Gender imbalance in R&D sector

2706. SHRI SANJAY SINGH: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether it is a fact that there are only 15 per cent women out of the total Indian Research and Development workforce due to lack of practical knowledge for students;
 - (b) the reasons behind this huge gender imbalance in the field; and
- (c) the steps taken by Government to provide better experiment facilities and financial support to emerging women scientists?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. HARSH VARDHAN): (a) According to available official statistics, there are 39,389 women scientists directly engaged in R&D activities at various Research and Development (R&D) establishments. Their percentage is 13.91% among total number of scientists working in these organisations. However, lack of practical knowledge for students is not the actual reason for gender imbalance.

- (b) There are several reasons behind huge gender imbalance in Science and Technology (S&T) field. These are mainly related to familial issues like marriage, family responsibility, relocation due to transferable job of spouse etc. Some of these reasons also lead to dropout from higher studies, career break, overage for scientific jobs and prolonged absence from place of work or even resignation from the job.
- (c) The Government has several programmes to provide experiment facilities and financial support to emerging women scientists. To develop infrastructure and state-of-the art research facilities in women universities, the Department of Science and Technology (DST) has a dedicated programme known as "Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE)". There are other programmes of DST *viz*. Fund for Improvement of S&T infrastructures in Universities and Higher Educational institutions (FIST), Promotion of University Research and Scientific Excellence (PURSE), Sophisticated Analytical Instrument Facility (SAIF) which also provide support for development of research infrastructure to academic institutions. The realm of the FIST has benefitted about 56 Women's PG Colleges across the country covering most States.

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In addition to this, the DST has different programmes under "Knowledge Involvement in Research Advancement through Nurturing (KIRAN)" Scheme to provide financial support to emerging women scientists. 'Women Scientists Scheme (WOS)' under KIRAN provides career opportunities including fellowships to unemployed women scientists and technologists, especially those who had a break in career. Further, Indo-US Fellowship for Women in STEMM (Science, Technology, Engineering, Mathematics and Medicine) encourages women scientists and technologists to undertake international collaborative research in premier institutions in USA.

DST has also started a new scheme "Vigyan Jyoti" for girl students of Class 9-12 to encourage them to pursue education and career in science and technology particularly in the areas where women are under-represented. During 2019-20, Phase-1 of Vigyan Jyoti is started in 50 districts of the country.

The Department of Biotechnology (DBT) is also implementing 'Biotechnology Career Advancement and Re-orientation Programme (BioCARe)' to encourage women scientists in Biotechnology research. Similarly, Indian Council of Medical Research (ICMR) also has 'Biomedical Research Career Programme' for women scientists. Further, University Grants Commission (UGC) also has 'Post-Doctoral Fellowship for Women' to provide financial support to emerging women scientists.

Climate modelling research and climate science

2707. SHRI JOSE K. MANI: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether a quantum increase in climate modelling research and climate science has been observed; and
- (b) the steps taken to address gaps in regular data on climate, natural ecosystems, soils, water from different sources, agricultural productivity and inputs and socioeconomic parameters, as pointed out by the Indian Network for Climate Change Assessment?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. HARSH VARDHAN): (a) and (b) Yes, Sir. There has been a quantum increase in climate modelling research and climate science in recent years in the country. The Government has taken several steps to address gaps in regular climate related data. As part of work assigned to Six Thematic