of various scientific programmes by NCAOR at a total cost of ₹ 24.56 crore. Accordingly, the agreement between MoES and the owners was extended (August 2009) for a further period of 280 days (+/-) 30 days in charter option with the same terms and conditions.

As per the agreement, MoES/NCAOR were to pay as hire charges USD 6,400 per day; pro rata for part of a day, until re-delivery of the vessel to the owners. The payment was to be made every 30 days in advance. The agreement further stipulated that in the event of breakdown of machinery, damage to hull or other accidents hindering or preventing the working of the vessel for more than 24 hours, the hire was to be suspended and cost of fuel consumed during the period of downtime was to be on

the owners' account. Further, MoES/NCAOR and the owners were required to take over and pay for all light marine diesel fuel remaining in the vessel's bunkers at the port of delivery and re-delivery respectively. Any margin in the quantity at the time of re-delivery was to be settled at the price ruling at the port of re-delivery at the time of re-delivery. Thus, any excess fuel remaining in the vessel's bunkers at the time of re-delivery was to be recovered from the owners.

NCAOR utilised the vessel intermittently for only 123 days between September 2009 and August 2010 against the contracted duration of 280 days (+/-) 30 days, due to various issues such as failure of Deep Sea Winch and Multibeam and other petty repairs. The vessel was put under off-hire with effect from August 2010 for repair purposes and renewal of ship's seaworthiness certificate. However, due to financial difficulties, the owners were unable to repair the scientific equipment and return the vessel to operational state for use by NCAOR as of June 2016. Non-availability of the vessel adversely affected the work under one project<sup>63</sup> of NCAOR, as one of the scientific equipment viz. 'Deep Sea TV Grab' required for the project, was available only in this research vessel.

Scrutiny of records revealed that an amount of USD 79,784.18 was to be recovered from the owners towards charter's fuel consumed by owners during off-hire period of the vessel. Besides this, at the time of going off-hire, the vessel contained 54.632 MT of fuel filled by NCAOR valuing USD 59,574.85, which was also to be recovered from the owners as per terms of the agreement. Hence, total amount of USD 1,39,359 (₹ 63.23 lakh<sup>64</sup>) was to be recovered from the owner.

Audit observed that MoES/NCAOR failed to incorporate any clause for obtaining Performance Security from the owners in the agreement, as stipulated in GFRs. MoES/NCAOR also failed to obtain security in the form of bank guarantee etc. against advance payments committed to the owners in the agreement. As a result, NCAOR was unable to recover the amount of ₹ 63.23 lakh (USD 1,39,359) as of June 2016.

Failure to safeguard the interest of Government by not complying with the provisions of GFRs resulted in non-recovery of ₹ 63.23 lakh (USD 1,39,359) for more than five years.

NCAOR agreed to take due care in introducing safeguards in agreements and stated (June 2016) that it will continue to pursue the matter in future with the Indian Ambassador to Russia and the owners to settle the same.

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<sup>63</sup> Project titled "Exploration of Cobalt rich crusts"

<sup>64</sup> USD 79,784.18 X ₹ 44.16 (exchange rate as of May 2010) plus USD 59,574.85 X ₹ 47 (exchange rate as of August 2010)



The matter was referred to the Ministry of Earth Sciences (August 2016) and Ministry of Shipping (January 2017); reply was awaited as of February 2017.

## 7.2 Irregular implementation of promotion scheme

**Ministry of Earth Sciences implemented a career progression scheme with higher benefits for its four Autonomous Bodies without obtaining approval of Ministry of Finance. The four Autonomous Bodies promoted 132 employees under the scheme and incurred expenditure of ₹ 1.84 crore towards their increased pay and allowances, which was irregular.**

Rule 209 (6) (iv) (a) of General Financial Rules (GFR) stipulates that all grantee Institutions or Organisations which receive more than fifty *per cent* of their recurring expenditure in the form of grants-in-aid, should ordinarily formulate terms and conditions of service of their employees which are, by and large, not higher than those applicable to similar categories of employees in Central Government. In exceptional cases relaxation may be made in consultation with the Ministry of Finance (MoF).

National Institute of Ocean Technology, Chennai (NIOT), Indian National Centre for Ocean Information Services, Hyderabad (INCOIS), National Centre for Antarctic and Ocean Research, Goa (NCAOR) and Indian Institute of Tropical Meteorology, Pune (IITM) are Autonomous Bodies (ABs) functioning under the administrative control of Ministry of Earth Sciences (MoES). All these ABs are fully funded by the Government of India in the form of grants-in-aid. Therefore, these ABs were required to follow the above provisions of GFR.

Government of India implemented (May 2009) Modified Assured Career Progression Scheme (MACPS) for Central Government Group A, B and C staff. MACPS envisaged maximum three financial upgradations for a Government servant at intervals of 10, 20 and 30 years of continuous regular service. The Government extended the benefits of the MACPS to the Central Autonomous Bodies in August 2010.

With a view to provide merit and performance based career progression to their staff, the ABs of MoES formulated (January 2009 to October 2010) a scheme called 'Career Progression Path' (CPP) for their Group A, B and C staff. The scheme offered in-situ promotion to the higher post after completion of a prescribed residency period in each post irrespective of availability of higher post in the hierarchy. MoES included this scheme as a part of Recruitment Rules and instructed (October 2010) its ABs to adopt the same and implement them after ratification by their respective Governing Councils under intimation to MoES.

Accordingly, the four ABs implemented the CPP scheme in their respective organisations and promoted 138 staff during the period from September 2011 to March 2016.

Audit observed that the scheme of promotion of staff under CPP was at variance with the existing MACPS for Central Government employees. The CPP scheme envisaged more than three promotions for an official during the career as against maximum three financial upgradations under MACPS. Further, the residency period prescribed in CPP scheme for each upgradation ranged from three to six years whereas under MACPS employees were eligible for financial upgradations at intervals of 10, 20 and 30 years of continuous regular service.

Thus, the CPP scheme implemented by MoES for its ABs prescribed higher benefits to its staff as compared with Government approved MACPS. Audit further observed that MoES did not obtain approval of MoF for implementing this scheme. The four ABs of MoES incurred excess expenditure of ₹ 1.84 crore during the period from September 2011 to March 2016 on higher pay and allowances to the 138 promoted staff, as shown in Table 7.1.

**Table 7.1: Expenditure on increased pay and allowances under CPP scheme**

AB	Staff promoted	Expenditure on increased pay and allowances (₹ crore)
NIOT	63	1.23
IITM	39	0.20
INCOIS	24	0.14
NCAOR	12	0.27
<b>Total</b>	<b>138</b>	<b>1.84</b>

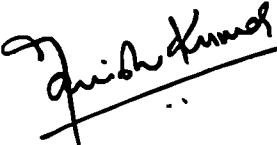
Grant of higher benefits to staff in comparison to similarly placed Government employees by implementing a separate scheme without the approval of MoF was in contravention of the GFR. This also resulted in irregular payment to staff to the extent of ₹ 1.84 crore.

INCOIS stated (June 2016) that it had implemented the scheme after obtaining necessary approval of Governing Council. No reply was received from other three ABs as of November 2016.

The reply is not acceptable since the Governing Council also did not have any representative from MoF, whose prior approval was necessary for implementation of CPP.

Matter was referred to the Ministry (August 2016); its reply was awaited as of February 2017.


New Delhi  
Dated: 05 April 2017



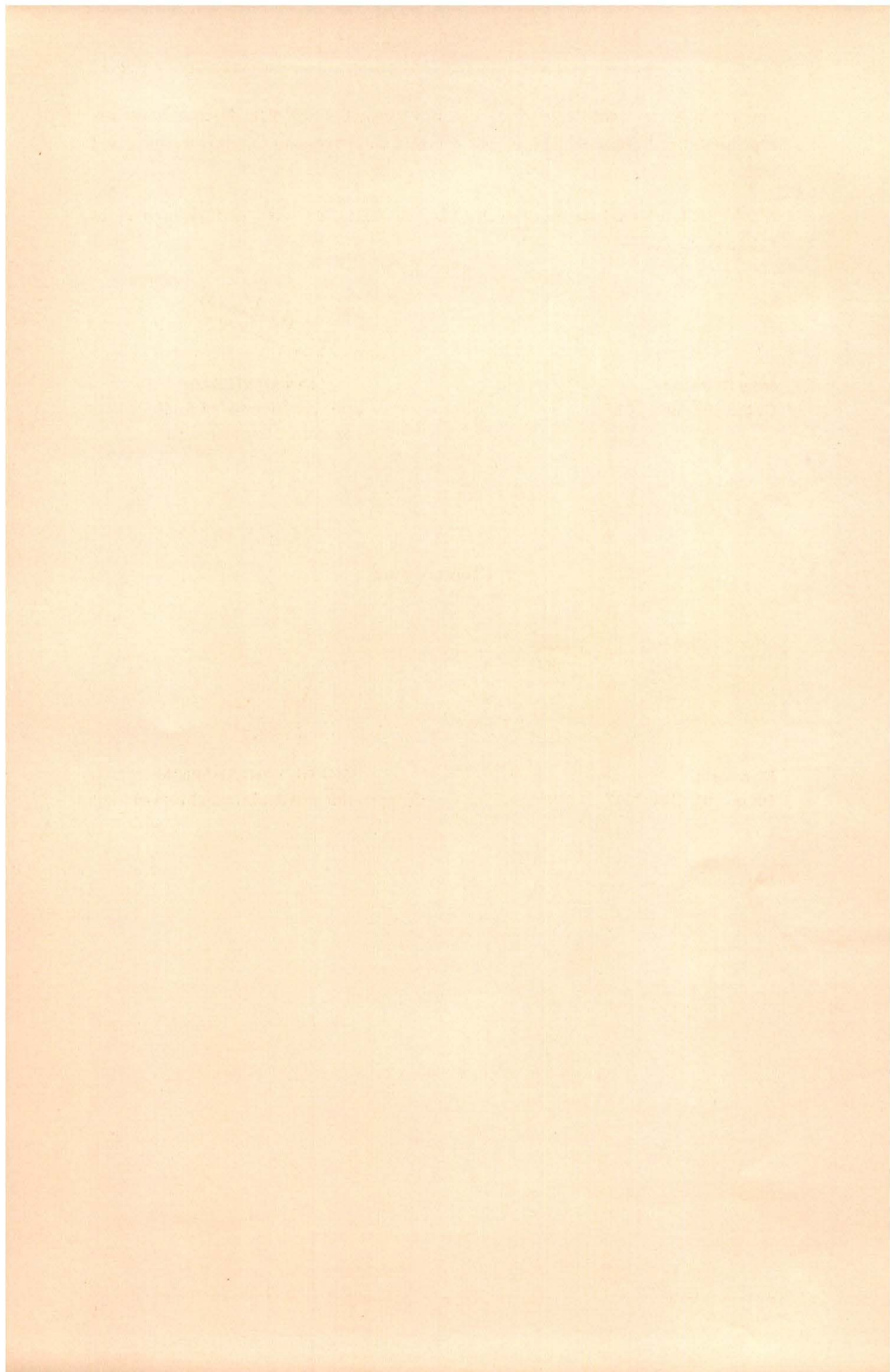
(MANISH KUMAR)  
Principal Director of Audit  
Scientific Departments

Countersigned

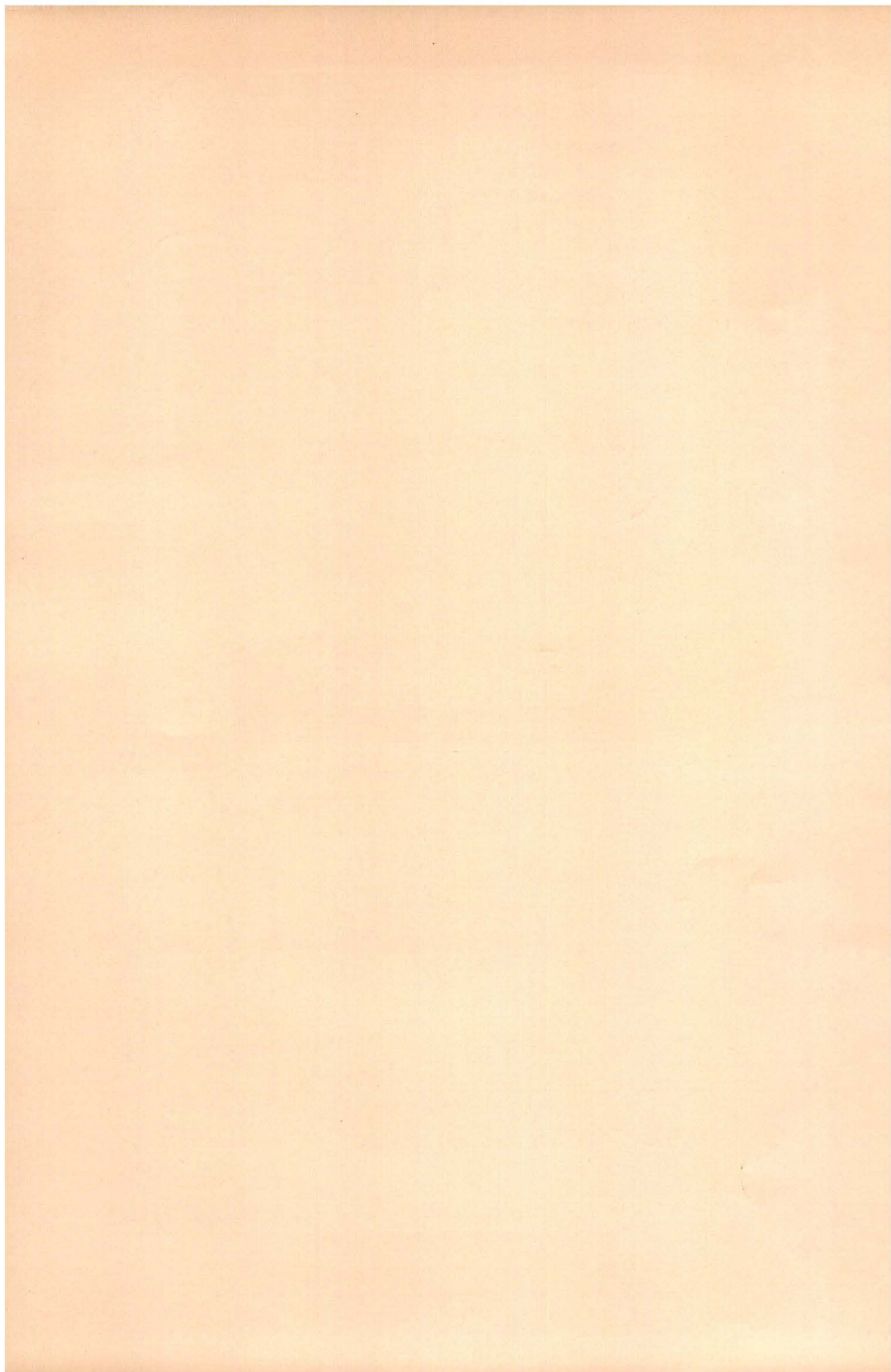
New Delhi  
Dated: 06 April 2017



(SHASHI KANT SHARMA)  
Comptroller and Auditor General of India



# APPENDICES



## Appendix I (Refer to Paragraph 1.5)

Grants released to Autonomous Bodies auditable under Section 14 of Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 during 2015-16

		(₹ in crore)
	Autonomous Body	Grants released in 2015-16
<b>DEPARTMENT OF ATOMIC ENERGY</b>		
1.	Harish Chandra Research Institute, Allahabad	34.24
2.	Institute of Mathematical Sciences, Chennai	49.00
3.	Atomic Energy Education Society, Mumbai	72.35
4.	Tata Institute of Fundamental Research, Mumbai	638.50
5.	Tata Memorial Centre, Mumbai	525.00
6.	Institute for Plasma Research, Gandhinagar	799.84
7.	Institute of Physics, Bhubaneswar	35.84
8.	National Institute of Science Education and Research, Bhubaneswar	71.00
9.	Saha Institute of Nuclear Physics, Kolkata	115.00
<b>DEPARTMENT OF BIOTECHNOLOGY</b>		
10.	National Brain Research Institute, Gurgaon	30.50
11.	National Institute for Plant Genome Research, New Delhi	28.60
12.	National Centre for Cell Sciences, Pune	40.00
13.	National Institute of Immunology, New Delhi	52.55
14.	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	26.70
15.	Centre of DNA Finger Printing & Diagnostics, Hyderabad	84.50
16.	Institute of Bio-resources and Sustainable Development, Imphal	9.79
17.	Institute of Life Sciences, Bhubaneswar	35.89
18.	Translational Health Science and Technology Institute, Faridabad	29.00
19.	Regional Centre for Biotechnology, Faridabad	29.30
20.	National Agri-Food Biotechnology Institute and Bio-processing Unit, Mohali	4.00
21.	Centre of Innovative and Applied Bioprocessing, Mohali	23.92
22.	Institute for Stem Cell Research and Regenerative Medicine Bengaluru	45.09
23.	National Institute of Biomedical Genomics, Kalyani	23.80
24.	National Institute of Animal Biotechnology, Hyderabad	30.70
<b>DEPARTMENT OF SCIENCE AND TECHNOLOGY</b>		
25.	Aryabhata Research Institute for Observational Sciences, Nainital	27.00
26.	Birbal Sahni Institute of Paleobotany, Lucknow	30.50
27.	Indian National Academy of Engineering, Gurgaon	7.00
28.	Indian National Science Academy, New Delhi	25.01
29.	National Academy of Sciences, Allahabad	12.00
30.	Technology Information, Forecasting and Assessment Council, New Delhi	11.00
31.	Vigyan Prasar, New Delhi	15.00
32.	Wadia Institute of Himalayan Geology, Dehradun	30.99
33.	Agarkar Research Institute, Pune	19.00
34.	Indian Institute of Geomagnetism, Mumbai	34.00
35.	Raman Research Institute, Bengaluru	35.27
36.	Centre for Soft Matter Research, Bengaluru	8.00

37.	International Advanced Research Centre for Powder Metallurgy, Hyderabad	47.00
38.	Indian Institute of Astrophysics, Bengaluru	55.89
39.	Indian Academy of Sciences, Bengaluru	16.00
40.	Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru	60.00
41.	Bose Institute, Kolkata	130.50
42.	Indian Association for the Cultivation of Science, Kolkata	96.00
43.	S N Bose National Centre for Basic Science, Kolkata	30.00
44.	Indian Science Congress Association, Kolkata	8.00
45.	Institute of Advanced Study in Science and Technology, Guwahati	20.64
46.	National Innovation Foundation, Ahmedabad	12.00
47.	Institute of Advanced Study in Science & Technology, Guwahati	20.46
48.	Institute of Nano-Science and Technology, Mohali	15.00
<b>DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH</b>		
49.	Consultancy Development Centre, New Delhi	1.40
<b>DEPARTMENT OF SPACE</b>		
50.	North Eastern Space Application Centre, Shillong	9.21
51.	Indian Institute of Space Technology, Thiruvananthapuram	65.65
52.	National Atmospheric Research Laboratory, Tirupati	23.20
53.	Physical Research Laboratory, Ahmedabad	143.26
54.	Semi-Conductor Laboratory, Chandigarh	210.36
<b>MINISTRY OF EARTH SCIENCES</b>		
55.	National Institute of Ocean Technology, Chennai	155.36
56.	Indian Institute of Tropical Meteorology, Pune	123.60
57.	Indian National Centre for Ocean Information Services, Hyderabad	105.72
58.	National Centre for Antarctic & Ocean Research, Goa	208.27
59.	Centre for Earth Sciences Studies, Thiruvanthapuram	25.98
<b>MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE</b>		
60.	Central Pollution Control Board, Delhi	66.95
61.	G.B. Pant Institute of Himalayan Environment and Development, Almora	75.93
62.	Indian Institute of Forest Management, Bhopal	19.78
63.	Indian Council of Forestry Research and Education, Dehradun	138.90
64.	Indian Plywood Industries Research and Training Institute, Bengaluru	6.31
65.	Padmaja Naidu Himalayan Zoological Park, Darjeeling	0.06
66.	Tropical Forest Research Institute, Jabalpur	13.41
<b>MINISTRY OF NEW AND RENEWABLE ENERGY</b>		
67.	Centre for Wind Energy Technology, Chennai	13.70
68.	Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala	3.69
<b>MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION</b>		
69.	Polavaram Project Authority, Hyderabad	600.00
<b>TOTAL</b>		<b>5,624.11</b>



## Appendix II (Refer to Paragraph 1.6)

### Outstanding Utilisation Certificates for the period ending March 2016

Ministry/ Department	Period to which grant relates	Number of utilisation certificates outstanding due by March 2016	Amount (₹ in lakh)
Department of Atomic Energy	1991-09	134	577.82
	2009-14	1,028	8,383.42
	2014-15	449	4,537.70
<b>Total</b>		<b>1,611</b>	<b>13,498.94</b>
Department of Bio-Technology	1993-09	212	1,316.56
	2009-14	13,645	2,96,902.70
	2014-15	3,652	1,17,623.47
<b>Total</b>		<b>17,509</b>	<b>4,15,842.73</b>
Department of Science and Technology	2001-09	Nil	
	2009-14	25,273	6,79,033.93
	2014-15	3,603	1,71,878.80
<b>Total</b>		<b>28,876</b>	<b>8,50,912.73</b>
Department of Scientific and Industrial Research	2005-09	81	590.49
	2009-14	488	1,00,389.27
	2014-15	192	28,304.89
<b>Total</b>		<b>761</b>	<b>1,29,284.65</b>
Department of Space	1976-09	122	761.79
	2009-14	92	197.36
	2014-15	54	243.18
<b>Total</b>		<b>268</b>	<b>1,202.33</b>
Ministry of Earth Sciences	1976-09	433	3,611.58
	2009-14	202	1,712.81
	2014-15	262	21,979.40
<b>Total</b>		<b>897</b>	<b>27,303.79</b>
Ministry of Environment, Forest and Climate Change	1981-09	5,620	25,426.67
	2009-14	441	10,127.73
	2014-15	167	8,649.03
<b>Total</b>		<b>6,228</b>	<b>44,203.43</b>
Ministry of New and Renewable Energy	2005-09	17	283.91
	2009-14	176	15,799.59
	2014-15	123	28,187.26
<b>Total</b>		<b>316</b>	<b>44,270.76</b>
Ministry of Water Resources, River Development and Ganga Rejuvenation	1986-09	80	2,257.90
	2009-14	169	4,322.08
	2014-15	33	45,016.93
<b>Total</b>		<b>282</b>	<b>51,596.91</b>
<b>Grand Total</b>		<b>56,748</b>	<b>15,78,116.27</b>

**Appendix III (Refer to Paragraph 1.8)****Statement of losses and irrecoverable dues written off/waived during 2015-16***(Amount in ₹ lakh)*

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	-	-	-	-	23	8.78	-	-	-	-
Department of Bio-Technology	NIL									
Department of Science and Technology	-	-	4	3.48	0	0	2	0.97	2	0.05
Department of Scientific and Industrial Research	NIL									
Department of Space	-	-	-	-	16	21.03	-	-	2	1.50
Ministry of Earth Sciences	NIL									
Ministry of Environment, Forest and Climate Change	NIL									
Ministry of New and Renewable Energy	NIL									
Ministry of Water Resources, River Development and Ganga Rejuvenation	Not Available									
<b>Total</b>	-	-	<b>4</b>	<b>3.48</b>	<b>39</b>	<b>29.81</b>	<b>2</b>	<b>0.97</b>	<b>4</b>	<b>1.55</b>

**Appendix IV (Refer Paragraph 1.10)**

Summarised position of the Action Taken Notes (ATNs) awaited from various Ministries/ Departments as of December 2016- ATNs which have not been received from the Ministry/Department even for the first time

Sl. No.	No. & Year of Report	Para No.	Para title	Date of laying in the Parliament	Delay in months
<b>Department of Atomic Energy</b>					
1.	30 of 2015	2.1	Implementation of Performance Related Group Incentive scheme	08.12.2015	8
2.	12 of 2016	2.1	Follow up of performance audit of procurement of stores and inventory management	26.07.2016	1
3.	12 of 2016	2.2	Non-installation of Steam Turbine Generator	26.07.2016	1
<b>Department of Bio-Technology</b>					
4.	12 of 2016	3.1	Irregular administrative and entitlements operations	26.07.2016	1
<b>Department of Science and Technology</b>					
5.	26 of 2016	Standalone	Administrative functioning of Autonomous Bodies under Department of Science and Technology.	12.08.2016	1
<b>Ministry of Earth Sciences</b>					
6.	27 of 2014	5.1	National Data Buoy Project	28.11.2014	21
7.	27 of 2014	5.2	Irregular payment of gratuity	28.11.2014	21
8.	30 of 2015	6.1	Unfruitful expenditure due to non-functional website	08.12.2015	8
9.	30 of 2015	6.2	Installation and upkeep of meteorological observatories by Regional Meteorological Centre, Kolkata	08.12.2015	8
10.	12 of 2016	6.1	Non-establishment of desalination plants and wasteful expenditure	26.07.2016	1
<b>Ministry of New and Renewable Energy</b>					
11.	34 of 2015	Standalone	Renewable Energy Sector in India	08.12.2015	20

**Appendix V (Refer Paragraph 1.10)**

Summarised position of the Action Taken Notes (ATNs) awaited from various Ministries/ Departments as of December 2016- ATNs on which Audit has given comments/observations but revised ATNs have not been received

Sl. No.	No. & Year of Report	Para No.	Para title	Date of issue of vetting comments on the ATN	Delay in months
<b>Department of Atomic Energy</b>					
1.	5 of 2001	5.4	Wasteful expenditure (Para no. 5.19 to 5.22)	23.04.2013	43
2.	5 of 2001	5.5	Recovery at the instance of audit (Para 5.23 to 5.25)	21.10.2013	37
3.	22 of 2013	2.2	Hasty procurement of equipment without creating infrastructure facilities for installation	05.05.2016	6
4.	27 of 2014	2.1	Non-utilisation of equipment	19.06.2015	17
<b>Department of Bio-Technology</b>					
5.	5 of 2003	3.1	DBT Review	26.06.2015	17
<b>Department of Science and Technology</b>					
6.	5 of 2004	3.1	Review of TIFAC	29.01.2016	10
7.	13 of 2007 (PA)	5.3	Internal controls in DST	21.08.2014	27
8.	CA 3 of 2008	5.2	Irregular extension of service	17.04.2015	19
9.	CA 16 of 2008-09	5.1	Non-recovery of dues despite development of technology	29.02.2016	9
10.	CA 16 of 2008-09	5.3	Activities of Birbal Sahni Institute of Palaeobotany, Lucknow	01.05.2015	18
11.	22 of 2013	5.2	Inadmissible payment of Transport Allowance	17.05.2016	6
12.	27 of 2014	3.1	Fraudulent payment of legal fees	11.06.2015	17
13.	30 of 2015	3.1	Implementation of Drugs and Pharmaceutical Research Programme	05.07.2016	4
<b>Department of Scientific and Industrial Research</b>					
14.	5 of 1998	2.1	Review of Manpower Audit of CSIR	11.05.2015	18
15.	5 of 1998	2.4	Loss due to defective agreement	23.10.2015	13
16.	5 of 2000	3.1	Utilization of Laboratory Reserve Fund	06.01.2016	10
17.	5 of 2005	6.1	Wasteful expenditure	12.03.2007	116

Sl. No.	No. & Year of Report	Para No.	Para title	Date of issue of vetting comments on the ATN	Delay in months
18.	22 of 2013	4.1	Public Private Partnership for setting up 'The Centre for Genomic Application' by Institute of Genomics and Integrative Biology	23.10.2015	13
19.	30 of 2015	4.1	New Millennium Indian Technology Leadership Initiative scheme	06.09.2016	2
20.	30 of 2015	4.2	Irregular grant of promotions with retrospective effect	14.09.2016	2
<b>Department of Space</b>					
21.	9 of 2006 (PA)	5	Non-Tax Receipts	16.09.2016	2
22.	4 of 2012-13	Standalone	Hybrid Satellite Digital Multimedia Broadcasting Service Agreement with Devas	24.10.2016	1
23.	27 of 2014	4.1	Inordinate delay in realization of SRE-2 mission	17.11.2016	0
24.	30 of 2015	5.1	Implementation of Initiative scheme	15.07.2016	4
25.	12 of 2016	5.1	Computerisation in administration, finance and related areas	17.11.2016	0
26.	12 of 2016	5.2	Implementation of Telemedicine programme	24.10.2016	1
<b>Ministry of Earth Sciences</b>					
27.	2 of 2007 (TA)	5.1	Wasteful expenditure	23.11.2012	48
28.	CA 3 of 2008	7.1	Non-achievement of the objectives of modernizing the Accounting and Personnel Management functions	17.01.2013	46
29.	22 of 2013	8.1	Irregular introduction of pension scheme and diversion of funds	26.08.2014	27
<b>Ministry of Environment, Forest and Climate Change</b>					
30.	22 of 2013	6.1	Repeated unauthorized creation and up-gradation of posts by Central Pollution Control Board	26.10.2016	1
31.	27 of 2014	6.4	Non-establishment of model facilities for management of Municipal Solid Wastes	27.11.2015	12

**Appendix VI (Refer Paragraph 2.2.2.1 (a))****Non-incorporation of restrictive clause in Byelaws of Autonomous Bodies of DAE**

Autonomous bodies	Details of restrictive clauses not included in the Byelaws	Relevant OM	
		Issued by & OM date	Subject in brief
IPR, TIFR, TMC, NISER, HRI, IOP, SINP (Para No 3.6)	A complete ban on extension in service beyond the age of superannuation. Extension, however, can be given with the approval of ACC in case of Director and in case of others with the approval of DAE.	DoPT OM dated May 1998	Instructions on enhancing age of retirement of employees of autonomous bodies from 58 to 60 years
IOP TMC, NISER (Para No 3.2.1 & 3.2.2)	In the matters of creation of posts and revision of pay and allowances of their staff and similar establishment expenditure, provide for prior approval of Central Government in specific cases.	MoF OM dated 15.10.1984	Bye-Laws of autonomous bodies should include restrictive clauses relating to the powers of the Governing Bodies
IOP (Para No 3.2.1)	Group-A post could be created in Autonomous Bodies with the approval of MoF and for other posts with the approval of DAE.  Authority for the creation of posts is vested with the member of finance/finance ministry and all proposal for creation of posts must be forwarded to the Department with the approval of the Governing Council	MoF OM dated April 1994	Posts equivalent to Gr.A and Gr.B to D
		DAE No. 29/7/2002-R&D-II/1240 dated 20.01.2004	Exercise of financial powers in aided autonomous institutions under DAE
TMC, NISER (Para No 2.2.2)	Upgradation of posts amounts to creation of higher post and in all such cases of up gradation the same procedure as prescribed for creation of posts was to be observed	MoF OM dated 1991	Up gradation of posts

## Appendix VII (Refer Paragraph 2.2.2.1 (c))

## Inconsistency in Recruitment Rules in Saha Institute of Nuclear Physics, Kolkata

As per DAE Recruitment and Promotion Guidelines framed in January 2010							As per Recruitment and Promotion Rules framed by SINP in January 2009						
Recruitment				Promotion			Recruitment				Promotion		
Post	Pay scale (₹)	Minimum Qualifications required for recruitment	No. of years of relevant experience after obtaining the requisite qualification	Age Limit	Residency period for next promotion	Next promotional post & pay scale (₹)	Post	Pay scale (₹)	Minimum Qualifications required for recruitment	No. of years of relevant experience after obtaining the requisite qualification	Age Limit	Residency period for next promotion	Next promotional post & pay scale (₹)
SO <sup>65</sup> (E)	PB-3 GP ₹ 7,600	PhD, M.E./ M.Tech. (After B.E. or M.Sc.)	PhD-4 <sup>66</sup> , M.E./ M.Tech. -6	To be applied taking into account the qualification and experience required.	5 years	SO (F), PB-4 GP ₹ 8,700	Scientist 'E'/ Associate Professor 'E'	PB-3 GP ₹ 7,600	PhD	2 years	Not mentioned	4-7 years (depending upon the grading of CR)	Scientist 'F'/ Associate Professor 'F', PB-4 GP ₹ 8,700
SO (F)	PB-4 GP ₹ 8,700	No direct recruitment			5 years	SO (G), PB-4 GP ₹ 8,900	Scientist 'F'/ Associate Professor 'F'	PB-4 GP ₹ 8,700	PhD	5 years		No definite time schedule need be maintained. The Director will prepare necessary	Scientist 'G'/ Professor 'G', PB-4 GP ₹ 8,900

<sup>65</sup> Scientific Officer<sup>66</sup> Exceptionally brilliant candidates can be considered even with two years of experience.

Post	Pay scale (₹)	Minimum Qualifications required for recruitment	No. of years of relevant experience after obtaining the requisite qualification	Age Limit	Residency period for next promotion	Next promotional post & pay scale (₹)	Post	Pay scale (₹)	Minimum Qualifications required for recruitment	No. of years of relevant experience after obtaining the requisite qualification	Age Limit	Residency period for next promotion	Next promotional post & pay scale (₹)
SO (G)	PB-4 GP ₹ 8,900				5 years	Apex level: SO (H), PB-4 GP ₹ 10,000	Scientist 'G' / Professor 'G'	PB-4 GP ₹ 8,900	PhD	10 years			
SO (H)	PB-4 GP ₹ 10,000				—	—	Senior Professor 'H'	PB-4 GP ₹ 10,000	PhD	15 years		papers for placing before the academic sub-committee of GC who will recommend to GC for approval.	Senior Professor 'H', PB-4 GP ₹ 10,000 Senior Professor 'I', HAG ₹ 67,000-79,000





