in Nanoscience and Nanotechnology. In case of research in chemistry, India ranks 5th in the world with respect to scientific publications.

Participation of women in S & T

452. DR. T.N. SEEMA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the number of women scientists working in the various research institutions and science and technology departments/agencies of Government;

(b) whether Government has taken any steps to improve the participation of women scientists in the science and technology sector; and

(c) if so, the details and the outcome thereof?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI S. JAIPAL REDDY): (a) to (c) Government has taken steps to ensure participation of women in the field of science and technology by enhancing the scope of gender enabling programmes. In the Twelfth Plan the Department of Science and Technology has formulated a scheme "Disha" to ensure the participation of women in the S&T sector by restructuring existing schemes and adding new component to address mobility of women scientists due to family reasons. The existing initiatives of the Department of Science and Technology include the Women Scientists Scholarship Scheme which provides opportunities to women scientists and technologists who desire to return to mainstream science after a break in career. The scheme supports women scientists for research in basic and applied sciences, provide S&T solutions to issues of societal relevance and internship in the area of Intellectual Property Rights. 2500 women have been awarded scholarships under this scheme during the period 2003-11. The Department of Biotechnology has been supporting women scientist by providing R&D grants under its various Programmes. 428 women bioscientists have been provided research grant since 2009. The Department has launched a new scheme, Bio-CARe, for women under the Biotechnology Career Advancement and Reorientation programme to extend support for women bioscientists, both employed and unemployed so as to help them undertake independent R&D projects in the field of life sciences to include agriculture, veterinary science and medicine. The scheme was started in 2010 and since then 65 women scientists have been awarded. The scholarships schemes have been availed of by women scientist in 20 states of the country. Scholarship schemes

have been availed of by women scientists in 20 states of the country. Government is continuously working to expand the scope of opportunities for women scientists.

Quality and quantity of research work in the country

453. DR. PRABHAKAR KORE: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that a new analysis of comparative science research, that takes into account both quality and quantity shows that India is now left far behind and slip to a fourth position as China grows steadfastly since 2002 in terms of scientific work;

(b) if so, the reasons that repeated Government promises to focus on research are yet to show results; and

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

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI S. JAIPAL REDDY): (a) to (c) Yes Sir. The Department of Science and Technology commissioned a bibliometric study on India's research output based on 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, a decision to increase national R&D expenditure from current level of 0.9% to 2% of GDP has been taken together 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.