

ABOUT THE DIRECTORY

INTRODUCTION

Centre for Human and Organisational Resource Development (CHORD) division of the Department of Science & Technology (DST) has been compiling information annually on extramural (also called sponsored) R&D projects since 1990-91 in order to exchange information on Research and Development (R&D) projects with different interest groups. This compiled information is published as an annual Directory of Extramural Research and Development projects approved for funding by various agencies during the year.

The task of collecting, compiling, analyzing and publishing the directory for the year 2015-16 was sponsored by the Department of Science & Technology to Manpower Management Centre (MMC), New Delhi. The present directory, 26th in the series, gives details of 4303 sponsored R&D projects approved during the year 2015-16 by 18 Central Government Ministries/Departments/Agencies.

The following Ministries/Departments/Agencies of the Central Government have furnished the list of projects approved by them:

- 1 Council of Scientific and Industrial Research (CSIR)
- 2 Defence Research and Development Organisation (DRDO)
- 3 Department of Atomic Energy (DAE)
- 4 Department of Bio-Technology (DBT)
- 5 Department of Coal (DOC)
- 6 Department of Science and Technology (DST)
- 7 Department of Scientific and Industrial Research (DSIR)
- 8 Indian Council of Agricultural Research (ICAR)
- 9 Indian Council of Medical Research (ICMR)
- 10 Indian Space Research Organisation (ISRO)
- 11 Ministry of AYUSH (AYUSH)
- 12 Ministry of Earth Sciences (MOES)
- 13 Ministry of Electronics & Information Technology (MEITY)
- 14 Ministry of Environment, Forests & Climate Change (MOEFCC)
- 15 Ministry of New & Renewable Energy (MNRE)
- 16 Ministry of Power (MOP)
- 17 Petroleum Conservation Research Association (PCRA)
- 18 University Grants Commission (UGC)

Note:

Ministry of Social Justice and Empowerment has been removed from the list as they do not conduct projects related to R&D in S&T. The addresses of all above mentioned agencies are given in **Annexure-1**.

LIMITATIONS

Manpower Management Centre (MMC) collects data from number of Divisions in the Central Scientific Ministries/Departments/Agencies which promote Extramural R&D projects as per the standardized questionnaire designed by the CHORD division, DST. Each division has several schemes under which R&D projects are sanctioned and hence it opens up multiple contact points for MMC to interact and thereby it's a time consuming process. Often shortage of staff at these Ministries/Departments/Agencies leads to delay of data dissemination and hence MMC has to follow-up multiple times over recurring months to get the data. Despite repeated efforts and personal visits of Research Team of MMC, quite a few funding agencies took months to provide the data. Moreover, data accuracy is also challenge as data provided by several funding agencies was in abbreviated form such as acronym of Institution, name, missing designations, incomplete addresses/PIN of the Institutes, no details regarding duration of the projects & subject-areas etc. Cross-validation through organization website's was also difficult as most updated data was not available on the website. The Research Team of MMC had to put in extra efforts to complete this information by communicating several times with the funding agencies. As the listing of projects is based on the inputs received from the responding agencies, it is presumed that the information furnished by them was complete. The project cost refers to the initial approved cost of the project for the initial approved duration of the project. It is quite possible that some of the projects mentioned in this directory may not be R&D Projects in the strict sense of the term.

Despite these limitations, a lot of support was extended by Dr. Parveen Arora and Shri P K Arya and their team at DST to enable and conduct LPAC meetings, exchange ideas and fulfillment of any gaps for ensuring data collection. It is sincerely hoped that this directory will serve as a useful source of information for scientists, technologists, funding agencies, implementing institutions, planners and policy makers.

ORGANISATION OF THE DIRECTORY

The projects have been listed in the directory by major subject area-wise. Under each major subject area, the projects have been arranged by funding agency-wise and also scheme-wise within funding agency. Under each scheme, the projects have been arranged alphabetically as per the title of the project. For each project, the information included is record number, title of the project, name of the funding agency/scheme, name and address of the investigator/institute, approved cost of the project and the duration of the project. The third column of the directory gives the name of funding agency and scheme. For example, this has been given as "DAE-BRNS". Here "DAE" is the name of the funding agency i.e. Department of Atomic Energy and "BRNS" is the acronym used for the name of the scheme under which the project was approved. For explanation of abbreviations/acronym for the agencies and schemes, the readers are advised to see **Table 1 & 2** under the Section "**BRIEF ANALYSIS**". For a quick reference, Index pages on Principal Investigator and Institute etc., have been provided in the directory at the end. The addresses of the funding agencies have been given at **Annexure-1**. **Annexure-2** gives institute-wise extramural R&D support committed during the year 2015-16. A brief analysis on the pattern of funding during the year 2015-16 is given in the following paragraphs.

BRIEF ANALYSIS

As shown in **Table 1**, 4303 new extramural R&D projects costing **Rs. 1589.64 Crore** were approved by 18 responding agencies during the year 2015-16. While Scheme-wise support to these extramural R&D projects by responding agencies is given in **Table 2**.

Table 1

Agency-wise Support to Extramural R&D Projects approved during 2015-16

S. No.	Department/Ministry/Agency	No. of Projects		Total Approved Cost (Rs. Crore)	
		No.	%age	Rs.	%age
1	Council of Scientific and Industrial Research (CSIR)	145	3.37	24.86	1.56
2	Defence Research and Development Organisation (DRDO)	103	2.39	60.06	3.78
3	Department of Atomic Energy (DAE)	150	3.49	38.04	2.39
4	Department of Bio-Technology (DBT)	470	10.92	487.68	30.68
5	Department of Coal (DOC)	7	0.16	38.36	2.41
6	Department of Science and Technology (DST)	1626	37.79	577.57	36.33
7	Department of Scientific and Industrial Research (DSIR)	14	0.33	1.81	0.11
8	Indian Council of Agricultural Research (ICAR)	197	4.58	55.96	3.52
9	Indian Council of Medical Research (ICMR)	76	1.77	21.60	1.36
10	Indian Space Research Organisation (ISRO)	50	1.16	10.72	0.67
11	Ministry of AYUSH (AYUSH)	23	0.53	10.83	0.68
12	Ministry of Earth Sciences (MOES)	83	1.93	56.73	3.57
13	Ministry of Electronics & Information Technology (MEITY)	28	0.65	74.99	4.72
14	Ministry of Environment, Forests & Climate Change (MOEFCC)	16	0.37	7.28	0.46
15	Ministry of New & Renewable Energy (MNRE)	15	0.35	30.86	1.94
16	Ministry of Power (MOP)	18	0.42	6.05	0.38
17	Petroleum Conservation Research Association (PCRA)	4	0.09	0.79	0.05
18	University Grants Commission (UGC)	1278	29.70	85.45	5.38
Total		4303	100	1589.64	100

Note:

- Nil Reports for the year 2015-16 were provided by the Department/Ministry/Agencies namely: Ministry of Steel, Ministry of Water Resources.
- Nil Reports for the year 2015-16 were provided by the some of the schemes by select Department/Ministry/Agencies namely:
All India Council for Technical Education-RPS, Department of Scientific & Industrial Research-PACE & TDDP, Department of Science & Technology-IRPHA, Mega Sc. & MES, Indian Space Research Organisation-SSP, Indian Council of Agricultural Research-Fisheries, Indian Council of Medical Research – CAR, Ministry of Environment Forests & Climate Change-NRCP & NNRMS, Ministry of Earth Sciences-ESST.
- The addresses of all the above agencies are given in **Annexure-1**.

Table 2
Scheme-wise Support to Extramural R & D Projects approved during 2015-16

S. No.	Department/Ministry/Agency	Number of Projects	Total Approved Cost (Rs. Crore)
	- Schemes		
1	Council of Scientific and Industrial Research (CSIR)		
	- Emeritus Scientist (ES)	13	2.86
	- General Scheme (GS)	132	22.00
2	Defence Research and Development Organisation (DRDO)		
	- Aeronautical Research & Development Board (AR&DB)	41	32.29
	- Grants-in-aid Scheme (GIA)	43	22.29
	- Life Science Research Board (LSRB)	2	0.70
	- Naval Research Board (NRB)	17	4.78
3	Department of Atomic Energy (DAE)		
	- Board for Research in Nuclear Sciences (BRNS)	150	38.04
4	Department of Bio-Technology (DBT)		
	- Research & Development (R&D)	470	487.68
5	Department of Coal (DOC)		
	- Science & Technology (S&T)	7	38.36
6	Department of Science and Technology (DST)		
	- Advanced Manufacturing Technologies (AMT)	1	0.28
	- Cold Desert Regions (CODER)	1	0.34
	- Drugs & Pharmaceutical Research Programme (DPRP)	1	4.00
	- Instrument Development Programme (IDP)	33	13.96
	- Interdisciplinary Cyber Physical Systems (ICPS)	1	20.60
	- International Bilateral Cooperation (IBC)	88	19.14
	- International Multilateral & Regional Cooperation (IMRC)	6	4.07
	- Nano-Mission (N-M)	55	59.27
	- National Council for Science & Technology Communication (NCSTC)	212	26.70
	- Natural Resources Data Management System (NRDMS)	49	7.85
	- Scheduled Caste Sub Plan (SCSP)	20	6.50
	- Scheme for Young Scientists & Technologists (SYST)	22	3.92
	- Science & Engineering Research Board - Early Career Research (SERB-ECR)	38	12.05
	- Science & Engineering Research Board - Empowerment & Equity (SERB-EMEQ)	167	25.51
	- Science & Engineering Research Board - Engineering (SERB-EP)	73	31.75
	- Science & Engineering Research Board - Science (SERB-SC)	564	210.96
	- Science & Technology for Women (WS)	38	6.39
	- Solar Energy (SE)	55	44.79
	- SPLICE - Climate Change Programme (SPLICE-CCP)	2	14.61
	- Sustainable Agriculture & Rural Transformation Holistic Initiative (SARTHI)	9	2.03
	- Technology Interventions for Addressing Societal Needs (TIASN)	9	1.68

- Technology Interventions for Disabled & Elderly Programme (TIDE)	8	1.08
- Waste Management Technologies (WMT)	3	2.07
- Water Technology Initiative Programme (WTI)	44	28.01
- Women Scientist Scheme - A (WOS-A)	127	30.04
7 Department of Scientific and Industrial Research (DSIR)		
- Promoting Innovations in Individuals, Start-Ups & MSME's (PRISM)	14	1.81
8 Indian Council of Agricultural Research (ICAR)		
- Agricultural Education - Extramural Fund (AGEDU)	38	3.58
- Agricultural Engineering - Extramural Fund (AGENG)	16	4.97
- Agricultural Extension - Extramural Fund (AGEXT)	25	4.07
- Animal Sciences - Extramural Fund (AS)	23	6.28
- Crop Sciences - Extramural Fund (CROPSC)	17	13.70
- Horticultural Sciences - Extramural Fund (HORTSC)	54	17.22
- Natural Resource Management - Extramural Fund (NRM)	24	6.15
9 Indian Council of Medical Research (ICMR)		
- Ad-hoc (ADHOC)	50	14.49
- Task Force (TF)	26	7.10
10 Indian Space Research Organisation (ISRO)		
- Research Sponsored (RESPOND)	50	10.72
11 Ministry of AYUSH (AYUSH)		
- Ayurveda - Extramural Research (AYURVEDA)	6	2.62
- Homoeopathy - Extramural Research (HOMOEOPATH)	3	0.91
- Siddha - Extramural Research (SIDDHA)	5	2.62
- Unani - Extramural Research (UNANI)	3	1.38
- Yoga & Naturopathy - Extramural Research (YOGA)	6	3.31
12 Ministry of Earth Sciences (MOES)		
- R&D in Earth & Atmospheric Science (R&DEAS)	83	56.73
13 Ministry of Electronics & Information Technology (MEITY)		
- Research & Development (R&D)	28	74.99
14 Ministry of Environment, Forests & Climate Change (MOEFCC)		
- Assistance to Botanic Garden Scheme (ABGS)	5	3.71
- Ecosystem Research Programme (ECRP)	2	0.44
- Environment Research Programme (ENVRP)	7	2.85
- Research Project in Socio Economic issues of the Environment (RPSE)	2	0.28
15 Ministry of New & Renewable Energy (MNRE)		
- Research, Development & Demonstration (RDD)	15	30.86
16 Ministry of Power (MOP)		
- Research Scheme on Power (RSOP)	18	6.05
17 Petroleum Conservation Research Association (PCRA)		
- Research & Development (R&D)	4	0.79
18 University Grants Commission (UGC)		
- Major Research Projects (MJRP)	527	66.31
- Minor Research Projects (MNRP)	751	19.14
Total	4303	1589.64

FUNDING AGENCY-WISE ANALYSIS

Figure 1 shows the pattern of funding by various Central Government Extramural R&D sponsoring agencies. It may be seen that the Department of Science & Technology (DST) accounted for the maximum support of Rs. 577.57 Crore (36.33%) followed by Department of Biotechnology with Rs. 487.68 Crore (30.68%). The two departments namely Department of Science & Technology (DST) & Department of Biotechnology (DBT) together played major role in extramural R&D funding in the country by contributing more than 67.01% of the total extramural R&D support at national level.

The other agencies that funded large sanctions have been the University Grants Commission with Rs. 85.45 (5.38%) followed by Ministry of Electronics & Information Technology (MEITY) at Rs. 74.99 Crore (4.72%). Support of Rs. 60.06 Crore (3.78%) was provided by the Defence Research and Development Organisation (DRDO). Ministry of Earth Sciences (MOES) provided funding of Rs. 56.73 Crore (3.57%).

R&D SUPPORT BY CENTRAL S&T AGENCIES DURING 2015-16

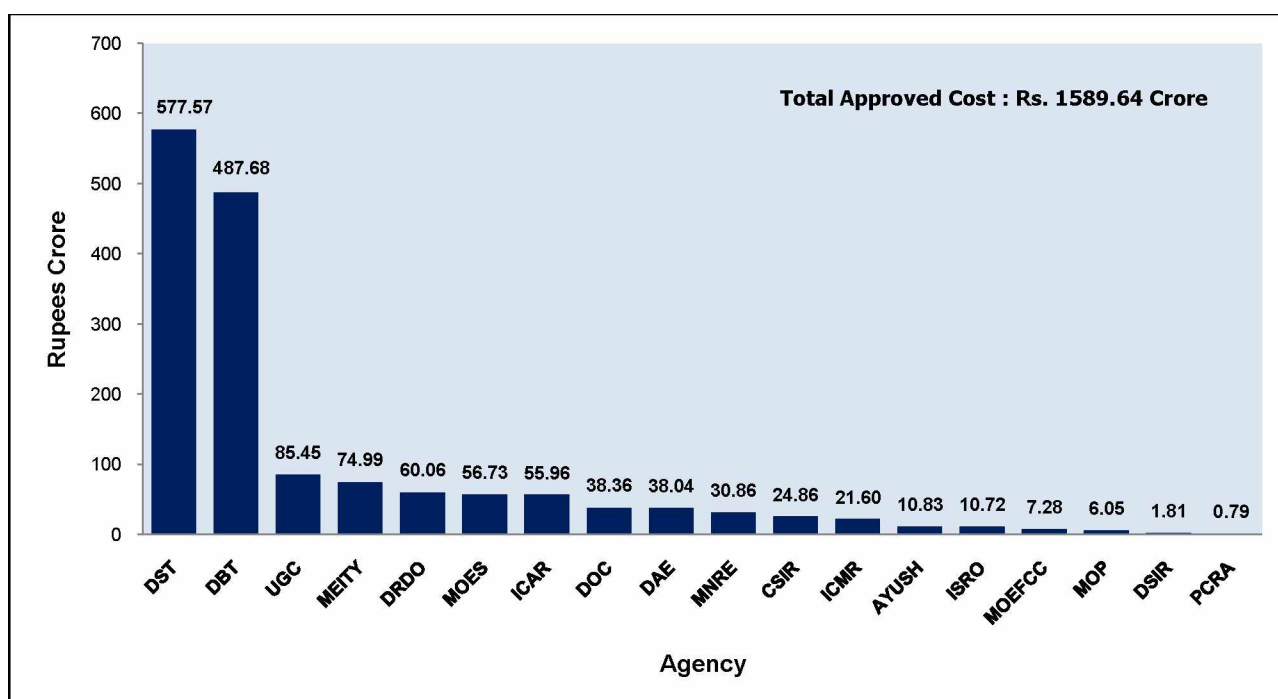


Figure 1

SUBJECT AREA-WISE ANALYSIS

The projects are classified in eight major subject areas as under:

- | | | |
|--------------------------|-----------------------------|----------------------|
| a) Agricultural Sciences | b) Biological Sciences | c) Chemical Sciences |
| d) Earth Sciences | e) Engineering & Technology | f) Mathematics |
| g) Medical Sciences | h) Physical Sciences | |

The classification of R&D projects has been done based on the **subject area** indicated by the agencies and also based on the title of the projects. Some of the projects may be multi-disciplinary in nature but have been classified into one of the subject areas mentioned above, depending on their major thrust.

Figure 2 shows number of extramural R&D projects approved in each subject area during the year 2015-16. It shows that maximum number of projects i.e. 1112 were in the area of 'Engineering & Technology'. Out of these 1112 projects, the maximum number of projects i.e. 587 were approved by the Department of Science & Technology (DST) followed by 282 projects by University Grants Commission (UGC), 96 projects by Defence Research and Development Organisation (DRDO), and 32 projects by the Indian Space Research Organisation (ISRO). A total of 1016 projects were funded by agencies namely DBT (420), UGC (313), DST (241), CSIR (25), MOEFCC (11), DSIR (3) and (1) each by DRDO, ISRO, MNRE in the 'Biological Sciences' area.

The next in order is 'Chemical Sciences' in which 700 projects were approved, as seen in **Figure 2**. Out of these, the maximum number of projects i.e. 317 were approved by Department of Science & Technology (DST), followed by 273 projects by University Grants Commission (UGC) and 53 projects by Department of Atomic Energy (DAE).

SUBJECT AREA-WISE NUMBER OF R&D PROJECTS APPROVED DURING 2015-16

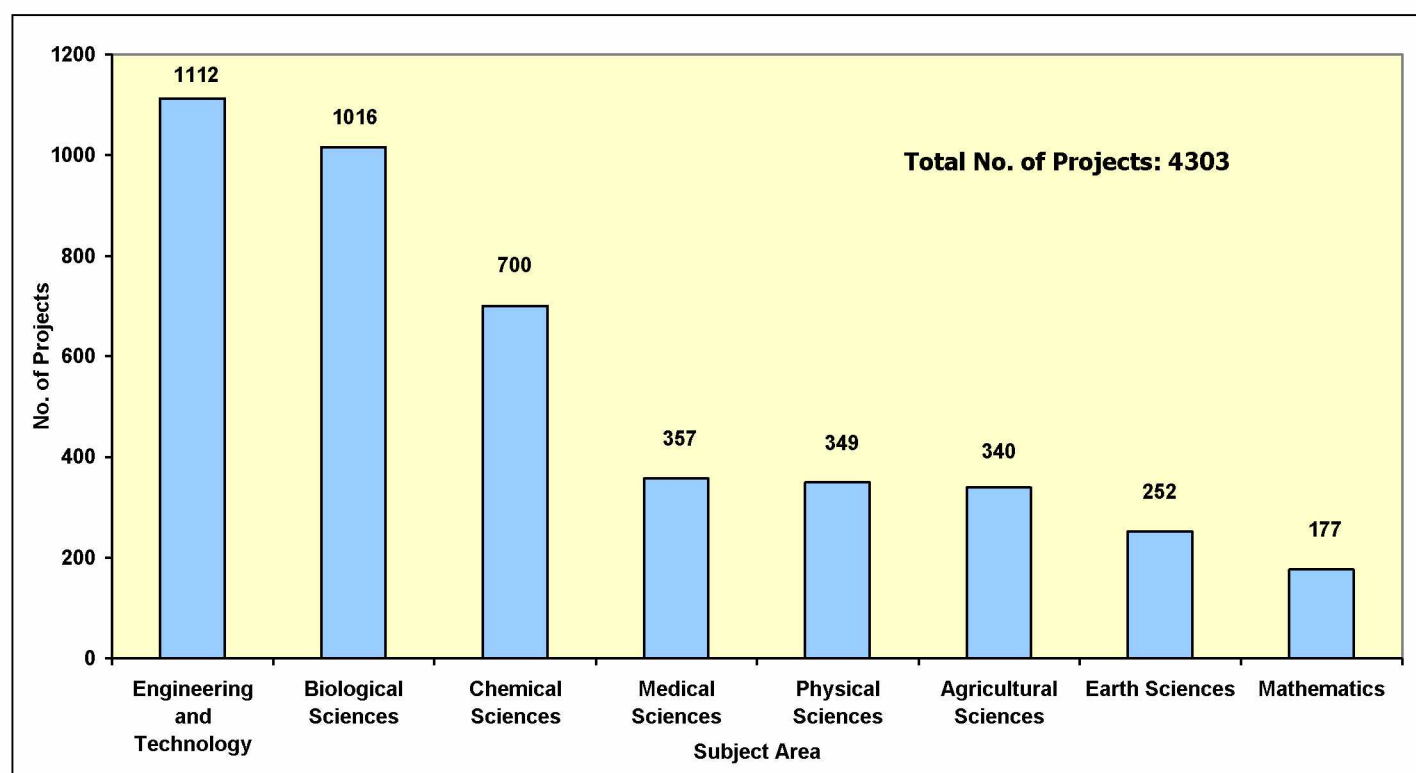


Figure 2

Figure 3 shows subject area-wise **R&D support** during the year 2015-16. Among the top 3 recipients subject area **Biological Sciences** received maximum financial support of 35.34 per cent followed by **Engineering and Technology** at 24.43 per cent and **Chemical Sciences** at 9.61 per cent. **Earth Sciences** area received financial support of 7.88 per cent followed by **Physical Sciences** at 7.69 per cent. Projects in the area of **Medical Sciences** and **Agricultural Sciences** received financial support of 7.22 per cent and 7.09 per cent respectively. The least financial support of 0.74 per cent was received by **Mathematics**.

SUBJECT AREA-WISE R&D SUPPORT BY APPROVED COST DURING 2015-16

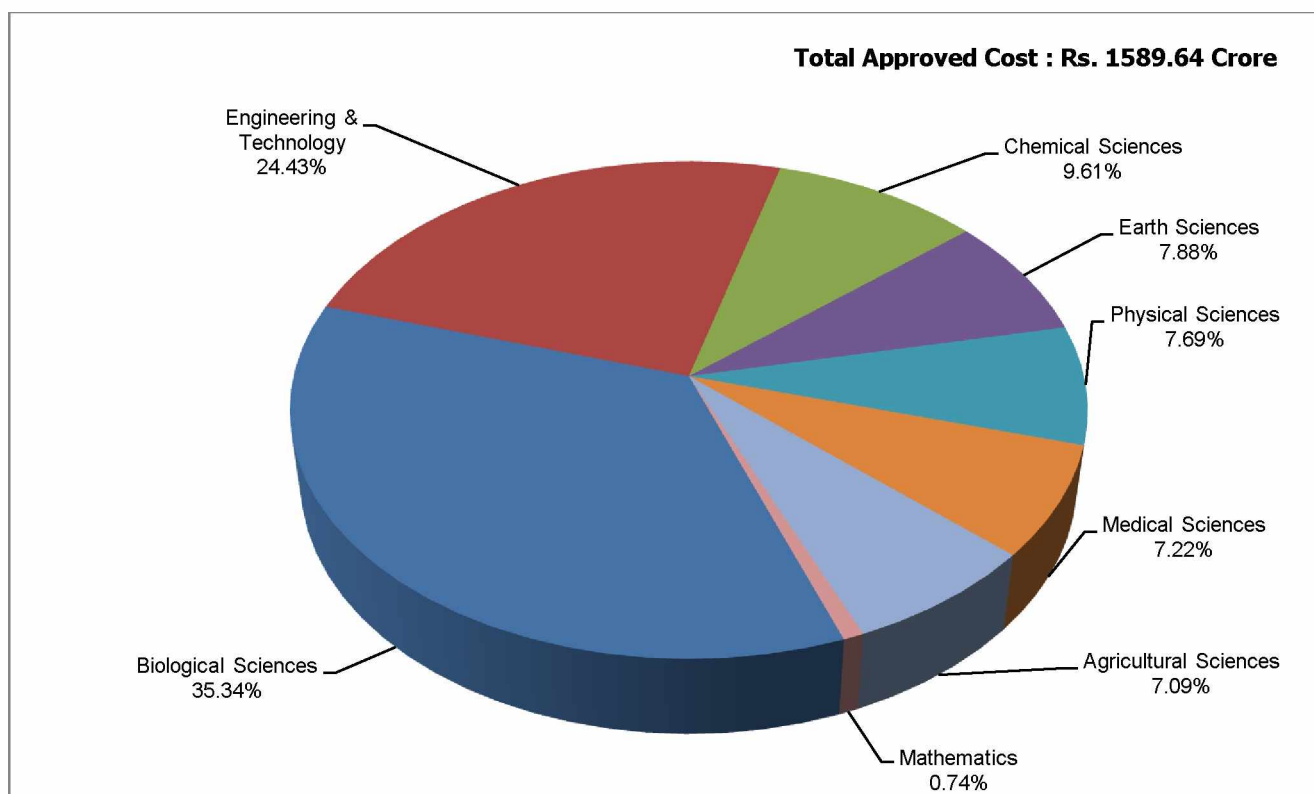


Figure 3

Table 3 gives information about the subject area-wise distribution of Extramural R&D projects along with their total approved cost.

Table 3
Subject Area-Wise Distribution of Extramural R&D Projects and their Approved Cost During 2015-16

Subject Area	Number of Projects	(Rs. Crore)
		Total Approved Cost
Agricultural Sciences	252	112.67
Engineering and Technology	1112	388.42
Medical Sciences	340	114.71
Natural Sciences		
Biological Sciences	1016	561.82
Chemical Sciences	700	152.76
Earth Sciences	357	125.19
Mathematics	177	11.83
Physical Sciences	349	122.24
Total:	4303	1589.64

TYPES OF INSTITUTE-WISE ANALYSIS

The institutions have been classified into five categories such as:

- A. Universities/Colleges
- B. Deemed Universities
- C. Institutes of National Importance
 - Indian Institute of Technology, All India Institute of Medical Sciences, Indian Statistical Institute, P.G. Institute of Medical Education & Research and Sree Chitra Tirunal Institute for Medical Sciences & Technology
- D. National Research Laboratories
 - Laboratories under CSIR, ICAR, ICMR, DRDO and autonomous institutions under Central Government Ministries/Departments, Central Public Sector Undertakings
- E. Others
 - Institutions which are not covered under A, B, C & D above.

The distribution of Extramural R&D Projects by types of Institutes with their approved cost has been indicated in **Table 4**. The number given in column 2 in this Table refers to **unique institutes** which received 4303 projects for implementation.

Table 4

**Distribution of Extramural R&D projects by Types of Institutes
& their Approved Cost During 2015-16**

Types of Institutes	Number of Institutes	Number of Projects	Total Approved Cost (Rs. Crore)	Percentage of Total Approved Cost
(1)	(2)	(3)	(4)	(5)
Universities/Colleges	746	2243	478.27	30.09
Deemed Universities	19	186	86.89	5.47
Institutes of National Importance	54	681	405.56	25.51
National Laboratories	45	236	95.94	6.04
Others	513	942	521.22	32.79
Total:	1377	4288	1587.88	99.89
Individual Scientists*		15	1.77	0.11
G.Total:		4303	1589.64	100

* **Note:** Distribution is shown at the end of Annexure 2.

Figure 4 hereunder shows the percentage distribution of number of projects and its approved cost by types of Institutions during the year 2015-16. The maximum number i.e. 52% of the projects were sanctioned to Universities/Colleges with financial support of 30%. Institute of National Importance received 16% of the projects with financial support of 26%. 22% of the total projects were given to Others category and 5% to National Laboratories with financial support of 33% and 6% respectively. 4% of the projects were given to Deemed Universities with financial support of 5%. The total financial support to academic sector (A, B & C categories) was 61%.

DISTRIBUTION OF R&D PROJECTS BY TYPES OF INSTITUTES & APPROVED COST DURING 2015-16

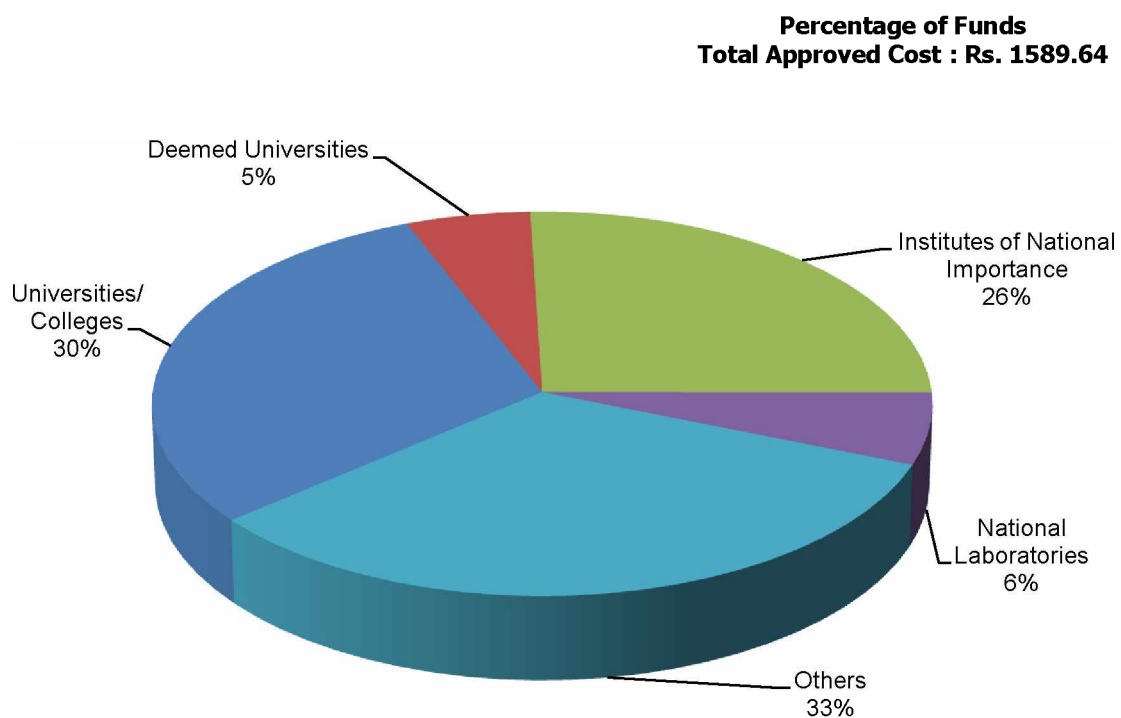
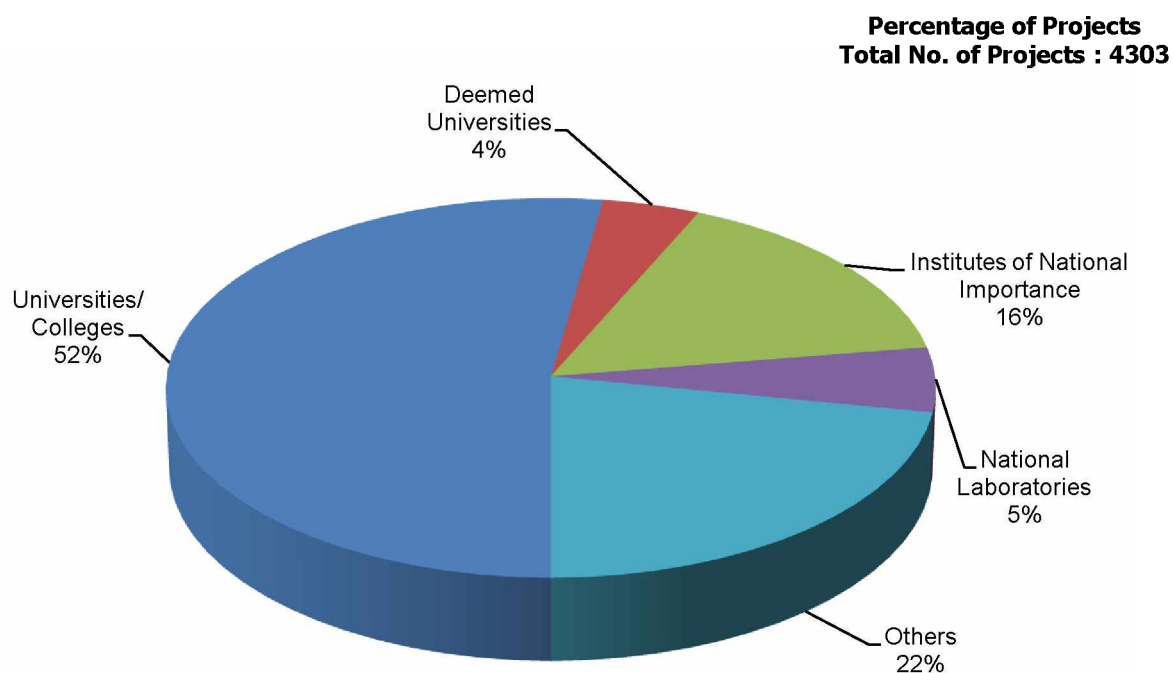


Figure 4

COST RANGE-WISE ANALYSIS

As per **Figure 5**, the analysis indicates that 1670 projects were in the cost range of Rs. 25 lakh & above. In addition to these, there were 2634 projects costing less than Rs. 25 lakh i.e. 772 projects were between the cost range of Rs. 1 to 5 lakh followed by 339 projects in the cost range of Rs. 20 to 25 lakh, 460 projects were in the cost range of Rs. 15 to 20 lakh and 637 projects were in the cost range of Rs.10 to 15 lakh. 362 projects were between the cost range of Rs. 5 to 10 lakhs, There were 63 projects costing less than Rs.1 lakh.

DISTRIBUTION OF R&D PROJECTS BY APPROVED COST DURING 2015-16

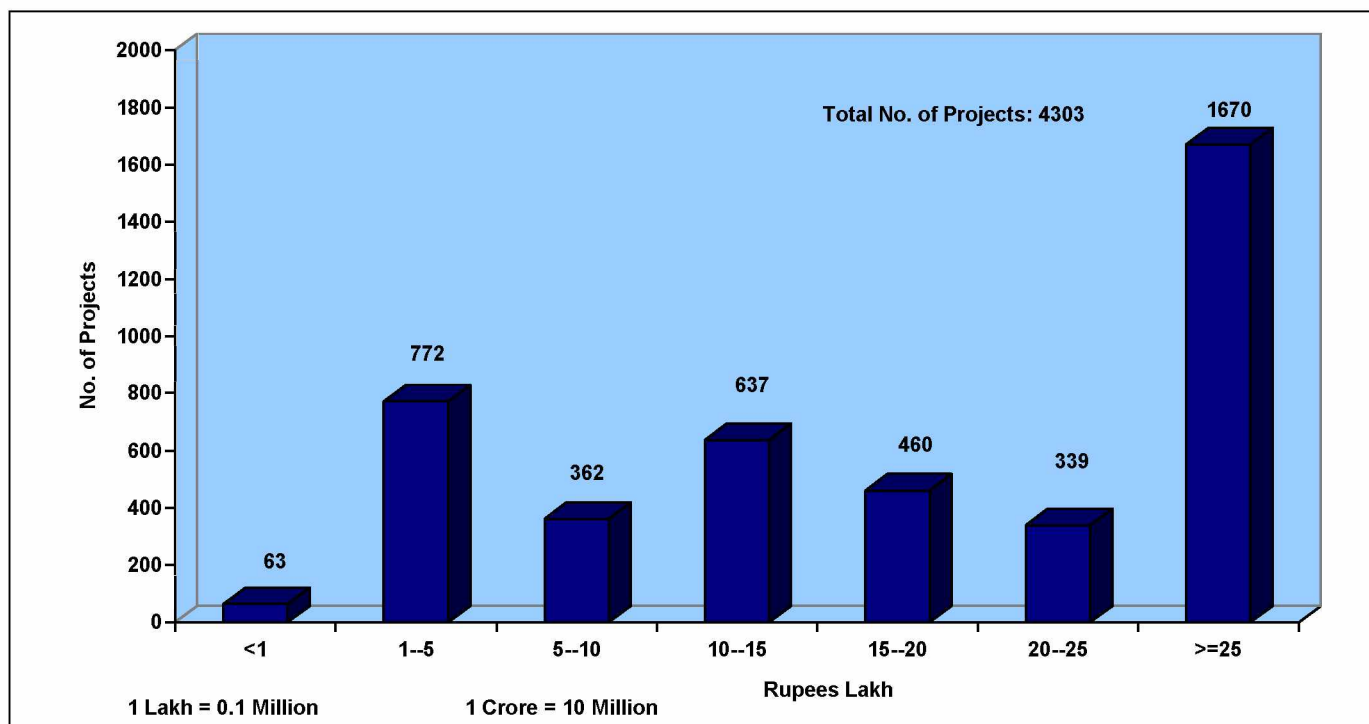


Figure 5

Agency-wise distribution of 1670 large projects costing equal to and above Rs. 25 lakh each has been given in **Figure-6**. Out of this, maximum number of projects i.e. 869 were funded by the Department of Science & Technology (DST) followed by 405 by the Department of Biotechnology (DBT), 91 projects by Indian Council of Agricultural Research (ICAR), 60 projects each by Defence Research & Development Organisation (DRDO) & Ministry of Earth Sciences (MOES), 52 projects by Department of Atomic Energy (DAE), 28 projects by Indian Council of Medical Research (ICMR) and 25 projects by Ministry of Electronics & Information Technology (MEITY). A total of 81 projects were funded by other agencies i.e. AYUSH (20), MNRE (14), MOP (13), ISRO (12), MOEFCC (9), DOC (6), CSIR (5), DSIR (1) and PCRA (1).

**AGENCY-WISE DISTRIBUTION OF R&D PROJECTS
COSTING Rs. 25 LAKH & ABOVE DURING 2015-16**

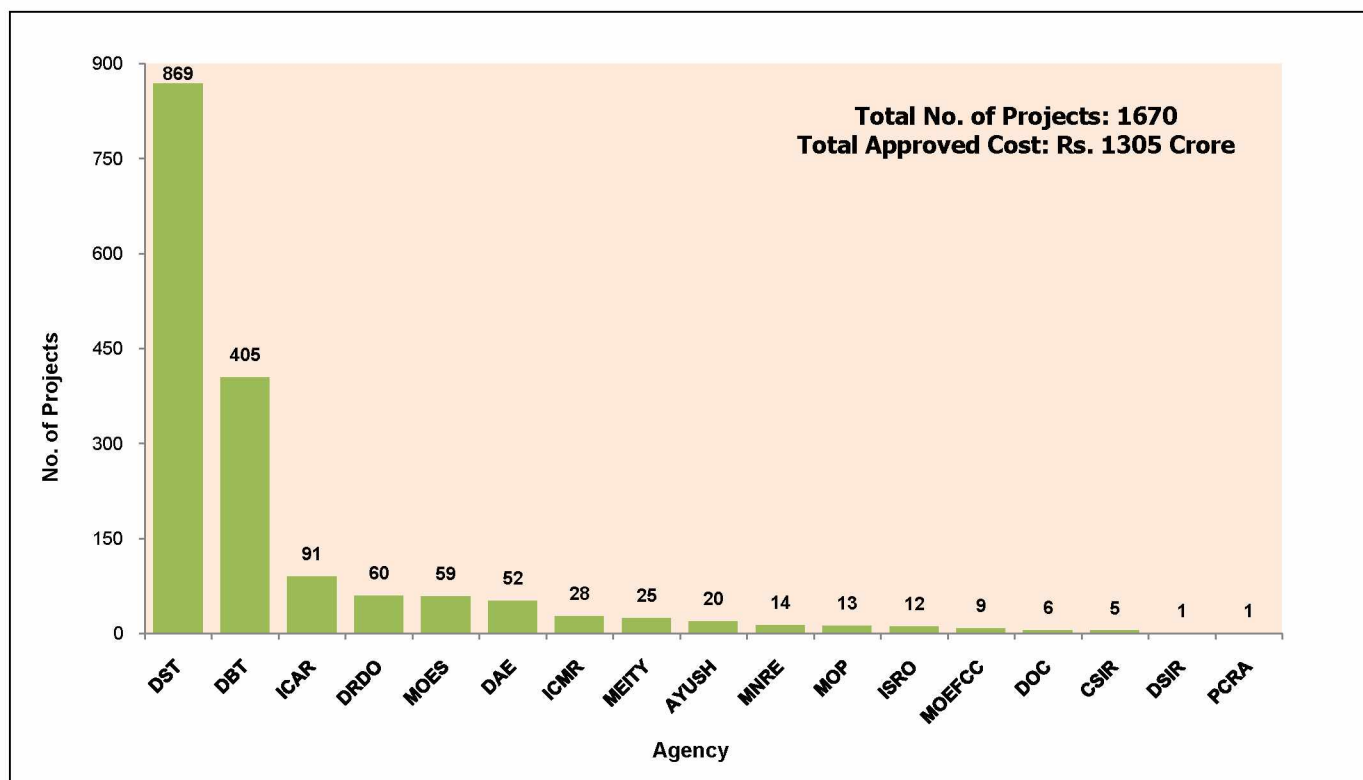


Figure 6

As may be seen from **Figure 5**, the total number of projects costing Rs. 25 lakh and above were 1670. Distribution of these projects, along with total approved cost has been shown in **Table 5 & 6 and Figure 7 & 8**. The highest number of projects i.e. 1073 were in the cost range of Rs. 25-50 lakh, 351 in the range of Rs. 50-75 lakh and 69 projects were in the range of Rs. 75-100 lakh. There were 112 projects between the cost range of Rs. 1-2 Crore.

Table 5
Distribution of Extramural R&D Projects costing Rs. 25 Lakh to ≥ 2 Crore
During 2015-16

Cost Range (Rs. Lakh)	Number of Projects	Total Approved Cost (Rs. Crore)
25-50	1073	386
50-75	351	208
75-100	69	59
100-125	54	58
125-150	27	38
150-175	17	27
175-200	14	26
Total:	1605	802

**DISTRIBUTION OF R&D PROJECTS BY APPROVED COST OF
RS. 25 LAKH TO \geq 2 CRORE DURING 2015-16**

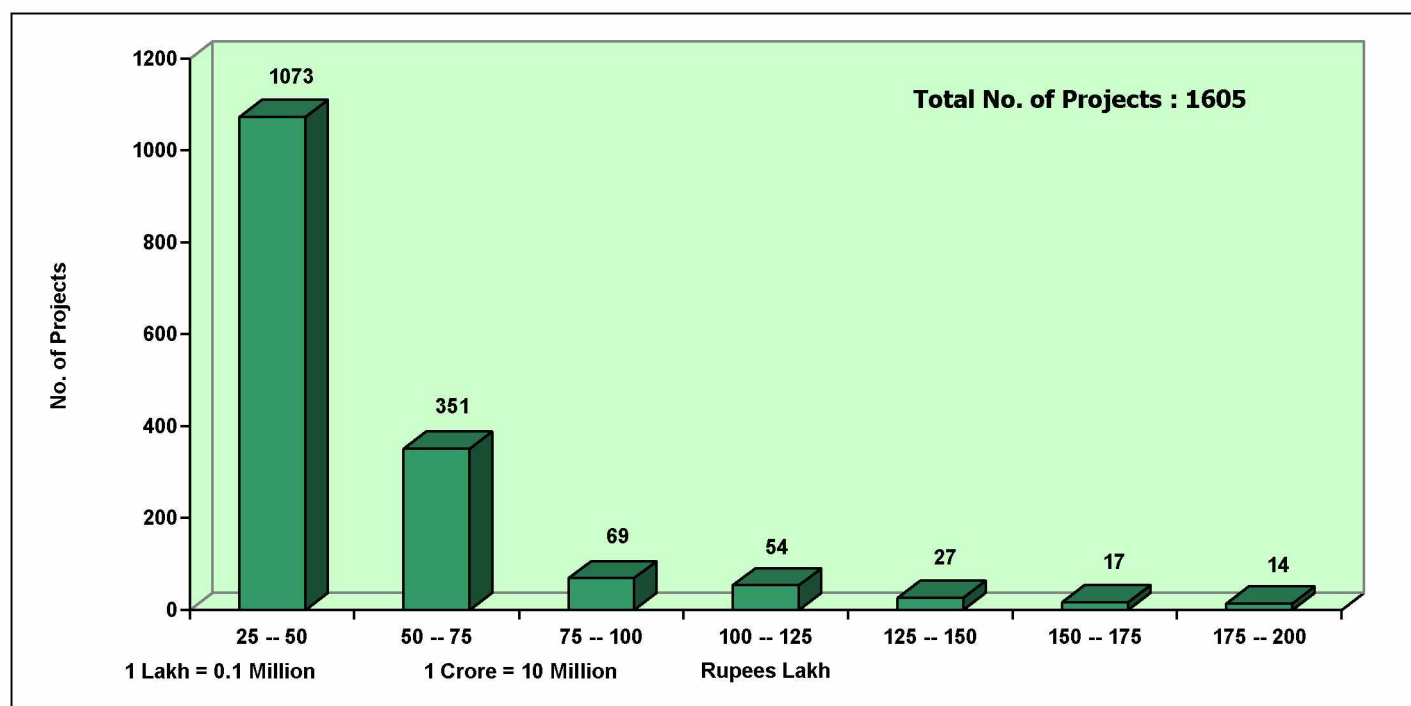


Figure 7

Table 6
Distribution of Extramural R&D Projects costing Rs. 2 Crore to \geq 5 Crore
During 2015-16

Cost Range (Rs. Crore)	Number of Projects	Total Approved Cost (Rs. Crore)
2.0 - 2.5	13	28
2.5 - 3.0	10	29
3.0 - 3.5	3	9
3.5 - 4.0	3	11
4.0 - 4.5	6	26
4.5 - 5.0	8	38
\geq 5.0	22	362
Total:	65	503

**DISTRIBUTION OF R&D PROJECTS BY APPROVED COST OF
Rs. 2 CRORE TO >= 5 CRORE DURING 2015-16**

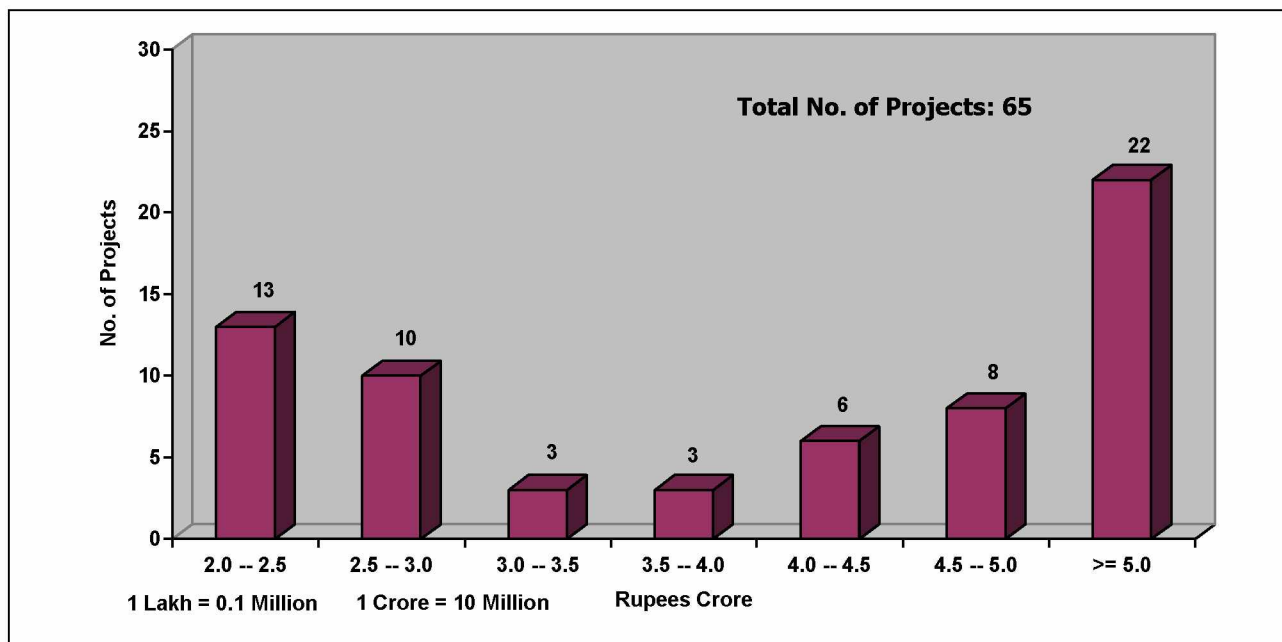


Figure 8

As per **Figure 8**, the high valued projects sanctioned during the year were 65. The high valued projects sanctioned by both Department of Biotechnology (DBT) and Department of Science & Technology (DST) were 19 each amounting to Rs. 236.54 Crore and Rs. 96.86 Crore respectively. Ministry of Electronics & Information Technology (MEITY) sanctioned 7 high valued projects of Rs. 62.16 Crore followed by 6 projects of Defence Research and Development Organisation (DRDO) of Rs. 21.02 Crore. DOC, MNRE, and MOES all sanctioned 4 high value projects each of Rs. 36.47 Crore, Rs. 25.52 Crore and Rs. 17.61 Crore respectively. DAE and ICAR sanctioned 1 high value projects each of Rs. 4.18 Crore and Rs. 2.80 Crore respectively.

Figure 9 indicates that there were 177 projects costing Rs. 1 Crore & above which were funded by 11 agencies during 2015-16. Majority of these projects i.e. 84 (47.46%) were funded by the Department of Biotechnology (DBT) followed by 41 (23.16%) projects by Department of Science & Technology (DST), 15 (8.47%) projects by Ministry of Earth Sciences (MOES). The remaining 37 (20.90%) projects were funded by other eight agencies namely DRDO (13), MEITY (9), DOC (4), MNRE (4), ICMR (3), ICAR (2), DAE (1), MOEFCC (1).

**AGENCY-WISE DISTRIBUTION OF R&D PROJECTS
COSTING RS. 1 CRORE & ABOVE DURING 2015-16**

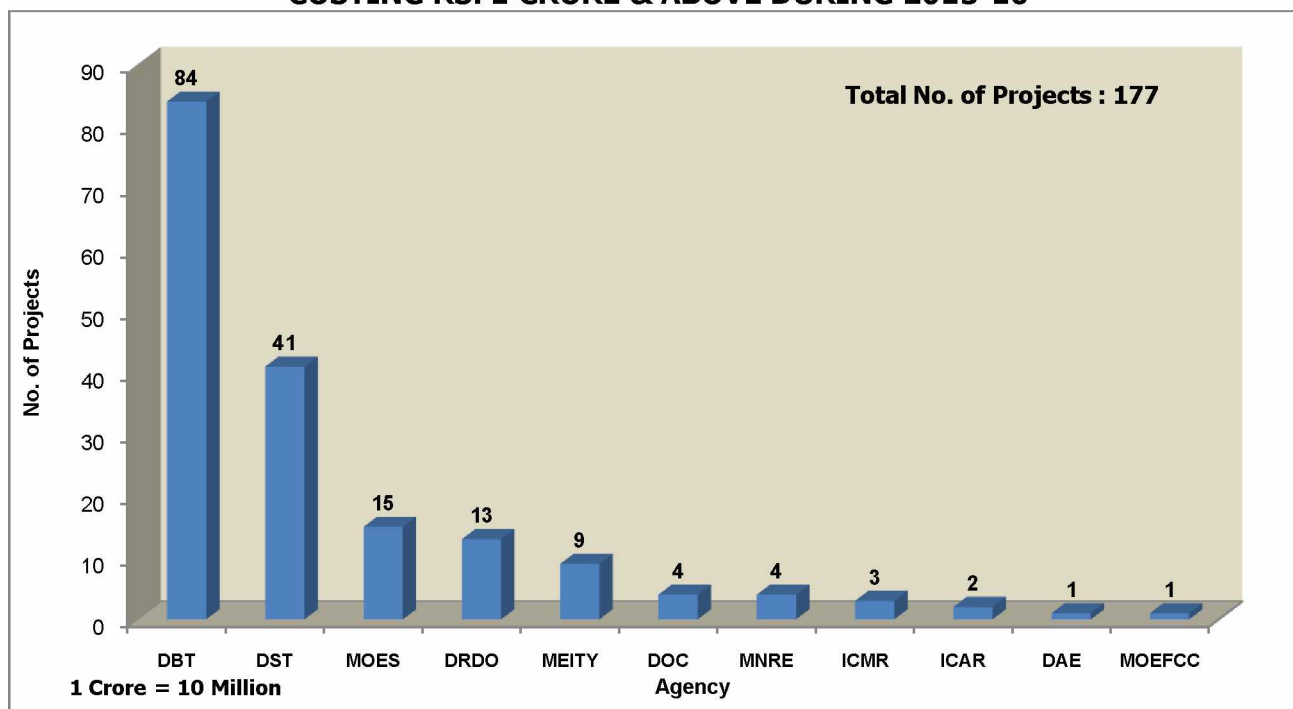


Figure 9

It may be seen from **Figure 10** that there were 22 projects costing Rs. Five Crore and above sanctioned by six agencies. The maximum number of projects i.e. 10 were funded by the Department of Biotechnology (DBT), 5 projects by the Department of Science & Technology (DST) followed by 4 projects by the Ministry of Electronics & Information Technology (MEITY). The remaining 3 projects were funded by the other 3 agencies namely by DOC (1), MNRE (1), and MOES (1).

**AGENCY-WISE DISTRIBUTION OF R&D PROJECTS COSTING
RS. 5 CRORE & ABOVE DURING 2015-16**

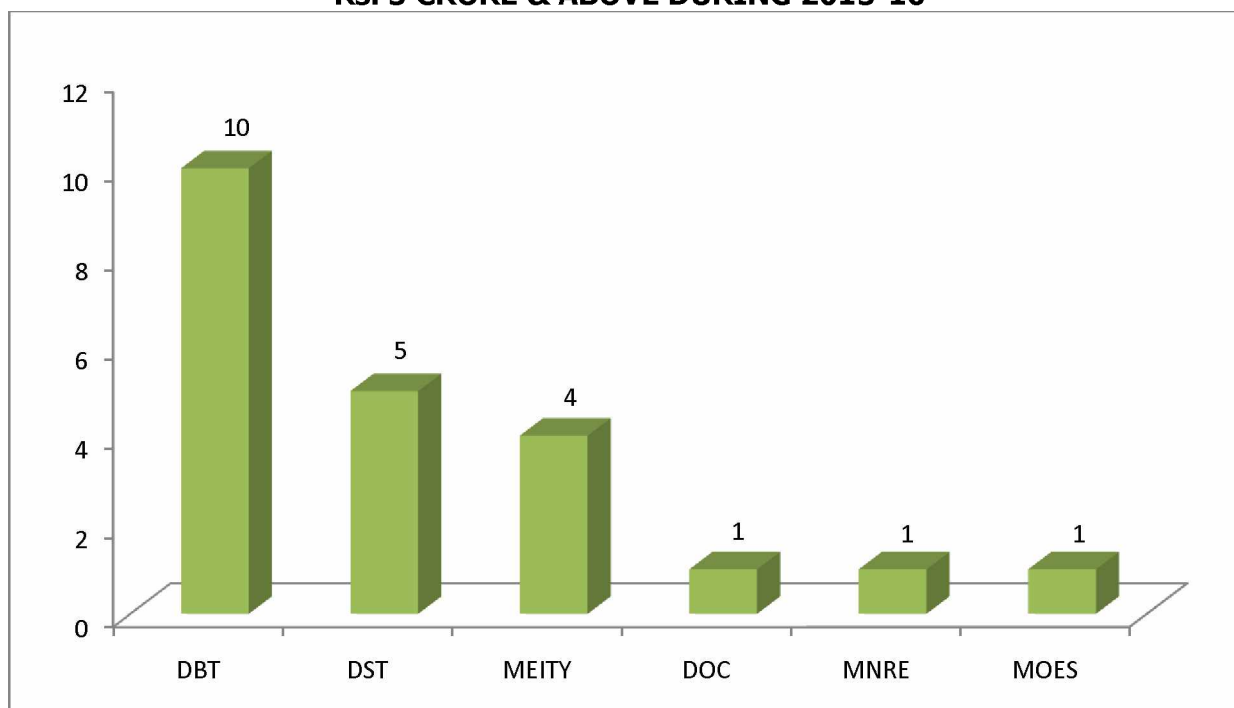


Figure 10

GENDER-WISE ANALYSIS : PRINCIPAL INVESTIGATORS (PIs)

The gender-wise distribution of 3808 PIs for 4303 Extramural R&D Projects is shown in **Table 7**. It is pertinent to note that women participation as PIs of Extramural Projects was 26 per cent in comparison to 29 per cent during 2014-15. These female PIs have taken up 25 per cent of the total 4303 projects this year in comparison to 27 per cent of total projects 5420 during the previous year of 2014-15.

Table 7
Gender-wise Distribution of Principal Investigators During 2015-16

Gender	Principal Investigator		Projects	
	Number	%age	Number	%age
Male	2628	69	3049	71
Female	993	26	1067	25
Heads*	187	5	187	4
Total	3808	100	4303	100

***Note:** Projects approved to Heads of Organisations & Institutions, their gender information is not available.

GENDER-WISE ANALYSIS : CO-PRINCIPAL INVESTIGATORS (CO-PIs)

As a new initiative for the 1st time DST through its Extramural R&D survey requested for information on Co-PIs. The gender-wise distribution of 1834 Co-PIs for 879 Extramural R&D Projects is shown in **Table 8**. Women participation as Co-PIs of Extramural projects was 19 per cent.

Table 8
Gender-wise Distribution of Co-Principal Investigators During 2015-16

Gender	Co-Principal Investigator	
	Number	%age
Male	1480	81
Female	354	19
Total	1834	100

***Note :** Co-PIs data is based upon survey response received from various funding agencies

STATE-WISE ANALYSIS

The detailed data regarding State-wise support to extramural R&D projects is given in **Annexure-3**, which shows that the highest number of 763 projects were funded in Tamil Nadu at a total cost of Rs. 224.90 Crore (14.15%), followed by 413 projects in Karnataka costing Rs. 265.85 Crore (16.72%), 347 projects in Maharashtra costing Rs. 180.53 Crore (11.36%), 335 projects in West Bengal costing Rs. 93.70 Crore (5.89%) and 320 projects in Delhi costing Rs. 182.44 Crore (11.48%). The information about the remaining States can be seen from Annexure-3.

In all 3808 PIs and 1392 Institutions inclusive of "Individual Scientists & Others" handled 4303 Extramural R&D Projects in 33 States and Union Territories at a total cost of Rs. 1589.64 Crore.