GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA

UNSTARRED QUESTION NO. 605 ANSWERED ON 23/07/2025

DOMESTIC RESEARCH ECOSYSTEM

605. SHRI ZIA UR REHMAN:

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

- (a) whether the Government is aware that a large number of Indian students and researchers are going abroad to pursue advanced research due to lack of adequate infrastructure, funding and opportunities in India;
- (b) if so, the reasons identified by the Government for this academic and research migration;
- (c) whether the Government has taken any concrete steps to improve the domestic research ecosystem, including better funding, modern laboratories, mentorship and international-level collaboration opportunities; and
- (d) if so, the details of such initiatives and their impact in reversing brain drain and promoting research excellence within the country?

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) to (b): There is no statistical evidence or data which shows that large number of Indian students and researchers are going abroad to pursue advanced research due to lack of adequate infrastructure, funding and opportunities in India.
- (c) to (d): Several initiatives have been taken up by the Government to improve the domestic research ecosystem like: instituting high-stakes mission-driven initiatives, namely National Quantum Mission; National Mission on Interdisciplinary Cyber-Physical Systems, National Geospatial Mission focusing on the development of key technologies to reduce dependency on imports, promote domestic innovation, and position India as a global leader in the identified sectors. Government has launched several programmes to catalyze startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in the country. Several policy measures have been introduced by the Government including the Geospatial Policy 2022 and BioE3

(Biotechnology for Economy, Environment and Employment) Policy 2024. The Government has established the Anusandhan National Research Foundation (ANRF) through the ANRF Act 2023 towards strengthening our technological leadership, marking a paradigm shift in our R&D ecosystem. The government has been strengthening research infrastructure through multiple schemes / programs such as: Fund for Improvement of S&T infrastructures in universities and higher educational institutions (FIST), Promotion of University Research and Scientific Excellence (PURSE), Scientific Infrastructure Access for Harnessing Academia University Research Joint Collaboration (DBT-SAHAJ Infrastructure). etc. The schemes of ANRF (erstwhile, Science and Engineering Research Board) such as Core Research Grant (CRG), Prime Minister's Early Career Research Grant (PMECRG), Partnerships for Accelerated Innovation and Research (PAIR) program, etc. have been instrumental in strengthening the domestic research ecosystem of the country. The government is also fostering International cooperation in Science & Technology through bilateral cooperation with several developed and developing countries including USA, UK, France, Germany, Russia, Japan; regional cooperation such as with ASEAN, BIMSTEC, etc; and multilateral cooperation through EU, TWAS, IBSA, BRICS, UNESCO, SCO, QUAD etc.

Further, government has taken up several programme/schemes aimed at empowering the young researchers in the country to pursue world-class research in cutting edge areas of science and technology by improving access to better funding, high-end research laboratories, mentorship, and internationallevel collaboration opportunities. Some of the key programmes like National Post-Doctoral Fellowship (NPDF), Ramanujan Fellowship; INSPIRE Faculty Fellowship; Ramalingaswami Re-entry Fellowship; Biomedical Research Career Programme and MK Bhan-Young Researcher Fellowship have supported a large number of young researchers and have also attracted brilliant Indian researchers from abroad to return to India and conduct high quality research. The VAIBHAV fellowship of DST 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. In addition, 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 efforts made by the government contribute towards promoting research excellence within the country and thereby reversing the brain drain.
