GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 2940
TO BE ANSWERED ON 03.08.2022

BRAIN DRAIN

2940. SHRI SHANMUGA SUNDARAM K:

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

(a) the details of the steps taken by the Government to prevent the brain drain of young talents in the STEM sector;

(b) the details of the steps taken by the Government to promote the participation of women in STEM sector; and

(c) if not, the reasons therein?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. JITENDRA SINGH)
विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)

(a) The Government has taken some major initiatives to create adequate opportunities in the country to retain highly skilled talent pool and also encourage return of the best-in-class scientists, from abroad, to India, for enhancing the nation's capabilities in various areas of scientific research, development and deployment. Special attention has been given to young scientists for making them independent and motivate them to continue their research in the country; Some of the key initiatives include; the diversity of extramural funding schemes of Department of Science and Technology (DST) and Department of Biotechnology (DBT) and Fellowship schemes of DST, DBT and Council of Scientific and Industrial Research (CSIR) to encourage researchers to do quality research in the country; several schemes / programmes for building research infrastructure for enhancing research capabilities such as Fund for improvement of S&T infrastructures in universities and higher educational institutions (FIST) have been instituted; schemes like Core Research Grant, Research fellowships such as JC Bose and Swarnajayanti are targeted at scientific community to empower them to

pursue world-class research in cutting edge areas of science and technology; A large number of young scientists have been supported through schemes like Start-up Research Grant, National Postdoctoral Fellowship of the Science and Engineering Research Board (SERB) and MK Bhan-Young Researcher Fellowship Programme of DBT. Visiting Advanced Joint Research (VAJRA) Faculty Scheme of SERB provides a platform for overseas scientists including Non-Resident Indians to undertake collaborative research in Indian Institutions and Universities for a finite period of time. The Flexible Complementing Scheme / Merit based promotion scheme positioned in scientific departments and introduction of Performance Related Incentive Scheme (PRIS) in strategic Departments have also been instrumental in recruiting and retaining the scientists. All these measures taken by the Government are aimed at retaining our scientific workforce in the country and thereby reduce brain drain.

(b) Some of the key steps taken by the government to promote the participation of women in STEM sector include; the women scientist specific schemes of Department of Science and Technology (DST) to provide opportunities to women scientists and technologists, especially those who had a break in career under its three components namely, i) Women Scientists Scheme-A (WOS-A) for conducting research in Basic & Applied Sciences, ii) Women Scientists Scheme-B (WOS-B) for research that entail S&T interventions for societal benefit, and iii) Women Scientists Scheme-C (WOS-C) for internship in Intellectual Property Rights (IPRs). 'Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE)' programme of DST provides support for development of research infrastructure in women universities to encourage women's participation in R&D activities. 'Vigyan Jyoti' is a new programme to encourage meritorious girl students of class 9-12 to pursue education and career in science and technology particularly in the areas where women are underrepresented. Another new initiative 'Gender Advancement for Transforming Institutions (GATI)' aims to transform institutions for more gender sensitive approach and inclusiveness with ultimate goal to improve the gender equity in STEMM (Science, Technology Engineering, Mathematics and Medicine). 'Indo-US Fellowship for Women in STEMM' programme provides opportunities to women scientists & technologists to undertake International collaborative research in premier institutions in the USA for 3-6 months. A scheme titled "SERB-POWER (Promoting Opportunities for Women in Exploratory Research)" has been launched recently to mitigate gender disparity in science and engineering research funding in various S&T programs in Indian academic institutions and research and development (R&D) laboratories.

(c) Does not arise.

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