

Status of research and development

4945. SHRI BAISHNAB PARIDA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether India is deficient in the field of research and development and it depends on foreign countries for help in this field;
- (b) if so, the details thereof;
- (c) Government's action plan to make up such a deficiency;
- (d) how far such facilities to improve R and D have grown up during the last three years; and
- (e) the details of action plan to give it a further impetus?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI ASHWANI KUMAR): (a) to (d) No, Sir. India has a strong independent base in Research and Development (R and D) in Science and Technology. India has been able to build up a capacity in a wide range of areas of modern technology, from software engineering to health biotechnology and the performance of our country in recent years is impressive and promising. Significant achievements have been made in the areas of nuclear and space science, electronics, IT and defence. India has partnered with other leading countries in mega projects like India-Japan beamline at the Photon Factory, KEK, Japan; Facility for Antiproton and Ion Research (FAIR), Germany; Large Hadron Collider (LHC) at CERN, Geneva; Elettra Synchrotron Facility at Trieste, Italy; India based Neutrino Observatory (INO) etc. 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. 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 respect to scientific publications. The Government has taken a number of steps to accelerate the development and promotion of R and D. These measures 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 R and D, encouraging public-private R and D partnerships etc. Launching of initiatives like Innovation in Science Pursuit for Inspired Research (INSPIRE), Nano Mission, Mega Facilities,.

Open Source Drug Discovery, Network Projects, Climate Change Studies, National Biotechnology Development Strategy etc. in the XI Plan period demonstrated the commitment of the Government to encourage and promote research in a better scientific environment. Significant enhancement of S and T support system has been recorded in the last three years. This includes reaching of INSPIRE programme in every part of the country, creation of a new structure for basic research by establishing a Science and Engineering Research Board (SERB) in the country as an autonomous body through an Act of Parliament etc.

(e) S and T Departments have made detailed plans with substantial increase of investment in the XII Plan period. This includes initiation of Grand Challenge Programmes; launching PAN-India missions to address national priorities in various developmental sectors particularly in the areas of Health, Water, Energy, Food; setting up Peta scale supercomputing facilities for various applications in prime domains like climate modelling, weather prediction, aerospace engineering, computational biology, atomic energy simulations, earthquake simulations, national security etc. Increase R and D expenditure to 2% of GDP with sizable contribution from the corporate sector by attracting investments and engagement of the corporate sector into R and D is another significant action plan.

Installation of guage recorder

†4946. SHRI ASHK ALI TAK: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether Government proposes to install a gauge recorder at RD 86.5 in place of RD 45 in Bikaner and if so, by when; and

(b) whether Government proposes to install gauge recorder at the linking point of the Sirhind feeder canal Rajasthan instead of installing the same at the Sirhind feeder head and if so, by when?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) As informed by Bhakra Beas Management Board (BBMB), it was decided in 84th meeting of Irrigation Sub Committee of BBMB held on 31.01.2012 to install the automatic stage recorder at RD 86,500 of Bikaner canal by Rajasthan under their ongoing Supervisory Control And Data Acquisition (SCADA) scheme. The installation is thus dependent on Rajasthan Government. BBMB has further informed that if necessity arose, after installation of automatic stage recorder at RD 86,500, the gauge could also be provided at RD 45,000 of Bikaner canal.

† Original notice of the question was received in Hindi