GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 455
ANSWERED ON 28/11/2024

LOW INVESTMENT IN R&D IN INDIA COMPARED TO OTHER NATIONS

455 SMT. PRIYANKA CHATURVEDI**:**

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

(a) whether it is a fact that India's investment in Research and Development (R&D) as a percentage of its GDP is significantly lower compared to other nations including China, USA, and Israel;
(b) if so, the reasons thereof;
(c) measures taken by the Ministry to increase investment in R&D in the country, including measures to increase private investments; and
(d) details of any MoUs with other countries that is increasing investment in the R&D sector of India?

ANSWER

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

(a) to (b): As per the latest available R&D statistics, the national investment on research and development (R&D) measured in terms of Gross Expenditure on Research and Development (GERD) has been continuously increasing over the years and has been more than doubled in last 10 years. However, India's GERD as a percentage of GDP remained between 0.6% to 0.7% which is relatively lower than other countries like China (2.4%), USA (3.5%) and Israel (5.4%) etc. mainly due to relatively less investment by India's private sector into GERD.

(c) The Ministry has taken several measures to increase investment in R&D, including private sector investments in R&D. Some of the key efforts include: successive increase in budget allocations, incentivizing investment by private sector to increase their share in GERD, creating avenues for collaborative STI funding through portfolio-based funding mechanisms such as Public-Private-Partnerships and other innovative hybrid funding mechanisms. The programmes/schemes like Impacting Research Innovation and Technology (IMPRINT), Industry Relevant R&D (IRRD), Fund for Industrial Research Engagement (FIRE), etc have been implemented with contributions from Industry. The Technology Innovation Hubs (TIH) set up under National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS), etc aim to boost technology development, innovation with the participation of startups. Further, the Anusandhan National Research Foundation established with the aim to provide high-level strategic direction for research, innovation and entrepreneurship in the field of science and technology also has the provision for financial contribution from private sector.

(d) The joint R&D programmes implemented through bilateral and multilateral agreements have significantly contributed to R&D investments in the country. Presently India has bilateral S&T Agreement with 90 countries including active joint collaboration with 44 countries and multilateral groups such as European Union, BRICS, Globalstars (EUREKA), QUAD, G20, HFSPO, EMBO, etc. Ministry has also been supporting Bilateral Industrial R&D Programme under MoU/ Agreement with France, Germany, Israel, South Korea, Spain, Sweden and USA. Through these Bilateral Industrial R&D programmes, Indian industries are encouraged to invest upto 50% of total project cost with matching contribution from the government.

*****