

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**RAJYA SABHA**  
**STARRED QUESTION NO. 263**  
ANSWERED ON 19/12/2024

**EFFORTS TO MAKE 'VIKSIT BHARAT' BY 2047**

\*263. SMT. SANGEETA YADAV:

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

- (a) the efforts made by Government to make 'Viksit Bharat' by 2047 through scientific prowess;
- (b) whether the Departments of Government involved in Science, Technology, Engineering and Mathematics (STEM) have drawn any roadmap for making a 'Viksit Bharat' by 2047;
- (c) if so, the details thereof, Department-wise;
- (d) whether efforts by Government in the last fifteen years have helped in increasing India's position in the field of science & technology; and
- (e) if so, the details thereof?

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

(a) to (e): A statement is laid on the Table of the House.

**STATEMENT AS REFERRED IN REPLY TO PARTS (a) to (e) OF RAJYA SABHA  
STARRED QUESTION NO. 263 FOR 19.12.2024 REGARDING “EFFORTS TO MAKE  
‘VIKSIT BHARAT’ BY 2047”**

(a) to (e): Towards achieving ‘Viksit Bharat’ 2047 goal, the Government has been making several efforts through key interventions in the field of Science and Technology. Some of the notable efforts include instituting high-stakes mission-driven initiatives, namely National Quantum Mission; National Mission on Interdisciplinary Cyber-Physical Systems among others. These missions focus 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 strategic policy measures have been introduced by the Government including the Geospatial Policy 2022, the Space Policy 2023 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 ANRF aims to drive a multi-phased roadmap for scientific breakthroughs and cross-sectoral collaboration, providing competitive, peer-reviewed grants to optimize resource allocation for high-impact research. ANRF aims to position India as a global leader in innovative, sustainable technological progress. The Foundation has outlined multifaceted strategic interventions to enhance India’s research ecosystem, aligning with national scientific and geopolitical priorities.

In order to make India Viksit Bharat by 2047, Sectoral Group of Secretaries (SGoS) on Technology has held detailed discussions and many of the interventions are a result of these discussions. Some other actions emphasize strengthening research and innovation in the areas of Quantum Technologies, Cyber Physical Systems, Bio Manufacturing etc. These efforts focus on technological self-reliance, sustainability, and economic growth, with a strong emphasis on R&D, skilled workforce development, and global leadership in emerging technologies. Through coordinated efforts across various sectors, the endeavour is to transform India into a scientifically advanced and innovation-driven economy, laying the foundation for Viksit Bharat by 2047.

The efforts made by the Government through various programmes and policy measures have helped the nation in improving its position in the Science and Technology at global level which is visible through its global position in scientific publications, number of Ph.Ds, number of start-ups, resident patent filing, Global Innovation Index, number of start-ups, etc. Some of the key highlights include:

- India ranks 3<sup>rd</sup> in terms of number of research publications (2,07,390) as per Science & Engineering Indicators 2024 published by National Science Foundation (NSF), USA.
- India ranked 3<sup>rd</sup> in terms of the total number of startups (more than 1,40,000) in 2024 as per DPIIT.
- India ranks 4<sup>th</sup> in number of PhD degrees awarded (16,968) in Science and Engineering as per Science & Engineering Indicators 2024 published by National Science Foundation (NSF), USA.
- India is ranked at 6<sup>th</sup> position both in terms of resident (38551) and non-resident (38517) patent filing activity from respective country as per WIPO Report, 2023.
- India has witnessed a significant jump in its Global Innovation Index (GII) ranking from 81<sup>st</sup> in the year 2015 to 39<sup>th</sup> in 2024 among 133 economies of the world.
- The Gross expenditure on R&D (GERD) in the country has been consistently increasing over the years and has more than doubled from Rs. 53041.30 crore in 2009-10 to Rs. 127380.96 crore in 2020-21. As per DST R&D Statistics 2022-23, India occupies 7<sup>th</sup> position in terms of GERD (in billion current PPP\$) ahead of United Kingdom, Russia, Brazil, Italy, Canada, Spain, Australia, etc
- Gender participation in R&D has increased to 18.6% (2021) from 14.3 % (2009) as per DST R&D Statistics, 2022-23.
- Number of researchers per million population has increased to 262 in 2020 as compared to 164 in 2009 as per DST R&D Statistics, 2022-23.

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