# GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA UNSTARRED QUESTION No. 1001 TO BE ANSWERED ON 22/11/2019

#### GOVERNMENT EXPENDITURE ON SCIENTIFIC RESEARCH

1001. MS. RAMYA HARIDAS: MS. MALA ROY:

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

- (a) the annual Government expenditure on scientific research/ developments of Science and Technology in the country and its percentage share of GDP;
- (b) the comparative details of other developing and developed countries in terms of expenditure being made towards this end;
- (c) the steps being taken by the Government to increase allocation in the field of Science and Technology;
- (d) the frequency of audit performed on the research outcomes by the Government; and
- (e) the problem of plagiarism in research encountered by the Government along with the remedial action taken/being taken in this regard?

#### **ANSWER**

## MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND TECHNOLOGY; AND MINISTER OF EARTH SCIENCES (DR. HARSH VARDHAN)

स्वास्थ्य और परिवार कल्याण मंत्री; विज्ञान और प्रौद्योगिकी मंत्री; और पृथ्वी विज्ञान मंत्री

### डॉ. हर्ष वर्धन

- (a) & (b): As per the latest available Statistics, the National Gross Expenditure on Research and Development (GERD) in S&T sector during the years 2012-13 to 2014-15 was Rs. 73,892.79 crore, Rs. 79,355.89 crore and Rs. 85,326.10 crores respectively. It is estimated to be of the order of Rs. 94,516.45 crores and Rs. 1,04,864.03 crores for the years 2015-16 and 2016-17. However, GERD as percentage share of GDP, in case of India, has been 0.7% as compared to the other developed and developing countries such as Israel (4.6%), South Korea (4.5%), Japan (3.2%), Germany (3.0%), USA (2.8%), France (2.2%), China (2.1%), UK (1.7%), Canada (1.6%), Brazil (1.3%), Russia (1.1%) and South Africa (0.8%).
- (c) The Government has taken various initiatives to increase allocation in the field of Science and Technology such as successive increase in plan allocations for scientific departments, setting up of new institutions for science education and research, creation of Centres of Excellence and Facilities in emerging and frontline areas of S&T in academic and national institutions, supporting Mega Facilities for Basic Research, launching of new fellowships, substantial grant to potential scientists through extramural research funding, scaled up funding in the new areas such as Clean Energy and Water including Energy Efficiency, Clean Coal Technology, Smart Grids, Methanol, Desalination, Genome Engineering Technology, National Supercomputing Mission (NSM), National Mission on Interdisciplinary Cyber Physical System (ICPS) etc, promotion of innovation, entrepreneurship and start-ups grant for young scientists, Funds for Improvement of S&T Infrastructure (FIST), encouraging public-private partnerships, fiscal incentives and support measures for enhancing the participation of industry in R&D etc
- (d) An audit on research outcomes in various scientific departments and research organisations is being carried annually. In addition, the compliance audit and performance audit are conducted at periodic intervals. Various scientific research schemes are also audited through a third party audit mechanism at mid-term and five yearly periods..
- (e) The Government has encountered the problem of plagiarism in research and a Regulation on "Promotion of Academic Integrity and Prevention of Plagiarism in Higher Education Institutions, 2018" has been brought out by UGC to address this issue in the country. In addition, various scientific research organisations have constituted Ethics Committee in this regard.

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