

**GOVERNMENT OF INDIA  
SCIENCE AND TECHNOLOGY  
LOK SABHA**

UNSTARRED QUESTION NO:2591  
ANSWERED ON:18.08.2006  
GENETIC ENGINEERING .  
Barman Shri Ranen

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

- (a) Whether Genetic Engineering has been attracting growing interest of the scientific community across the world, including India;
- (b) If so, the details thereof;
- (c) The steps taken by the Government to encourage research in Genetic Engineering, particularly with a view to enable development in the fields of agriculture, floriculture, fisheries and animal husbandry; and
- (d) The details of genetic engineering research facilities available, as well as projects presently under implementation in the country particularly in West Bengal?

**Answer**

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES(KAPIL SIBAL)

(a) & (b): Yes, Sir. There is growing interest among the scientific community to work in the area of Genetic Engineering as it enables the scientists to transfer desirable genes from any source plant, animal, bacteria or viral into other organisms. Besides developed countries, many developing countries have been conducting research making use of genetic engineering techniques in agriculture and allied areas. In India this is a fast growing area and at present there are around 300 institutions in public and private sector which are working on research programmes relevant to important sectors including agriculture.

(c) The Government is making concerted efforts for promoting and strengthening this area by providing research facilities and supporting research programmes covering both basic and applied aspects in the field of agriculture, floriculture, fisheries and animal sciences.

(d) The Government had earlier set up three Genetic Engineering Units in Jawaharlal Nehru University, New Delhi, Indian Institute of Science, Bangalore and Banaras Hindu University, Varanasi. Presently, a Centre for Genetic Engineering and Strain Manipulation is being supported at Madurai Kamaraj University, Madurai. The Government has also established a National Centre for Plant Genome Research in New Delhi to work in the area of plant genomics. In addition, Centres for Plant Molecular Biology were established at seven national institutions and universities for promoting plant molecular biology research including application of genetic engineering for crop improvement. There are many other general universities, state agricultural universities, national agricultural research institutions which have developed fairly good competence for undertaking research in this field.

The Government is supporting research programmes on application of genetic engineering techniques for improving the productivity of our important crops through reducing their losses due to biotic and abiotic stresses, heterosis breeding and improving their nutritional quality. In the area of animal sciences efforts are being made for use of genetic engineering techniques to develop suitable transgenic animals, vaccines and animal feed, while in fisheries area, programme is being pursued for developing transgenic fish for various purposes.

In West Bengal, Bose Institute, Kolkata; Bidhan Chandra Krishi Vishwavidyalaya, Kalyani; and Indian Institute of Technology, Kharagpur are being supported for developing transgenic rice resistant to salinity & drought, tungro viral disease and improved mustard respectively.