GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

STARRED QUESTION NO:288
ANSWERED ON:23.03.2005
GROWTH OF BIOTECHNOLOGY
Mandal Shri Sanat Kumar

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

(a) whether the growth of biotechnology in our country is similar to that of other developed/developing countries ;

(b) if so, the details thereof and if not, the reasons therefor; and

(c) the steps taken to encourage the students to opt for biotechnology course in the country and the career opportunities existing/proposed to be developed for them in the country?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE & TECHNOLOGY AND MINISTER OF STATE (INDEPENDENT CHARGE) OF THE DEPARTMENT OF OCEAN DEVELOPMENT

(a) to (c) A Statement is laid on the Table of the House.

STATEMENT IN RESPECT OF LOK SABHA STARRED QUESTION NO. 288 TO BE ANSWERED ON 23.03.2005 REGARDING `GROWTH OF BIOTECHNOLOGY`

(a)&(b) India is emerging as a major player in the global biotechnology scenario. In 2003-2004 the Indian Biotechnology Industry witnessed accelerated growth of 39% and accounted for 1.5% of the global biotechnology sector of US$ 46 billion. The turnover of Indian Biotechnology Industries during 2003-04 was US$ 705 million of which 56% was from Exports. Indian Biotechnology companies have made significant inroads into overseas generic markets. 17 Indian Biotech products are already in the market.

In the area of Agriculture, India is one of the 14 Mega Countries growing more than 50,000 ha transgenics crop, though the area is very small 1% of global area. (0.5 mha) as compared to US which occupies 59% global area (47.6 mha).

The strong science base existing in the country has enabled its success in biotechnology. India has the 12th most successful biotechnology industry in the world as measured by number of companies. A recent report in 2004 by US Patent Office ranks India the first among developing countries in terms of patents issued in health biotechnology and third in terms of scientific publications in this sector.

As per the report by GeneMedix 2002, India is considered as one of the top five Biologics manufacturing hot spots in the world with Bangalore being one of the world`s hottest technology city.

(c) The Department of Biotechnology, Government of India has laid special emphasis on Human Resource Development and supports post graduates/diplomas courses in different Universities across the country. In addition PhD and Postdoctoral fellowship programmes have also been supported to attract students/scientists for research in Biotechnology. For creating specialized human resource to meet the industrial needs, Industrial training programmes are supported for post graduate students. Mid carrier scientists are provided short term training courses. To encourage students to pursue their studies in Biotechnology, 25 biology scholarships are awarded each year to the top students of 10+2 CBSE. Overseas fellowships are provided for Post Doctoral research to scientists.

To promote human resource development further, it is proposed that scientific and technical human resource would be made available in adequate numbers and of adequate quality in all disciplines relevant to life sciences and biotechnology sector. Strengthening R&D in life sciences and biotechnology in the university system is being accorded high priority, in addition to improving science education in schools. The improvement in quality of the teaching programmes is being taken up through improved curriculum and teachers training course. It is proposed to further enhance the number of Ph.D. and Post doctoral research fellowship. Specialized technician training centres are proposed to be set up for niche areas as per industry requirement.