## GOVERNMENT OF INDIA SCIENCE AND TECHNOLOGY LOK SABHA

## UNSTARRED QUESTION NO:3560 ANSWERED ON:15.12.2011 GRIM SITUATION OF SCIENCE Adhalrao Patil Shri Shivaji;Dharmshi Shri Babar Gajanan;Yadav Shri Dharmendra

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

(a) whether the experts have expressed their grave concern over the grim situation of science in the country;

(b) if so, whether the performance in basic sciences has come down markedly, both in terms of percentage of contribution of world science and percentage of high quality research paper;

(c) if so, the reaction of the Government thereon;

(d) whether India's contribution to world science is merely 3 per cent which is far behind even than the smaller countries like Taiwan and South Korea;

(e) if so, whether the Government has reviewed and found reasons behind this situation;

(f) if so, the findings thereof; and

(g) the steps taken by the Government to provide structure for basic sciences during the next Plan Period?

## Answer

MINISTER OF STATE IN THE MINISTRY OF PLANNING; MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES (ASHWANI KUMAR)

(a) No, Madam.

(b)to(f): The performance of Indian Science in recent years is impressive and promising. India's position globally in the field of scientific research and development, as measured by the number of research papers published, has improved from 13th position in 1996 to 12th position in 2001 and 10th position in 2006 and further to 9th position in 2010 as per the Scopus International database. For example, in areas such as Nanoscience and Nanotechnology, the promotional efforts of the Government has resulted an active community of about 1000 researchers in the country with 18,290 publications. In 2010 India was ranked at 6th in terms of publications in Nanoscience and Nanotechnology, in case of research in chemistry, India ranks 5th in the world with respec'o scientific publications. UNESCO Science Report 2010 reports ``the country's Science System has undergone perceptible changes over the past five years or so.``

Our country has contributed nearly 36,200 scientific publications in 2008 and countries like Taiwan and South Korea have contributed about 22,500 and 35,500 publications respectively. Comparatively low investment in R&D and insufficient number of trained manpower for R&D have prompted the Government to adopt a propitious policy environment for higher investment in R&D from the private sector, and for enhancing the density of personnel engaged in R&D and innovation.

(g) The Government has taken a number of steps to accelerate the development and promotion of basic sciences in the country. The Government has recently created a new structure for basic sciences by establishing a Science and Engineering Research Board (SERB) in the country as an autonomous body through an Act of Parliament. The creation of SERB, apart from significantly enhancing the level of basic research funding, shall also impart the necessary autonomy, flexibility and speed in shaping the research programmes and delivery of funds to researchers. Other measures to promote basic sciences include 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 in academic and national institutes, induction of new and attractive fellowships, strengthening infrastructure for Research and Development (R&D), launching of Innovation in Science Pursuit for Inspired Research (INSPIRE) etc. Apart from expanding the scope of investigator centric Extra Mural Research support programmes in terms of quantity and quality, multifaceted programmes like Start-up Research grant for Indian Diaspora under taking faculty assignments in Indian academia, Overseas Doctoral Scholarships and Post¬doctora Fellowships, Building Educators for Science Teaching etc. are proposed for the XII Five Year Plan to take basic sciences to higher levels. Initiatives taken to encourage more R & D in the public and private sector would enhance the absorptive capacity of S & T institutions and scientists which would in turn strengthen the faculty in S & T in India.