

MINISTRY OF SCIENCE AND TECHNOLOGY**DEMAND NO. 84****Department of Scientific and Industrial Research**

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

		<i>(In crores of Rupees)</i>								
Major Head	Budget 2008-2009			Revised 2008-2009			Budget 2009-2010			
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
Revenue	1193.40	878.00	2071.40	1185.40	1208.00	2393.40	1195.50	1341.00	2536.50	
Capital	6.60	...	6.60	4.60	...	4.60	4.50	...	4.50	
Total	1200.00	878.00	2078.00	1190.00	1208.00	2398.00	1200.00	1341.00	2541.00	
1. Secretariat - Economic Services	3451	...	5.00	5.00	...	6.80	6.80	...	8.50	8.50
Other Scientific Research										
<i>Assistance to Council of Scientific & Industrial Research</i>										
2. Administration	3425	25.00	272.00	297.00	21.00	414.00	435.00	22.00	484.00	506.00
3. National Laboratories	3425	960.00	471.00	1431.00	998.00	673.20	1671.20	980.00	722.00	1702.00
4. Scientists' Pool	3425	...	4.00	4.00	...	4.00	4.00	...	6.50	6.50
5. Research Schemes, Scholarships and Fellowships	3425	75.00	126.00	201.00	36.00	110.00	146.00	55.00	120.00	175.00
6. Intellectual Property & Technology Management	3425	34.00	...	34.00	39.00	...	39.00	35.00	...	35.00
7. New Millenium Indian Technology Leadership Initiative	3425	60.00	...	60.00	60.00	...	60.00	60.00	...	60.00
8. Institute of Translational Research	3425	1.00	...	1.00	1.00	...	1.00	3.00	...	3.00
Total Assistance to CSIR		1155.00	873.00	2028.00	1155.00	1201.20	2356.20	1155.00	1332.50	2487.50
9. <i>Assistance to Other Scientific Bodies</i>										
9.01 Support for R&D Schemes to Central Electronics Limited	3425	1.00	...	1.00	0.50	...	0.50	1.00	...	1.00
9.02 National Research Development Corporation	3425	10.00	...	10.00	8.00	...	8.00	6.50	...	6.50
<i>Total</i>		<i>11.00</i>	<i>...</i>	<i>11.00</i>	<i>8.50</i>	<i>...</i>	<i>8.50</i>	<i>7.50</i>	<i>...</i>	<i>7.50</i>
10. Technology Promotion, Development and Utilisation Programme (including Consultancy Development Centre)	5425	0.60	...	0.60	0.60	...	0.60	0.50	...	0.50
<i>Total</i>		<i>28.00</i>	<i>...</i>	<i>28.00</i>	<i>22.50</i>	<i>...</i>	<i>22.50</i>	<i>33.50</i>	<i>...</i>	<i>33.50</i>
11. Investment in Public Enterprises - Central Electronics Limited	4859	2.00	...	2.00	2.00	...	2.00	2.00	...	2.00
	6859	2.00	...	2.00	2.00	...	2.00	2.00	...	2.00
<i>Total</i>		<i>4.00</i>	<i>...</i>	<i>4.00</i>	<i>4.00</i>	<i>...</i>	<i>4.00</i>	<i>4.00</i>	<i>...</i>	<i>4.00</i>
12. DSIR Building and Infrastructure	4059	2.00	...	2.00
Grand Total		1200.00	878.00	2078.00	1190.00	1208.00	2398.00	1200.00	1341.00	2541.00
B. Investment in Public Enterprises	Head of Dev	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
Central Electronics Limited	12859	4.00	...	4.00	4.00	...	4.00	4.00	...	4.00
Total		4.00	...	4.00	4.00	...	4.00	4.00	...	4.00
C. Plan Outlay										
1. Other Scientific Research	13425	1196.00	...	1196.00	1186.00	...	1186.00	1196.00	...	1196.00
2. Telecommunication and Electronics Industries	12859	4.00	...	4.00	4.00	...	4.00	4.00	...	4.00
Total		1200.00	...	1200.00	1190.00	...	1190.00	1200.00	...	1200.00

1. **Secretariat – Economic Services:** Provides for Secretariat expenditure.

Council of Scientific & Industrial Research

2. **Central Administration (R&D Management Support):** The Council of Scientific & Industrial Research (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. It is the link between the laboratories, the government, the parliament and international agencies. It provides supports to the laboratories for human resources development, international scientific collaboration, publicity and public relations, performance appraisal, scientific audit etc.

3. **National laboratories:** The National Laboratory scheme is operated through 37 National Laboratories and 38 field Centres. During the Eleventh Five Year Plan the research programmes/projects/activities of the National Laboratories have been categorized into sixteen major socio-economic sectors viz Aerospace Science & Engineering; Agro, Food Processing & Nutrition Technology; Biology & Biotechnology; Chemical Science & Technology; Earth system science; Ecology & Environment; Sustainable Energy; Electronics, Photonics & Instrumentation; Engineering Materials, Mining/Minerals & Manufacturing Technology; Affordable Healthcare; Housing, Road & Construction; Information; Technology, Resources & Products; Leather; Metrology; Rural development, weaker section, SC/ST and North East; and Water: Resources & Technology.

4. **Scientists' 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. **Research Schemes, Scholarships and Fellowships (National S&T Human Resource Development):** CSIR's support to National S&T Human Resource Development extends from the age of 16 to 65 years and transcends diverse sectors and disciplines. This scheme focuses on promotion and fostering the up gradation of the stock of qualified, highly specialized scientists/engineers and technologists in R&D in all disciplines of S&T in the country, and evolving an integrated approach for the national human resource development for S&T by encouraging and promoting research in the universities and institutions of higher learning. The scheme also supports organizations to hold symposia/seminars and conferences for promotion of science. To promote science amongst youngsters, various programmes and activities would continue to be supported through a Team India partnership, which involves participation from eminent scientists and experts from academia, in-house industrial R&D units etc.

CSIR has established various fellowships in trans-disciplinary and niche areas to support researchers to face up to the challenges of the future rather than be confined to areas where there are limited opportunities and challenges. CSIR also inculcates a spirit of entrepreneurship in the research scholars to establish their own R&D enterprise through appropriate motivation, skills development and venture financing.

6. **Intellectual Property & Technology Management:** The objective of the scheme is to enhance the volume and value of Intellectual Property (IP) generated by CSIR and to share the best innovation and technology management practices organizationally and with the Indian S&T community at large. The volume of IP rights secured by CSIR has greatly increased over the time. The major task, however, is to realize adequate and appreciable value from the IPR.

7. **New Millennium Indian Technology Leadership Initiative (NMITLI):** NMITLI scheme envisages to catalyze innovation centred scientific and technological developments as a vehicle to attain for Indian economy a global leadership position in selected niche areas in a 'Team India' partnership. During the Tenth Plan NMITLI has created a brand image and is viewed today as a benchmark of Public Private Partnership (PPP) schemes which is being emulated by various other government departments. Newer approaches of innovation development need would be evolved and experimented. Following are a few of the concepts to expand NMITLI during the Eleventh Plan.

- Pre and post NMITLI
- Funding with industry (50:50 Initiative)
- Co-financing with Venture Capital funds
- Long term sustained efforts in selected areas (NMITLI innovation centres)
- Acquisition of early stage relevant knowledge / IP for portfolio building.

8. **Institute of Translational Research:** Biological/clinical research is increasingly becoming interdisciplinary. At the same time, translational research/stem cell research etc need focused attention of scientists from different fields. There is a need for setting up few Institute of Translational Research across several subject domains and in multiple locations as part of CSIR Innovation Complexes. The proposed institutes would aim at:

- Application of knowledge of modern biology into clinical care.
- Systematic collection and analysis of large amounts of clinical data.
- Development of ways and means of personalized medicine.
- Development of specific stem cell populations to treat a variety of illnesses such as Parkinson's disease, Type I diabetes, retinal degeneration, myocardial infarction, spinal cord damage, multiple sclerosis and many others.
- Molecular diagnosis: Development of new diagnostic markers/tools/methods and providing the services of the same and genetic counseling.
- Training

9. **Assistance to Other Scientific Bodies**

9.01 **Support for R&D Schemes to Central Electronics Limited**

Major programmes to be pursued shall be:

- Development of Solid State Block equipment
- Development of Automatic Equipment Identification System

9.02 National Research Development Corporation (NRDC)

NRDC shall continue the Invention Promotion Programme and Technology Promotion Programme during 2009-10 in project mode.

10. Technology Promotion, Development and Utilization Programmes (TPDU) (including Consultancy Development Centre): The components of TPDU Programmes that will be actively pursued during 2009-10 shall be as follows:

- (i) one time support for creation/modernization of R&D infrastructure facilities in in-house R&D units of industry and SIROs;
- (ii) support for creation of shared R&D facilities in PPP mode;
- (iii) support for creation of IP fund in universities and public funded institutions in line with Public Funded IP Bill 2008;
- (iv) investment in equity of R&D companies through NRDC;
- (v) grants in the form of technical service vouchers to SMEs;

- (vi) TePP Open Innovation Network and
- (vii) 'Wealth from waste' project

Consultancy Development Centre

Major programmes to be pursued shall be:

- Establishment of CDC-TCO consortium
- Technology consultancy centers for CSIR rural technologies
- Education/training/capacity building of consultancy capabilities
- Course development for institute of consultancy management

11. Investment in Public Enterprises - Central Electronics Limited

Investment & Loan:

Major programmes to be pursued shall be

- Creation of infrastructure for Technology Absorption and Commercialization of Security System
- Expansion of manufacturing capacity of PCMs to produce 30,000 to 40,000 Nos. per year