

MINISTRY OF SCIENCE AND TECHNOLOGY

DEMAND NO. 86

Department of Scientific and Industrial Research

A. The Budget allocations, net of recoveries, are given below:

Major Head	Actual 2010-2011			Budget 2011-2012			Revised 2011-2012			<i>(In crores of Rupees)</i> Budget 2012-2013			
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
Revenue	1592.72	1386.42	2979.14	1923.50	1455.00	3378.50	1824.00	1387.00	3211.00	2004.10	1471.00	3475.10	
Capital	3.54	...	3.54	6.50	...	6.50	6.00	...	6.00	8.90	...	8.90	
Total	1596.26	1386.42	2982.68	1930.00	1455.00	3385.00	1830.00	1387.00	3217.00	2013.00	1471.00	3484.00	
1. Secretariat - Economic Services	3451	...	7.08	7.08	...	9.82	9.82	...	8.00	8.00	...	9.00	9.00
Other Scientific Research													
Assistance to Council of Scientific and Industrial Research (CSIR)													
2. Administration	3425	30.00	485.00	515.00	35.00	516.00	551.00	30.00	490.50	520.50	37.00	520.00	557.00
3. National Laboratories	3425	1304.50	779.34	2083.84	1500.00	812.68	2312.68	1438.91	787.00	2225.91	1316.00	830.00	2146.00
4. Scientist's Pool	3425	...	5.00	5.00	...	6.50	6.50	...	6.50	6.50	...	7.00	7.00
5. Research Schemes, Scholarships and Fellowships	3425	130.00	110.00	240.00	197.00	110.00	307.00	190.00	95.00	285.00	200.00	105.00	305.00
6. Intellectual Property & Technology Management	3425	35.00	...	35.00	40.00	...	40.00	38.00	...	38.00	43.00	...	43.00
7. New Millenium Indian Technology Leadership Initiative	3425	50.00	...	50.00	70.00	...	70.00	50.00	...	50.00	60.00	...	60.00
8. Institute of Translational Research (Innovation Complexes)	3425	0.50	...	0.50	10.00	...	10.00	10.00	...	10.00	95.00	...	95.00
9. CSIR-800 Scheme	3425	...	...	...	...	...	...	...	...	...	50.00	...	50.00
10. CSIR Scheme for Open Innovation	3425	...	...	...	...	...	...	...	...	...	77.00	...	77.00
11. CSIR Initiative for Inclusive, Participative and Collaborative Research & Development	3425	...	...	...	...	...	...	...	...	...	10.00	...	10.00
12. National Civil Aircraft Development	3425	...	...	...	...	...	...	...	...	...	10.00	...	10.00
Total-Assistance to Council of Scientific and Industrial Research (CSIR)		1550.00	1379.34	2929.34	1852.00	1445.18	3297.18	1756.91	1379.00	3135.91	1898.00	1462.00	3360.00
13. Assistance to Other Scientific Bodies													
13.01 Support for R&D Schemes to Central Electronics Limited	3425	3.00	...	3.00	4.00	...	4.00	4.00	...	4.00	10.00	...	10.00
13.02 National Research Development Corporation	3425	7.25	...	7.25	9.00	...	9.00	7.00	...	7.00	8.00	...	8.00
<i>Total- Assistance to Other Scientific Bodies</i>		<i>10.25</i>	<i>...</i>	<i>10.25</i>	<i>13.00</i>	<i>...</i>	<i>13.00</i>	<i>11.00</i>	<i>...</i>	<i>11.00</i>	<i>18.00</i>	<i>...</i>	<i>18.00</i>
14. Technology Promotion, Development and Utilisation Programme (including Consultancy Development Centre)	3425	32.47	...	32.47	58.50	...	58.50	56.09	...	56.09	...	...	...

(In Crores of Rupees)

(In crores of Rupees)

	Major Head	Actual 2010-2011			Budget 2011-2012			Revised 2011-2012			Budget 2012-2013		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
	5425	0.54	...	0.54	1.00	...	1.00	1.00	...	1.00	...	...
	<i>Total</i>	<i>33.01</i>	<i>...</i>	<i>33.01</i>	<i>59.50</i>	<i>...</i>	<i>59.50</i>	<i>57.09</i>	<i>...</i>	<i>57.09</i>	<i>...</i>	<i>...</i>	
15. Investment in Public Enterprises - Central Electronics Limited	4859	1.50	...	1.50	2.50	...	2.50	2.50	...	2.50	3.50	3.50	
	6859	1.50	...	1.50	2.50	...	2.50	2.50	...	2.50	3.50	3.50	
	<i>Total</i>	<i>3.00</i>	<i>...</i>	<i>3.00</i>	<i>5.00</i>	<i>...</i>	<i>5.00</i>	<i>5.00</i>	<i>...</i>	<i>5.00</i>	<i>7.00</i>	<i>7.00</i>	
16. DSIR Building and Infrastructure	4059	...	...	...	0.50	...	0.50	...	...	...	0.50	0.50	
17. Consultancy Development Centre (CDC)	3425	...	...	...	...	...	...	...	...	...	5.00	5.00	
18. Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM)	3425	...	...	...	...	...	...	...	...	...	25.00	25.00	
19. Patent Acquisition and Collaborative Research and Technology Development (PACE)	3425	...	...	...	...	...	...	...	...	...	10.00	10.00	
20. Building Industrial R&D and Common Research Facilities (BIRD)	3425	...	...	...	...	...	...	...	...	...	23.60	23.60	
	5425	...	...	...	...	...	...	...	...	...	1.40	1.40	
	<i>Total</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>25.00</i>	<i>25.00</i>	
21. Access to Knowledge for Technology Development and Dissemination (A2K+)	3425	...	...	...	...	...	...	...	...	...	24.50	24.50	
Total-Other Scientific Research		1596.26	1379.34	2975.60	1930.00	1445.18	3375.18	1830.00	1379.00	3209.00	2013.00	1462.00	3475.00
Grand Total		1596.26	1386.42	2982.68	1930.00	1455.00	3385.00	1830.00	1387.00	3217.00	2013.00	1471.00	3484.00
	Head of Dev	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
(in crores of Rupees)													
B. Investment in Public Enterprises													
11.01 Central Electronics Limited	12859	3.00	...	3.00	5.00	...	5.00	5.00	...	5.00	7.00	...	7.00
Total		3.00	...	3.00	5.00	...	5.00	5.00	...	5.00	7.00	...	7.00
C. Plan Outlay													
1. Other Scientific Research	13425	1593.26	...	1593.26	1925.00	...	1925.00	1825.00	...	1825.00	2006.00	...	2006.00
2. Telecommunication and Electronic Industries	12859	3.00	...	3.00	5.00	...	5.00	5.00	...	5.00	7.00	...	7.00
Total		1596.26	...	1596.26	1930.00	...	1930.00	1830.00	...	1830.00	2013.00	...	2013.00

1. **Secretariat-Economic Services:** Provides for expenditure of the Secretariat of the Department of Scientific & Industrial Research.

2. **CSIR - Central Administration (R&D Management Support):** CSIR Headquarters is the nerve centre of the organization and catalyses and facilitates the laboratories by establishing, equipping and realizing excellence in R&D, promoting brand equity, financial self-sufficiency, global competitiveness and disseminating organizational learning. The various functional units/divisions

located in CSIR Headquarters provide the R&D Management support to the national laboratories through the Scheme.

3. **CSIR - National Laboratories:** Under the National Laboratories scheme during the Twelfth Plan, five new institutions are proposed to be set up either in the physical or in virtual mode. These include CSIR-Institute of Synthetic and Systems Biology, CSIR-Fourth Paradigm Institute, CSIR-Institute of Biomimetic Materials, CSIR-Network Institute of Solar Energy and the CSIR-Network Institute of Manufacturing Technology.

CSIR would undertake R&D programmes across the biological, chemical, engineering, information and physical science clusters. Different categories of projects include supra-institutional projects (involving individual laboratories), network projects (involving multiple CSIR laboratories), supra-institutional network projects (involving as well the non-CSIR participation in identified set of projects), large mission projects, cross-cluster projects (that are formulated to overarch multiple clusters) and facility creation projects. In addition, few mega projects have been proposed.

CSIR technologies are proposed to be demonstrated and showcased through the CSIR Outreach Centres implemented through self-inclusive facilities placed at identified locations. CSIR Special Centres would be set up for the North Eastern States, Lakshadweep and Andaman & Nicobar Islands for providing S&T intervention to address unique challenges of these regions.

4. **CSIR - Scientist's Pool:** The objective is to promote and create a pool of qualified, highly specialized scientists/engineers and technologists in R&D in all disciplines of S&T in the country.

5. **CSIR-Research Schemes, Scholarships and Fellowships (National S&T Human Resource Development):** CSIR under the scheme on National S&T Human Resource Development envisages continuing its endeavour of strengthening S&T human resources in the country through fellowships at various levels. In addition during the Twelfth Plan, it is envisaged to introduce novel fellowship programmes to promote research and innovation.

6. **CSIR-Intellectual Property & Technology Management:** Under the Scheme during the Twelfth Plan period, the efforts would be to consolidate the IP portfolio further in terms of patents and other forms of IPRs.

7. **CSIR-New Millennium Indian Technology Leadership Initiative (NMITLI):** The NMITLI has been among one of the successful programmes of CSIR during the Eleventh Plan. It has emerged as a unique programme to support R&D in public private partnership mode. It is envisaged to be strengthened and broadened further during the Twelfth Plan.

8. **CSIR-Institute of Translational Research (Innovation Complexes):** As an attempt to catalyze and develop translational facilities within the CSIR, it is proposed to set up 12 Innovation Complexes at identified locations in the country. These Complexes would serve as a hub for web organization of CSIR and also facilitate valorization/translation of CSIR technologies. In addition to fully operationalizing the three Innovation Complexes initiated during the Eleventh Plan, nine more complexes would be set up.

9. **CSIR 800 Scheme:** CSIR 800 would be an independent new scheme that would be designed to develop technologies and achieve its dissemination towards improving quality of life and augmenting income for the people at the base of the economic pyramid.

10. **CSIR Scheme on Open Innovation:** Open innovation has been identified as a major platform during the Twelfth Plan through the new CSIR Scheme on Open Innovation. It shall cover an expanded version of the OSDD programme (encompassing Open Source Drug Discovery, Delivery Development and Disease Diagnostics); Distributed Organic Chemicals Synthesis Programme (DOCS) and Science 3.0, an initiative for open innovation and knowledge-ware development through crowd sourcing.

11. **CSIR Initiative on Inclusive, Participative and Collaborative Research & Development:** CSIR would undertake a independent scheme namely CSIR Initiative for Inclusive, Participative and Collaborative Research & Development focusing upon inclusive innovation through addressing grand challenges in S&T; pursuing inverted innovation model for product development; practicing participative science and participatory technology development; and establishing CSIR Centres for Collaborative Research with academia, R&D institutions and industry respectively.

12. **National Civil Aircraft Development Programme:** CSIR also envisages pursuing National Civil Aircraft Development programme during the period.

13. **Assistance to Other Scientific Bodies:**

13.01. **Support to R&D Schemes to Central Electronics Limited:** Central Electronics Ltd. (CEL) is one the PSUs of DSIR which has developed a number of novel products/processes either through its own R&D efforts or in close association with premier National and International laboratories, R&D institutions and Defence Laboratories.

13.02. **National Research Development Corporation:** NRDC, a PSU of DSIR was established as a company, under Section 25 of the Companies Act to commercialize the Research and Development results of publicly funded R&D institutions as well as to promote the growth of indigenous technology.

14. **Technology Promotion, Development and Utilization (TPDU) Programmes:** TPDU Programmes, a scheme pursued in 11th five year plan endeavoured to encourage industry to increase their share in country's R&D expenditure and support a larger cross section of small and medium industrial units to develop state-of-the-art globally competitive technologies of high commercial potential. This scheme has been renamed in BE-2012-2013.

15. **Investment in Public Enterprises-Central Electronics Limited (CEL):** CEL is also supported for projects relating to enhancement of the Capacities of its manufacturing facilities in the three business groups viz., Solar Photo-voltaics, railway electronic signalling and safety equipment and strategic electronics.

16. **DSIR Building and Infrastructure:** A separate office space / building is envisaged for DSIR.

17. **Consultancy Development Centre (CDC):** The Consultancy Development Centre (CDC) was set up as a registered society in January 1986, and is functioning from its office at India Habitat Centre Complex since May 1994. The main objective of CDC is to strengthen and promote industrial consultancy services and capabilities for domestic use and export requirements.

18. **Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM):** DSIR Outreach Centres and Cluster Innovation Centres to be promoted for supporting innovative proposals of MSMEs, Individuals and Startup companies.

19. **Patent Acquisition and Collaborative Research and Technology Development (PACE):** Industries and institutions to be supported for acquiring patents and value addition through technology development and demonstration.

20. **Building Industrial R&D and Common Research Facilities (BIRD):** R&D in Industry to be encouraged and supported besides creation of Common Research Facilities for Small and Micro Industries. The outlay for 'BIRD' scheme includes the outlay for Information Technology and e Governance (ITeG) and Asian and Pacific Centre for Transfer of Technology (APCTT) (contributions and special construction work / maintenance).

21. **Access to Knowledge for Technology Development and Dissemination (A2K+):** Scientific Journals to be made available to In-house R&D units of industries and SIROs besides conducting studies / conferences on Industrial Status in the country