

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 1090**  
ANSWERED ON 13/02/2025

**PARTICIPATION OF WOMEN IN RESEARCH AND DEVELOPMENT FIELDS**

1090# SHRI IRANNA KADADI:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) Whether Government has introduced schemes, initiatives or fellowships to increase the participation of women in research and development fields;
- (b) if so, the details of such schemes and initiatives;
- (c) the details of funds allocated for these schemes during the last three years;
- (d) whether these schemes have encouraged women to pursue careers in science and technology; and
- (e) if so, the details of their impact in terms of increasing women's inclusion in research and development fields, along with absolute numbers and the percentage increase of women working in these sectors?

**ANSWER**

MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE  
MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES  
(DR. JITENDRA SINGH)

(a) to (b): Yes Sir. The Department of Science and Technology is implementing a holistic scheme 'Women in Science and Engineering-KIRAN (WISE-KIRAN)' to encourage and promote women in the Research & Development (R&D) in Science & Technology (S&T) domain. The WISE-KIRAN Scheme provides opportunities to women scientists, especially those who had a career break to pursue research in basic and applied sciences, to address societal challenges, and to get training in the field of Intellectual Property Rights. Under WISE-KIRAN Scheme, the WISE Fellowship for Ph.D. (WISE-PhD) programme supports women to pursue research in basic and applied sciences. Further, the WISE-Post Doctoral Fellowship (WISE-PDF) and WISE-Societal Challenges with Opportunities (WISE-SCOPE) programmes encourage women to pursue Post-Doctoral research in STEM (Science, Technology, Engineering, Mathematics) fields. The DST is also implementing the 'WIDUSHI' programme, which enables senior women scientists under two categories viz. retired (Category-A) and not in regular employment (Category-B) to continue their scientific careers. Another programme 'WISE Internship in IPR (WISE-IPR)' provides one-year on-the-job training in the field of Intellectual Property Rights.

Besides the fellowship programmes, the Department provides institutional support through 'Consolidation of University Research through Innovation and Excellence (CURIE)' Programme to develop research infrastructure and facilities in women institutions to encourage women's participation in research and development. In addition to this, Vigyan Jyoti is another unique initiative of DST that encourages meritorious girls of Class IX-XII to pursue higher education and careers in STEM (Science, Technology, Engineering, Mathematics), especially in the areas where participation of women is low. Moreover, DST is also implementing 'Gender Advancement for Transforming Institutions (GATI)' programme that aims to transform institutions for a more gender-

sensitive approach and inclusiveness with the ultimate goal to improve gender equality in STEMM (Science, Technology, Engineering, Mathematics, Medicine).

BioCARE Fellowship programme of Department of Biotechnology (DBT) aims to enhance participation of women scientists in India towards research in Biotechnology and allied area. This endeavour of DBT is giving a strong foothold to women scientists into the scientific profession, to help them re-enter into the mainstream and to provide a launch pad for further forays into the field of science and technology.

“A Special Call for Research Grants for Women Scientists (ASPIRE)” was launched for Women Scientists by Council of Scientific and Industrial Research (CSIR) during 2023. This scheme motivated women academics/scientists from all across the country to participate in state-of-the-art research and development activity and 301 women academics/scientists got benefitted from this scheme.

(c) The details of funds allocated/spent for these schemes during the last three years are as follows:

Scheme	FY 2021-22 (Rs. in Crore)	FY 2022-23 (Rs. in Crore)	FY 2023-24 (Rs. in Crore)	FY 2024-25 (Rs. in Crore)
WISE-KIRAN	100.00	125.00	131.20	77.59
BioCARE Fellowship	4.29	0.73	12.57	5.00
CSIR- ASPIRE	-	-	-	34.23

(d) to (e): Yes Sir. The WISE-KIRAN scheme has a significant impact on increasing the inclusion of women in the research and development sector in S&T fields. In the last 10 years, around 3250 women scientists have been supported under the WISE-KIRAN Scheme for R&D activities. Out of these supported women Scientists about 40% beneficiaries completed their PhD and more than 5000 research papers were published by them. Also during the last 10 years, under WOS-C programme 523 women scientists and technologists were supported and about 40% of these trained women are registered as Patent Agents with the Indian Patent Office. About 80,000 girl students of Class IX–XII from 300 districts have benefited from various interventions under the Vigyan Jyoti Programme. The CURIE programme supported 42 Women PG Colleges and 11 Women Universities to establish state-of-the-art research facilities that impacted thousands of women through quality education and research in Science and Technology. In addition, 30 institutions have completed the pilot phase of the GATI programme. A total of 59 female scientists are being supported under the BioCARE programme of DBT and 301 women scientists from the ASPIRE scheme of CSIR.

Due to various initiatives undertaken by the Government in S&T sector, women participation in extramural R&D projects has increased significantly to 25% in 2019-20 from 13% in 2000-01. In absolute terms, 848 women Principal Investigators (PIs) during 2019-20 availed extramural R&D support as against 232 in 2000-01. As per the latest available statistics, there were 67,441 (18.6%) women out of total 3.62 lakh R&D personnel directly engaged in R&D activities.

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