

**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH  
RAJYA SABHA  
UNSTARRED QUESTION NO. 913  
TO BE ANSWERED ON 09.02.2023**

**PERFORMANCE OF CSIR**

913. SHRI SANJAY RAUT

Will the Minister of Science and Technology be pleased to state:

- (a) the number of research projects undertaken by Council of Scientific and Industrial Research (CSIR) along with revenue generated during each of the last three years and the current year, lab-wise;
- (b) whether there is any guideline for distributing royalties within a timeframe and mechanism for avoiding delay, if so, the details thereof, if not, the reasons therefor; and
- (c) whether it is a fact that performance of CSIR is on the decline day-by-day and its laboratories are suffering from shortage of scientists and funds, if so, the reaction of Government thereto?

**ANSWER**

**MINISTER OF STATE (INDEPENDENT CHARGE) OF  
SCIENCE AND TECHNOLOGY & EARTH SCIENCES**

(DR JITENDRA SINGH)

- (a) The number of research projects undertaken by Council of Scientific and Industrial Research (CSIR) during each of the last three years and the current year is as under:

Year	Externally Funded Project	In-house Projects
2019-20	4371	344
2020-21	3285	804
2021-22	1439	351
2022-23*	1079	297

\* till 31.12.2022

External cash flow (Funds received from various sponsoring agencies for execution of the projects) generated by CSIR during each of the last three years and the current year is at Annexure – I.

- (b) Yes, Sir. CSIR has a guidelines named “CSIR Guidelines for Technology Transfer and Utilization of Knowledgebase-2017” which provides detailed provisions for distribution of Premia/Royalty received from Licensing of Knowledgebase (technology, process knowhow, improvements in process knowhow etc.) and Intellectual Property to CSIR staff.

(c) No Sir. The scientists of the constituent laboratories of CSIR have been pursuing cutting edge research innovations in advanced knowledge frontiers of science and thus has been delivering as per the national priorities. CSIR has published 5769 research papers during 2021 with Avg-IF as 5.401 and 5551 research papers in 2022 (as on 18.01.2023) with average Impact Factor (IF) as 5.295 in SCI journals of repute. CSIR papers prominently published in Nature, Science, Chemical Society Reviews, Nature Genetics, Energy and Environmental Science and other globally reputed SCI Journals. The new knowledge generated from CSIR laboratories is reflected in terms of high average Impact Factor.

Further, CSIR has filed 164 patent applications abroad and 230 patent applications in India during 2021-22, and it has been granted 165 patents abroad and 202 patents in India for the same tenure. CSIR has filed 119 patent applications abroad and 167 patent applications in India during 2022-23 (till 17 January, 2023), and it has been granted 70 patents abroad and 170 patents in India for the same tenure. The technologies developed [Technology Readiness Level-6 (TRL-6) and above)], licensed and commercialized by CSIR during the last three years and the current year is as under:

(in number)

Year	Technologies Developed (TRL 6 and Above)	Technologies Licensed	Technologies Commercialized
2019-20	322	223	92
2020-21	192	214	115
2021-22	85	162	133
2022-23*	34	111	71

\* till 31.12.2022

This reflects the motivation of CSIR scientists to aim for excellence in their field of expertise in various research domains. The Scientists position during the last three years at CSIR is as under:

Scientists in position (in number) as on		
01.04.2020	01.04.2021	01.12.2022
3482	3507	3491

CSIR has been adequately funded for research and development activities. The total fund allocated and spent by CSIR to promote and pursue R&D in the field of science and technology during the last three years and the current year is as follows:

(Rs. in Cr.)

Financial Year	B.E.	R.E.	Actual
2019-20	4831.58	4831.58	4831.58
2020-21	5312.00	4208.40	4101.22
2021-22	5144.27	5233.72	5174.34
2022-23	5562.76	5874.09	4160.75*

\* till 31.12.2022

Recently, Stanford University, USA published a comprehensive list of the top 2% of most influential scientists worldwide based on the Scopus publications impact, wherein several scientists of CSIR found their place in that 2% of world ranking (published by Elsevier). Many CSIR labs have more than 3-5 scientist in that list, thus amounting to significant total number of CSIR scientists in that prestigious list of top-class world-rank scientists. This is an indication that CSIR scientists are consistently performing better and receiving global recognition.

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**Annexure-I**

External cash flow (Funds received from various sponsoring agencies for execution of the projects) generated by Council of Scientific and Industrial Research (CSIR) during each of the last three years and the current year, lab-wise

(Rs. in lakh)

Laboratory/Institute	2019-20	2020-21	2021-22	2022-23 (till December 2022)
CSIR Fourth Paradigm Institute (CSIR-4 PI), Bangalore	187.60	222.84	75.66	23.55
CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI), Bhopal	290.92	285.69	362.20	224.20
CSIR-Central Building Research Institute (CSIR-CBRI), Roorkee	3382.70	3588.08	2854.70	3385.61
CSIR-Centre for Cellular Molecular Biology (CSIR-CCMB), Hyderabad	1880.76	3189.24	6335.29	5783.63
CSIR-Central Drug Research Institute (CSIR-CDRI), Lucknow	1577.94	1514.57	2244.21	1665.75
CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Karaikudi	1434.63	837.08	1094.09	534.69
CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani	2251.46	555.34	367.67	266.07
CSIR-Central Food Technological Research Institute (CSIR-CFTRI), Mysore	2818.30	1586.61	1779.01	1138.39
CSIR-Central Glass Ceramic Research Institute (CSIR-CGCRI), Kolkata	2300.28	1590.85	2118.52	1094.79
CSIR-Central Institute of Medicinal Aromatic Plants (CSIR-CIMAP), Lucknow	956.11	711.72	820.78	510.08
CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR) Dhanbad	101153.63	88393.15	75575.77	54359.53
CSIR-Central Leather Research Institute (CSIR-CLRI), Chennai	4013.82	1231.95	628.59	266.67
CSIR-Central Mechanical Engineering Research Institute (CSIR-CMERI), Durgapur	1448.90	1307.36	1450.97	343.28
CSIR-Central Road Research Institute (CSIR-CRRI), New Delhi	3927.48	2840.22	2367.82	2010.88
CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh	1729.38	914.91	1576.15	570.84
CSIR Headquarters	413.36	422.80	349.48	356.17

CSIR-Central Salt Marine Chemicals Research Institute (CSIR-CSMCRI), Bhavnagar	1036.66	607.96	769.98	460.82
CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB), Delhi	3462.76	4873.98	4758.29	2261.44
CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur	519.95	1016.91	1556.68	520.02
CSIR-Indian Institute of Chemical Biology (CSIR-IICB), Kolkata	558.41	644.06	539.88	414.87
CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad	4922.91	5020.67	5869.01	2728.26
CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu	693.64	888.26	3851.97	296.78
CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun	1565.23	1440.60	7284.85	3127.06
CSIR-Institute of Minerals and Materials Technology (CSIR-IMMT), Bhubaneswar	4017.68	2989.64	1933.04	1413.02
CSIR-Institute of Microbial Technology (CSIR-IMT), Chandigarh	1529.69	724.48	788.28	358.79
CSIR-Indian Institute of Toxicology Research (CSIR-IITR), Lucknow	1599.36	1150.70	1008.15	586.55
CSIR-National Aerospace Laboratories (CSIR-NAL), Bengaluru	7504.54	9152.20	13005.36	6569.04
CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow	1399.57	1188.10	669.71	473.60
CSIR-National Chemical Laboratory (CSIR-NCL), Pune	2470.79	1643.08	2143.82	1469.68
CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	5606.98	4367.93	4330.85	2886.42
CSIR-North - East Institute of Science and Technology (CSIR-NEIST), Jorhat	832.55	1120.57	2712.26	793.48
CSIR-National Geophysical Research Institute (CSIR-NGRI), Hyderabad	2742.08	2324.27	3523.28	2763.69
CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram	1298.71	1293.47	1740.89	706.33
CSIR-National Institute of Oceanography (CSIR-NIO), Goa	4019.02	2138.52	2722.10	2125.75

CSIR-National Institute of Science Communication & Information Resources (CSIR-NISCAIR), New Delhi*	19.42	7.15	55.92	0.00
CSIR-National Institute of Science, Technology and Development Studies (CSIR-NISTADS), New Delhi*	5.00	9.20	-39.99	0.00
CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur	3024.89	2206.79	2048.86	1290.02
CSIR-National Physical Laboratory (CSIR-NPL), New Delhi	2252.10	4662.86	1543.92	1844.74
CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai	1156.64	1282.47	1148.97	1146.28
<b>TOTAL (Rs. in lakh)</b>	<b>182005.85</b>	<b>159946.28</b>	<b>163966.98</b>	<b>106770.77</b>

\* Renamed as CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi w.e.f. 28.05.2021 after merger of NISCAIR and NISTADS

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