GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:5104
ANSWERED ON:13.08.2014
INVESTMENT ON R D
Tharoor Dr. Shashi

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

(a) whether the pace of development in the field of science and technology in the country is promising and impressive;

(b) if so, the details thereof and the share of public and private sector companies to the total investment on Research and Development (R&D) during each of the last three years and the current year;

(c) whether the Government is aware that a significant percentage of the total investment on R&D by the member countries of Organization for Economic Co-operation and Development (OECD) is made by the private sector companies and if so, the details thereof;

(d) whether the Government has urged these companies to allocate a certain percentage of their total expenditure on research and development and if so, the details thereof and the reaction of these companies; and

(e) whether the Government provides/proposes to provide any incentives to private sector companies to increase their investment in R&D and if so, the details thereof?

Answer

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

(a)&(b) Yes, Madam. Salient features of development in the field of science and technology in the country have been:

i . There were 523 Universities/Deemed Universities, 70 institutes of national importance and 33023 colleges during 2010-11 imparting higher education in the country.

ii. India's researchers per million population have increased from 140 in 2005 to 164 in 2010.

iii. Based on the SCI database in various fields of Science & Technology during 2006 to 2010, India's contribution to world publications was of the order of 3.3 %.

iv. 0.88% of Gross National Product was devoted to the national investment on R&D during 2009-10.

v. India's per capita R&D expenditure has increased from US$5.90 in 2005-06 to US$9.30 in 2009-10.

vi. By socio-economic objectives as defined by UNESCO, the Defence R&D accounted for 28% of Federal R&D expenditure during 2009-10.

vii. Drugs & Pharmaceuticals industry group topped the R&D expenditure followed by Transportation, Defence industries during 2009-10.

viii.About 2.04 lakhs personnel were engaged in R&D units of the institutional and Public Sector industry under Central Sector and out of this 38.2% were primarily engaged in R&D, 31.1% in auxiliary activities and 30.7% were providing administrative support.

ix. For every 100 R&D employees in Central Sector 15.2% were women R&D employees.

x. Industry spent 0.30% of Gross Domestic Product (GDP) on R&D in 2009-10.

xi. As on 1st April, 2010, 1,49,828 personnel were employed in 1893 industrial sector R&D units, out of which 82,814 were engaged directly on R&D activities.

xii. The R&D expenditure as percentage of Sales Turnover (STO) for Industrial Sector was 0.61% for the year 2009-10 while for the Private and Public Sector separately, the figures were 0.82% and 0.27% respectively.

xiii. Out of 39400 applications filed for patents in India, 8312 applications were filed by Indians during 2010-11.

xiv. 7509 patents were sealed in India during the year 2010-11 and out of these, 1273 patents were sealed by Indians.

xv. The number of foreign patents in force in the country has increased from 13593 in 2006-07 to 32,293 in 2010-11.

According to a publication entitled "Research and Development Statistics (2011-12)" published by the Department of Science and Technology (DST), Ministry of Science & Technology, Government of India in December 2013, total national investment on Research and Development (R&D) and the share of public and private sector companies during 2008-09, 2009-10, 2010-11 and 2011-12 is as follows:

(Rs. in Crores)

Sector	2008-09	2009-10	2010-11#	2011-12#
Central & State Govt.	28619.40	32721.22	37908.32	43918.22
Higher Education	1911.56	2199.97	2547.43	2949.76
Public Sector Companies	2457.02	2814.56	#3264.84	#3787.15
Private Sector Companies	14365.40	15305.55	18332.88	21965.31
Total National Investment	47353.38	53041.30	62053.47	72620.44
Share of Public Sector Companies in Total Investment	5.19%	5.31%	#5.26%	#5.21%
Share of Private Sector Companies in Total Investment	30.34%	28.86%	29.54%	30.25%

Estimated

Projected

(c) The Government is aware that in the member countries of Organization for Economic Co-operation and Development (OECD), significant percentage of the total investment in R&D is made by the private sector companies, e.g. 77% in Japan, 68% in Germany, 65% in US, 45% in UK and 52% in France.

(d) The Government has targeted to raise the national R&D expenditure to 2% of GDP by the end of 12th five year plan and has urged the industry sector to increase their share to 50% in the national R&D expenditure. The industrial sector's share in national R&D expenditure has increased from 24% in 2001-02 to 34% in 2009-10.

The guidelines on R&D for Central Public Sector Enterprises (CPSEs) issued by the Department of Public Enterprises in September, 2011 prescribe that Maharatna & Navratna CPSEs and Miniratna − I & II & other CPSEs incur a minimum R&D expenditure of 1% and 0.5% of Profit After Tax (PAT), respectively.

(e) The Government provides a number of fiscal incentives to the industrial sector to increase their investment in R&D. Fiscal incentives available for enhancing scientific R&D are given below:

100% write-off of revenue and capital expenditure on R&D.

Weighted Tax deduction @200% on expenditure incurred in approved in-house R&D facility, to companies engaged in business of biotechnology or in any business of manufacture or production of any article or thing, till 31.03.2017.

Weighted Tax deduction @200% for Sponsored Research Programmes in approved national laboratories, universities and IITs.

Income tax rebate @175% on donations for scientific research made to non-commercial research organizations approved & notified under section 35(1)
(ii) & 35(1)
(iii) of I.T. Act 1961.

Tax Holiday for ten consecutive assessment years to commercial R&D companies approved before 31.03.2007.

Accelerated depreciation allowance upto 40% on investments on new plant & machinery based on indigenous technology as per Rule 5(2) of I.T. Rules.

Customs duty exemption on goods imported for R&D and central excise duty waiver on purchase of indigenous goods for R&D to public funded and privately funded institutions registered with DSIR.

Customs duty exemption on imports made in industries for use in R&D projects funded by Govt.

DSIR recognized in-house R&D units engaged in R&D in bio-technology and pharmaceuticals sector, can import specified equipment duty free. In respect of R&D units with manufacturing facilities, the benefit of full customs duty exemption for specified equipment is also available for manufacturing activity to the extent of 25 per cent of the previous year's export turnover.

Central excise duty waiver for 3 years on specified goods designed & developed by a wholly owned Indian company, national laboratory, public funded research institutions, or university and patented in any two countries from amongst India, USA, Japan and in any one country of the European Union. The specified goods are manufactured by a wholly owned Indian company. This exemption is available based on certification from DSIR.