

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
STARRED QUESTION No.253
TO BE ANSWERED ON 12/3/2021**

WOMEN IN SCIENTIFIC RESEARCH WORK

†*253. SHRIMATI KESHARI DEVI PATEL:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether the number of women doing scientific research work in the country is much low as compared to men, if so, the reasons therefor;**
- (b) the details of steps being taken to increase the interest/participation of women in scientific research work;**
- (c) the details of the specific facilities being extended to girls and women to ensure their increased participation in research work;**
- (d) whether it is a fact that out of around 43 per cent girl students who pursue technical education, only 14 per cent get employment; and**
- (e) if so, the details thereof and the reasons therefor?**

ANSWER

**MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND TECHNOLOGY; AND MINISTER OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

स्वास्थ्य और परिवार कल्याण मंत्री, विज्ञान और प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री
डॉ. हर्ष वर्धन

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO. 253 FOR ANSWER ON 12.03.2021 REGARDING 'WOMEN IN SCIENTIFIC RESEARCH WORK'.

(a) Sir, as per recent report "Research & Development Statistics at a Glance-2019-20", published by the Department of Science and Technology, 56747 (16.6%) women are directly engaged in R&D activities as on April 01, 2018 out of total 3.42 lakh R&D personnel. Furthermore, there are 646 (18.55%) and 1056 (53.5%) women scientists working in the Council of Scientific & Industrial Research (CSIR) and autonomous research institutions of the Department of Biotechnology respectively. Additionally, CSIR is also supporting about 9000 doctoral and postdoctoral research fellows of which 44% are women, at present. The main reasons of lower representation include social and economic barriers, mobility, responsibility of family, break in career, age bar in regular employment, etc.

(b) The Ministry of Science and Technology has several women centric programmes for promoting women's participation in scientific research work. The Department of Science and Technology (DST) has started 'Knowledge Involvement Research Advancement through Nurturing (KIRAN)' Scheme in the year 2014-15 to increase participation of women in the field of Science and Technology (S&T) through gender enabling programmes. One of the programmes viz. 'Women Scientist Scheme' provides career opportunities to unemployed women scientists and technologists, especially those who had a break in career. There are three major components of Women Scientists Scheme namely, i) Women Scientists Scheme-A (WOS-A) for conducting research in Basic & Applied Sciences; ii) Women Scientists Scheme-B (WOS-B) for research projects that entail S&T interventions for Societal Benefit; and iii) Women Scientists Scheme-C (WOS-C) enables them to become Intellectual Property Rights (IPR) professional. In 2016-17, 'Mobility' component has been introduced under KIRAN to address relocation issue of working Women Scientists. In 2017-18, DST launched a program 'Indo-US Fellowship for Women in

STEMM' (Science, Technology, Engineering, Mathematics & Medicine) to provide opportunities to Indian Women Scientists, Engineers & Technologists to undertake International collaborative research in premier institutions in the USA for duration of 3-6 months. Under KIRAN, institutional support is also provided through 'Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE)' Programme in order to enhance women's participation in Research & Development activities in S&T Domain. The DST has started a new programme "Vigyan Jyoti" for meritorious girl students of Class 9 to 12 in order to increase participation of women in STEM (Science Technology Engineering and mathematics), especially in the fields where women are underrepresented. Another new initiative of DST 'Gender Advancement for Transforming Institutions (GATI)' has been started during 2019-20 which aims to transform institutions for more gender sensitive approach and inclusiveness with ultimate goal to improve the gender equity in S&T domain. During 2020-21, the Science and Engineering Research Board (SERB) has started "SERB-POWER (Promoting Opportunities for Women in Exploratory Research)" scheme with aim to address comparatively lower participation of women scientists in research activities and to mitigate gender disparity in science and engineering. The Department of Biotechnology (DBT) is also implementing 'Biotechnology Career Advancement and Re-orientation Programme (BioCARE)' since the year 2011 to enhance the participation of Women Scientists in Biotechnology research.

(c) Department of Science and Technology has started a new initiative called, Vigyan Jyoti to encourage meritorious girls of class 9 to 12 to pursue career in underrepresented areas of Science, Technology, Engineering and Mathematics (STEM). Under Vigyan Jyoti, various activities such as Science Camps, student-parents counselling, visit to nearby Institutions of National Importance and Industries and interaction with role models are being conducted to increase their interest in Science & Technology domain. Selected girls have also been facilitated with special lectures/classes for better understanding of the subjects. The students are also provided access to the Atal Tinkering Labs (ATLs), wherever available, to carry out tinkering activities. Another programme, Consolidation of University

Research through Innovation and Excellence in Women Universities (CURIE) is also supporting women universities for developing state-of the art research facilities which has ultimately benefited around 10,000 girls studying in basic and applied sciences at Under-graduate / Post-graduate and Ph.D level. The CSIR also gives relaxation of 5 years in upper age limit to women candidates to be eligible for award of Fellowship/Associate-ship in order to promote women in science. The Indian Academy of Science (IAS) and Indian National Science Academy (INSA) have constituted a panel on 'Women in Science' which conducts seminar/workshops and publications and is creating awareness on issues concerning women scientists. In addition to this, SERB has instituted 'Women Excellence Award' in order to reward young women scientists below age of 40 years, who have excelled in science.

(d) and (e): No, Sir. As per the information furnished by All India Council for Technical Education (AICTE), the enrollment of girls in AICTE approved institutions under PG & Research work is 40 per cent, out of that approximately 29 per cent girls have received placement during last three years.
