GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION
LOK SABHA
UNSTARRED QUESTION NO-27
ANSWERED ON-25/11/2024

ENCOURAGEMENT OF WOMEN FOR STEM COURSES

27 Shri Shashank Mani:

Will the Minister of Education be pleased to state:

(a) whether the Government has data on gender-wise enrollment and completion rates in STEM courses at secondary and tertiary levels across various States, if so, the details thereof;

(b) whether there are any scholarships and support programmes specifically designed to encourage women in STEM courses; and

(c) whether there is district-level data available on STEM education facilities and if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF EDUCATION

(DR. SUKANTA MAJUMDAR)

(a) As per Unified District Information System for Education Plus (UDISE+) 2021-22 and All India Survey on Higher Education (AISHE) 2022-23(Provisional) the gender-wise enrolment at Higher secondary and tertiary levels in STEM courses is as under:

Education Level	Male	Female	Total
Higher Secondary (2021-22) (11th and 12th Standards)	56,78,265	47,19,128	1,03,97,393
Tertiary (2022-23) (Total UG, PG, MPhil, Phd for STEM courses)	56,45,364	43,30,477	99,75,841

As per the publication of Results of secondary and Higher Secondary Examination-2022 and All India Survey on Higher Education (AISHE) 2022-23 (Provisional) the gender-wise passed out students data in STEM Courses is as under:

Education Level	Passed Out Students		
	Male	Female	Total
Higher Secondary Examination (12th Standard Science Stream)	29,11,944	23,25,805	52,37,749
Tertiary (Final Year Examination of UG, PG, MPhil, Phd)	12,30,932	10,40,352	22,71,284

(b) Education being in the Concurrent List, enhancing the quality of education is the responsibility of both the Central and State Governments. Various schemes/ projects/ programmes run by the Ministry have been aligned with the National Education Policy (NEP) 2020. NEP 2020 aims to ensure that no child loses opportunity to learn and excel because of the circumstances of birth or background. This policy aims at bridging the social category gaps in access, participation, and learning outcomes, including providing greater access to women. The Central Government has taken various measures to promote higher education among the students across the nation including women, such as fee reductions, establishment of more institutes, scholarships, priority access to national level scholarships to aid students with poor financial backgrounds to pursue their education.

University Grants Commission (UGC) is implementing scholarship scheme "National Scholarship for Post Graduate Studies (NSPG)" to provide scholarship to students pursuing Post Graduate Programs. UGC is also providing fellowships to pursue Ph.D. in all disciplines including STEM education, under UGC NET-Junior Research Fellowship and Savitribai Jyoti Rao Phule Single Girl Child Fellowship.

Similarly, All India Council for Technical Education (AICTE) also offers various scholarships like AICTE Pragati Scholarship Scheme for Women (Degree & Diploma), AICTE PG scholarship Scheme, AICTE Doctoral Fellowship (ADF), AICTE Saksham Scholarship Scheme (Degree & Diploma) and AICTE Swanath Scholarship Scheme (Degree & Diploma). AICTE has also launched the AICTE Post-Doctoral Fellowship (PDF) scheme in June 2024 from the academic year 2024-25 for girls and boys of AICTE approved Institutions.

With a view to improve female enrolment in the Undergraduate Programmes in Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs), supernumerary seats were created which increased the female enrolment from less than 10% to more than 20%. Women constitute 43% of enrolment in STEM education, one of the highest in the world.

Further, Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs) also provide 100% tuition fee waiver for SC/ST/PwD undergraduate students. Besides, the most economically backward students (whose family income is less than Rs.1.00 lakh per annum) gets full remission of the fee and the other economically backward students with family income between Rs.1.00 lakh to Rs.5.00 lakh get 2/3rd fee remission.

Apart from this, UGC is implementing the scheme of "Development of Women's Studies in Indian Universities and Colleges". This scheme provides funds for setting up Women Studies Centers (WSCs) in universities and colleges, focusing on teaching, research, curriculum development, training and outreach activities. The objectives of the scheme are to provide financial support in advancing Women's Studies through teaching, research and practical work.

Synergising the School Education and Higher Education, the IIT-Madras has undertaken "Vidya Shakti" scheme which aims at enhancing conceptual and foundational learning skills of children from rural areas to enhance enrolment (including women) in STEM branches in Higher Educational Institutions (HEIs).

The Department of Science and Technology (DST) offers fellowships to promote research in basic and applied sciences among women through programs under Women in Science and Engineering- KIRAN (WISE-KIRAN) and SERB- Promoting Opportunities for Women in Exploratory Research (SERB-POWER) Fellowship scheme to identify and reward

outstanding women researchers and innovators working in various Science & Technology program in Indian academic institutions and R&D laboratories.

The Department of Biotechnology (DBT) has been supporting several programs to promote science education & research and offers various scholarship for the higher education and provides opportunities to female researchers for participation in schemes of the Department such as DBT- Junior Research Fellowship Program and DBT- Research Associateship Program in which female candidates are given an age relaxation of 05 years. The Biotechnology Career Advancement and Re- orientation Programme (BioCARe) is a special programme of the DBT with a vision to promote and support women in science.

(c) Yes, data of higher education is collected from all Higher Education Institutes (HEIs) for all courses including STEM courses for all district in All India Survey on Higher Education (AISHE).

****