

**Report of the  
Comptroller and Auditor General  
of India**

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

56 MAY 2005

**for the year ended March 2004**

**Union Government  
(Scientific Departments)  
No.5 of 2005**



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## PREFACE

This Report for the year ended 31 March 2004 has been prepared for submission to the President under Article 151(1) of the Constitution. It covers matters arising from test audit of the transactions of the Scientific Departments of the Union Government, the autonomous bodies funded by these Departments and other scientific institutions engaged in research and development and scientific pursuit.

This Report contains one review and 14 paragraphs. The subject of the review is '*Management of projects relating to utilisation and conservation of soil and water undertaken by institutes of ICAR*'

The observations in this Report are those, which were noticed by Audit during 2003-04. For completeness, the observations relating to earlier years not covered in the previous Reports have also been included, wherever pertinent. Similarly, results of audit of transactions subsequent to March 2004 have also been mentioned, wherever relevant.



## OVERVIEW

The expenditure on Scientific Departments during 2003-2004 was Rs 14858.62 crore. This represented an increase of 17.46 *per cent* over the last two years. Of the total expenditure on Scientific Departments, Rs 6148.41 crore related to the Department of Atomic Energy. The Department of Space accounted for an expenditure of Rs 2268.80 crore. With reference to the budget allotment, the Scientific Departments had an overall unspent balance of Rs 1239.58 crore. The Department of Atomic Energy, Ministry of Non-Conventional Energy Sources and Department of Science and Technology spent Rs 428.56 crore (6.52 *per cent*), Rs 248.84 crore (39.49 *per cent*) and Rs 204.38 crore (17.17 *per cent*) less than the allocation respectively.

This Report contains one performance review and 14 paragraphs. An overview of audit findings contained in the report is given below:

## REVIEW

### INDIAN COUNCIL OF AGRICULTURAL RESEARCH

#### MANAGEMENT OF PROJECTS RELATING TO UTILISATION AND CONSERVATION OF SOIL AND WATER UNDERTAKEN BY INSTITUTES OF ICAR

Indian Council of Agricultural Research (ICAR) undertakes research in the areas of conservation, improvement and efficient utilisation of soil and water for sustainable agricultural development at its five institutes. Review of management of projects undertaken/completed by these institutes over the last five years disclosed the following:

- Two research institutes did not maintain projects files as required under rules. As a result, monitoring of the projects by Staff Research Council/ Research Advisory Committee was inadequate;
- Many research projects concluded with non-achievement/partial achievement of objectives despite time overrun;
- Technologies developed were not transferred to the end users thereby defeating the ultimate objective of dissemination; and
- There were underperformance in soil survey, mapping of salt affected soils and documentation of traditional wisdom.

There is thus a need for more efficient management of the research projects for contribution to sustainable agricultural development.

(Paragraph 2.1)

## TRANSACTION AUDIT FINDINGS

### DEPARTMENT OF ATOMIC ENERGY

#### IRREGULAR PAYMENT OF COMPENSATION OF RS 67.29 LAKH AND NON-RECOVERY OF RS 88.98 LAKH

Narora Atomic Power Station (NAPS) acquired 1188.5 acres of land in 1987 and deposited Rs 10.50 crore with Special Land Acquisition Officer (SLAO) for paying compensation to the land owners. After disbursement of compensation, an amount of Rs 88.98 lakh remained undisbursed and was not refunded. SLAO passed supplementary award after 13 years of the acquisition of land, for payment of solatium and additional compensation. NAPS appealed to the Allahabad High Court in July 2000 against the supplementary award. Though the judgement was annulled, NAPS disbursed an amount of Rs 67.29 lakh directly to the land owners as compensation.

*(Paragraph 3.1)*

#### SHORT RECOVERY DUE TO DELAY IN PREPARATION OF PRO-FORMA ACCOUNTS

Heavy water is leased to Nuclear Power Corporation of India Limited (NPCIL) from the heavy water pool of Department of Atomic Energy (DAE). Heavy water lease and loss charges are recovered from NPCIL on the basis of pool price of heavy water notified by DAE every year. Due to delay in preparation of pro-forma accounts, pool prices of heavy water notified by DAE during 1993-98 were not based on the actual cost of production and led to short recovery of Rs 130.87 crore from NPCIL during the period.

*(Paragraph 3.2)*

#### UNDUE BENEFIT TO CONTRACTOR DUE TO NON-LEVY OF PENALTY

Bhabha Atomic Research Centre (BARC) awarded two work orders for construction of staff quarters at BARC colony. There were delays in the completion of both the works due to contractors' fault. BARC not only failed to recover Rs 85.70 lakh as compensation for delay, as stipulated in terms of the work order, but also paid escalation cost of Rs 19.67 lakh.

*(Paragraph 3.4)*

#### NON-UTILISATION OF A TECHNOLOGY DEVELOPED FOR COOLANT CHANNEL REPLACEMENT OF NUCLEAR POWER REACTORS

Bhabha Atomic Research Centre (BARC) developed Coolant Channel Replacement Machine (CCRM) to reduce the down time needed for repairs and maintenance of nuclear power reactors and transferred its know how to Electronic Corporation of India Limited (ECIL). As ECIL could not



manufacture the CCRM based on the technology developed by BARC, Nuclear Power Corporation of India Limited (NPCIL) carried out enmasse coolant channel replacement of two reactors using technology developed by NPCIL itself. Thus, the expenditure of Rupees four crore incurred by BARC on the development of the coolant channel replacement technology remained unfruitful.

(Paragraph 3.5)

## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **RECOVERY AT THE INSTANCE OF AUDIT**

As per the package of incentives extended by the Department of Personnel and Training, the employees posted at Srinagar valley who did not wish to move their families to a selected place of residence were entitled to daily transportation and messing allowance. National Informatics Centre (NIC), Jammu paid messing and transportation allowance to its employees who were neither posted in Kashmir valley nor were Kashmiri migrants and hence ineligible for the incentive. On being pointed out by Audit, NIC worked out the total inadmissible payment as Rs 17.68 lakh and started recovery from the employees.

(Paragraph 4.1)

## **DEPARTMENT OF SCIENCE AND TECHNOLOGY**

### **UNFRUITFUL EXPENDITURE DURING GTS-BICENTENARY CELEBRATION**

Survey of India organised year long celebrations to commemorate the completion of 200 years of the initiation of the Great Trigonometrical Survey to highlight the significance of the Great Arc and GTS contribution to the Geo sciences and Mathematical sciences. The celebrations included making of two films namely "*The Making of India*" and "*The Million Steps*" to be telecast on various TV channels and publishing of a pictorial book on "The Great Arc". Two films made at a cost of Rs 27 lakh were not telecast even after a year of its production, rendering the expenditure unproductive, while the anticipated income had not accrued to the department from publishing the pictorial book.

(Paragraph 5.1)

### **EXCESS RELEASE OF FUNDS ON PRODUCTION OF SERIAL 'BUSINESS MANTRA'**

Department of Science and Technology (DST) sanctioned a project in June 1999 to Confederation of Indian Industries (CII) for the production of 26 episodes of TV programme 'Business Mantra'. DST was to share 50 per cent cost of each episode whereas the remaining 50 per cent was to be raised by CII through sponsorship and advertisements. DST supported the programme for another 52 episodes on the same terms and conditions. The total expenditure

incurred on the 78 episodes was Rs 60.61 lakh against which DST released Rs 51.15 lakh instead of Rs 30.31 lakh. Failure of DST to verify the actual expenditure incurred before releasing funds, resulted in excess release of Rs 20.84 lakh.

*(Paragraph 5.2)*

## **DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

### **WASTEFUL EXPENDITURE**

Department of Scientific and Industrial Research sanctioned a project to a company in March 2001 at a total cost of Rs 1.28 crore, out of which the share of DSIR was Rs 40 lakh, to be released as grants-in-aid. DSIR released Rs 30 lakh in March 2001 and March 2002. The company was closed in January 2003 without completing the project. Failure of DSIR to secure its money before releasing the grants and to initiate legal action against the company resulted in wasteful expenditure of Rs 30 lakh.

*(Paragraph 6.1)*

## **INDIAN COUNCIL OF MEDICAL RESEARCH**

### **WASTEFUL EXPENDITURE AND BLOCKAGE OF FUNDS DUE TO IMPROPER PLANNING**

Institute of Cytology and Preventive Oncology (ICPO) acquired three plots of land from New Okhla Industrial Development Authority (NOIDA) during the years 1987-89 at a total cost of Rs 1.55 crore for the construction of institutional building, residential complex and research cum clinical complex. Due to failure of ICPO to construct institutional building, NOIDA cancelled one of the plots in July 2002 and demanded Rs 6.50 crore for revoking the cancellation. ICPO had to pay penalty charges of Rs 43.06 lakh for non-construction on two plots and less than 50 per cent construction on the other. In addition, ICPO paid Rs 44.12 lakh towards lease rent on the plots that remained unused.

*(Paragraph 9.1)*

## **COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

### **UNFRUITFUL EXPENDITURE ON PROCUREMENT OF LIQUID NITROGEN PLANT**

Regional Research Laboratory (RRL), Thiruvananthapuram placed an order for supply of a Nitrogen Generator and a liquefier on a UK based firm. The system that arrived at RRL was a water-cooling instead of the stipulated air-cooling system. RRL failed to get a replacement or install the existing system. The system procured at a cost of Rs 21.29 lakh was lying uninstalled for more than five years.

*(Paragraph 10.1)*

**NON-INSTALLATION OF FERMENTATION SYSTEM**

The Regional Research Laboratory, Bhubaneswar placed an order for supply of fermentation system on a firm based on its quotation but amended the terms and conditions without obtaining its confirmation. As a result, the firm refused to complete the installation resulting in the system, which was procured at a cost of Rs 13.98 lakh, lying unused for more than four years.

*(Paragraph 10.2)*



## CHAPTER I : INTRODUCTION

The comparative position of expenditure of major Scientific Departments/organisations, during 2003-04 and in the preceding two years is given below:

(Rupees in crore)

Sl. No.	Ministry/Department/Organisation	2001-02	2002-03	2003-04
1.	Atomic Energy	4870.15	6018.73	6148.41
2.	Space	1900.97	2162.22	2268.80
3.	Indian Council of Agricultural Research	1287.80	1333.96	1464.17
4.	Environment and Forests (including Zoological Survey of India and Botanical Survey of India)	1014.23	1057.52	1036.19
5.	Science and Technology (including Survey of India and India Meteorological Department)	771.33	920.84	985.84
6.	Scientific and Industrial Research (including grants given to Council of Scientific and Industrial Research)	913.99	963.71	1090.09
7.	Non-Conventional Energy Sources	503.37	428.33	381.33
8.	Geological Survey of India (Ministry of Mines)	243.06	248.31	271.60
9.	Information Technology	521.63	497.34	530.62
10.	Biotechnology	185.58	220.70	262.55
11.	Indian Council of Medical Research	188.63	180.00	201.86
12.	Ocean Development	150.47	167.05	169.50
13.	Centre for Development of Telematics (Department of Telecommunications)	98.23	108.80	47.66
		<b>12649.44</b>	<b>14307.51</b>	<b>14858.62</b>

### Excess expenditure and unspent provisions under various Grants/Appropriations

A summary of Appropriation Accounts for 2003-04 in respect of Scientific Departments/major scientific organisations, mentioned in the paragraph above, is given below:

(Rupees in crore)

Sl. No.	Ministry/Department/Organisation	Grant/ Appropriation (including supplementary)	Expenditure	(-) Unspent Provision (+) Excess	Percentage of Unspent provision
1.	Atomic Energy	6576.97	6148.41	(-) 428.56	6.52
2.	Space	2368.89	2268.80	(-) 100.09	4.23
3.	Indian Council of Agricultural Research	1480.30	1464.17	(-) 16.13	1.09
4.	Environment and Forests (including Zoological Survey of India and Botanical Survey of India)	1160.06	1036.19	(-) 123.87	10.68
5.	Science and Technology (including Survey of India and India Meteorological Department)	1190.22	985.84	(-) 204.38	17.17
6.	Scientific and Industrial Research (including grants given to Council of Scientific and Industrial Research)	1136.42	1090.09	(-) 46.33	4.08
7.	Non-Conventional Energy Sources	630.17	381.33	(-) 248.84	39.49
8.	Geological Survey of India (Ministry of Mines)	297.77	271.60	(-) 26.17	8.79
9.	Information Technology	535.17	530.62	(-) 4.55	0.85
10.	Biotechnology	273.37	262.55	(-) 10.82	3.96
11.	Indian Council of Medical Research	201.86	201.86	-	-
12.	Ocean Development	199.34	169.50	(-) 29.84	14.97
13.	Centre for Development of Telematics (Department of Telecommunications)	47.66	47.66	-	-
<b>Total</b>		<b>16098.20</b>	<b>14858.62</b>	<b>(-) 1239.58</b>	<b>7.70</b>

## 2 Audit of accounts of autonomous bodies

Accounts of autonomous bodies, which receive grants and loans from the Government, are audited by the Comptroller and Auditor General of India under the relevant provisions of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

The Comptroller and Auditor General of India is the sole auditor of eight autonomous bodies under the Scientific Departments. Separate Audit Reports are prepared on their accounts under sections 19 (2) and 20 (1) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The position of grants released to these autonomous bodies is indicated in *Appendix I*.

In addition, the Comptroller and Auditor General of India may conduct supplementary/super-imposed audit of 59 other autonomous bodies, which are substantially funded by the Government of India and whose primary audit is conducted by Chartered Accountants. The position of grants released to these autonomous bodies is indicated in *Appendix II*.

### 3 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 that, where the grants were conditional, the prescribed conditions had been fulfilled. According to the information furnished by the Pay and Accounts Officers of the concerned Departments, 6415 utilisation certificates for grants aggregating Rs 775.12 crore were outstanding as given in *Appendix III*. The defaulting Ministries/ Departments included (i) Environment and Forests (Rs 638.59 crore), (ii) Ocean Development (Rs 109.47 crore) and (iii) Space (Rs 23.99 crore).

### 4 Follow up on Audit Reports

In its Ninth Report (Eleventh Lok Sabha) presented to Parliament on 22 April 1997, the Public Accounts Committee had 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 Comptroller and Auditor General of India, Union Government (Scientific Departments) as of December 2004 revealed the following position:

Sl. No.	Report No. and Year	Paragraph No.	Pertains to	Brief subject
1	5 of 2004	2.1	Indian Council of Agricultural Research	National Bureau of Plant Genetic Resources
2		3.1	Department of Science and Technology	Technology Information, Forecasting and Assessment Council
3		9.1		Wasteful investment
4		4.2	Department of Information Technology	Non-recovery of Rs 20.00 lakh
5		4.3		Short claim of Rs 38.67 lakh
6		6.1	Indian Council of Medical Research	Wasteful expenditure due to improper planning of construction of MRC Complex
7		6.2		Injudicious acquisition of funds for procurement of Liquid Nitrogen Plant

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<b>Sl. No.</b>	<b>Report No. and Year</b>	<b>Paragraph No.</b>	<b>Pertains to</b>	<b>Brief subject</b>
8	5 of 2004	7.1	Department of Space	Avoidable payment of Customs Duty
9		8.1	Department of Atomic Energy	Non-establishment of a Pyrochemical Process Pilot Plant
10		10.1	Department of Telecommunications	Unnecessary procurement of components
11		11.1	Council of Scientific and Industrial Research	Wasteful expenditure



## CHAPTER II : INDIAN COUNCIL OF AGRICULTURAL RESEARCH

### Management of projects relating to utilisation and conservation of soil and water undertaken by institutes of ICAR

#### Highlights

- *NBSS&LUP, Nagpur could not achieve objectives of soil survey, mapping and land use planning in three projects involving an expenditure of Rs 6.63 crore. Soil Survey reports were not prepared even after lapse of five to 25 years.*
- *IISS, Bhopal did not achieve the desired results in soil science research in two projects, despite expenditure of Rs 55.25 lakh.*
- *CSSRI, Karnal could not solve effectively the issues relating to reclamation and management of alkaline and saline soils in two projects costing Rs 12.82 crore. Map of salt affected soils of India was also not prepared.*
- *In water management research, WTCER, Bhubaneswar failed to accomplish targeted results in three projects costing Rs 36.39 lakh resulting in non-achievement of the objective of sustainable agricultural production through management of canal water, rain water and waterlogged land.*
- *CSWCR&TI, Dehradun did not achieve the objectives of research in soil and water conservation measures and land use systems for sustainable crop production in three projects costing Rs 37.90 lakh.*
- *Technologies developed in 16 projects at a cost of Rs 2.44 crore were not transferred to end users*

#### 2.1 Introduction

Natural Resource Management Division of Indian Council of Agricultural Research (ICAR) is responsible for research on conservation, improvement and efficient utilisation of soil and water. Five research institutes of ICAR are engaged in research in these areas. Areas of research undertaken by them are as under :

Sl. No.	Name of institute	Research areas
1.	National Bureau of Soil survey and Land Use Planning (NBSS&LUP), Nagpur	Soil survey and mapping the soils of the country to promote scientific and optimal land pedology, soil survey, land evaluation and land use planning.

Sl. No.	Name of institute	Research areas
2.	Indian Institute of Soil Science (IISS), Bhopal	Basic and strategic research on soils, especially physical, chemical and biological processes related to management of nutrients, water and energy and developing advanced technologies for sustainable systems of input management in soils.
3.	Central Soil Salinity Research Institute (CSSRI), Karnal	Basic and applied research for developing strategies for salinity control, reclamation and management of salt affected soils.
4.	Water Technology Centre for Eastern Region (WTCER), Bhubaneswar	Basic and applied research for developing strategies for efficient utilisation of on-farm water resources to enhance agricultural productivity on sustainable basis.
5.	Central Soil & Water Conservation Research and Training Institute (CSWCR&TI), Dehradun	Research and development of strategies for controlling land degradation under all primary production systems, rehabilitation of degraded lands, updated technology in soil and water conservation, watershed development and its management and undertaking water harvesting measures

## 2.2 Scope and objectives of audit

The present review, covering the period 1999-2000 to 2003-04, includes observations on management of the projects undertaken to utilise and conserve soil and water through test check of in-house projects, sponsored projects and externally aided projects undertaken and completed by five institutes with reference to the milestones and achievements of objectives and benefits to be derived from them.

## 2.3 National Bureau of Soil survey and Land Use Planning (NBSS&LUP), Nagpur

NBSS&LUP, Nagpur completed 45 projects and terminated 15 projects before their completion during 1999-2004. Of the completed projects, research project files were available for 19 projects only which were examined in audit.

### 2.3.1 Improper maintenance of project files

In accordance with the byelaws, rules and regulations of ICAR and instructions issued by ICAR from time to time, research project files (RPFs) are required to be maintained in three parts. The research project proposal is to be kept in RPF-I, which is to be presented to Staff Research Council (SRC) for approval. Annual progress of each project is to be kept in RPF-II, for review by SRC to evaluate the implementation of the project. The final report in the form of RPF-III is required to be prepared and presented to SRC and Research Advisory Committee (RAC) for overall review and evaluation of the project. However, NBSS&LUP did not maintain the RPFs properly in respect of the

projects implemented during 1999-2004. In case of 15 projects, which were dropped midway, RPF-I only were available. As such reasons for termination of the projects before their completion were not ascertainable. Besides, no records were maintained for 10 completed projects. In 16 projects, RPFs were maintained intermittently. In the absence of proper maintenance of RPFs, effectiveness of monitoring of research activities by SRC/RAC cannot be ensured.

NBSS&LUP stated in August 2004 that in future proper maintenance of RPFs would be ensured.

### 2.3.2 Non-achievement of objectives

In three projects, partial achievements of objectives and delay in completion ranging from three months to seven years were noticed. These are discussed below:

(a) In collaboration with CSSRI, Karnal, NBSS&LUP undertook a project in May 1996 on "Preparation of soil resource inventory of coastal salt affected areas of West Bengal and Orissa using satellite imagery and characterization and classification of the soil to determine their potentialities, problems and management" at an outlay of Rs 16 lakh for a period of two years.

However, the project was continued even after the stipulated duration of two years. SRC recommended in November 2000 to complete the project by 2001. Ignoring the advice of SRC, the project was continued as of July 2004. The annual progress reports of the project were not prepared regularly. In the annual progress report for 2002-03, it was mentioned that due to pressure of other projects, the work of this project could not progress as per the schedule and the likely date of completion was determined as December 2005. ICAR stated in December 2004 that extension of the project up to December 2005 was accepted by SRC and added that the work was in progress and would be completed. ICAR did not, however, indicate the remedial measures instituted to address the delays.

(b) NBSS&LUP, Nagpur undertook a project on "Identification, characterization and delineation of agro-economic constraints of oilseed based production systems in rainfed eco system" from July 2000 to February 2003 at an estimated cost of Rs 55.41 lakh. The project was to facilitate identification of the appropriate sowing time for specified areas and suggest strategies for improving the productivity of rainfed oilseed crops. The rainfed oilseed based production zones were to be delineated using Geographical Information System (GIS).

The final report of the project revealed that studies were conducted for four crops in 16 districts as against the target of six crops in 19 districts. Further, data on area and production of oilseeds were collected only in six districts as

against 28 different districts targeted. Even in the 16 districts covered, no strategies for improving the productivity of rainfed oilseed crops were suggested. The rainfed oilseed-based production zones were also not delineated using GIS. Thus, the benefits of improving the productivity of rainfed oilseeds could not be derived.

ICAR stated in December 2004 that against the target of 19 districts for six crops, 16 districts for four crops were covered as suggested by the Scientific Advisory Panel and added that the data collected was processed to generate maps depicting the oil seed production potential and constraints and were presented in different thematic maps. However, it did not furnish the reasons for collection of data only in six districts as against 28 districts as per the project proposal.

(c) ICAR sanctioned a project on "Land use planning for management of agricultural resources" from January 2001 to December 2003 at a cost of Rs 9.32 crore. The project aimed at developing the strategies and options for rational and scientific land use plan at watershed level.

The project was extended up to December 2004. The progress reports of the project up to March 2004 revealed that due to delay in receipt of funds, activities like procurement of equipment, socio-economic survey, resource survey, different kinds of mapping and crop experiment could not be completed as planned. The economic analysis of alternate land uses to assess overall socio-economic aspect was not started as of July 2004. Linkages with various organizations like International Crop Research Institute for Semi Arid Tropics and CSSRI on various aspects such as fish varieties for coastal areas, animal component suitable for coastal eco-system and technologies for different crop components of land use models for coastal eco-system were yet to be developed. Further, field experiments for cereals and pulses crops, development of soil site suitability for different land use types, selection of suitable cropping system specific to each agro-ecological zone and monitoring of soil and water qualities were yet to be completed to achieve the aim of the project. Against the allocation of Rs 9.32 crore, only Rs 5.92 crore was spent as of March 2004.

ICAR stated in December 2004 that the work had already been started to conduct economic analysis and alternate land uses to assess overall socio-economic aspect and that activities were also simultaneously initiated to assess the data for horticultural validation, development of soil site suitability criteria, suggesting different crop/cropping sequence in specific agro-ecozone. However, the reply is silent about the linkages to be developed with other institutes as envisaged in the project.

### **2.3.3 Non-submission of survey reports**

Conducting soil survey and publishing reports for land use planning was one of the mandates of NBSS&LUP. Twenty five field survey reports were pending for periods ranging from five to 25 years. It was observed that field surveys of the districts of Chittur, Mysore and Chitradurga were conducted partly in 1976 but were not completed fully. As such the soil survey reports were not submitted till August 2004. As a result, the objective of land use planning was not achieved fully.

ICAR, while accepting the facts, stated in December 2004 that the survey work undertaken before 1986 was suspended and complete manpower was put on national project on soil resource mapping work. It added that the pending soil survey reports would be completed by August 2005.

### **2.3.4 Costing of soil surveys**

The cost of each survey was required to be worked out with reference to staff salaries, travelling cost, depreciation of vehicles and related overheads, cost of base maps, cost of laboratory analysis, cartography work and cost of map publication.

However, NBSS&LUP did not work out the cost of the surveys though it surveyed 25 states covering a total area of 2,90,577,440 hectare, five districts in the states of Bihar, Himachal Pradesh, Karnataka covering an area of 20,00,530 hectare, 11 research farms covering an area of 9800 hectare and 13 watershed command area covering the area of 2,90,125 hectare during 1997-98 to 2001-02.

ICAR stated in December 2004 that the costing of survey would be worked out for future projects.

### **2.3.5 Improper maintenance of national register of soil series**

A national register was required to be maintained for identification of soil series along with their salient characteristics and classification. Indices according to states and crops raised on the soil series are also to be prepared for ready reference. However, the national register was not updated. NBSS&LUP did not furnish information on the year from which the register was to be updated. To complete this task, correlation of soil series identified so far was required to be completed. Quinquennial Review Team (QRT) observed that there was a backlog of correlation of more than a thousand identified soil series.

ICAR stated in December 2004 that national register of soil series was temporarily suspended due to national mission project on soil resource mapping of different states on 1:2,50,000 scale and of the country on

1:1 million scale initiated in 1986. It added that state wise soil series had been registered and correlated for 13 states. For the remaining states the work was in progress. However, it did not furnish the timeframe for completion of the task.

#### **2.4 Indian Institute of Soil Science, Bhopal**

During the period 1999-2004, IISS Bhopal completed 36 projects, of which 19 projects were test checked. In two projects the objectives were achieved only partially. Apart from this, technologies developed in three projects at a total cost of Rs 1.18 crore were not transferred to the end-users as listed in *Annexure*. ICAR did not furnish reasons for non-transfer of technologies to the end-users.

##### **2.4.1 Non-achievement of objectives**

(a) IISS undertook a project on "Organic pools and dynamics in relation to land use tillage and agronomic practices for maintenance of soil fertility" in May 2000 as lead centre with six co-operating centres at an estimated cost of Rs 1.08 crore to be completed by December 2003. The project was extended up to March 2004 with additional outlay of Rs 3.14 lakh. The project was aimed to quantify the changes in soil organic Carbon and Nitrogen pools to assess the mineralisation potential and C-sequestration in soils of semi-arid and sub humid regions and to fit experimental data in different models of C-sequestration. Rs 36.42 lakh was spent on this project by IISS till its completion.

Completion report of the project revealed that the project was implemented only in seven out of targeted eleven districts. Due to delay in procurement of Carbon Hydrogen Nitrogen Sulphur analyser and Furrier Transform Infrared Spectrophotometer, the chemical analysis of the project was hampered. Due to non-materialisation of training of two scientists in the USA in modelling of Soil Organic Matter (SOM) and recent technique in SOM dynamics and measurements, one of the objectives of fitting of experimental data in different models of C-sequestration could not be achieved.

The contention of ICAR of December 2004 that the overall objectives of the project had been achieved is not tenable. The reply of ICAR contradicts the facts stated in the project completion report that chemical analysis of the project was hampered due to non-procurement of equipment and that fitting of data in different models of C-sequestration could not be achieved due to non-materialisation of training of two scientists. Further, ICAR itself had stated that the results could not be obtained for Bhubaneswar and Hyderabad due to discontinuance of long-term fertilizer experiments at those locations as well as inability to carry out solid sample analysis at Anantpur and Jorhat.

(b) IISS undertook a project on “Integrated Nutrient Management in major pulse based cropping system and identification of the most productive and remunerative systems” from May 2000 to March 2004 as lead centre. Against the total provision of Rs 30.66 lakh an expenditure of Rs 18.83 lakh was incurred.

The project involved six important cropping systems at different locations. The final report of the project revealed that experiments on three cropping systems were not conducted and experiments on another cropping system were not conducted in two out of four locations. Consequently, the objective of identifying the most productive and remunerative pulses based cropping system under different soil and nutrient management could not be achieved.

ICAR stated in December 2004 that since the project had to be executed under farmer’s field condition in participatory mode after selecting the farmers and villages in the target districts, the cropping sequences were revised midway after considering the views of the farmers. The reply revealed that this project was undertaken without giving due consideration to the cropping sequences prevalent in the targeted districts resulting in revision of the technical programme after two years of starting the project.

## **2.5 Central Soil Salinity Research Institute, Karnal**

CSSRI, Karnal completed 72 projects during 1999-2004, of which 40 were test checked. In two projects the objectives were achieved partially, which are discussed in the succeeding paragraphs. In three projects, technology developed at a cost of Rs 47.12 lakh was not transferred to the end users as listed in *Annexure*.

### **2.5.1 Non achievement of objectives**

(a) CSSRI undertook an externally aided Indo-United Kingdom collaborative research project on “Soil salinity and breeding of salt resistant crops (soil salinity and breeding for salt resistant crops – rice, Indian mustard and gram)” in March 1996 for five years at a total cost of Rs 5.63 crore. Scrutiny revealed that six scientists of CSSRI visited United Kingdom in the first year of the project and undertook studies on alkaline soil instead of both alkaline and saline soils. The progress report for 1996-97 revealed that two of the six scientists who were abroad in connection with the project did not contribute anything. The final report was not yet prepared as of June 2004.

ICAR while accepting that the projects include both saline and alkaline soils stated in December 2004 that all scientists contributed to achieve the project objectives and that the final report was being prepared. The reply has to be viewed in the light of the fact that the progress report clearly revealed non-contribution by the two scientists and the final report was yet to be prepared even after a lapse of three years from the completion of the project.

(b) All India coordinated research project on "Management of salt affected soils and use of saline water in agriculture" was implemented from 1972 at the coordinating unit at CSSRI, Karnal alongwith seven centres at SAUs and one at Agriculture College, Agra.

Rs 7.19 crore was spent on the project during 1999-2004. The benchmark survey for quality control of ground water was undertaken from 1972 only in Guntur district of Andhra Pradesh, but no strategy had been formulated as yet to solve the water problems of that area. Thus, one of the objectives of evaluating the effect of poor quality waters on soils and crops was limited to only one region. Apart from this, there was unspent balance of Rs 1.02 crore accumulated with the centres over the years due to non-adjustment of previous years' unspent balance while releasing further grants to them.

ICAR's reply of December 2004 was silent about the fact why no benchmark surveys were carried out at centres other than Guntur as well as on high accumulation of unspent balances at coordinating centres.

#### **2.5.2 Non-preparation of maps of salt affected soils**

RAC in its meeting held in February 2000 recommended preparation of maps for total salt affected areas of the country to know the latest position of the country's salt affected areas. It recommended that CSSRI should undertake this task of identification to have a final and authentic record. ICAR was to coordinate with different agencies to prepare this map upon a single figure. However, no time frame had been fixed to complete the task. The action taken report revealed that the map of salt affected soils on 1 : 2,50,000 scale for Bihar, Haryana, Orissa, Karnataka, Madhya Pradesh, Punjab, Uttar Pradesh and West Bengal had been prepared. But for the remaining states, no work was started as yet.

ICAR stated in December 2004 that the preparation of the maps was delayed since most of the maps were designated as restricted by Survey of India and it required considerable time to get clearance from the Ministry of Defence prior to their procurement from Survey of India. The contention is not a valid ground for delay, since the clearance issue is foreseeable and could be resolved in time.

#### **2.5.3 Non-documentation of traditional wisdom**

The RAC recommended in February 2000 to refine and update the traditional agricultural practices being followed in different parts of the country. Various traditional practices like soil-reclamation, land use, water management, nutrient management etc. were to be collected and documented. CSSRI did not take any action on this issue as of June 2004.



ICAR stated in December 2004 that due to constraints of non-availability of scientific personnel, documenting the traditional wisdom was not taken up in detail and the study would be conducted in future. It added that some information on traditional wisdom was collected from the Gujarat region.

## 2.6 Water Technology Centre for Eastern Region, Bhubaneswar

WTCER, Bhubaneswar completed 28 projects during 1999-2004, of which 20 projects were test checked. In three projects, partial achievements of objectives were noticed and are discussed in the succeeding paragraphs. WTCER, Bhubaneswar did not transfer to the end users the technology developed at a total cost of Rs 66.13 lakh in six projects as listed in *Annexure*. ICAR stated in December 2004 that efforts were being made to transfer the technology to the users.

### 2.6.1 Non-achievement of objectives

(a) In order to formulate an integrated water and nutrient management strategy for sustainable productivity of the eastern region by studying influence of water regimes on soil chemical environment and availability of nutrients, WTCER undertook a project on "Nutrient dynamics in soils under different water management practices" in November 1998 and completed in November 2001 after an expenditure of Rs 21.61 lakh.

The final report of the project revealed that soil samples were collected only from two districts of Orissa instead of major soil groups from different benchmark sites as envisaged in the project. WTCER did not undertake micronutrient studies (Zinc and Iron) as planned since the Atomic Absorption Spectrophotometer costing Rs 15.10 lakh was installed at the fag end of the project in August 2001 and was made operational only in March 2002 after completion of the project. Thus, achievement was limited to that extent.

ICAR stated in December 2004 that micronutrient studies could not be undertaken due to delay in receipt and installation of Atomic Absorption Spectrophotometers.

(b) WTCER undertook a project on "Mitigation of water logging from deltaic low land rice eco-system for enhancing agricultural productivity" in 1998. The duration of the project was five years at an estimated cost of Rs 19.29 lakh. The objectives of the project were *inter alia* to design and develop suitable technology for rice-fish integration and to study the socio economic feasibility of the prescribed technologies. The long-term objectives were to provide a sustainable technology package for the deltaic low land rice ecosystem for increase in agricultural productivity. This integrated package in combination with aquaculture was expected to be a viable alternative for utilisation of rainfed low land of 20.5 million ha which was prone to water logging.

The final report of the project revealed that after studying only one aspect of rice-fish integration and an expenditure of Rs 6.78 lakh, the project was prematurely closed in 2000. Thus, an integrated package as planned was not developed. WTCER stated in July 2004 that the principal investigator and one co-investigator were granted study leave and another investigator was transferred. It was decided to carry out the project with modified objectives as per the SRC's decision. Thus, an integrated package as a viable alternative for combating water logging in deltaic lowland rice ecosystem was not developed.

(c) WTCER undertook a project on "Studies on agro-meteorological parameters for evolving sustainable crop production strategies in selected location of eastern region" from January 1998 to January 2002. The objectives of the project were to compile agro-meteorological parameters to study the agro-climatic feasibility of crop production in West Bengal, Orissa, Bihar, eastern part of Uttar Pradesh, northern Madhya Pradesh, north Andhra Pradesh, Assam and the adjacent states, to analyse initial conditional probability of rainfall for evolving sustainable crop production strategy in those locations and to characterize drought periods and critical dry spell in respect of agricultural crop production on the basis of water balance and rainfall probability.

The final report of the project revealed that WTCER collected and compiled the data of selected zones of Orissa and West Bengal only. Since these two locations were not sufficient for evolving any strategy for crop production, the project was merged with another project titled "Appraisal of resources base and identification of land, water, climate and socio-economic constraints in managing water resources for agricultural development in eastern India" in July 2000. In spite of the merger, the earlier project started in January 1998 was continued without any activity and declared completed in January 2002 after an expenditure of Rs eight lakh. However, even after merging the project no work was undertaken for evolving crop production strategies for different agro-climatic zones of eastern India as envisaged.

ICAR stated in December 2004 that owing to the constraints in technical manpower, the project was planned to cover selected locations of eastern India that represented different agro-climatic zones of Orissa and West Bengal. The reply highlights weakness in management of human resources. As a result the crop production strategies for whole of eastern India could not be evolved.

## **2.7 Central Soil and Water Conservation Research and Training Institute, Dehradun**

CSWCR&TI, Dehradun completed 86 projects during 1999-2000 to 2003-04, of which 16 projects, where project records were maintained, were test checked. Shortcomings noticed are detailed in succeeding paragraphs. CSWCR&TI, Dehradun did not transfer to the end-users the technology

developed in four projects at a total cost of Rs. 12.31 lakh as listed in *Annexure*.

### 2.7.1 Improper maintenance of project files

CSWCR&TI, Dehradun did not maintain research project files in respect of 70 projects. In the absence of such files, it is not clear how SRC/RAC evaluated and monitored the project.

### 2.7.2 Non –achievement of objectives

(a) CSWCR&TI undertook a project on “Appraisal/investigation of surface and sub-surface water harvesting systems in the Nilgiris and adjoining lower hills” from 1996 to 2000 at a total expenditure of Rs 4.10 lakh. The objectives of the project were *inter alia* to study the hydrologic response in terms of hydrologic process controls and channel flow across different spatial scales (size of watersheds) and land uses in Nilgiris, to suggest rainfall catchment area and pond capacity relationship and hydrologic budgeting of ponds.

The final report of the project revealed that hydrologic budgeting of ponds was not discussed, evidencing that no activity was undertaken in this area.

ICAR stated in December 2004 that the study was discontinued as the ponds had higher outflow than inflow which could not be correctly accounted for as these types of ponds were not only fed by surface runoff but also by spring (sub-surface). Therefore the hydrologic budgeting could not be carried out. The reply of ICAR has to be viewed in light of the fact that investigation was to be conducted both for surface and sub-surface water systems.

(b) CSWCR&TI, Dehradun undertook a project on “Methodologies for development and analysis of watersheds and decision support systems for interventions” from October 1999 to December 2003 at a total cost of Rs 5.13 lakh. The project aimed to collect data on nine watersheds in the Shiwaliks and to develop methodology for optimising land use patterns in the watersheds leading to sustainable development.

The final report of the project revealed that methodology for development and analysis of watershed could not be developed due to lack of interdisciplinary team. Thus, the aim of the project was not achieved.

ICAR accepted the audit observations.

(c) CSWCR&TI, Dehradun undertook a project on “Development and evaluation of soil and water conservation measures and land use systems for sustainable crop production in Western Ghats of coastal region” from June 2000 to September 2003 at an outlay of Rs 52.15 lakh. The project was taken up for evolving and testing different bio-engineering measures of soil and

water conservation, water harvesting system, water management alternatives and suitable land use systems prevalent in the region. The project was implemented at State Horticulture farm in Tamil Nadu, which represents the low elevation and high rainfall zone of the Western Ghats.

The final report of the project revealed that conclusions could not be drawn because the experiment was conducted with newly planted perennial crops like cardamom, pepper, mandarin orange, bush pepper and tea which would take at least four to five years for yielding. The project was, therefore, continued from October 2003 to March 2004 as in-house project. Thus, the benefit of evolving and testing different bioengineering measures of soil and water conservation could not be derived even after an expenditure of Rs 28.67 lakh.

ICAR stated in December 2004 that due to closure of the project in September 2003 by Agro-Eco Directorate (Coastal) of National Agricultural Technology Project, the project could run only for three years. Further, due to termination of senior research fellow and the experiment site being located at a faraway place from the research centre, the experiments could not be carried out and had to be conducted in its own farm. It added that had the project been continued up to August 2004, data for three years could have been collected and conclusions drawn on the initial establishment and growth of crops.

## ANNEXURE

Non-transfer of technology

(Rupees in lakh)

Sl. No.	Name of Institute	Purpose of the technology	Particulars of technology developed	Cost
1.	Central Soil Salinity Research Institute, Karnal	(i) Proper resources characterization and classification of soil, land evaluation and land use planning	Soil site suitability maps for Bara tract area for different crops	14.08
		(ii) To solve the water logging problems	Bio drainage to control the water logging in development of secondary salinisation of canal irrigated soils	28.94
		(iii) To formulate design of sub-surface drainage system in waterlogged alkali soils	Process of waterlogged alkali soils which would economise the reclamation were prepared	4.10
2.	Water technology center for Eastern Region, Bhubaneswar	(i) To optimize 40 lakh ha of waterlogged shallow low land	Fish-crop rotational cropping technology	6.00
		(ii) For conservation of water	Drip irrigation method for selected vegetables	6.03
		(iii) Providing irrigation to undulating levels of plateau areas of eastern India and bring a wide change in productivity, production and income in addition to run off control	Design of low cost proof channels and tanks and run-off cycling based irrigation system	5.43
		(iv) For saving of water and different sowing dates	Process of suitable week for sowing green gram in paddy fallows and in receding soil moisture	6.75
		(v) For conservation of excess rain water	Optimum dike height	21.92
		(vi) Conducting demonstrations at three location under different soil conditions	Moisture conservation and weed suppression package for pointed gourd.	20.00
3.	Central Soil and Water Conservation Research and Training Institute (CSWCR&TI) Dehradun	(i) To assess the effect of various conservation measures on runoff, soil and nutrients loss To evaluate the comparative of different conservation on the yield of sorghum crop	The vegetative barrier of vetiver grass was alone able to arrest the runoff and soil erosion problem more effectively.	2.93

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Sl. No.	Name of Institute	Purpose of the technology	Particulars of technology developed	Cost
		(ii) To determine the effect of perennial pigeon pea as a vegetative barrier on soil and water losses and production in Ragi, Kodomillet and lentil sequences	The hedge row of perennial pigeon was declared as quite effective and the effect of fixed row cropping of various combinations of Ragi, Kodomillet and perennial pigeon on biomass, grain production and Ragi.	2.36
		(iii) To find out suitable crops practices which permit minimum soil and nutrients loss and maximize the return. To work out the crop management factor ('c' of USLE for selected crops grown in the region)	Sorghum+Vetiver had drastically reduced the soil loss indicating its suitability as best choice for crop with Vetiver to conserve the soil most effective. Sorghum has also higher production in quantity per ha as compared to blackgram.	2.52
		(iv) To find out the suitable maize harvesting methods for maximum wheat production	Wheat production was increased when ploughing was done immediately after maize harvest and soil was covered with maize stover	4.50
4.	Indian Institute of Soil Science (IISS), Bhopal	(i) To enrich manurial value particularly sulphur and nitrogen content of compost	Enrich compost production	16.92
		(ii) For enhancing and sustaining productivity and soil health in soybean-wheat system in Malwa region	Integrated plant nutrient supply (INPS) for soybean-wheat system	31.50
		(iii) To determine the Nitrogen requirement in the absence or presence of farm yard manure (FYM) and green manure without any loss in yield and soil fertility	Integrated nutrient management (INM) for pulse and oilseed.	69.88
<b>Total</b>				<b>243.86</b>

## CHAPTER III : DEPARTMENT OF ATOMIC ENERGY

### 3.1 Irregular payment of compensation of Rs 67.29 lakh and non-recovery of Rs 88.98 lakh

Narora Atomic Power Station acquired 1188.5 acres of land in 1987 and deposited Rs 10.50 crore with Special Land Acquisition Officer (SLAO) for paying compensation to the land owners. No action for refund of undisbursed amount out of Rs 10.50 crore deposited with SLAO in 1987 was taken resulting in extra payment of Rs 88.98 lakh. SLAO passed supplementary award in March 2000 for payment of solatium at the rate of 30 per cent and 12 per cent additional compensation. NAPS filed a case against the orders in the High Court of Allahabad, which gave its judgement that the orders of SLAO were devoid of any merits and illegal. Despite this, NAPS disbursed an amount of Rs 67.29 lakh directly to the land owners as compensation.

Narora Atomic Power Station (NAPS) was set up in 1974 and was taken over by Nuclear Power Corporation of India Limited (NPCIL), a company under the Department of Atomic Energy in 1987. Initially, an area of 0.8 km. in radius from the nuclear reactors was kept barren for the purpose of safety. In 1987, the barren area was extended to 1.6 km in radius around the plant. For the purpose, 1188.5 acres of land was acquired in 1987 and an amount of Rs 10.50 crore was deposited with Special Land Acquisition Officer (SLAO) for paying compensation to land owners. After disbursement of compensation, an amount of Rs 88.98 lakh remained undisbursed and was not refunded by SLAO.

After 13 years of the acquisition of land, in March 2000, the SLAO gave a supplementary award amounting to Rs 73.54 lakh stating that land owners were entitled to 30 per cent solatium on the value of the buildings and 12 per cent additional compensation. NPCIL/NAPS appealed to the High Court of Judicature at Allahabad in July 2000 against the supplementary award announced by the SLAO stating *inter alia* :

- (i) that the State Government of Uttar Pradesh had drawn a rehabilitation scheme at the expense of NPCIL/NAPS, for which purpose land was further acquired at Narora town and developed as a residential colony and allotted to each affected family free of cost;
- (ii) that all the affected persons received compensation in March and April 1989 without any protest and did not claim any additional amount in respect of construction and improvements and accepted the award. The award in this respect was final between the parties;
- (iii) that any correction in the award dated February 1989 was allowed only within six months.

After hearing the case, the High Court gave its judgement in December 2000 stating that the orders of SLAO were devoid of any merits and were illegal. The court also directed the State Government of Uttar Pradesh to instruct SLAOs and Collectors to restrain from passing such supplementary awards. Despite the High Court judgement, NAPS/NPCIL decided in February 2001 to make the payment of solatium at the rate of 30 *per cent* and additional compensation of 12 *per cent* of the value of the structures to the villagers affected by land acquisition. The Chief Secretary of the Government of Uttar Pradesh had directed the District Officer not to accept the money from NAPS for distribution among land owners in view of the orders of High Court. NAPS disbursed the amount directly to the land owners. An amount of Rs 67.29 lakh was disbursed upto February 2004. Payment of Rs 3.39 lakh was under process and claims of Rs 2.86 lakh were yet to be paid.

In response to audit, NAPS stated in June 2004 that the payment of solatium and additional compensation for structures on land acquired was statutory as per the provisions of the Land Acquisition Act but was omitted in the original award due to clerical mistake. It further stated that the payment was made on humanitarian considerations and to maintain peaceful and harmonious relations with the villagers around NAPS.

The reply of NAPS runs contrary to their own statement given before the High Court that the land owners had been fully compensated and there was no question of making any extra payment. Moreover, there was no provision in the Land Acquisition Act for making any supplementary demand and any clerical or arithmetical mistake could be corrected within a period of six months only.

Thus, the payment of Rs 67.29 lakh made to the villagers affected by land acquisition was irregular. Further, NAPS/NPCIL had not taken any action to secure refund of the undisbursed amount of Rs 88.98 lakh deposited with SLAO in 1987 for disbursement of compensation to land owners.

Audit referred the matter to the Department in August 2004, who had not replied as of November 2004.

### **3.2 Short recovery due to delay in preparation of pro-forma accounts**

**Failure of the Department of Atomic Energy to notify the pool price of heavy water based on the actual cost of production of heavy water resulted in short recovery of Rs 130.87 crore from Nuclear Power Corporation of India Limited on account of heavy water charges.**

Heavy Water Board (HWB), an industrial unit of the Department of Atomic Energy (DAE), is responsible for building and operating heavy water plants in the country. Heavy water, produced in various departmentally owned/operated plants and acquired from other sources is taken into a common pool for deciding the pool price. Heavy water needed by Nuclear Power



Corporation of India Limited (NPCIL) for nuclear power plants and other research facilities is given out of the common pool.

Heavy water was given to NPCIL on lease basis at the rate of 12 per cent per year on the value of the heavy water inventory assigned to it on the basis of the pool price notified by DAE. In addition, heavy water loss during operation of the reactor was also payable by NPCIL at the pool price notified by DAE. The pool price is worked out based on the actual cost of production of heavy water.

The work of preparation of the pro-forma accounts was handed over to HWB by DAE from the year 1993-94 onwards. However, DAE did not prescribe a time schedule for completion of the pro-forma accounts. HWB made available the pro-forma accounts for the period 1993-94 to 1996-97 in August 1998 for audit certification. Audit noted that the cost of production of heavy water had been reckoned at a rate lower than the actual cost. Audit requested HWB to revise the pro-forma accounts in September 1998. At audit's instance, HWB revised the pro-forma accounts reckoning the actual cost of production. Revised pro-forma accounts were made available in March 2003.

As a result, the pool prices of heavy water notified by DAE during 1993-98 on provisional basis were less by Rs 409 to Rs 2168 per kg than the actual pool charges derived from the certified pro-forma accounts, except for the year 1993-94, where it was slightly higher.

The difference in the pool price derived from the certified pro-forma accounts and that notified by DAE resulted in short recovery of Rs 130.87 crore from NPCIL during 1993-98 (Rs 111.55 crore on account of heavy water lease charges and Rs 19.32 crore on account of heavy water loss/make up charges) after adjusting excess pool price notified for the year 1993-94.

DAE stated in December 2004 that the final pool price for the period 1993-94 to 1997-98 arrived at on the basis of pro-forma accounts had been notified in December 2004. NPCIL had been asked to make the final payment of the heavy water supplied at these rates. DAE further added that the audit of pro-forma accounts for the years 1998-99 to 2003-04 was in progress and final price for these years would be notified after the completion of audit. NPCIL was yet to make final payment at the revised rates notified in December 2004.

### **3.3 Non-recovery of electricity charges**

**Failure of Nuclear Fuel Complex to recover the share of electricity charges from Electronic Corporation of India Limited, resulted in dues of Rs 4.45 crore accumulating over 18 years.**

Department of Atomic Energy (DAE) set up a housing colony at Hyderabad in 1970 for the employees of Nuclear Fuel Complex (NFC), a unit of DAE. DAE had also allotted residential accommodations to the employees of

Electronic Corporation of India Limited (ECIL), a public sector undertaking under it, as well as other organisations like Tata Institute of Fundamental Research, Telegraph Office etc. in the colony.

DAE guidelines issued in February 1985, stipulated that recovery of electricity charges from domestic consumers of NFC would be at the rate fixed by the Andhra Pradesh State Electricity Board (APSEB). For other consumers including ECIL, recovery would be at the rate at which NFC purchased power from APSEB. Further, the expenditure involved in distribution of electricity, street lighting and other common services was to be shared between ECIL and NFC in 2:1 proportion.

Notwithstanding this arrangement, NFC failed to recover from ECIL the dues of Rs 3.32 crore being its share of expenditure in distribution of electricity and on common services for the period 1986-87 to 2003-04. Further, NFC had only recovered Rs 1.42 crore out of the total dues of Rs 2.55 crore towards charges on electricity consumed by ECIL employees residing in DAE housing colony during this period.

NFC stated in March 2003 that while other allottees in the housing colony made the payment as per demand, ECIL had never paid as per claim and had only made partial payments against demand raised.

Failure of NFC to recover electricity charges and share in distribution/common services expenses from ECIL led to accumulation of dues of Rs 4.45 crore over 18 years.

The matter was referred to the Department in August 2004, who had not replied as of November 2004.

### **3.4 Undue benefit to contractor due to non-levy of penalty**

**Bhabha Atomic Research Centre not only failed to levy penalty towards compensation for delay in completion of work, but also paid escalation cost for the delay attributable to the contractor, which resulted in undue benefit of Rs 1.05 crore to the contractor.**

Bhabha Atomic Research Centre (BARC), a Research and Development unit of the Department of Atomic Energy (DAE), awarded two work orders for construction of staff quarters at BARC colony, Tarapur. The terms and conditions of the work orders *inter alia*, stipulated payment of compensation by the contractors at one *per cent* of the estimated cost of the work for every day that the due quantity of the work remained incomplete subject to a total payment of 10 *per cent* of the estimated cost of the work shown in the tender.

There were delays in the completion of the works in both the cases but no compensation for delay was recovered in terms of the work order, as discussed below:

**Case I :** Work for construction of 244 Type II-B flats at a cost of Rs 4.98 crore was awarded to a builder in December 1995. The work was to be completed by December 1997. The progress of work was slow from the beginning and was eventually completed in September 1999 after a delay of 21 months. Even though show cause notices for levy of compensation for delay were issued several times, BARC granted extension on three occasions without levy of compensation. No compensation for the delay was recovered from the contractor as provided for in the contract. The total compensation recoverable for delays worked out to Rs 45.20 lakh. Besides, BARC paid Rs 12.81 lakh on account of escalation.

**Case II :** Work for construction of 160 Type III-C flats at a cost of Rs 4.64 crore was awarded to National Project Construction Corporation Limited (NPCCL), Haryana in March 1997. The work was to be completed by December 1998. Though the contractor commenced the construction as scheduled in April 1997, the work was yet to be completed as of September 2004, even after 69 months from the scheduled date of completion.

One of the main reasons for slow progress of work at the initial stages of construction was due to NPCCL's breach of contract by illegal subletting of the work to another contractor and subsequent legal action by the sub-contractor to recover the dues from NPCCL. BARC took a lenient view and allowed NPCCL, being a Government of India undertaking, to continue the work, on tendering apology. NPCCL, however, did not accelerate the work. By the stipulated date of completion i.e. December 1998, only 45 per cent of the work valued Rs 1.65 crore was completed.

BARC had granted six extensions from 1 January 1999 to 31 December 2002 without levy of liquidated damages towards compensation for delay on various grounds. Out of the ten blocks to be constructed, five were handed over in January 2001 and another two in September 2002. There was no progress of the work thereafter. Finally, BARC in December 2002 rescinded the contract on account of various disputes and slow progress of work. Though the maximum delay in completion of the work was attributable to the contractor, instead of recovering Rs 40.50 lakh towards compensation for delay, BARC paid Rs 6.86 lakh towards escalation during the extended period of contract from January 1999 to June 1999. BARC stated in October 2004 that NPCCL had filed a case in Thane District Court as well as Mumbai High Court against the department for rescinding the contract and the matter was sub-judice.

DAE stated in December 2004 that extension of time for both the works was granted due to reasons like early/heavy monsoon, harvesting season, scarcity of skilled labours, non-availability of construction material, transport strike etc. which were not attributable to the contractors. The reply was not acceptable as in the first work, the reasons for delay beyond June 1998 were

scarcity of skilled labour and building material etc., factors for which the contractor was responsible. The main reason for the delay in the second work was due to illegal subletting of the work by the contractor.

Even though delay in completion of 244 Type II-B quarters and 160 Type III-C quarters was due to the contractors' fault, BARC did not recover Rs 85.70 lakh as compensation for delay in completion of the work. On the other hand it paid escalation of Rs 19.67 lakh.

### **3.5 Non-utilisation of a technology developed for coolant channel replacement of Nuclear Power Reactors**

**A technology on semi automatic remote operated Coolant Channel Replacement Machine developed by BARC at a cost of Rupees four crore to reduce the downtime needed for repairs and maintenance of nuclear power reactors was transferred for manufacture. The machine did not take off as the user found it un-economical.**

Bhabha Atomic Research Centre (BARC), a Research and Development unit of the Department of Atomic Energy (DAE) initiated in the year 1986 a project entitled "Failure Assessment and Repair Technology Development Programme" at an estimated cost of Rs 5.40 crore. The main objective was to develop basic technology needed for carrying out structural repairs and inspection inside nuclear reactors in areas where hands-on work was not feasible because of either high radiation field or geometric limitations or both thereby improving the availability of nuclear power plants by reducing the downtime needed for repairs and maintenance. The project *inter alia* envisaged development of a semi automatic remote operated Coolant Channel Replacement Machine (CCRM) at an estimated cost of Rs four crore within a time frame of nine years.

BARC designed and developed a prototype CCRM after incurring an expenditure of Rupees four crore. BARC entered into a Memorandum of Understanding in September 1995 to transfer the technology on CCRM to Electronic Corporation of India Limited (ECIL), a public sector undertaking of the department to manufacture and sell these machines to Nuclear Power Corporation of India Limited (NPCIL). The prototype of the machine developed in-house was retained in BARC to be used as a test facility for future development activities pertaining to repair and replacement technology.

NPCIL carried out enmasse coolant channel replacement of two reactors viz. Rajasthan Atomic Power Station (RAPS) II and Madras Atomic Power Station (MAPS) II in 1996-97 and 2003-04 respectively. As ECIL could not manufacture the CCRM based on the technology developed by BARC, the channel replacement of RAPS II was carried out using technology developed by NPCIL itself, which was further improved and perfected in MAPS II

channel replacement. The CCRM technology thus, remained unused and expenditure on it proved unfruitful.

BARC stated in August 2000 that the infrastructure and technologies developed at the cost assigned to CCRM were also used for other elements of the project and accrued benefits such as development and application of various gadgets for repair techniques and inspection. It also claimed that the application of technology developed under the project prevented two reactors from being practically written off in 1989. The reply is not tenable since the project was in the initial stages of execution and even the detailed design stage would not have been completed as per time schedule at that point of time. Moreover, these technologies were developed under the two separate sub projects viz. 'development of repair techniques and systems for in service inspection' and 'setting up of facilities for failure assessment and safety studies'. The development of CCRM technology at a cost of Rupees four crore was an entirely separate sub project. BARC further stated in October 2004 that NPCIL felt that the bid of ECIL for manufacture of CCRM was on higher side.

NPCIL stated in December 2003 that as ECIL could not manufacture the machines as per their schedule and as the enmasse coolant channel replacement was getting delayed, NPCIL decided to develop its own technology.

Thus, the expenditure of Rupees four crore incurred by BARC on the development of coolant channel replacement technology remained unfruitful.

The matter was referred to the Department in October 2004, who had not replied as of November 2004.

## CHAPTER IV : DEPARTMENT OF INFORMATION TECHNOLOGY

### 4.1 Recovery at the instance of Audit

National Informatics Centre, Jammu made inadmissible payment of Rs 17.68 lakh to its employees towards messing allowance and expenses on transportation, though only the Central Government employees working in Kashmir valley were entitled for this as per the special concessions/facilities extended by the Department of Personnel and Training. On being pointed out by Audit, NIC stopped further payment and started recovery from its employees in monthly instalments.

The Department of Personnel and Training (DoPT), Ministry of Personnel and Public Grievances and Pensions had extended special concessions/facilities to the Central Government employees working in the Kashmir valley and Kashmiri migrant employees of Central Government. As per the package of incentives, the employees posted at Srinagar valley who did not wish to move their families to a selected place of residence were entitled to a per diem allowance of Rs 10.00 for each day of attendance to compensate for any additional expense in transportation to and from office. In addition to this, they were also entitled to messing allowance at the rate of Rs 15.00 per day.

During the audit of National Informatics Centre (NIC), Jammu, it was observed that the Centre was paying messing and transportation allowance to its employees, who were neither posted in Kashmir valley nor were Kashmiri migrants and were thus, not covered under the special concessions/facilities extended by DoPT. NIC made inadmissible payment of Rs 16.49 lakh to its employees till April 2003.

On being pointed out by Audit, NIC stopped further payments in November 2003 and sought clarification from DoPT in May 2004 in this regard. DoPT clarified in the same month that only Central Government employees who were working in Kashmir valley were entitled to the benefits. Thereafter, NIC worked out the total inadmissible payment made to its employees as Rs 17.68 lakh till October 2003 and decided to recover in monthly instalments restricting it to one-third of the basic pay of the concerned officials.

Department of Information Technology stated in September 2004 that an amount of Rs 4.98 lakh had been recovered during June 2004 to August 2004 and recovery was going to be continued till the entire amount was recovered.

## CHAPTER V : DEPARTMENT OF SCIENCE AND TECHNOLOGY

### Survey of India

#### 5.1 Unfruitful expenditure during GTS-Bicentenary celebration

Survey of India (SOI), under Department of Science and Technology (DST), organised year long celebration to commemorate the completion of 200 years of the initiation of the Great Trigonometrical Survey, which included making of two films and publishing of a pictorial book. Two films "The Making of India" and "The Million Steps" made at a cost of Rs 27 lakh were not been telecast even after a year of its production, rendering the expenditure incurred unproductive. Anticipated income had not accrued to the department from publishing the pictorial book.

Survey of India (SOI) under the Department of Science and Technology (DST) organized year long celebration commencing from 10 April 2002 to commemorate the completion of 200 years of the initiation of the Great Trigonometrical Survey (GTS). The main objective of the celebration was to highlight the significance of the Great Arc and GTS contribution to the Geo sciences and Mathematical sciences.

DST constituted a National Organizing Committee (NOC) in February 2002 under the chairmanship of Secretary, DST, consisting of 25 members/participants including Surveyor General of India, Joint Secretary (DST) and some members from Non Governmental Organizations to finalise the proposal of various events. It was observed in audit that expenditure incurred on two events connected with the bi-centenary celebration viz., making of two films and publishing a pictorial book on the Great Arc remained unfruitful.

#### GTS Films - under Great Arc

Proposal for making two films namely, "*The Making of India*" and "*The Million Steps*" was received from M/s Vital Films in October 2001 at Rs 29 lakh. The first film was to recapture the advantage and achievements of GTS, while the second film was an attempt to recreate the history of two Pandits who explored the uplands, Tibet, Mongolia and Central Asia. The proposal of making two films was approved by NOC, in its meeting held on 28 February 2002 with the direction that SOI should enter into an agreement with the film maker after getting the cost estimates examined by a committee including experts from Prasar Bharati. The estimates were examined in March 2002 by an evaluation and costing committee of six members, which included two members from Prasar Bharati. The committee recommended that the work be entrusted to M/s Vital Film at Rs 27 lakh. These films were to be telecast on various TV Channels. Accordingly, the agreement was signed with the firm on 18 April 2002. Between March 2002 and February 2004, SOI released Rs 27 lakh to the filmmaker. Though these films were completed and handed over to SOI on 19

December 2003, these were not telecast on any TV channel. As such expenditure incurred on making the film remained unfruitful.

DST stated in December 2004 that efforts were being made for commercial exploitation of these films on popular channels. However, the fact remains that even after a lapse of nearly one year the films are yet to be telecast rendering the expenditure of Rs 27 lakh incurred on its production unproductive.

#### GTS BOOK - "The Great Arc"

NOC in its meeting of 28 February 2002 approved a proposal received from M/s Laburnum Technologies Private Ltd to bring out a comprehensive pictorial book on 'The Great Arc'. The book was proposed to be a hard bound edition of 160 pages mainly comprising of 150 pictures and introductory text of 10000 words. The text write up was to be provided by the well-known author, Mr. John Keay, a historian from U.K. An agreement with M/s Laburnum to co-ordinate, manage and publish the book was entered in May 2002. Rs 16.23 lakh, including the author's fee of Rs 3.30 lakh, was paid to the firm in three instalments between May 2002 and February 2004. After completion of the work, the company was to deliver 1000 copies of the book to SOI and market the balance 2000 copies. The company was to give back to SOI 50 *per cent* of net returns on the sale of 2000 copies priced at Rs 1800/- each. The company in September/October 2003 delivered 1000 copies to DST, but no income accrued to DST on the sale of the balance copies even after a lapse of one year.

#### 5.2 Excess release of funds on production of serial 'Business Mantra'

**Failure of the Department of Science and Technology to properly monitor the project for the production of TV serial 'Business Mantra' and verify the actual expenditure incurred before release of each instalment resulted in excess release of funds amounting to Rs 20.84 lakh.**

Confederation of Indian Industries (CII) approached Department of Science and Technology (DST) in April 1999 for seeking financial support for a 26 episodes TV programme 'Business Mantra', each costing Rs 1.55 lakh. DST was to share 50 *per cent* cost of each episode whereas the remaining 50 *per cent* was to be raised by CII through sponsorship and advertisements. On the recommendation of the Expert Group, DST sanctioned the project in June 1999 for the production of 26 episodes and released Rs 20.15 lakh, being 50 *per cent* cost of 26 episodes, to CII in two instalments of Rs 10.85 lakh and Rs 9.30 lakh in June 1999 and October 1999 respectively. On the recommendations of the Expert Advisory Committee constituted for the purpose, DST decided to support the programme for another 26 episodes on the same terms and conditions and released Rs 20.15 lakh to CII in two instalments of Rs 10.85 lakh and Rs 9.85 lakh in December 1999 and May 2000 respectively. It was observed that before releasing the funds in



December 1999, DST did not verify either the total expenditure incurred against the funds released in June 1999 and October 1999 for production of the first 26 episodes or the funds raised by CII through sponsorships for meeting the remaining 50 *per cent* cost of production. DST requested CII in September 2000 to send the audited statement of the expenditure incurred on the production of 52 episodes along with the revenue generated through advertisements etc. CII sent the unaudited income and expenditure statement to DST in October 2000 indicating the expenditure incurred on each episode as Rs 1.55 lakh and total sponsorship received for 52 episodes as Rs 2.20 lakh. It stated that most of the sponsorship received was in kind rather than in cash and hence an assumptive cost had been assigned for the purpose of preparing the income and expenditure statement. DST sanctioned the production of 26 more episodes in December 2000 on the same terms and conditions and released Rupees three lakh. CII further sent the unaudited income and expenditure account for the final 26 episodes in February 2002 indicating the expenditure of Rs 1.55 lakh per episode and sponsorship of Rs 4.98 lakh. DST released Rs 7.85 lakh in the same month.

CII sent the audited statements of expenditure only in August 2003. It indicated that the total expenditure incurred on the 78 episodes was Rs 60.61 lakh against which DST had released Rs 51.15 lakh whereas it had to bear only 50 *per cent* cost of the production, which worked out to Rs 30.31 lakh. DST asked CII in September 2003 to submit the audited statements of expenditure and utilisation certificate for the entire amount, which should come to about Rs 1.21 crore for 78 episodes @ Rs 1.55 lakh per episode. CII submitted a revised audited statement of expenditure, wherein an indirect cost of Rs 64.71 lakh was included in addition to the expenditure of Rs 60.61 lakh shown in its previous statement, making the total expenditure on the production of 78 episodes as Rs 1.25 crore. The auditor however qualified the audit certificate, stating that the expenditure of Rs 64.71 lakh shown as indirect cost was not captured and was based on the details worked out by CII and reported to them for incorporation and reporting.

DST stated in August 2004 that it had released only Rs 51.15 lakh out of the total expenditure of Rs 125.32 lakh incurred by CII, which was less than 50 per cent of the approved budget and hence there had not been any excess release of funds to CII. The reply of DST is not acceptable since the initial audited statement of expenditure depicted the actual cost of production of 78 episodes as only Rs 60.61 lakh and the revised statement, qualified by the auditor and issued at the instance of DST, included Rs 64.71 lakh as indirect cost.

The failure of DST to properly assess the reasonableness of the estimates before sanctioning the project and verify the total expenditure on the production before releasing each instalment resulted in excess release of funds to the tune of Rs 20.84 lakh. In addition to this, DST was also processing the case for release of the last and final instalment of Rs 9.30 lakh after the receipt of the consolidated statement of audited expenditure from CII in August 2004.

## CHAPTER VI : DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

### 6.1 Wasteful expenditure

**Failure of Department of Scientific and Industrial Research to secure its money by bank guarantee before release of grant to a company for a project and also failure to initiate legal action against it on its failure to complete the project resulted in a wasteful expenditure of Rs 30 lakh.**

Department of Scientific and Industrial Research (DSIR) sanctioned a project in March 2001 to M/s Trident Industries Limited (TIL), a company registered under Indian Companies Act, for 'Development of Optical pick-up for CD mechanism' for a period of 18 months. The total cost of the project was Rs 128 lakh, out of which the share of DSIR was Rs 40 lakh, to be released as grants-in-aid. The remaining cost was to be met by TIL. Accordingly, an agreement was signed in March 2001 between DSIR, TIL and National Research Development Corporation (NRDC), a public sector company under DSIR. As per the agreement, if the project was abandoned by TIL without approval of DSIR, the amount of grant would be recovered by DSIR alongwith interest of 12 *per cent*. NRDC was to license the technology developed through the project to third parties and receive royalty from them on behalf of DSIR. TIL was to pay an annual lumpsum royalty of Rs 10.40 lakh for a period of five years from the date of commencement of commercial sale of the product. However, no provision was made in the agreement to secure Government money by way of bank guarantee or any other instrument.

DSIR released the first instalment of Rs 15 lakh to TIL in March 2001. The project was reviewed by the Project Review Committee in September 2001 and January 2002 which found the progress satisfactory. DSIR released the second instalment of Rs 15 lakh in March 2002. Though as per the agreement, the progress of the project was to be reviewed by the Project Review Committee atleast twice a year, it was not reviewed after March 2002. DSIR informed NRDC in October 2003 that TIL was not functioning properly due to disturbed labour conditions and had not responded to their letter dated March 2003 and subsequent telephone calls. In November 2003, the representatives of DSIR and NRDC visited the office of TIL to know the status of the unit's operation and found that the unit was closed since January 2003 on the issue of non-payment of outstanding dues to workers. DSIR requested Deputy Commissioner of Labour in May 2004 to inform the Department about the possibility of revival of the company and whereabouts of the owner. On receipt of the address of the owner in June 2004 from the Deputy Commissioner of Labour, DSIR asked the company in July 2004 to intimate the status of the project. The company had not responded till September 2004 and DSIR had not initiated any legal action against the company.

DSIR stated in September 2004 that it did not take bank guarantee before releasing grants to private parties as it was found extremely difficult for the industries to block their assets/funds for long time and instead, the Department considered the financial health and good track record of the company and equal involvement from their side as a safeguard for taking care of the interest of the Government. The stand taken by DSIR that it considered the financial health and good track records of the company does not hold in view of the fact that the company was closed within two years from the date of sanction of the project. The reply of DSIR has also to be viewed in light of the fact that in a separate project, the Department of Information Technology (DIT) had released refundable grants in aid amounting to Rs 58 lakh to TIL during the period March 2000 to March 2001 secured by bank guarantee. Later on, when the project was completed in March 2002 and TIL failed to refund the first instalment of Rs 20 lakh due in February 2003, DIT encashed the bank guarantee of Rs 58 lakh in September 2003.

Thus, failure of DSIR to secure its money before releasing the grants and to initiate legal action against the company, resulted in wasteful expenditure of Rs 30 lakh.

## CHAPTER VII : DEPARTMENT OF SPACE

### 7.1 Inadmissible payment of Transport Allowance

As per the orders of Ministry of Finance, Transport Allowance was not admissible to the employees residing within a distance of one kilometre from the office. ISRO Satellite Centre of the Department of Space made payment of Transport Allowance amounting to Rs 30.89 lakh to its employees residing in the staff quarters at a distance of less than one kilometre from the office.

On the recommendations of the Fifth Pay Commission, Ministry of Finance, Department of Expenditure issued orders in October 1997 for payment of Transport Allowance to Central Government Employees at the prescribed rates. The Transport Allowance was not admissible to the employees who were provided with government accommodation within a distance of less than one kilometre or within a campus housing the place of work and residence.

During the audit of ISRO Satellite Centre (ISAC), a constituent unit of Department of Space (DOS), it was observed that the Centre paid Transport Allowance to employees residing in the staff quarters within a distance of less than one kilometre from the office.

After this was pointed out by Audit, Director, DOS stated in September 2002 that the office gate from where Audit had reckoned the distance of less than one kilometre from the residential colony was kept closed between 1800 hours and 0800 hours due to security reasons. Thus, the employees of ISAC residing in the colony, who had to attend the duties either before 0800 hours or after 1800 hours as shift-duty personnel or for round the clock project activities, had to necessarily use another gate which was more than one kilometre from the residential colony.

The reply of the Director, DOS had to be viewed in light of the clarification issued by the Ministry of Finance, Department of Expenditure in June 2001 that for the purpose of calculating the distance of one kilometre, the boundary of the residential complex as well as working place complex was to be taken into account for the grant of Transport Allowance. From August 1997 to November 2004, Rs 30.89 lakh was paid as Transport Allowance to employees.

Thus, the payment of Transport Allowance of Rs 30.89 lakh made by ISAC to its employees residing in the staff quarters was not admissible.

The matter was referred to the Department in September 2004, who had not replied as of November 2004.

## CHAPTER VIII : INDIAN COUNCIL OF AGRICULTURAL RESEARCH

### 8.1 Short recovery of electricity charges

Indian Council of Agricultural Research did not recover the electricity charges from the residents of National Agricultural Science Centre Complex on the basis of actual consumption. This resulted in short recovery of electricity charges amounting to Rs 29.19 lakh from the residents.

Indian Council of Agricultural Research (ICAR) obtained temporary electricity connection of 340 KW from Delhi Vidyut Board (DVB) in May 1999 for their newly constructed National Agricultural Science Centre (NASC) complex. Apart from the residential quarters, some private and ICAR offices were also housed in the complex. Out of the sanctioned load of 340 KW, 135 KW was allocated for the residential complex and 120 KW for office block while 85 KW was allocated for common services. DVB had provided a single meter for the whole NASC complex and ICAR had installed individual meters for each resident.

ICAR received the first bill from DVB amounting to Rs 1.42 lakh at the rate of Rs 5.25 per unit for the month of June 1999. However, instead of recovering the electricity charges from individual residents according to their meter reading, ICAR paid the amount from their own funds to avoid disconnection by DVB. Though ICAR had provided individual meters to each resident, it decided in December 1999 to recover the electricity charges from the occupants provisionally at lump sum rates ranging from Rs 700 to Rs 900 per month subject to final adjustment after the actual recovery charges were decided by it. DVB granted the regular connection for the NASC complex in July 2000. ICAR decided in May 2002 to recover electricity charges from the residents at the rate of Rupees three per unit with effect from June 2002.

Perusal of the electricity bills paid by ICAR relating to NASC complex and recoveries effected there against revealed that during the period June 1999 to March 2004, the residents of staff quarters had consumed 6,11,436 units of electricity for which an amount of Rs 47.35 lakh, including demand charges and electricity tax, was recoverable from them. However, the recovery made by ICAR against this was Rs 18.16 lakh only, resulting in short recovery of Rs 29.19 lakh.

ICAR stated in October 2004 that the recoveries from the residents were made as per DVB pattern. As regards demand charges, it stated that these were not recoverable from the residents for maintaining the uniformity of the electricity bills in respect of other Government quarters and as such there were no short recoveries.

The reply of ICAR had to be viewed in light of the fact that while recoveries were made from the residents at the flat rate of Rupees three per unit from June 2002, the rates charged by DVB for electricity consumed by the residents ranged between Rs 3.90 and Rs 5.85 per unit during the period June 1999 to March 2004, leading to short recovery. ICAR was also absorbing the demand charges recoverable from the residents.

## CHAPTER IX : INDIAN COUNCIL OF MEDICAL RESEARCH

### 9.1 Wasteful expenditure and blockage of funds due to improper planning

**Institute of Cytology and Preventive Oncology could not construct building on the plots acquired at a cost of Rs 1.18 crore at NOIDA in 1987-88. As a result, institute had to pay penalty charges of Rs 43.06 lakh for non-construction and Rs 44.12 lakh towards lease rent on the plots not put to use.**

Institute of Cytology and Preventive Oncology (ICPO), a constituent unit of Indian Council of Medical Research (ICMR), acquired two pieces of land in 1987-88 from New Okhla Industrial Development Authority (NOIDA), measuring two acres in Sector 16-A at a cost of Rs 24.83 lakh for institutional building and 2.4 acres in Sector 35 at a cost of Rs 93.24 lakh for residential complex. ICPO obtained possession of the land at Sector 16-A in June 1987 and at Sector 35 in March 1992. Keeping in view the upgradation of status of the institute in 1989 with preventive oncology as one of its objectives, it purchased a third plot measuring 12.4 acres in 1988-89 at Sector 39 for research cum clinical complex at a cost of Rs 37.41 lakh and took its possession in March 1992.

According to the terms and conditions of the allotment of land, the allottee was to construct at least 50 *per cent* of the maximum permissible covered area within two years from the date of allotment and complete the building within four years, failing which cancellation would be effected and possession of the plot taken back. However, in exceptional circumstances, extension was allowed. In the event of extension, a levy of certain *percent* of the premium per annum was chargeable.

As no construction work of the institutional building was taken up at Sector 16-A, ICPO had to pay penalty charges of Rs 12.91 lakh for non-construction of buildings during July 1987 to July 2001. Ultimately, NOIDA cancelled the allotment at Sector 16-A in July 2002 and also confirmed the cancellation of lease deed in September 2002. ICMR requested NOIDA in October 2002 to revoke the notice for cancellation. For revoking the cancellation, NOIDA in April 2004 demanded Rs 6.50 crore to be paid within 30 days. ICMR in May 2004 requested NOIDA to restore the cancelled plot at Sector 16-A on original terms and conditions without additional/ enhanced cost. The matter was yet to be resolved. Besides payment of penal charges for non-construction, ICPO has paid lease rent of Rs 13.55 lakh from 1986-87 to 2004-05 for the plot. Interestingly, ICPO continued to pay lease rent even after the cancellation of the lease deed in September 2002.

Similarly, ICPO failed to construct residential complex at Sector 35. As a result, it had to pay penalty charges of Rs 18.65 lakh for non-construction of

buildings during the period January 2001 to December 2004 apart from payment of Rs 30.57 lakh as lease rent for the period 1991-92 to 2004-05.

Further, ICPO was also paying penalty charges in respect of the plot at Sector 39 every year for failure to construct 50 *per cent* permissible covered floor area. Rs 11.50 lakh was paid on this account for the period 1997-98 to December 2003.

Thus, due to improper planning, ICPO paid penalty of Rs 43.06 lakh for non-construction. Further, apart from Rs 1.18 crore spent on acquisition of plots at Sector 16 A and Sector 35 remaining blocked, ICPO incurred wasteful expenditure of Rs 44.12 lakh as lease rent in respect of these two plots

The matter was referred to the Council in September 2004, who did not reply as of November 2004.



## CHAPTER X : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

### 10.1 Unfruitful expenditure on procurement of Liquid Nitrogen Plant

Regional Research Laboratory, Thiruvananthapuram procured one Nitrogen generator and one liquefier in August 1998 at a cost of Rs 21.29 lakh from a UK based firm. However, the firm supplied the system with a water cooled facility instead of air cooling facility for which the order was placed by RRL. The system has not been installed so far and is lying unused for the last more than five years.

Regional Research Laboratory (RRL), Thiruvananthapuram, a constituent laboratory of Council of Scientific and Industrial Research, placed a purchase order on a UK based firm in March 1998 for the supply of a Nitrogen Generator and a liquefier at a cost of UK Pound 28,600 (equivalent to Rs 20.84 lakh). The equipment, required for the production of liquid nitrogen, was received in August 1998. RRL paid Rs 21.29 lakh, for it including freight and bank charges in September 1998.

The Indian agent of the firm informed RRL in September 1998 that though the purchase order was placed for a system with air cooling facility, the system that arrived at RRL was a water cooling system and that this error had happened at the shipping point in the factory. The Indian agent suggested that the water cooling system be operated, stressing that both the systems would perform well to the specifications and their cost was almost the same. He also offered to supply a water chiller free of cost. Alternatively, the agent offered to get the air cooled system from another destination which would be a complex situation and would involve additional shipping charges and also delay of a minimum of 90 days. RRL responded in November 1998 insisting on the supply of the air-cooled system for which purchase order was placed. Though the firm assured that they would supply the system as per order by January 2000, the same was not supplied by them. Thereafter, in a meeting with the Indian agent of the firm held in May 2000, RRL agreed to accept the water cooling system supplied by the firm.

The Indian agent tried to install the equipment in April, July and August 2001 without success. In April 2001 the agent could not install the system due to some problem in a cable connecting the compressor. He again checked the system in July 2001 and reported that the water pump and the chiller compressor were made defective by wrong electrical connections given by RRL. During his visit in August 2001, he found that though the system was working, it was not producing liquid nitrogen. The UK based firm refused in February 2002 to assist RRL in the matter any further.

RRL took up the matter with the High Commission of India in London in October 2003 and June 2004 to persuade the firm for commissioning the

system, but the system had not been commissioned as of July 2004. It was further observed that the purchase order placed by RRL in March 1998 did not contain any arbitration clause in case of a dispute, with the result that RRL had no means of enforcing the contract.

Thus, the system procured at a cost of Rs 21.29 lakh was lying uninstalled and unused for more than five years with possible implication on the serviceability of the equipment. RRL had procured 10996 litres of liquid nitrogen during November 1998 to June 2003 at Rs 5.89 lakh which could have been avoided had the system been installed.

The matter was referred to the Council in June 2004, who did not reply as of November 2004.

## 10.2 Non-installation of Fermentation System

**Regional Research Laboratory amended the terms and conditions quoted by the firm while placing order for the procurement of a Fermentation System without obtaining their confirmation. As a result, the firm refused to complete the installation, resulting in the system which was procured at a cost of Rs 13.08 lakh lying unused for more than four years.**

The Regional Research Laboratory (RRL), Bhubaneshwar, a unit of Council of Scientific and Industrial Research, placed an order in March 1999 at a cost of Rs 13 lakh on a firm based at Kolkata, for supply of fermentation system comprising 50 litres capacity recycling fermentor and 100 litres capacity non-cycling batch type fermentor. The system was required to build capacity in the area of larger scale fermentation studies for bio-fuel application.

The order was placed on the basis of quotation received in December 1998 from the firm. The firm had offered guarantee for a period of 14 months from the date of delivery/dispatch or 12 months from the date of commissioning/demonstration whichever was earlier. While placing the order in March 1999, RRL incorporated a guarantee clause for a period of 24 months and also introduced a clause for performance bank guarantee of 10 *per cent* of the order value during the period of guarantee. Immediately after receipt of the order, the firm in April 1999 requested RRL to amend the terms and conditions of the purchase order, which were not as per their quotation. RRL did not respond to the firm's request. In May 1999 a two-member team of RRL visited the works of the firm for inspection and found the fermentor ready for dispatch. On the assurance given by the team members which went for inspection that the amendment would be issued, the firm delivered the system in June 1999. RRL released Rs 13.08 lakh, which was 90 *per cent* of the order value plus other charges in the same month. Though RRL was aware of the requirement of a Constant Voltage Transformer (CVT), it did not arrange for the same before installation. The representative of the firm who visited RRL in July 1999 could not install the system in the absence of CVT. After a lapse

of more than six months, RRL in January 2000 placed an order for procurement of CVT costing Rs 0.45 lakh which was received in April 2000. However, the firm refused to complete the installation of the system as RRL had not amended the conditions of the purchase order deleting the performance bank guarantee clause.

In view of the delay in installing/ commissioning of the system, Director, RRL constituted a three-member Committee in September 2002 to suggest suitable measures to expedite the installation of the system. The Committee in December 2002 suggested to give a final chance to the representative of the firm for completion of the installation work, failing which legal action could be initiated. However, as of July 2004, neither the system was commissioned nor any legal action had been initiated against the firm.

RRL stated in July 2004 that its vigilance had called for the documents for examination for initiation of legal action against the firm. It further stated that due to non-installation of the system it had not been possible to conduct larger scale fermentation.

RRL failed to ensure installation of the system even after five years and after incurring an expenditure of Rs 13.08 lakh. Absence of the system hampered research. There is also serious doubt about the serviceability of the system as it has been lying uninstalled for long.

The matter was referred to the Council in June 2004, who did not reply as of November 2004.



(R.P. SINGH)

Principal Director of Audit,  
Scientific Departments

New Delhi

Dated :

30 MAR 2005

Countersigned



(VIJAYENDRA N. KAUL)

Comptroller and Auditor General of India

New Delhi

Dated :

30 MAR 2005



## APPENDIX-I

**Grants released to Autonomous Bodies audited under sections 19(2) and 20(1) of Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971**

Sl. No.	Name of the Autonomous Body	Amount of grants released in 2003-04 (Rs in crore)
1.	Wild Life Institute of India, Dehradun	12.63
2.	Central Zoo Authority of India, New Delhi	15.49
3.	Sree Chitra Tirunal Institute of Medical Sciences & Technology, Thiruvananthapuram	37.03
4.	Technology Development Board, New Delhi	53.65
5.	Indian Council of Agricultural Research, New Delhi	1480.30
6.	Indian Council of Medical Research, New Delhi	201.86
7.	Council of Scientific and Industrial Research, New Delhi	1073.54
8.	Centre for Wind Energy Technology (C-WET), Chennai	3.70
<b>Total</b>		<b>2878.20</b>

## APPENDIX-II

**Grants released to Autonomous Bodies audited under section 14 of Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971**

Sl. No.	Ministry/Department Name of the Autonomous Body	Amount of grants released in 2003-04 (Rs in crore)
<b>DEPARTMENT OF ATOMIC ENERGY</b>		
1.	Tata Memorial Centre, Mumbai	76.60
2.	Saha Institute of Nuclear Physics, Kolkata	47.35
3.	Institute of Physics, Bhubaneswar	10.40
4.	Atomic Energy Education Society, Mumbai	16.22
5.	Tata Institute of Fundamental Research, Mumbai	116.74
6.	Harish Chandra Research Institute, Allahabad	8.45
7.	Institute of Plasma Research, Gandhi Nagar	42.17
8.	Institute of Mathematical Sciences, Chennai	10.95
<b>Total</b>		<b>328.88</b>
<b>DEPARTMENT OF BIO-TECHNOLOGY</b>		
9.	National Institute of Immunology, New Delhi	23.01
10.	National Centre for Cell Science, Pune	13.90
11.	Centre for DNA finger printing and Diagnostics, Hyderabad	8.80
12.	National Centre for Plant Genome Research, New Delhi	12.00
13.	National Brain Research Centre, Gurgaon	15.60
14.	Institute of Bio-resources and Sustainable Development, Imphal	2.20
15.	Institute of Life Sciences, Bhubneshwar	4.40
<b>Total</b>		<b>79.91</b>
<b>DEPARTMENT OF INFORMATION TECHNOLOGY</b>		
16.	Centre for Development of Advance Computing, Pune	29.35
17.	Society for Applied Microwave Electronics Engineering Research, Mumbai	17.70
18.	Education & Research Network	8.00
19.	Electronics and Computer Software Export Promotion Council	9.96

Sl. No.	Ministry/Department Name of the Autonomous Body	Amount of grants released in 2003-04 (Rs in crore)
20.	Software Technology Park of India	6.00
21.	Centre for Material for Electronics Technology	4.10
22.	Department of Electronics – Accredited Computer Courses	6.70
<b>Total</b>		<b>81.81</b>
<b>MINISTRY OF ENVIRONMENT AND FORESTS</b>		
23.	Central Pollution Control Board, New Delhi	29.49
24.	Indian Institute of Forest Management, Bhopal	4.82
25.	Indian Council of Forestry Research & Education, Dehradun	50.55
26.	Indian Plywood Industries Research and Training Institute, Bangalore	2.54
27.	Govind Ballab Pant Himalayan Institute of Environment and Development	7.00
<b>Total</b>		<b>94.40</b>
<b>DEPARTMENT OF SCIENCE &amp; TECHNOLOGY</b>		
28.	Raman Research Institute, Bangalore	11.00
29.	Bose Institute, Kolkata	13.25
30.	Indian Institute of Tropical Meteorology, Pune	8.30
31.	Indian Association for the Cultivation of Science, Kolkata	16.05
32.	Indian Institute of Astrophysics, Bangalore	17.84
33.	Indian Institute of Geo-magnetism, Mumbai	12.70
34.	Indian Science Congress Association, Kolkata	1.43
35.	Indian National Science Academy, New Delhi	6.45
36.	Birbal Sahni Institute of Palaeobotany, Lucknow	6.16
37.	Wadia Institute of Himalayan Geology, Dehradun	7.68
38.	S.N.Bose National Centre for Basic Sciences, Kolkata	8.18
39.	Indian Academy of Sciences, Bangalore	2.03
40.	J.N. Centre for Advanced Scientific Research, Bangalore	8.50
41.	National Academy of Science, Allahabad	2.05
42.	Technology Information Forecasting and Assessment Council, New Delhi	9.24
43.	Vigyan Prasar, New Delhi	2.20

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Sl. No.	Ministry/Department Name of the Autonomous Body	Amount of grants released in 2003-04 (Rs in crore)
44.	Agarkar Research Institute, Pune	7.19
45.	International Advanced Research Centre for Powder Metallurgy & New Materials, Hyderabad	15.99
46.	National Accreditation Board for Testing & Calibration Laboratories, New Delhi	3.08
47.	Indian National Academy of Engineering, New Delhi	0.40
48.	Centre for Liquid Crystal Research, Bangalore	2.00
49.	State Observatory, Nainital	0.10
50.	Indo-French Centre for Promotion of Advance Research	6.00
51.	Indo-US S&T Forum	3.36
<b>Total</b>		<b>171.18</b>
<b>DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH</b>		
52.	Consultancy Development Centre, New Delhi	0.45
<b>Total</b>		<b>0.45</b>
<b>DEPARTMENT OF SPACE</b>		
53.	National Remote Sensing Agency, Hyderabad	9.00
54.	Physical Research Laboratory, Ahmedabad	30.37
55.	National MST Radar Facility , Gadanki	3.50
56.	North Eastern Space Applications Centre, Shillong	2.60
<b>Total</b>		<b>45.47</b>
<b>DEPARTMENT OF OCEAN DEVELOPMENT</b>		
57.	Indian National Centre for Ocean Information Services, Hyderabad	12.94
58.	National Centre for Antarctic & Ocean Research, Goa	49.14
59.	National Institute for Ocean Technology, Chennai	65.06
<b>Total</b>		<b>127.14</b>
<b>Grand Total</b>		<b>929.24</b>



## APPENDIX-III

**Outstanding Utilisation Certificates**

Ministry/Department	Period to which grant relates	Number of utilization certificates outstanding at the end of March 2003	Amount (Rs in lakh)
Department of Atomic Energy	1991-92	1	2.51
	1995-96	1	1.19
	1996-97	5	5.21
	1997-98	7	21.77
	1998-99	7	9.92
	1999-00	12	26.55
	2000-01	13	24.97
	2001-02	15	54.10
<b>Total</b>		<b>61</b>	<b>146.22</b>
Department of Space	1976-77	1	0.05
	1979-80	1	0.05
	1980-81	1	0.38
	1981-82	1	0.03
	1982-83	6	0.74
	1983-84	3	0.66
	1984-85	6	1.69
	1985-86	3	0.65
	1986-87	10	3.90
	1987-88	4	4.88
	1989-90	3	3.08
	1990-91	3	5.59
	1991-92	1	1.24
	1992-93	1	1.01
	1993-94	2	1.28
	1994-95	3	4.99
	1995-96	3	0.95
1996-97	5	8.99	
1998-99	4	0.95	

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Ministry/Department	Period to which grant relates	Number of utilization certificates outstanding at the end of March 2003	Amount (Rs in lakh)
Department of Space	1999-00	4	4.60
	2000-01	24	1624.51
	2001-02	64	728.49
<b>Total</b>		<b>153</b>	<b>2398.71</b>
Ministry of Non-Conventional Energy Sources	1994-95	2	9.02
	1995-96	2	2.90
	1997-98	5	26.67
	2000-01	5	33.97
<b>Total</b>		<b>14</b>	<b>72.56</b>
Ministry of Environment & Forests	1981-82	15	5.79
	1982-83	21	41.00
	1983-84	90	58.50
	1984-85	143	229.80
	1985-86	121	495.40
	1986-87	74	533.77
	1987-88	278	6531.00
	1988-89	359	2543.18
	1989-90	545	192.00
	1990-91	70	123.30
	1991-92	81	1439.00
	1992-93	216	736.00
	1993-94	64	74.18
	1994-95	135	1146.00
	1995-96	10	21.00
	1996-97	440	15732.00
	1997-98	602	9767.00
	1998-99	302	314.00
	1999-00	517	4405.49
2000-01	548	5200.89	
2001-02	613	14269.31	
<b>Total</b>		<b>5244</b>	<b>63858.61</b>

Ministry/Department	Period to which grant relates	Number of utilization certificates outstanding at the end of March 2003	Amount (Rs in lakh)
Department of Science & Technology	1994-95	1	1.46
	1998-99	3	3.26
	1999-00	1	1.80
	2000-01	7	8.48
<b>Total</b>		<b>12</b>	<b>15.00</b>
Department of Bio-technology	1993-94	10	3.15
	1994-95	15	6.53
	1995-96	9	3.25
	1996-97	18	8.98
	1997-98	17	7.80
	1998-99	18	12.95
	1999-00	17	18.55
	2000-01	14	6.58
	2001-02	4	4.25
<b>Total</b>		<b>122</b>	<b>72.04</b>
Department of Ocean Development	1983-84	8	101.52
	1984-85	22	22.66
	1985-86	45	40.26
	1986-87	23	27.20
	1987-88	83	157.85
	1988-89	48	58.00
	1989-90	92	98.28
	1990-91	17	227.46
	1991-92	20	114.60
	1992-93	8	3.00
	1993-94	16	40.20
	1994-95	9	151.97
	1995-96	53	58.77
	1996-97	52	152.02
	1997-98	71	858.74
	1998-99	79	1147.88
1999-00	37	2196.34	

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Ministry/Department	Period to which grant relates	Number of utilization certificates outstanding at the end of March 2003	Amount (Rs in lakh)
Department of Ocean Development	2000-01	55	969.43
	2001-02	66	4521.28
<b>Total</b>		<b>804</b>	<b>10947.46</b>
Ministry of Mines (Geological Survey of India)	2000-01	1	0.10
	<b>Total</b>	<b>1</b>	<b>0.10</b>
Department of Information Technology	2001-02	4	1.61
	<b>Total</b>	<b>4</b>	<b>1.61</b>
<b>Grand Total</b>		<b>6415</b>	<b>77512.31</b>