

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 2011-2012			Budget 2012-2013			Revised 2012-2013			<i>(In crores of Rupees)</i> Budget 2013-2014			
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
Revenue	1822.91	1386.11	3209.02	2004.10	1471.00	3475.10	1555.00	1401.00	2956.00	2003.30	1558.00	3561.30	
Capital	5.68	...	5.68	8.90	...	8.90	...	...	...	9.70	...	9.70	
Total	1828.59	1386.11	3214.70	2013.00	1471.00	3484.00	1555.00	1401.00	2956.00	2013.00	1558.00	3571.00	
1. Secretariat - Economic Services	3451	...	7.11	7.11	...	9.00	9.00	...	7.80	7.80	...	10.50	10.50
Other Scientific Research													
Assistance to Council of Scientific and Industrial Research (CSIR)													
2. Administration	3425	30.00	490.50	520.50	37.00	520.00	557.00	25.00	500.00	525.00	45.00	560.00	605.00
3. National Laboratories	3425	1438.91	787.00	2225.91	1316.00	830.00	2146.00	1211.73	790.20	2001.93	1372.00	875.00	2247.00
4. Scientist's Pool	3425	...	6.50	6.50	...	7.00	7.00	...	7.00	7.00	...	7.50	7.50
5. Research Schemes, Scholarships and Fellowships	3425	190.00	95.00	285.00	200.00	105.00	305.00	180.00	96.00	276.00	180.00	105.00	285.00
6. Intellectual Property & Technology Management	3425	38.00	...	38.00	43.00	...	43.00	40.00	...	40.00	40.00	...	40.00
7. New Millenium Indian Technology Leadership Initiative	3425	50.00	...	50.00	60.00	...	60.00	40.00	...	40.00	45.00	...	45.00
8. Institute of Translational Research (Innovation Complexes)	3425	10.00	...	10.00	95.00	...	95.00	20.00	...	20.00	76.00	...	76.00
9. CSIR-800 Scheme	3425	...	...	...	50.00	...	50.00	...	...	...	50.00	...	50.00
10. CSIR Scheme for Open Innovation	3425	...	...	...	77.00	...	77.00	...	...	...	70.00	...	70.00
11. CSIR Initiative for Inclusive, Participative and Collaborative Research & Development	3425	...	...	...	10.00	...	10.00	...	...	...	10.00	...	10.00
12. National Civil Aircraft Development	3425	...	...	...	10.00	...	10.00	...	...	...	10.00	...	10.00
Total-Assistance to Council of Scientific and Industrial Research (CSIR)		1756.91	1379.00	3135.91	1898.00	1462.00	3360.00	1516.73	1393.20	2909.93	1898.00	1547.50	3445.50
13. Assistance to Other Scientific Bodies													
13.01 Support for R&D Schemes to Central Electronics Limited	3425	4.00	...	4.00	10.00	...	10.00	2.75	...	2.75	10.00	...	10.00
13.02 National Research Development Corporation	3425	7.00	...	7.00	8.00	...	8.00	...	...	...	8.00	...	8.00
<i>Total- Assistance to Other Scientific Bodies</i>		<i>11.00</i>	<i>...</i>	<i>11.00</i>	<i>18.00</i>	<i>...</i>	<i>18.00</i>	<i>2.75</i>	<i>...</i>	<i>2.75</i>	<i>18.00</i>	<i>...</i>	<i>18.00</i>
14. Technology Promotion, Development and Utilisation Programme (including Consultancy Development Centre)	3425	55.00	...	55.00	...	...	...	...	...	...	...	...	...

(In crores of Rupees)

	Major Head	Actual 2011-2012			Budget 2012-2013			Revised 2012-2013			Budget 2013-2014			
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
	5425	0.68	...	0.68	...	...	...	...	...	...	...	...	...
	<i>Total</i>	<i>55.68</i>	<i>...</i>	<i>55.68</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	
15. Investment in Public Enterprises - Central Electronics Limited	4859	2.50	...	2.50	3.50	...	3.50	...	...	...	4.00	...	4.00
	6859	2.50	...	2.50	3.50	...	3.50	...	...	...	4.00	...	4.00
	<i>Total</i>	<i>5.00</i>	<i>...</i>	<i>5.00</i>	<i>7.00</i>	<i>...</i>	<i>7.00</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>8.00</i>	<i>...</i>	<i>8.00</i>	
16. DSIR Building and Infrastructure	4059	...	...	...	0.50	...	0.50	...	...	...	1.00	...	1.00
17. Consultancy Development Centre (CDC)	3425	...	...	...	5.00	...	5.00	3.16	...	3.16	4.00	...	4.00
18. Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM)	3425	...	...	...	25.00	...	25.00	4.80	...	4.80	18.00	...	18.00
19. Patent Acquisition and Collaborative Research and Technology Development (PACE)	3425	...	...	...	10.00	...	10.00	0.20	...	0.20	17.50	...	17.50
20. Building Industrial R&D and Common Research Facilities (BIRD)	3425	...	...	...	23.60	...	23.60	3.36	...	3.36	13.80	...	13.80
	5425	...	...	...	1.40	...	1.40	...	...	...	0.70	...	0.70
	<i>Total</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>25.00</i>	<i>...</i>	<i>25.00</i>	<i>3.36</i>	<i>...</i>	<i>3.36</i>	<i>14.50</i>	<i>...</i>	<i>14.50</i>	
21. Access to Knowledge for Technology Development and Dissemination (A2K+)	3425	...	...	...	24.50	...	24.50	24.00	...	24.00	34.00	...	34.00
Total-Other Scientific Research		1828.59	1379.00	3207.59	2013.00	1462.00	3475.00	1555.00	1393.20	2948.20	2013.00	1547.50	3560.50	
Grand Total		1828.59	1386.11	3214.70	2013.00	1471.00	3484.00	1555.00	1401.00	2956.00	2013.00	1558.00	3571.00	
	Head of Dev	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	
B. Investment in Public Enterprises														
15.01	Central Electronics Limited	12859	5.00	...	5.00	7.00	...	7.00	...	...	8.00	...	8.00
Total			5.00	...	5.00	7.00	...	7.00	...	...	8.00	...	8.00
C. Plan Outlay														
1.	Other Scientific Research	13425	1823.59	...	1823.59	2006.00	...	2006.00	1555.00	...	1555.00	2005.00	...	2005.00
2.	Telecommunication and Electronic Industries	12859	5.00	...	5.00	7.00	...	7.00	...	...	8.00	...	8.00
Total			1828.59	...	1828.59	2013.00	...	2013.00	1555.00	...	1555.00	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 HQs. is the nerve centre of the organization and facilitates outcome of laboratories through R&D Management Support services including planning, performance monitoring, international collaboration and science

dissemination. These functions would be strengthened during the Twelfth Five Year Plan. Planning and management paradigms would be broadened through adoption of crowd sourcing approach and initiation of strategic planning. International collaboration would be oriented towards developing bilateral, multilateral and area specific programmes with focus on South East Asia and Gulf countries through setting up joint centres and promoting scientific exchanges

3. **CSIR - National Laboratories:** CSIR is implementing diverse activities during the Twelfth Five Year Plan through the National Laboratories scheme. The R&D programmes are across the biological, chemical, engineering, information and physical science clusters. They are also in trans-cluster R&D mode. Five new institutions are proposed to be set up. They are: 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.

Also, activities will be pursued for: creating, nurturing and sustaining the core knowledge frontier through augmenting the core competence; building excellence, attempting creation of new S&T domains, establishing units for excellence; demonstrating and promoting knowledgebase; creating CSIR Special Centres for the North Eastern States, Lakshadweep Islands and Andaman and Nicobar Islands and bringing in S&T interventions; and establishing & refurbishing R&D facilities and development of energy efficient green campuses.

Necessary allocations are provided for continuing activities from the Eleventh Five Year Plan. Also, there is support for scaling up and validating leads for product/process development and for creating and refurbishing R&D and civil infrastructure, with particular emphasis on energy efficient green campus development for the latter.

Well focused initiative to build excellence through pursuing innovative ideas and embark upon high-risk, high-impact projects would be undertaken. Such programmes would cover either creating units of excellence or through provision of funding support for disruptive scientific ideas and projects.

CSIR technologies are proposed to be demonstrated and showcased through the CSIR Outreach Centres implemented through self-inclusive facilities placed at identified locations.

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):** The scheme is focused at development of S&T Human Resources in the country through fellowships at various levels. Further, 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 Five Year Plan period, the effort 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 Five Year 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 Five Year Plan.

8. **CSIR-Institute of Translational Research (Innovation Complexes):** CSIR is setting up Innovation Complexes. The first three out of total eight are being set up at Chennai, Kolkata and Mumbai. These complexes would be world class facilities for undertaking translational research in partnership with industry, R&D institutions and universities. CSIR's Innovation Complexes would adopt 'a challenge driven innovation strategy'. Such a strategy shall be derived from the region specific

'industry cluster challenges'. In the region of their operation, each of the Innovation Complex would nurture MSMEs in the fields identified.

9. **CSIR 800 Scheme:** The scheme is aimed at bringing in the desired S&T interventions for augmenting the income, removing drudgery and improving the quality of life of people at the base of the economic pyramid, geographically spread across the country.

10. **CSIR Scheme on Open Innovation:** Open innovation has been identified as a major platform during the Twelfth Five Year Plan through the new CSIR Scheme on Open Innovation. It shall cover an expanded version of the OSDD programme (encompassing Open Source Drug Discovery, Drug Development, Drug Delivery 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 operationalize a scheme namely CSIR Initiative for Inclusive, Participative and Collaborative Research and 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 has planned to pursue National Civil Aircraft Development programme during the 12th Plan period.

13.01. **Support to R&D Schemes to Central Electronics Limited:** Central Electronics Ltd. (CEL) is one of 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.

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 Inhouse R&D units of industries & Scientific and Industrial Research Organisations besides conducting studies conferences on Industrial Status in the country