

GOVERNMENT OF INDIA  
 MINISTRY OF SCIENCE AND TECHNOLOGY  
 DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 457**  
 ANSWERED ON 28/11/2024

**INVESTMENT IN RESEARCH & DEVELOPMENT**

457 SHRI MUKUL BALKRISHNA WASNIK:

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

- (a) the Gross Expenditure on Research and Development (GERD) incurred since 2019-20, year-wise and Sector-wise and how it compares with other countries;
- (b) the share of business enterprises, Higher Education Institutions, Central & State Governments and private non-profit organisations year-wise since 2019-20;
- (c) whether Government plans to take any steps for enhancing public and private sector investment in research and development; and
- (d) if so, the details thereof and if not, the reasons therefor?

**ANSWER**

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

(a) As per the latest available R&D statistics, the gross expenditure on research and development (GERD) for India is 57.9 in billion current PPP\$ during 2020. This amount was lower than that of US (720.9), China (583.8), Japan (174.1), Germany (144.4), Korea (112.9) and France (74.6). However, it is higher than that of UK (56.0), Brazil (41.1), Sweden (20.1) and Israel (19.8). The table below presents India's GERD since 2019-20, year-wise and sector-wise:

(Rs. Crore)

Sector	2019-20	2020-21
Central Sector	69317.09	61281.48
State Sector	8554.79	8476.35
Private Sector	44753.54	46388.13
Higher Education Sector	9941.59	11235.00
<b>Total</b>	<b>132567.01</b>	<b>127380.96</b>

Source: Data on R&D expenditure collected and compiled by NSTMIS, DST, GoI.

(b) The percentage share of central & state governments, business enterprises, higher education institutions and private non-profit organisations i.e. Scientific and Industrial Research Organisations (SIRO) in national GERD, since 2019-20, is given in table below:

S.No.	Sector	2019-20	2020-21
1	Central & State Government	54.8	50.4
2	Business enterprises	33.6	36.6
3	Higher Education	7.5	8.8
4	Scientific and Industrial Research Organisation (SIRO)	4.0	4.2
	Total	100.00	100.00

Source: Data on R&D expenditure collected and compiled by NSTMIS, DST, GoI.

(c) to (d): The government has taken several steps for enhancing public and private sector investment in Research and Development. Some of the key efforts made by Government include: the successive increase in allocations for Scientific Departments, incentivizing investment by private sector to increase their share in GERD, introducing flexible tools for public procurement; creating avenues for collaborative STI funding through portfolio-based funding mechanisms such as Public-Private-Partnerships and other innovative hybrid funding mechanisms. The Government has allowed corporate sector to make R&D investments under the provision of Corporate Social Responsibility (CSR). Corporates can invest in technology business incubators or contribute in research efforts carried out by institutions and national research laboratories as a part of their CSR. There are specific investment incentives offered such as Location-based tax incentives that enables 100% deductions of profits generated from establishing and doing business in north-eastern states of India. Further, the government has established the Anusandhan National Research Foundation with the aim to provide high-level strategic direction for research, innovation and entrepreneurship in the field of science and technology with the provision of almost 70% share of budget contribution from private sector.

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