GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
STARRED QUESTION NO.209
TO BE ANSWERED ON 30/11/2016

SCIENTIFIC AND TECHNOLOGICAL RESEARCH

***209. SHRI GAJANAN KIRTIKAR:**

DR. SUNIL BALIRAM GAIKWAD:

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

(a) the present position/status of India in terms of scientific research globally;

(b) the budgetary allocation for scientific research in terms of percentage of GDP during the last three years and the current year;

(c) whether the Government has launched any programme/scheme to attract youngsters towards scientific and technological research in the country and if so, the details in this regard along with names of bodies/institutions involved in this endeavour;

(d) whether the Government has signed any agreement with the National and International institutions for promoting research and if so, the details thereof during the last three years and the current year; and

(e) the funds allocated during the above period for this purpose?

ANSWER

MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. HARSH VARDHAN)

विज्ञान एवं प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री
(डा. हर्ष वर्धन)

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

STATEMENT AS REFERRED IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO.209 FOR 30/11/2016 REGARDING SCIENTIFIC AND TECHNOLOGICAL RESEARCH

(a) India's position globally in scientific research, measured in terms of scientific publications, as per Scopus database, is 6th in 2013 with a growth rate of 13.9% as against the world average of 4.1% during 2009-2013. In the field of nanoscience and technology, India was at 3rd position in 2013. In 2006, India's output of papers in Chemistry was fourth and by 2013 it was third behind United States of America and China. A report of Springer Nature has indicated that India is ascending towards world-class science and our country is at 13th position globally on an index of world-class scientific journals. As an indicator of technological development, India stands at 10th position globally in filing of patent applications.

(b) The Gross Expenditure on R&D (GERD) in the country, as per the latest available statistics, hovered around 0.88% of the Gross Domestic Product (GDP) for the last one decade.

(c) Government has launched several programmes/schemes to attract youngsters towards scientific and technical research in the country. This includes the Innovation in Science Pursuit for Inspired Research (INSPIRE) Programme, Kishore Vaigyanik Protsahan Yojana (KVPY), Shyama Prasad Mukherjee Fellowships (SPMF), Junior/Senior Research Fellowships (JRF/SRF), Research Associateship etc. The Children Science Congress held annually provides a unique opportunity to school children to stimulate scientific temperament and learning the scientific methodology for observation, collection of data, analysis and arriving at conclusions and presenting the findings in various fields of science and engineering. Apart from the ongoing targeted schemes like Young Scientist Project Award, CSIR-Nehru Postdoctoral Fellowships new schemes like Early Career Research Award (ECRA), National Postdoctoral Fellowship (N-PDF) have been launched in recent years to support young researchers. Young Scientists undertake these fellowships and projects in various research and academic institutions, namely, Indian Institutes of Technology (IITs), Indian Institutes of Science Education and Research (IISERs), Central, State and Private Universities / Colleges, Industry R&D labs and National Laboratories spread across the country.

(d) An intra-governmental agreement has been signed recently among 25 Departments to address and provide solutions to the most relevant engineering challenges faced by our nation by translating knowledge into viable technology (product and processes) in selected technology domains to enable, empower and embolden the nation for inclusive growth and self-reliance. This initiative titled IMPRINT (IMPacting Research INnovation and Technology) is piloted by the Ministry of Human Resource Development (MHRD) and steered by IITs and Indian Institute of Science (IISc). Government has signed several agreements / Memorandum of Understanding (MoU) with foreign governments and overseas institutions during the last three years and current year. This includes Thirty Meter Telescope (TMT) project, Laser Interferometer Gravitational-Wave Observatory (LIGO)-India project, Healthy Life Trajectory Initiative etc. National Center for Scientific Research (CNRS), France, Russian Science Foundation, Technology Strategy Board, UK, UK Department of Business Innovation & Skills, University of Paris, Canadian Institute of Health Research, Canada etc. are some of the partner institutions / countries involved in these agreements. Apart from promoting basic science and engineering research fields, these agreements also include sectoral priority areas like biotechnology, crop science, nuclear physics etc. Council of Scientific and Industrial Research (CSIR) has collaborated with various institutes both academic and R&D labs from India as well as abroad. The Science and Engineering Research Board (SERB), a statutory body of the Department of Science and Technology has entered into Memorandum of Understanding (MoU) with reputed overseas universities for deputing Indian students graduating from Indian universities/ institutes to pursue Ph.D. in areas of science, technology, engineering and medicine.

(e) A sum of Rs. 9.7 crore has been sanctioned as seed funding for LIGO-India project which will be shared between Department of Atomic Energy (DAE) and DST. India has to pay 11.5 Million CHF for Associate Membership of the European Organization for Nuclear Research (CERN) which will be shared by DAE and DST equally. Rs. 48.98 crore for TMT project and Rs. 30 lakh for Overseas doctoral fellowship have been released so far. In addition, 4 Million Euro is allocated for German collaboration with DST. DBT has allocated Rs. 173 crore to implement various agreements in the biotechnology sector.

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