

Appendix I (Refer to Paragraph 1.3)

Brief profile of the Scientific and Environmental Ministries/Departments

1. Department of Atomic Energy (DAE)

DAE is engaged in the development of nuclear power technology, applications of radiation technologies in the fields of agriculture, medicine, industry and basic research. The Department is involved in the design, construction and operation of nuclear power/research reactors and supporting nuclear fuel cycle technologies covering exploration, mining and processing of nuclear minerals, production of heavy water, nuclear fuel fabrication, fuel reprocessing and nuclear waste management. It also supports research in basic sciences, astronomy, astrophysics, cancer research and education through its institutes. The expenditure incurred by DAE during 2012-13 was ₹11,981.76 crore. The activities of DAE are executed through its agencies like Bhabha Atomic Research Centre, Indira Gandhi Centre for Atomic Research, Heavy Water Board, Nuclear Fuel Complex, Atomic Minerals Directorate for Exploration and Research, Tata Memorial Centre, Tata Institute of Fundamental Research, Institute for Plasma Research etc.

2. Department of Space (DOS)

DOS is responsible for the country's programmes for harnessing space technology for national development, while pursuing space science research and planetary exploration. DOS and its constituent units are responsible for planning and execution of national space activities. The main objectives of the space programme include development of satellites, launch vehicles, sounding rockets and associated ground systems. It operates the Indian National Satellite (INSAT) programme for meeting telecommunication, television broadcasting and developmental applications. DOS also deals with matters relating to space science, space technology and space applications. The expenditure incurred by DOS during 2012-13 was ₹4,856.28 crore. The activities of DOS are executed through its agencies like Vikram Sarabhai Space Centre, Satish Dhawan Space Centre, Liquid Propulsion Systems Centre, National Remote Sensing Agency, Physical Research Laboratory etc.

3. Ministry of Earth Sciences (MoES)

MoES is mandated to provide the nation with best possible services in forecasting of monsoons and other weather/climate parameters, ocean state, earthquakes, tsunamis and other phenomena related to earth systems through integrated programmes. MoES also deals with science and technology for exploration and exploitation of ocean resources (living and non-living) and plays a nodal role for Antarctic/Arctic and Southern Ocean research. The expenditure incurred by MoES during 2012-13 was ₹1,177.14 crore. The activities of MoES are carried through agencies like India Meteorological Department, Indian National Centre for Ocean Information Services, National Centre for Antarctic and Ocean Research, National Institute of Ocean Technology, National Centre for Medium Range Weather Forecasting, etc.

4. Ministry of Environment and Forests (MoEF)

MoEF is the nodal agency for planning, promotion, co-ordination and overseeing the implementation of environmental and forestry programmes. The principal activities undertaken by MoEF consist of conservation and survey of flora, fauna, forests and wildlife; prevention and control of pollution; and afforestation and regeneration of degraded areas. MoEF is also engaged in the prevention and abatement of pollution. It is the nodal Ministry of the country in various international environment oriented programmes. The expenditure incurred by MoEF during 2012-13 was ₹1,996.69 crore. The activities of MoEF are carried out through agencies like Central Pollution Control Board, Botanical Survey of India, Zoological Survey of India, National Biodiversity Authority, Wildlife Institute of India, Indian Council of Forestry Research and Education, Central Zoo Authority, etc.

5. Ministry of New and Renewable Energy (MNRE)

The broad aim of MNRE is to develop and deploy new and renewable energy for supplementing the energy requirements of the country. MNRE seeks to increase the share of clean power through renewable energy (bio, wind, hydro, solar, geothermal and tidal) to supplement fossil fuel based electricity generation. The Ministry aims to develop technologies, processes, materials, components, sub-systems, products and services at par with international specifications by facilitating research, design, development, manufacture and deployment of these energy systems/devices for transportation, portable and stationary applications in rural, urban, industrial and commercial sectors. The expenditure incurred by MNRE during 2012-13 was ₹1,243.72 crore. The activities of MNRE are carried through agencies like Solar Energy Centre, Centre for Wind Energy Technology, etc.

6. Ministry of Science and Technology

The Ministry of Science and Technology has three Departments under its control.

6.1 Department of Biotechnology (DBT)

DBT is mandated to promote large scale use of biotechnology in the country through Research and Development (R&D) projects, demonstrations and creation of infrastructural facilities for the growth and application of biotechnology in the broad areas of agriculture, health care, animal sciences, environment and industry. The Department is also engaged in promoting University and Industry Interaction, international collaborations and in evolving Bio Safety Guidelines, manufacture and application of cell based vaccines. The expenditure incurred by DBT during 2012-13 was ₹1,282.84 crore. The activities of DBT are carried through agencies like National Institute of Immunology, National Centre for Cell Science, National Brain Research Centre, etc.

6.2 Department of Science and Technology (DST)

DST plays a pivotal role in promotion of Science and Technology (S&T) in the country. It is the nodal department for organising, coordinating and promoting S&T activities in the country, being responsible for formulation of policies relating to S&T, R&D through its research institutions or laboratories, undertaking or financially sponsoring scientific and technological surveys, research design and development and supporting Scientific Research Institutions, Scientific Associations and Bodies by providing Grants-in-aid. The expenditure incurred by DST during 2012-13 was ₹2,524.22 crore. The activities of DST are carried out through agencies like Technology Development Board, Raman Research Institute, Bose Institute, Indian Association for the Cultivation of Science, Indian Institute of Astrophysics, Survey of India, etc.

6.3 Department of Scientific and Industrial Research (DSIR)

The primary endeavor of DSIR is to promote R&D by the industries and support a large cross section of small/medium industrial units to develop state-of-the art globally competitive technologies of high commercial potential. The Department facilitates scientific and industrial research in the country through commercialisation of lab-scale R&D, enhancement of the share of technology intensive exports in overall exports and strengthening of industrial consultancy and technology management capabilities. It also provides a link between scientific laboratories and industrial establishments for transfer of technologies. The expenditure incurred by DSIR during 2012-13 was ₹2,945.66 crore. The Council of Scientific and Industrial Research, a major autonomous body being funded by DSIR comprises of 39 laboratories like National Aerospace Laboratories, National Chemical Laboratory, Central Drug Research Institute, Central Food Technological Research Institute, National Environmental Engineering Research Institute, National Institute of Oceanography, etc. These research laboratories carry out applied research in the areas of aerospace, bio-technology, drugs and pharmaceuticals, energy, food and food processing, leather, metals, minerals, etc.

7. Ministry of Water Resources (MoWR)

MoWR is responsible for laying down policy guidelines and programmes for the development and regulation of country's water resources. The Ministry carries out overall planning, policy formulation, coordination and guidance in the water resources sector including minor irrigation and development of ground water resources. Besides this, the Ministry is also involved in mediation and facilitation in disputes relating to distribution of inter-state river waters and negotiations with neighbouring countries on river waters. MoWR also provides guidance and support for irrigation, flood control and multi-purpose projects. The expenditure incurred by MoWR during 2012-13 was ₹1,055.59 crore. MoWR is responsible for operation of the central network for flood forecasting and warning on inter-state rivers and preparation of flood control master plans for the Ganga and the Brahmaputra. The Ministry carries out its activities through agencies like Central Water Commission, Central Ground Water Board, National Water Development Agency, etc.

Appendix II (Refer to Paragraph 1.6)

Audit findings from Compliance Audits conducted during the last five years

Report No. and year	Para no.	Subject	Ministry/ Department
17 of 2010-11	2.1	Failure of a scheme for increasing tree cover	MoEF
	2.2	Non achievement of objective of developing forest resources	
	3.1	Regulation of Biodiversity in India	
	3.2	Role of Botanical Survey of India in meeting India's commitments to the Convention on Biological Diversity	
	4.1	Non-achievement of objectives of Ecocity Programme	
	4.2	Non-achievement of objectives of control of pollution caused by leather tanneries	
	5.1	Activities of National Museum of Natural History, New Delhi	
16 of 2011-12	5.1	Wasteful expenditure on refurbishment of a vessel	MoES
	13.1	Infructuous expenditure due to non-utilisation of software	MNRE
	15.2	Deficient implementation of projects for generation of power through safe disposal of waste	DSIR
	15.3	Non-realisation of objectives of a project	
	19.1	Idle investment on development of a Linac tube	DOS
	19.2	Avoidable payment of electricity duty and cess	
4 of 2012-13	Stand alone	Report of the Comptroller and Auditor General of India on hybrid satellite digital multimedia broadcasting service agreement with Devas	DOS
13 of 2012-13	10.1	Avoidable expenditure of ₹3.32 crore	DAE
	11.1	Avoidable payment of demand charges	DOS
21 of 2013	Stand alone	Report of the Comptroller and Auditor General of India on Compensatory Afforestation in India	MoEF
22 of 2013	2.1	Avoidable expenditure on compensation due to breach of agreement	DAE

Report No. and year	Para no.	Subject	Ministry/ Department
	2.2	Hasty procurement of equipment without creating infrastructure facilities for installation	
	3.1	EDUSAT Utilisation Programme	DOS
	3.2	Parking of foreign satellite in Indian administration coordinated orbital slot	
	3.3	Loss due to unsafe transport and belated insurance of consignment	
	4.1	Public Private Partnership for setting up 'The Centre for Genomic Application' by Institute of Genomics and Integrative Biology	DSIR
	4.2	Unfruitful expenditure	
	5.1	Avoidable expenditure on hiring of office premises	DST
	5.2	Inadmissible payment of transport allowance	
	6.1	Repeated unauthorised creation and up-gradation of posts by Central Pollution Control Board	MoEF
	7.1	Maintenance of Farakka Barrage and its ancillaries	MoWR
	8.1	Irregular introduction of pension scheme and diversion of funds	MoES

Appendix III (Refer to paragraph 1.8)**Grants released to Autonomous Bodies auditable under Section 14 of Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971***(₹in crore)*

Sl.No	Ministry/ Department Name of Autonomous Body	Amount of grants released in 2012-13
DEPARTMENT OF ATOMIC ENERGY		
1.	Harish Chandra Research Institute, Allahabad	2.37
2.	Institute of Mathematical Sciences, Chennai	30.48
3.	Atomic Energy Education Society, Mumbai	44.66
4.	Tata Institute of Fundamental Research, Mumbai	398.19
5.	Tata Memorial Centre, Mumbai	212.51
6.	Institute for Plasma Research, Gandhinagar	227.22
7.	Institute of Physics, Bhubaneswar	18.36
8.	National Institute of Science Education and Research, Bhubaneshwar	220.00
9.	Saha Institute of Nuclear Physics, Kolkata	93.62
DEPARTMENT OF BIOTECHNOLOGY		
10.	National Brain Research Institute, Gurgaon	**
11.	National Institute for Plant Genome Research, New Delhi	**
12.	National Centre for Cell Sciences, Pune	**
13.	National Institute of Immunology, New Delhi	**
14.	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	**
15.	Centre of DNA Finger Printing & Diagnostics, Hyderabad	**
16.	Institute of Bio-resources and Sustainable Development, Imphal	**
17.	Institute of Life Sciences, Bhubaneshwar	**
18.	Translational Health Science and Technology Institute, Faridabad	**
19.	UNESCO Regional Centre for Education and Training, Faridabad	**
20.	National Agri-Food Biotechnology Institute and Bio-processing Unit, Mohali	**
21.	Institute for Stem Cell Research and Regenerative Medicine Bengaluru	**
22.	National Institute of Biomedical Genomics, Kalyani	**
DEPARTMENT OF SCIENCE AND TECHNOLOGY		
23.	Aryabhata Research Institute for Observational Sciences, Nainital	14.05
24.	Birbal Sahni Institute of Paleobotany, Lucknow	19.38
25.	Indian National Academy of Engineering, New Delhi	4.50
26.	Indian National Science Academy, New Delhi	17.98
27.	National Academy of Sciences, Allahabad	10.79
28.	National Accreditation Board for Testing and Calibration Laboratories, New Delhi	0.20
29.	Technology Information, Forecasting and Assessment Council, New Delhi	20.53
30.	Vigyan Prasar, New Delhi	14.17
31.	Wadia Institute of Himalayan Geology, Dehradun	19.46
32.	Agarkar Research Institute, Pune	14.05

Sl.No	Ministry/ Department Name of Autonomous Body	Amount of grants released in 2012-13
33.	Indian Institute of Geomagnetism, Mumbai	28.02
34.	Raman Research Institute, Bengaluru	34.80
35.	Centre for Soft Matter Research, Bengaluru	6.00
36.	International Advanced Research Centre for Powder Metallurgy, Hyderabad	49.01
37.	Indian Institute of Astrophysics, Bengaluru	50.35
38.	Indian Academy of Sciences, Bengaluru	6.67
39.	Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru	49.02
40.	Bose Institute, Kolkata	95.40
41.	Indian Association for the Cultivation of Science, Kolkata	54.86
42.	S N Bose National Centre for Basic Science, Kolkata	30.04
43.	Indian Science Congress Association, Kolkata	6.06
44.	Institute of Advanced Study in Science and Technology, Guwahati	15.67
45.	National Innovation Foundation, Ahmedabad	10.12
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH		
46.	Consultancy Development Centre, New Delhi	3.16
DEPARTMENT OF SPACE		
47.	North Eastern Space Application Centre, Shillong	2.10
48.	Indian Institute of Space Technology, Thiruvananthapuram	64.83
49.	National Atmospheric Research Laboratory, Tirupati	14.03
50.	Physical Research Laboratory, Ahmedabad	55.89
51.	Semi Conductor Laboratory, Chandigarh	61.20
MINISTRY OF EARTH SCIENCES		
52.	National Institute of Ocean Technology, Chennai	136.67
53.	Indian Institute of Tropical Meteorology, Pune	153.46
54.	Indian National Centre for Ocean Information Services, Hyderabad	72.17
55.	National Centre for Antarctic & Ocean Research, Goa	236.21
MINISTRY OF ENVIRONMENT AND FORESTS		
56.	Central Pollution Control Board, Delhi	25.50
57.	G.B. Pant Institute of Himalayan Environment and Development, Almora	11.40
58.	Indian Institute of Forest Management, Bhopal	10.50
59.	Indian Council of Forestry Research and Education, Dehradun	110.25
60.	Indian Plywood Industries Research and Training Institute, Bengaluru	7.35
MINISTRY OF NEW AND RENEWABLE ENERGY		
61.	Centre for Wind Energy Technology, Chennai*	20.00
62.	Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala	15.00
	TOTAL	2,818.26

* Audit is conducted under Section 20 of the C&AG's DPC Act 1971, however the audit is of a superimposed nature.

** Information not available

Appendix IV (Refer to Paragraph 1.9)**Outstanding Utilisation Certificates**

Ministry/ Department	Period to which grant relates	Number of utilisation certificates outstanding due by March 2013	Amount (₹ in lakh)
Department of Atomic Energy	1991-92	1	2.51
	1996-97	4	4.12
	1997-98	3	3.38
	1998-99	3	1.64
	99-2000	7	16.56
	2000-01	6	14.24
	2001-02	2	2.60
	2002-03	1	0.80
	2003-04	4	4.50
	2004-05	10	122.07
	2005-06	15	19.35
	2006-07	49	93.44
	2007-08	47	406.48
	2008-09	38	381.81
	2009-10	43	764.26
	2010-11	62	803.82
2011-12	245	2,012.28	
Total		540	4,653.86
Department of Biotechnology	Details not available		
Department of Science and Technology	Nil		
Department of Scientific and Industrial Research	Details not available		
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	5	0.69
	1983-84	1	0.02
	1984-85	3	0.97
	1985-86	1	0.05

Ministry/ Department	Period to which grant relates	Number of utilisation certificates outstanding due by March 2013	Amount (₹ in lakh)
	1986-87	5	1.30
	1987-88	2	4.88
	1989-90	2	0.07
	1993-94	1	0.10
	1998-99	1	0.20
	99-2000	2	1.30
	2000-01	3	34.87
	2001-02	5	60.91
	2002-03	11	162.75
	2003-04	15	198.48
	2004-05	13	218.74
	2005-06	23	101.61
	2006-07	16	25.88
	2007-08	13	40.30
	2008-09	15	150.94
	2009-10	38	176.72
	2010-11	31	111.55
	2011-12	42	100.63
	Total	252	1,393.47
Ministry of Earth Sciences	1983-84	9	0.72
	1984-85	25	44.47
	1985-86	19	5.51
	1986-87	15	7.95
	1987-88	37	39.80
	1988-89	43	140.90
	1989-90	69	84.41
	1990-91	39	251.23
	1991-92	6	83.82
	1992-93	20	205.27
	1993-94	19	104.60
	1994-95	14	53.88
	1995-96	45	212.35
	1996-97	38	55.24
	1997-98	53	229.19
	1998-99	45	583.04

Ministry/ Department	Period to which grant relates	Number of utilisation certificates outstanding due by March 2013	Amount (₹ in lakh)
	99-2000	41	694.22
	2000-01	35	187.09
	2001-02	20	131.16
	2002-03	11	17.37
	2003-04	51	104.83
	2004-05	39	711.00
	2005-06	57	442.64
	2006-07	50	786.49
	2007-08	94	1461.19
	2008-09	68	1,268.09
	2009-10	80	841.67
	2010-11	264	5,130.53
	2011-12	274	11,807.14
Total		1,580	25,685.80
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	6,531.00
	1988-89	359	2,543.18
	1989-90	545	192.00
	1990-91	70	123.30
	1991-92	81	1,439.00
	1992-93	216	736.00
	1993-94	64	74.18
	1994-95	83	167.88
	1995-96	82	174.18
	1996-97	305	1,058.36
	1997-98	156	557.99
	1998-99	316	758.70
	99-2000	300	1,234.98
	2000-01	327	797.95
2001-02	355	1,006.82	

Ministry/ Department	Period to which grant relates	Number of utilisation certificates outstanding due by March 2013	Amount (₹ in lakh)
	2002-03	308	944.23
	2003-04	382	1,321.76
	2004-05	372	1,569.67
	2005-06	291	1,434.86
	2006-07	281	1,801.41
	2007-08	292	2,410.71
	2008-09	241	1,973.48
	2009-10	198	7,957.95
	2010-11	182	43,833.32
	2011-12	448	53,768.32
Total		6,996	1,35,775.49
Ministry of New and Renewable Energy	2005-2006	1	3.34
	2006-2007	1	2.00
	2007-2008	8	27.56
	2008-2009	13	263.14
	2009-2010	41	799.56
	2010-2011	92	2,544.69
	2011-2012	178	12,763.24
Total		334	16,403.53
Ministry of Water Resources	1986-87	3	12.50
	1987-88	1	4.04
	1988-89	2	4.23
	1989-90	1	0.50
	1990-91	3	7.17
	1991-92	3	6.56
	2000-01	1	3.34
	2001-02	2	40.00
	2006-07	5	36.53
	2007-08	13	81.98
	2008-09	50	780.17
	2009-10	48	374.52
	2010-11	91	1,683.34
	2011-12	56	763.95
Total		279	3,798.83
Grand Total		9,981	1,87,710.98

Appendix V (Refer to Paragraph 1.11)**Statement of losses and irrecoverable dues written off/waived during 2012-13***(Amount in ₹ lakh)*

Name of Ministry/ Department	Write off of losses and irrecoverable dues due to									
	Failure of system		Neglect/fraud etc.		Other reasons		Waiver of recovery		Ex-gratia Payments	
	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount
Department of Atomic Energy	-	-	-	-	24	10.50	-	-	-	-
Department of Bio-Technology	Nil									
Department of Science and Technology	-	-	1	0.003	1	0.003	-	-	-	-
Department of Scientific and Industrial Research	Nil									
Department of Space	-	-	-	-	4	0.80	2	11.14	-	-
Ministry of Earth Sciences	Nil									
Ministry of Environment and Forests	Not available									
Ministry of New and Renewable Energy	Nil									
Ministry of Water Resources	Not available									
Total	-	-	1	0.003	29	11.303	2	11.14	-	-

Appendix VI (Refer Paragraph 1.13)

Summarised position of the Action Taken Notes (ATNs) awaited from various Ministries/ Departments up to the year ended March 2013 as of March 2014- ATNs which have not been received from the Ministry/Department even for the first time

Sl. No	Report No. & Year	Paragraph No.	Para title	Delay in submission of ATNs (in months)
DEPARTMENT OF ATOMIC ENERGY				
1.	13 of 2012-13	10.1	Avoidable expenditure of ₹3.32 crore	15
2.	9 of 2012-13	Standalone	Performance Audit on activities of Atomic Energy Regulatory Board	15
3.	22 of 2013	2.1	Avoidable expenditure on compensation due to breach of agreement	2
4.	22 of 2013	2.2	Hasty procurement of equipment without creating infrastructure facilities for installation	2
DEPARTMENT OF SCIENCE AND TECHNOLOGY				
5.	13 of 2007 (PA)	3	Internal controls in DST	78
6.	22 of 2013	5.1	Avoidable expenditure on hiring of office premises	2
7.	22 of 2013	5.2	Inadmissible payment of Transport Allowance	2
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH				
8.	22 of 2013	4.1	Public Private Partnership for setting up 'The Centre for Genomic Application' by Institute of Genomics and Integrative Biology	2
MINISTRY OF EARTH SCIENCES				
9.	22 of 2013	8.1	Irregular introduction of pension scheme and diversion of funds	2
MINISTRY OF ENVIRONMENT AND FORESTS				
10.	21 of 2011-12	Standalone	Performance Audit of Water Pollution in India	22
11.	22 of 2013	6.1	Repeated unauthorized creation and up-gradation of posts by Central Pollution Control Board	2
12.	21 of 2013	Standalone	Compensatory Afforestation in India	2
MINISTRY OF WATER RESOURCES				
13.	22 of 2013	7.1	Maintenance of Farakka Barrage and its ancillaries	2

Appendix VII (Refer Paragraph 1.13)

Summarised position of the Action Taken Notes (ATNs) awaited from various Ministries/ Departments up to the year ended March 2013 as of March 2014 - ATNs on which Audit has given comments/observations but revised ATNs have not been received

Sl. No.	Report No. & Year	Paragraph No.	Title	Delay in submission of ATNs (in months)
DEPARTMENT OF ATOMIC ENERGY				
1.	5 of 1999	2.4	Idle equipment	4
2.	5 of 2001	5.4	Wasteful expenditure (Sl no. 5.19 to 5.22)	11
3.	5 of 2001	5.5	Recover at the instance of audit(Sl no. of para 5.23 to 5.25)	5
4.	5 of 2002	9.1	Avoidable expenditure due to negligence	5
5.	PA 19 of 2008	Standalone	Management of Fuel for Pressurised Heavy Water Reactor (Front end of Nuclear Fuel Cycle)	45
6.	CA 16 of 2008-09	2.5	Non-establishment of world class gamma-ray observatory	2
7.	PA 13 of 2010-11	Standalone	Procurement of Stores and Inventory Management	2
DEPARTMENT OF BIOTECHNOLOGY				
8.	5 of 2003	3.1	Review of DBT	124
DEPARTMENT OF SCIENCE AND TECHNOLOGY				
9.	5 of 2004	3.1	Review of Technology, Information, Forecasting and Assessment Council	8
10.	5 of 2005	5.1	Unfruitful expenditure during GTS-Bicentenary celebration	101
11.	1 of 2006	3	Functioning of Technology Development Board	52
12.	CA 3 of 2008	5.1	Unfruitful expenditure	38
13.	CA 16 of 2008-09	5.1	Non-recovery of dues despite development of technology	39
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH				
14.	6 of 1996	5.2	Review on Central Road Research Institute, New Delhi	2
15.	5 of 1998	2.1	Review of Manpower Audit of Council of Scientific and Industrial Research	156
16.	5 of 1998	2.3	Review of Industrial Toxicology	6

Sl. No.	Report No. & Year	Paragraph No.	Title	Delay in submission of ATNs (in months)
			Research Centre, Lucknow	
17.	5 of 2001	3.2	National Institute of Oceanography	14
18.	5 of 2005	6.1	Wasteful expenditure	84
19.	2 of 2007	13.1	Non-recovery of Service Tax	6
20.	CA 16 of 2008-09	4.1	Non-recovery of dues from private company on short closure of the project	45
21.	CA 16 of 2008-09	4.2	Recovery of dues at the instance of Audit	20
22.	CA 16 of 2008-09	4.4	Activities of Institute of Minerals and Materials Technology, Bhubaneswar	4
DEPARTMENT OF SPACE				
23.	CA 16 of 2011-12	19.2	Avoidable payment of electricity duty and cess	15
24.	21 of 2010-11	Standalone	Activities of National Remote Sensing Centre	4
25.	22 of 2013	3.3	Loss due to unsafe transport and belated insurance of consignment	2
MINISTRY OF EARTH SCIENCES				
26.	2 of 2007 (TA)	5.1	Wasteful expenditure	16
27.	CA 3 of 2008	7.1	Non-achievement of the objectives of modernizing the Accounting and Personnel Management functions	14
MINISTRY OF ENVIRONMENT AND FORESTS				
28.	5 of 1998	9.1	Review of Indian Council of Forestry Research and Education, Dehradun	27
29.	3B of 2001	1.0	Implementation of environment act relating to water pollution	7
30.	5 of 2002	3.1	Review of Zoological Survey of India	12
31.	5 of 2003	10.1	Avoidable payment of interest and non-receipt of refund of Income Tax	23
32.	18 of 2006 (PA)	Standalone	Conservation and Protection of Tigers in Tiger Reserves	38
33.	CA 3 of 2008	6.1	Injudicious decision of construction of Scholar Transit Hostel	16
34.	CA 16 of 2008-09	6.1	Failure of village tree plantation project	22
35.	CA 16 of 2008-09	6.2	Inadmissible payment of Transport Allowance	23

Sl. No.	Report No. & Year	Paragraph No.	Title	Delay in submission of ATNs (in months)
36.	17 of 2010-11	2.1	Failure of a scheme for increasing tree cover	9
37.	17 of 2010-11	2.2	Non-achievement of objective of developing forest resources	31
38.	17 of 2010-11	3.2	Role of Botanical Survey of India in meeting India's commitment to the Convention on Biological Diversity	13
39.	17 of 2010-11	4.2	Non-achievement of objectives of control of pollution caused by leather tanneries	21
40.	17 of 2010-11	5.1	Activities of National Museum of Natural History, New Delhi	4
MINISTRY OF WATER RESOURCES				
41.	4 of 2010-11	Standalone	Performance Audit of the Accelerated Irrigation Benefits Programme	16

Appendix VIII (Refer to Paragraph 3.1)

Details of fraudulent payment of legal fees made by Indian Association for the Cultivation of Science and Bose Institute

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE, KOLKATA								
Writ Petition No. 19720(W) of 2006 (Moly Biswas, Petitioner versus Union of India & others)								
1.	25.09.2008	18.05.06, 19.05.06, 12.07.06, 17.08.06, 19.09.06, 20.12.06, 22.12.06, 19.03.07, 29.03.07, 24.04.07, 15.05.07, 07.06.07, 17.07.07, 14.08.07, 11.12.07, 12.12.07, 14.12.07, 19.12.07	1.21	18	-	-	-	The case was filed on 25.08.2006. Therefore the dates mentioned in the bill prior to 25.08.2006 were incorrect. Further, there was only one order dated 06.11.2006 in respect of the case.
W.P No. 3917(W) of 2010. Dr. Pushan Majumdar – vs – Union of India and other 11 analogous cases.								
2.	10.03.2010	03.03.10	6.06	1	-	-	-	There was no mention of the case in the Daily Supplementary List to the Combined Monthly List of cases on and from 1 March 2010 for hearing on 3 March 2010.
3.	13.03.2010	09.03.10	6.42	-	1	-	-	Order of High Court at Calcutta dated 09.03.10 did not show appearance of advocate.
4.	27.03.2010	17.03.10, 18.03.10, 23.03.10	2.02	1	2	-	-	Orders of High Court at Calcutta dated 17.03.10 and 18.03.10 did not show

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
5.	10.07.2010	16.04.10, 28.04.10, 05.05.10, 18.05.10	5.12	4	-	-	-	appearance of advocate. There was no order dated 23.03.10. There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.
MAT No. 1521 of 2010. (Renumbered as FMA 16) Dr. Pushan Majumdar – vs – Union of India and other 11 analogous cases.								
6.	13.04.2011	04.01.11, 25.01.11, 07.02.11	3.84	3	-	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.
7.	20.08.2011	28.02.11, 07.03.11, 14.03.11	3.84	3	-	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.
8.	02.09.2011	28.03.11, 29.03.11	2.55	2	-	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.
9.	01.02.2012	17.01.12, 01.02.12	2.56	2	-	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
10.	03.03.2012	01.02.12, 02.02.12, 17.02.12, 18.02.12, 28.02.12	1.26	3	2	-	-	Appearance for 01.02.2012 was shown in bill at Sl. No. 9 also. Therefore payment for the date was claimed twice. There were no orders of High Court at Calcutta on 01.02.12, 18.02.12 and 28.02.12. From the orders dated 02.02.12 and 17.02.12 it was observed that appearance of the advocate was not mentioned in the order.
11.	28.04.2012	02.03.12, 07.03.12, 14.03.12, 16.03.12, 21.03.12, 23.03.12, 28.03.12, 30.03.12	2.02	7	1	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate except on 14.03.12. Even on the said date, appearance of the advocate was not mentioned in the order.
W.P No. 8619 of 2012. Ashok Kr. Roy – vs – IACS and others (Merged with 1521)								
12.	10.11.2012	02.05.12, 03.05.12, 10.05.12, 29.06.12, 03.07.12, 26.08.12, 28.08.12	1.18	4	3	-	-	There were no orders of High Court at Calcutta on 03.05.12, 29.06.12, 03.07.12 and 26.08.12. Further, from the orders dated 02.05.12, 10.05.12 and 28.08.12 it was observed that appearance of the advocate was not mentioned in the order.

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
WP No. 8517(W) of 2005 Shri Golokbehari Chatterjee Vs The Collector of Land Acquisition and others.								
13.	21.05.2007	25.04.05, 27.04.05, 29.04.05, 02.05.05, 05.05.05	0.34	4	1	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate except on 05.05.05. Even on the said date, appearance of the advocate was not mentioned in the order.
BOSE INSTITUTE, KOLKATA								
W.P No. 20437(W) of 2006/CAN 274 of 2009. Kalipada Das – vs – Union of India and others.								
14.	17.08.2009	19.12.08, 12.01.09, 21.01.09, 17.03.09, 25.03.09, 31.03.09, 20.05.09, 17.06.09, 15.07.09, 22.07.09, 29.07.09	1.23	11	-	-	-	Under the case, there were only two orders dated 19.12.2006 and 07.11.2006. Further, CAN 274 of 2009 did not pertain to the institute.
WP No. 10551(W) of 1997, Paschim Banga Security Karmi Union of India and others.								
15.	19.11.2011	04.01.11, 11.01.11, 18.01.11, 25.01.11, 07.02.11, 15.02.11, 22.02.11, 28.02.11, 08.03.11, 15.03.11, 22.03.11, 28.03.11, 29.03.11, 31.03.11	1.41	14	-	14	-	The case was disposed of on 15.1.10. Therefore, claims made for dates subsequent to 15.01.2010 were fraudulent.

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
16.	11.11.2009	08.08.08, 10.09.08, 19.09.08, 19.11.08, 26.11.08, 10.12.08, 19.12.08, 23.12.08, 21.01.09, 28.01.09, 19.02.09, 16.03.09, 30.03.09	1.68	13	-	-	-	Under the case, there were orders dated 21.05.1999, 30.06.1999, 29.07.1999 and 04.12.2009 only. Therefore claims made for appearances on the dates mentioned in the bill were incorrect.
MAT No.1436 of 2008, Tarun Chakraborty vs. Bose Institute (Renumbered as FMA 300 of 2009)								
17.	5.8.2010	05.01.10, 06.01.10, 14.01.10, 19.02.10, 24.03.10, 31.03.10, 07.04.10, 21.04.10	0.89	8	-	8	-	The case was disposed of on 17.08.2009. Therefore, claims made for dates subsequent to 17.08.2009 were fraudulent.
18.	06.09.11	21.01.11, 27.01.11, 15.02.11, 23.02.11, 28.02.11, 09.03.11, 16.03.11, 30.03.11, 31.03.11, 05.04.11, 12.04.11, 19.04.11, 27.04.11	1.31	13	-	13	-	The case was disposed of on 17.08.2009. Therefore, claims made for dates subsequent to 17.08.2009 were fraudulent.
19.	24.05.12	12.05.11, 15.06.11, 21.07.11, 22.07.11, 28.07.11, 29.07.11, 17.08.11, 18.08.11, 25.08.11, 07.09.11, 15.09.11, 22.09.11, 29.09.11, 30.09.11	1.65	14	-	14	-	The case was disposed of on 17.08.2009. Therefore, claims made for dates subsequent to 17.08.2009 were fraudulent.

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which name of advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
WP No. 27359(W) of 2007, Shyamal Kr. Ghosh & Anr vs Union of India and others.								
20.	10.03.2009	15.04.08, 22.04.08, 29.04.08, 30.04.08, 06.05.08, 15.05.08, 16.07.08, 23.07.08, 24.07.08, 31.07.08, 20.08.08	1.23	11	-	-	-	There were no orders of High Court at Calcutta on any of the dates mentioned in the bill submitted by the advocate.
WP No.6415 (W) of 2003 Shanti Sarkar & Anr. Vs Union of India and others.								
21.	20.02.2010	19.02.08, 19.03.08, 25.06.08, 21.08.08, 19.12.08, 21.01.09, 19.02.09, 25.03.09	0.9	8	-	-	-	Under the case, only one order was passed on 17.06.2003. No order was passed thereafter.
CAN No. 274 of 2009 Radha Devi vs. Narendra Singh Anand and ANR								
22.	05.08.2010	11.01.10, 12.01.10, 13.01.10, 14.01.10, 15.02.10, 16.02.10, 22.02.10, 23.02.10, 23.03.10, 30.03.10, 05.04.10, 26.04.10	1.35	-	-	-	12	This case did not pertain to the institute.
23.	22.01.2011	07.06.10, 08.06.10, 14.06.10, 15.06.10, 28.06.10, 29.06.10, 12.07.10, 13.07.10, 23.07.10, 30.07.10, 12.08.10, 19.08.10, 24.08.10, 31.08.10	1.57	-	-	-	14	This case did not pertain to the institute.

Sl. No.	Bill date	Date of appearance claimed in the bill	Amount paid (₹ in lakh)	No. of dates on which hearings were not held	No. of dates on which advocate was not mentioned in the orders of the court	No. of dates after the date on which case was disposed of by the court	No. of dates in respect of case that did not pertain to the institute	Remarks
24.	31.03.2012	19.05.11, 22.06.11, 29.06.11, 18.08.11, 30.08.01, 05.09.11, 07.09.11, 21.09.11, 22.09.11, 28.09.11, 29.09.11, 02.11.11, 03.11.11, 15.11.11, 16.11.11, 17.11.11	1.88	-	-	-	16	This case did not pertain to the institute.
25.	04.08.2012	04.01.12, 05.01.12, 10.01.12, 11.01.12, 18.01.12, 19.01.12, 24.01.12, 25.01.12, 01.02.12, 02.02.12, 07.02.12, 09.02.12	1.41	-	-	-	12	This case did not pertain to the institute.
	TOTAL		54.93	144	10	49	54	

Appendix IX (Refer to Paragraph 4.3)

Status of supply of deliverables in GEOSAT/ IRS contracts and additional expenditure

Table-1: GEOSAT Contract

Sl. No.	Name of Structure	Satellite	Drawing Number	Quantity	Delivery date	Year	Man Hours	Rate (in ₹)	Amount paid (in ₹ lakh)	Man hours in excess of 60,000	Amount (₹ lakh)
1		Brackets and Misc. components				03-04	12,474.34	700	87.32		
2	Final Assembly	INSAT 4A	INS3-SR-120-000	1	May 2004	04-05	10,119.07	700	70.83		
3	Final Assembly-INS2K	INSAT 4C	INS3-SR-150-000	1	Aug 2005	05-06	16,966.11	700	118.76		
4	Final Assembly-INS3K	INSAT 4B	INS3-SR-170-000	1	Aug 2005	05-06					
5	Final Assembly-INS3K	I-3K-STM	INS3-SR-170-000	1	Aug 2006	06-07	23,571.97	749	176.55	3,131.49	23.46
6	Final Assembly-INS2K	INSAT 4CR	INS3-SR-150-000	1	Dec 2006	06-07					
7	Final Assembly-INS2K	GSAT 4	INS3-SR-150-000	1	Feb 2007	06-07					
8	Final Assembly-	W2M	INS3-SR-170-0000	1	Sep 2007	07-08	20,259.52	801	162.28	20,259.52	162.28
Sub Total- 1 (Deliveries up to March 2008)				7			83,391.01	-	615.74		
9	Final Assembly-	HYLAS	INS2-SR-157-0000	1	Aug 2008	08-09	9,000.00	801	72.09	9,000.00	72.09
10	Final Assembly-	INSAT 3D	INS2-SR-150-0000	1	Dec 2008	08-09					
11	Final Assembly-	GSAT-5P	INS2-SR-154-0000	1	Feb 2010	09-10	2,550.30	950	24.23	2,550.30	24.23
Sub Total- 2 (Deliveries after March 2008)				3			11,550.30	-	96.32		
Total				10			94,941.31	-	712.06	34,941.31	282.06

Three GEOSAT structures were assembled beyond March 2008, thereby HAL was benefitted by an amount of ₹3.80 lakh being equal to ₹24.23 – (2,550.30 X 801) lakh on account of implementation of escalation clause.

Table-2: IRS Contract

Sl. No.	Name of Structure	Satellite	Drawing Number	Quantity	Delivery date	Year	Man Hours	Rate (in ₹)	Amount paid (₹ in lakh)	Man hours in excess of 60,000	Amount (₹ lakh)
1						2003-04	7,777.09	700	54.44		
2	Final Assembly-CARTOSAT	Carto-2	CARTO-SR-40-000	1	Oct 2004	2004-05	7,924.59	700	55.47		
3	Final Assembly-CARTOSAT	Carto-2	CARTO-SR-40-000	1	June 2005	2005-06	9,474.76	700	66.32		
4	Final Assembly-SRE	SRE	SRE-SR-30-000	1	July 2005	2005-06					
5	Final Assembly-SRE	SRE	SRE-SR-30-000	1	Dec 2005	2005-06					
6	Final Assembly-CARTOSAT	Carto-2A	CARTO-SR-40-000	1	June 2006		14,356.74	749	107.53		
7	Final Assembly 1-1.5K	Ocean-2	IRS-SR-80-000	1	Aug 2006	2006-07					
8	Final Assembly 1-1.5K	Chand-1	IRS-SR-80-000	1	Mar 2007						
9	Final Assembly	Anusat	ANU-SR-052-0000	1	Mar 2007						
10	Final Assembly	TWSAT-IMS	SMSAT-SR-060-000	1	Nov 2007	2007-08	17,206.97	801	137.83		
Sub Total- 1 (Deliveries up to March 2008)				9			56,740.15	-	421.59		
11	Final Assembly	RISAT	RISAT-SR-050-0000	1	Sep 2008	2008-09	8,731.24	801	69.94	5,471.39	43.83
12	Payload Assembly	Meghatrophiques	IRS-SR-60-0000	1	Apr 2009	2009-10	4,614.00	950	43.83	4,614.00	43.83
13	Final Assembly	Cartosat	CARTO-SR-40-0000	1	May 2009	2009-10					
14	Final Assembly	Youthsat-IMS	SMSAT-SR-060-0000	1	Feb 2010	2009-10					
15	Final Assembly	ASTROSAT	ASTRO-SR-095-0000	1	Mar 2010	2009-10					
16	Final Assembly	SARAL	SMSAT-SR-062-0000	1	May 2011	2010-11	1,030.00	1,016.50	10.47	1,030.00	10.47
17	Final Assembly	SARAL	IRS-SR-60-000	1	Dec 2011	2011-12	3,030.00	1,087.65	32.96	3,030.00	32.96
Sub Total- 2 (Deliveries after March 2008)				7			17,405.24	-	157.20		
Total				16			74,145.39	-	578.79		131.09

Seven IRS structures were assembled beyond March 2008, thereby HAL was benefitted by an amount of ₹17.78 lakh being equal to ₹43.83 – (4,614 X 801) + ₹10.47 – (1,030 X 801) + ₹32.96 – (3,030 X 801) lakh on account of implementation of escalation clause.

Appendix X (Refer to Paragraph 6.1.2.1(i))

Targets and achievements of Zoological Survey of India in surveys, studies conducted and publications brought out

1. States

Sl. No.	Name of state	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
1	Goa	1993-2006	1993-2002	2007	Not available	2008	2008	Though date of commencement and completion of studies was not indicated, faunal account was stated to be published under State Fauna Series 16:1-531.
2	Tamil Nadu	1995-2006	Not available	2008	Not available	2010	2009	Though date of commencement and completion of survey and studies was not indicated, two volumes of faunal account were stated to be published (2009 & 2011) under State Fauna Series 17 (Part-1):1-256 & State Fauna Series 17 (Part-2):1-418.
3	Kerala	2000-2010	1999-2002	2011	Not available	2012	Not published	Duration of survey was curtailed from 10 years to three years. MoEF stated (March 2014) that manuscripts of eight faunal groups were under review and would be published by 2015-16.
4	Andhra Pradesh	2001-2007	1998-2002	2009	Not available	2011	1993-2007	Though date of commencement and completion of studies was not indicated, seven volumes of faunal account were stated to be published in State Fauna Series-5 (Vol.1 to Vol.7): 1993-2007.
5	Uttar Pradesh	2001-2008	2005-2011	2010	Not available	2012	Not published	Though date of commencement and completion of studies was not indicated MoEF stated (March 2014) that manuscripts were under review and publication would be published during 2014-15.
6	Uttarakhand	2002-2008	2000-2003	2010	Not available	2012	2010	Though date of commencement and completion of studies was not indicated, three volumes of faunal account were stated to be published in 2010 in State Fauna Series-18 (Part-1):1-621, 18 (Part-2): 1-748 & 18 (Part-3): 1-307.

Sl. No.	Name of state	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
7	Himachal Pradesh	2004-2010	2009-2012	2012	Not completed	2014	Not published	MoEF stated (March 2014) that taxonomic Studies were being undertaken and Fauna of Himachal Pradesh would be compiled and published by 2016-17.
8	Chandigarh	2007-2010	Not taken up	2011	Not taken up	2012	Not published	MoEF stated (March 2014) that this programme was not proposed.
9	Maharashtra	2004-2010	2008-2012	2012	Not available	2014	2012	Though date of commencement and completion of studies was not indicated MoEF stated (March 2014) that two volumes of Fauna of Maharashtra published under State Fauna Series-20 (Part-1:1-480 & 2:1-673) in 2012. The reply needs to be viewed in the light of the fact that ZSI completed survey only in 2012.
10	Madhya Pradesh	2005-2010	1990-2003	2011	Not available	2012	2007-12	Though date of completion of studies was not indicated, three volumes of faunal account was stated to be published under state Fauna Series-15 (part-1: 1-564; 2: 1-152 & 3: 1-202) in 2007; 2008 & 2012.
11	Chattisgarh	2005-2007	Not available	2009	Not available	2011	2007-12	Though date of completion of studies was not indicated, three volumes of faunal account was stated to be published under state Fauna Series-15 (part-1: 1-564; 2: 1-152 & 3: 1-202) in 2007; 2008 & 2012.
12	Haryana	2007-2010	2006-2011	2012	Not completed	2014	Not published	MoEF stated (March 2014) that taxonomic studies were being undertaken and Fauna of Haryana under State Fauna Series would be compiled and published by 2016-17.
13	Karnataka	2006-2012	1998-2011	2014	2011	2016	Not due	MoEF stated (March 2014) that faunal account was published in 2013.

2. Ecosystems

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
Himalayan	1	Western Himalayas: Ladakh: J&K	2004-2008	Not available	2010	Not available	2011	2005	MoEF stated (March 2014) that faunal account of Western Himalaya (Part-1 : 1-227) 1995 and (Part-2 : 1-359) in 2005 were published.
	2	Western Himalayas: Pangl Valley, Himachal Pradesh	2004-2007	Not available	2009	Not available	2011	2013	Though date of completion of survey and studies was not indicated it was stated that faunal diversity of Pangl Valley, Chamba, Himachal Pradesh was published in 2013 under Himalayan ecosystem Series-3: 1-120.
Desert	3	Rajasthan	1999-2003	Not available	2005	Not available	2007	Not published	Though date of completion of survey and studies was not indicated it was stated that accounts of various faunal groups were published. Audit however observed from Catalogue of ZSI 2014 that no accounts on Desert Ecosystem were published.
	4	Gujarat	2004-2008	Not available	2010	Not available	2012	Not published	Though date of completion of survey and studies was not indicated it was stated that two volumes of Fauna of Gujarat were published under State Fauna Series-8 (Part-1:1-464 (2000) & Part-2: 1-427 (2004). Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Desert Ecosystem was published.
Marine and Island	5	Andaman and Nicobar	2001-2010	Not available	2012	Not available	2014	Not published	Though MoEF stated (March 2014) that fauna of Andaman and Nicobar Islands was published in 2010 under State Faunal Series-19(1): 1-300 however, Audit observed from Catalogue of ZSI 2014 that no ecosystem series on Marine Ecosystem was published.

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
	6	East Coast: Andhra Pradesh	2003-2008	Not available	2009	Not available	2010	Not published	Though date of survey and completion of studies was not indicated, MoEF stated (March 2014) that Fauna of Vamsadhara and Nagavali estuaries, Andhra Pradesh were published under Estuarine Ecosystem Series – 6:1-113 (2010); Fauna of Krishna estuary EES-5:1-298(2009). Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Marine Ecosystem was published.
	7	East Coast: Orissa	2007-2010	Not available	2012	Not available	2014	Not published	Though MoEF stated (March 2014) that fauna of Brahamani Baitarani Estuary Complex and Decopod Crustacean Fauna of Nuanai estuary, Odisha were published under Estuarine Ecosystem Series-8:1-64(2013), Audit however, observed from Catalogue of ZSI 2014 that no ecosystem series on Marine Ecosystem was published.
	8	West Coast: Kerala	2007-2010	Not available	2012	Not available	2014	Not published	Though the status of commencement of survey and studies were not indicated, MoEF stated (March 2014) that faunal diversity of Vembanad Lake, Kerala was published under Wetland Ecosystem Series-10 :1-192 (2009). Audit however observed from Catalogue of ZSI 2014 that no series on Marine Ecosystem was published.
Tropical Rain Forest	9	Western Ghats, Kerala	2007-2009	Not available	2010	Not available	2011	Not published	Though the status of commencement of survey and studies were not indicated, MoEF stated (March 2014) that Atlas of Endemic Amphibians of Western Ghats was published under Special Publication Series-34 :1-220 (2013). Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Tropical Rain Forest Ecosystem was published.

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
	10	Western Ghats, Tamil Nadu	2007-2009	Not available	2010	Not available	2011	Not published	Though the status of commencement of survey and studies were not indicated, MoEF stated (March 2014) that two volumes of Fauna of Tamil Nadu were published (2009 & 2011) under State Fauna Series 17 (part-I): 1-256; State Fauna Series 17 (Part-2):1-418; and Atlas of Endemic Amphibians of Western Ghats published under Special Publication Series -34:1-220(2013) which includes fauna recorded from Western Ghats of Tamil Nadu. Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Tropical Rain Forest Ecosystem was published.
	11	Western Ghats, Karnataka	2007-2009	Not available	2011	Not available	2013	Not published	Though the status of commencement of survey and studies were not indicated, MoEF stated (March 2014) that fauna of Karnataka was published (2013) under State Fauna Series 21:1-595 which includes fauna recorded from Western Ghats of Karnataka. Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Tropical Rain Forest Ecosystem was published.
Estuarine	12	Krishna Estuary, Andhra Pradesh	1996-2003	1996-2008	2005	Not available	2007	2009	Audit observed that the faunal account did not focus on Andhra Pradesh as planned.
	13	Vansdhara-Nagaveli Estuary Andhra Pradesh	2000-2003	2000-2008	2005	Not available	2007	2010	Audit observed that the faunal account did not focus on Andhra Pradesh as planned.

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
Freshwater	14	Cauvery Estuary, Tamil Nadu	2004-2007	2008-2011	2011	Not completed	2011	Not published	MoEF stated (March 2014) that surveys were completed, taxonomic studies were ongoing and document were expected to be compiled and published by 2015-16.
	15	Pennar Estuary, Andhra Pradesh	2008-2010	2011-2014	2012	Not completed	2014	Not published	MoEF stated (March 2014) that surveys were completed, taxonomic studies were ongoing and document were expected to be compiled and published by 2015-16.
	16	Nalsarover, Gujarat	1998-2003	1998-2007	2005	Not available	2007	Not published	MoEF stated (March 2014) that fauna of Nalsarover, Gujarat was published under Wetland Ecosystem Series-11:1-137 (2009). Audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Fresh Water Ecosystem was published.
	17	Crater lake, Maharashtra	2000-2005	2000-2007	2007	Not available	2009	Not published	MoEF stated (March 2014) that fauna of Lunar Wildlife Sanctuary, Maharashtra under Conservation Area Series-37:1-208 (2008) were published along with research papers. Audit observed from Catalogue of ZSI 2014 that no ecosystem series on Fresh Water Ecosystem was published.
	18	Govind Sagar, Punjab	2001-2004	2002-2007	2006	Not completed	2008	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed and Fauna of Govind Sagar, Punjab would be compiled and published by 2015-16.
	19	Chandratal, Himachal Pradesh	2002-2004	Not taken up	2006	Not taken up	2008	Not published	MoEF stated (March 2014) that the programme was not initiated.

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
	20	East Kolkata Wetlands	2003-2006	Not available	2007	Not completed	2008	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed and Fauna of East Kolkata Wetland collected was being identified and document would be published by 2015-16.
	21	Tso Morai, Jammu and Kashmir	2004-2006	Not taken up	2008	Not taken up	2010	Not published	MoEF stated (March 2014) that due to non-availability of requisite expertise; the study could not be undertaken.
	22	Bhoj, Madhya Pradesh	2006-2009	2005-2006	2011	Not available	2013	Not published	From the details provided by ZSI, it was seen that survey was completed even before initiation of the planned period of survey. MoEF stated (March 2014) that the species identified were included in State fauna of Madhya Pradesh in Part-3. Audit observed from Catalogue of ZSI 2014 that no ecosystem series on Fresh Water Ecosystem was published.
	23	Keoladeo Ghana, Rajasthan	2006-2009	1998-2007	2011	Not available	2013	Not published	MoEF stated (March 2014) that part of the study was published as research paper: Sharma, G. (2011). Studies on diversity, status and conservation of damselflies and dragonflies in four protected habitats of Aravalli Range of Rajasthan and their role as biological control agents. <i>Journal of Insect Science</i> . 24 (spl. Issue): 45-50. Audit observed from Catalogue of ZSI 2014 that no ecosystem series on Fresh Water Ecosystem was published.
	24	Ropar, Punjab	2006-2008	2005-2007	2010	Not available	2012	Not published	MoEF stated (March 2014) that publications were brought out audit however observed from Catalogue of ZSI 2014 that no ecosystem series on Fresh Water Ecosystem was published.

Kind of Ecosystem	Sl. No.	Name of Ecosystem	Surveys conducted		Studies conducted		Publications brought out		Remarks
			Target	Actual	Target	Actual	Target	Actual	
	25	Narayan Sarovar	2007-2009	Not available	2011	Not completed	2013	Not published	MoEF stated (March 2014) Taxonomic Studies were being completed and Fauna of Narayan Sarovar would be compiled and published by 2015-16.

3. Protected Areas

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
1	Hemis National Park, Jammu and Kashmir	2000-2007	1997-2006	2008	Not available	2010	Not published	Though details of completion of studies were not indicated, MoEF stated that documents were published as 1. Paliwal, R. (2008). Earthworms of Hemis National Park, Jammu and Kashmir, India. Records ZSI. Vol 108 (3). 2. Tak, P.C.; Sharma, D.K; Thakur, M.L.; Saikai, Uttam (2009). Birds of Ladakh and Analysis of Their Status. Vol. 109. The reply was silent about publication of faunal account.
2	Thettakad Bird Sanctuary, Kerala	2006-2008	Not taken up	2009	Not taken up	2010	Not published	MoEF stated (March 2014) that due to non-grant of permission to enter into protected area, the programme was finally recommended be dropped by the PAC.
3	Pachmari, Madhya Pradesh	2004-2007	1999-2005	2008	Not available	2010	2009	Details of conduct of studies were not available with ZSI. Survey was taken up five years before the planned schedule.
4	Panna National Park, Madhya Pradesh	2004-2008	2000-2004	2009	Not available	2010	2005	Details of conduct of studies were not available with ZSI. Survey was taken up four years before the planned schedule.

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
5	Itanagar Wild Life Sanctuary	2004-2008	2000-2010	2009	Not completed	2010	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed.
6	Pin Valley National Park, Himachal Pradesh	2004-2008	2000-2005	2009	Not available	2010	2008	Details of conduct of studies were not available with ZSI. Survey was taken up four years before the planned schedule.
7	Hazaribagh National Park, Jharkhand	2004-2008	2000-2007	2009	2007	2010	Not published	MoEF stated (March 2014) that the document was under review and manuscript will be published by 2015.
8	Tale Valley Wild Life Sanctuary, Arunachal Pradesh	2002-2004	2002-2004	2006	Not taken up	2008	Not published	MoEF stated (March 2014) that Taxonomic studies were not conducted due to lack of expertise.
9	Bannerghatta National Park, Bengaluru	2002-2004	2002-2006	2006	Not available	2008	2007	Details of conduct of studies were not available with ZSI.
10	Corbett Tiger Reserve, Uttarakhand	2002-2004	2002-2006	2006	Not available	2008	2008	Details of conduct of studies were not available with ZSI.
11	Talchapper Wild Life Sanctuary, Rajasthan	2002-2004	2002-2006	2005	Not available	2007	2010	Details of conduct of studies were not available with ZSI.
12	Bandhavgarh National Park, Madhya Pradesh	2002-2005	2002-2007	2007	2007	2009	2010	-
13	Middle Button Island National Park, Andaman and Nicobar Islands	2002-2004	1996-2004	2006	Not available	2008	2007	Details of conduct of studies were not available with ZSI. Survey was taken up four years before the planned schedule.

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
14	North Button Island National Park, Andaman and Nicobar Islands	2002-2004	1996-2004	2006	Not available	2008	2007	Details of conduct of studies were not available with ZSI. Survey was taken up four years before the planned schedule.
15	South Button Island National Park, Andaman and Nicobar Islands	2002-2004	1996-2004	2006	Not available	2008	2007	Details of conduct of studies were not available with ZSI. Survey was taken up four years before the planned schedule.
16	Lawalang Wild Life Sanctuary, Jharkhand	2003-2005	Not taken up	2007	Not taken up	2009	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
17	Palamau National Park, Jharkhand	2004-2008	Not taken up	2008	Not taken up	2010	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
18	Mahuadaur Wild Life Sanctuary, Jharkhand	2004-2006	Not taken up	2008	Not taken up	2010	Not published	MoEF accepted (March 2014) that faunal survey of Mahaudaur Wild Life Sanctuary, Jharkhand was yet to be undertaken by ZSI.
19	Bhimashankar Wild Life Sanctuary, Maharashtra	2004-2007	2004-2006	2009	Not available	2011	2009	Details of conduct of studies were not available with ZSI.
20	Debang-Debang, Arunachal Pradesh	2005-2009	Not taken up	2011	Not taken up	2013	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
21	Mahao Forest Reserve, Arunachal Pradesh	2005-2007	Not taken up	2009	Not taken up	2011	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
22	Saddle Peak National Park, Andaman and Nicobar Islands	2005-2007	2011-2014	2009	Not completed	2011	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed and Fauna of Saddle Peak National Park, Andaman and Nicobar Islands will be published by 2015-16.
23	Nongkhyliem Wild Life Sanctuary, Meghalaya	2005-2007	2012-2015	2009	Not completed	2011	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed and Fauna of Nongkhyliem Wild Life Sanctuary, Meghalaya will be published by 2015-16.
24	Siju Wild Life Sanctuary, Meghalaya	2005-2007	Not available	2009	Not completed	2011	Not published	MoEF stated (March 2014) that Taxonomic Studies were being completed and Fauna of Siju Wild life Sanctuary, Meghalaya will be compiled and published by 2015-16.
25	Valley of Flowers National Park, Uttarakhand	2005-2007	Not available	2009	Not available	2011	Not available	MoEF stated (March 2014) that detailed study was undertaken as part of MoEF Project on Protected Area of Fauna of Valley of Flower and report submitted to MoEF in 2006. Details of publications were not provided.
26	Indravati National Park, Chattisgarh	2006-2008	Not taken up	2010	Not taken up	2012	Not published	MoEF stated (March 2014) that Fauna of Indravati National Park, Chhattisgarh (those not covered in 2005) was proposed. However, due to disturbances in the study area, study could not be taken up.
27	Simlipal, Odisha	2006-2008	2001-2003	2010	Not available	2012	2006	From the details provided by ZSI, it was seen that survey completed prior to planned schedule. MoEF stated (March 2014) that faunal account was published as Faunal resources of Simlipal Biosphere Reserve under Conservation Area Series – 28:1-87 (2006). However, as the survey was conducted prior to the plan of PAC, it is evident that the publication also pertained to previous period.
28	Kalakad, Tamil Nadu	2006-2008	2012-2014	2010	Not available	2012	2009-11	Details of conduct of studies were not available with ZSI.

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
29	Nawegaon National Park, Maharashtra	2006-2009	Not available	2011	Not available	2013	2012	Details of conduct of survey and studies were not available with ZSI.
30	Gautam Buddha Wild Life Sanctuary, Bihar	2007-2009	Not taken up	2011	Not taken up	2013	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
31	Sonanadi Wild Life Sanctuary, Uttar Pradesh	2007-2010	Not taken up	2012	Not taken up	2014	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
32	Rani Jhansi Marine National Park, Andaman and Nicobar Islands	2008-2010	Not available	2012	Not available	2014	2012	Details of conduct of survey and studies were not available with ZSI.
33	East or Inglis Island National Park, Andaman and Nicobar Islands	2008-2010	2007-2011	2012	Not available	2014	Not published	MoEF stated (March 2014) that faunal account was being published in 2015-16
34	Mahatma Gandhi Marine National Park, Andaman and Nicobar Islands	2008-2010	2005-2008	2012	Not completed	2014	Not published	From the details provided by ZSI, it was seen that survey completed prior to planned schedule. MoEF stated (March 2014) that taxonomic studies were being completed and fauna of Mahatma Gandhi Marine National Park, Andaman and Nicobar Islands will be published in 2016-17.
35	Arial Island, Andaman and Nicobar Islands	2008-2010	Not taken up	2012	Not taken up	2014	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
36	Sariska Tiger Reserve, Rajasthan	2008-2010	2003-2006	2012	Not available	2014	2012	From the details provided by ZSI, it was seen that survey completed prior to planned schedule. MoEF stated (March 2014) that document was published, however, reply was silent about the publication of faunal account. Further, as

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
37	Pakhuli Forest Reserve, Arunachal Pradesh	2008-2010	2002-2011	2012	Not available	2014	Not published	the survey was conducted prior to the plan of PAC, it is evident that the publication also pertained to previous period. MoEF stated (March 2014) that manuscript was under preparation and would be published in 2016-17.
38	Manas National Park, Assam	2008-2010	Not available	2012	Not available	2014	1995	MoEF stated (March 2014) that some faunal groups were surveyed, studied and published 1995 under Fauna of Tiger Reserve (Sunderbans, Palamau, simlipal & Manas). Fauna of Conservation areas No. 8. 1-105. The date of publication indicates that it pertained to a previous survey.
39	Barnadi Wild Life Sanctuary, Assam	2008-2010	Not taken up	2012	Not taken up	2014	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
40	Point Calimere Wild Life Sanctuary, Tamil Nadu	2008-2010	2003-2006	2012	Not available	2014	2006	From the details provided by ZSI, it was seen that survey completed prior to planned schedule. MoEF stated (March 2014) that Avifaunal composition of Point Calimere Wildlife and bird Sanctuary, Tamil Nadu was published as conservation area series no 31:1-62 (2006). However, as the survey was conducted prior to the plan of PAC, it is evident that the publication also pertained to previous period.
41	Dudhwa National Park, Uttar Pradesh	2008-2010	Not taken up	2012	Not taken up	2014	Not published	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
42	Kanha National Park, Madhya Pradesh	2008-2011	Not available	2013	Not available	2015	Not due	MoEF stated (2014) that a research paper was published in 2006. However, as the survey was planned for 2008-11, it is evident that the publication pertained to a previous survey.

Sl. No.	Name of Protected Area	Surveys conducted		Studies conducted		Publications brought out		Remarks
		Target	Actual	Target	Actual	Target	Actual	
43	Jaisamand Wild Life Sanctuary, Rajasthan	2009-2011	Not taken up	2013	Not taken up	2015	Not due	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
44	Sandspur Wild Life Sanctuary, Uttar Pradesh	2009-2012	Not taken up	2014	Not taken up	2016	Not due	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.
45	Dalma Wild Life Sanctuary, Jharkhand	2010-2012	1999-2012	2014	Not available	2016	Not due	MoEF stated (March 2014) that taxonomic studies on Butterflies and Moths of Dalma WLS would be published in 2014-15.
46	Rajgir Wild Life Sanctuary, Bihar	2010-2012	Not taken up	2014	Not taken up	2016	Not due	MoEF stated (March 2014) that programme was not proposed due to lack of scientific expertise in the concerned regional centre.

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