

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:1689

ANSWERED ON:07.03.2013

NEW AVENUES FOR RESEARCH

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

(a) whether India has made progress in the field of science and technology vis-à-vis other countries in the world and if so, the details thereof along with the rank of India in this regard globally.

(b) whether a new analysis of comparative science research that takes into account both quality and quantity shows that India is now left far behind as China has grown steadfastly since 2002 in terms of scientific work and if so, the reasons therefor;

(c) the measures taken by the Government to focus on research work and to avoid further risk of losing out to China and East Asia in innovation; and

(d) the funds allocated/released during the last ten years as a percentage of the GDP for Research and Development?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES (S. JAIPAL REDDY)

(a) Yes, Madam. India has made significant progress in the field of research publications vis-à-vis other countries in the world. As per the latest UNESCO Science Report-2010, India ranks 9th in the world in terms of scientific publication output and its percentage share in the world publication has increased significantly from 2.6 to 3.7 during 2002 to 2008.

(b) & (c) Yes, Madam. The Department of Science and Technology commissioned a bibliometric study on India's research output based on Science Citation Index (SCI) data base. According to the report brought out in July, 2012 India is behind China in terms of scientific research. China has been investing significant national resources in scientific research during the last decade. East Asian countries such as Japan and Korea also invest significantly into Research and Development (R&D). The Government has taken note of China's higher performance in R&D relative to India. However, there is no significant gap between India and China in critical technology areas. In areas such as space, software, vaccines, renewable energy etc. India is ahead of China in technology strength. India's strategy is to accord equal emphasis on both affordable and globally competitive innovations. Technological self-reliance in areas of developmental needs of the country has been accorded high priority in our R&D plans. In principle, the Government aims at increasing national R&D expenditure from current level of 0.9% to 2% of GDP with enhanced participation from private sector by 2017. This is more than double the expenditure over the past years and represents a significant allocation of resources considering the overall resources of the country.

(d) The details of national expenditure on R&D as percentage of GDP during the last 10 years are as follows:-

Year	R&D Expenditure (Rs. Crores)	R&D as % of GDP
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1998-99	12473.17	0.77
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1999-00	14397.60	0.81
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2000-01	16198.80	0.84
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2001-02 17038.15 0.81

2002-03 18088.16 0.80

2003-04 20086.34 0.79

2004-05 24117.24 0.84

2005-06 28776.65 0.88

2006-07 32941.64 0.87

2007-08 37777.90 0.88

Estimated.

Source: Research & Development Statistics 2009, Department of Science and Technology, Government of India.

Note: GDP: Gross Domestic Product