

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 2744
ANSWERED ON 07/08/2024

RESEARCH IN SCIENCE AND TECHNOLOGY

2744. SHRI RAJESH VERMA:

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

- (a) the amount spent by the Government on Science and Technology related research during the last decade along with its rank in the world level;**
- (b) the measures the Government has implemented to support researchers by creating international opportunities and also ensuring job security within the country with the aim of preventing brain drain;**
- (c) the steps taken by the Department of Science & Technology to promote career opportunities for women scientists and to encourage young students especially girls to pursue science stream; and**
- (d) the total amount of funds disbursed as scholarships by the Department to the women students and scholars during the last decade, year-wise?**

ANSWER

**MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES
(DR. JITENDRA SINGH)**

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)

(a) As per latest R&D Statistics, 2022-23 brought out by the Department of Science and Technology (DST), India is placed at 6th position in terms of R&D Expenditure (billion Current PPP\$) in the world. The amount spent by the Government on Science and Technology related research during the last decade is as under:

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Investment in R&D by Government (Rs. Crore)	38903.05	40568.09	44419.34	50285.41	54976.45	59268.33	66715.95	76656.42	82623.32	75397.28

Source: Data collected and compiled by NSTMIS, DST, Gol.
Note: Government Investment in R&D = Central Government Ministries/Department + State Government + Higher Education

(b) Several measures have been taken up to support researchers by creating international opportunities such as for exchange of information, generation of new knowledge, sharing of expertise, seminars, fellowships, training programmes, exchange and exposure visits, optimal utilization of resources, and for providing access to advanced facilities and sophisticated instruments which are not available domestically. This in turn enhance the quality and output of scientific research and also enhance skills. Ministry of Science and Technology is actively cooperating with 40 countries across the globe along with regional and multilateral entities, UN and other International S&T Organizations. Every year the Department of Science and Technology launches about 15-18 joint call for proposals to enhance international bilateral collaboration as well as multilateral collaboration through call for proposals under European Union and BRICS. These calls provide scope of support for joint R&D projects, project-based mobility exchanges, training and advanced workshops in different thematic areas of mutual interest. In addition, DST also supports three bi-national S&T Centres which are independent entities established under inter-governmental arrangements with France, USA and Germany and they are engaged in promoting Joint R&D Clusters, Virtual R&D Networked Centers, Multi-institutional R&D projects, Joint Workshops/ Seminars/ Frontiers Symposia/ Exhibitions etc. The main aim of these collaborations is to connect Indian research with global efforts particularly in the frontier areas of S&T and in areas addressing global challenges. All these programmes have been designed to encourage scientists to do quality research in the country and thereby preventing brain drain. In addition, INSPIRE Faculty Fellowship, Visiting Advanced Joint Research Faculty (VAJRA) scheme, VAIBHAV fellowship, CSIR-Senior Research Associateship, DBT-Ramalingaswami re-entry Fellowship etc. are some of the initiatives that provide opportunities to highly qualified Scientists to retain them in the country and also attract Indian scientists from abroad.

(c) The Department of Science and Technology is promoting career opportunities for women scientists including young students through various programmes such as: WISE Fellowship for Ph.D. (WISE-PhD) to pursue doctoral research in basic and applied sciences; WISE-Post Doctoral Fellowship (WISE-PDF) for post-doctoral research in basic and applied sciences; WISE-SCOPE to address societal challenges through S&T interventions and WISE Internship in IPR (WISE-IPR) to provide training in the field of Intellectual Property Rights; 'Vigyan Jyoti' programme to encourage meritorious girls to pursue careers in STEM (Science, Technology, Engineering, Mathematics); Women International Grant Support (WINGS) programme to provide opportunities to Indian Women scientists to undertake research in the International research labs and academic institutions; etc. The Anusandhan National Research Foundation (ANRF), a statutory body under DST has also been implementing the women specific programme viz. "POWER (Promoting Opportunities for Women in Exploratory Research)"; "POWER Mobility Grant" for capacity building, knowledge, and skill enhancement of women scientists and technologists; "Women Excellence Research Grant", etc. to promote career opportunities for women scientists.

(d) The total amount of funds disbursed as scholarship by the department to women students and scholars during last decade, year-wise is as under:

Financial Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Amount (Rs. in lakh)	9382.49	5382.00	8620.90	13496.50	10930.10	11130.30	11042.30	10932.10	14246.80	13362.50
