India's global share of scientific publications from the present 3.5% to 7.0%; (ii) Establish world class infrastructure for Research and Development (R&D) in some select areas; (iii) Make careers in science, research and innovation attractive enough for talented and bright minds; ((iv) Create an environment for enhanced private sector participation in R&D, technology and innovation; (v) Seed S&T based high risk Innovation; (vi) Participate in international R&D projects that are high cost and high science. A strong and viable Science, Research and innovation System for High Technology-led path for India (SRISHTI) is the goal of the new STI policy.

(c) No Sir. As per UNESCO's Global Science Report India's global ranking in Science is commensurate with its Full Time Equivalent of R&D personnel engaged in R & D.

(d) and (e) A bibliometric study commissioned by the Department of Science and Technology indicates that India's science publication share has increased from 1.8% in 2001 to 3.5% in 2011. China has been investing significant national resources in scientific research during the last decade. South Korea also invests 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 such as space, software, vaccines, and renewable energy.

High level research in science and technology

1528. SHRI NARESH AGRAWAL: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether government has taken any initiative to promote high level research in science and technology;

(b) whether government has any plan to promote high quality research in Indian Universities and Institutes;

(c) if so, the details thereof; and

(d) if not, the reasons therefor?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI S. JAIPAL REDDY): (a) Yes, Sir.

(b) and (c) Government has taken several measures to promote high level research in science and technology in Indian Universities and Institutes. Council of

Scientific and Industrial Research (CSIR) has engaged in high end research and has made significant contributions in many fields including aerospace, health care drugs and pharmaceuticals, food and food processing, energy etc. Department of Biotechnology (DBT) has implemented several integrated research programmes related to applications of biotechnology in agriculture, health care, environment and industrial development. Department of Science and Technology (DST) has supported frontier areas of research in several areas including nanoscience and nanotechnology, structural biology, computational and particle physics, green chemistry, mining and mineral engineering, molecular materials, solar energy, water etc. The infrastructural support programmes of DST such as Fund for Infrastructure Strengthening of S&T (FIST) and Promotion of University Research and Scientific Excellence (PURSE), Consolidation of University Research, Innovation and Excellence (CURIE) for women only universities, special packages for regional balancing of R&D infrastructure (for North East, J&K, Bihar etc) have helped several universities and institutes to augment their research capability and engage in high end research. National share of university sector in scientific publications has increased form 15% to 31% during the last 7 years. The Ministry of Earth Sciences has supported several high potential areas of research in polar science and cryosphere, climate change, ocean technology etc.

Development of critical technologies in space sector such as indigenous cryogenic engine, air breathing propulsion, microwave remote sensing, deep space tracking antenna system etc. and reactor technology have demonstrated the focused directions of Indian research taking place in universities and institutes. The Government has several plans to boost high quality scientific research in future. The priorities set for the Twelfth Plan include stimulation of private sector engagement for investment into R&D; public-private partnerships for promotion of R&D and clean energy; enlarging research in the university sector. Steps are being taken to launch grand challenge mission mode programmes for application in biotechnology, healthcare, agriculture and other areas of national priorities including supercomputing facilities to enlarge the scope of quality research. Budgetary allocation for the S&T sector have increased from Rs. 25,301 crores in Twelfth plan to Rs.75,304 crores in Eleventh Plan and Rs. 1,20,430 crores in Twelfth Plan.

(d) Does not arise.

Science, Technology and Innovation Policy, 2013

1529. SHRI ANIL DESAI:
SHRI T.K. RANGARAJAN:

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