

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

UNSTARRED QUESTION NO:2890
ANSWERED ON:03.08.2016
Genetic Engineering
Baker Shri George

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

- (a) the details of steps taken by the Government to encourage research in Genetic Engineering particularly with a view to enabling development in the fields of agriculture, floriculture, fisheries and animal husbandry;
- (b) the details of the genetic engineering research facilities available in the country, State/UT-wise;
- (c) the details of funds earmarked to these research facilities during each of the last three years and the current year;
- (d) the details of research work undertaken by these research centres in the country;
- (e) whether the Government is planning / considering to open some new genetic engineering research facilities in the country; and
- (f) if so, the details thereof and the time by which these are likely to be opened, location-wise?

Answer

MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND EARTH SCIENCES
(Y. S. CHOWDARY)

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(a) To encourage research in genetic engineering particularly with a view to enabling developments in the fields of agriculture, floriculture, fisheries and animal husbandry, the Government is providing technical and financial support through schemes & projects of various Ministries / Departments such as Department of Biotechnology; Department of Science and Technology; Council for Scientific and Industrial Research of Ministry of Science Technology; Indian Council of Agriculture Research; Ministry of Agriculture & Farmers Welfare; Ministry of Environment, Forests & Climate Change; and University Grants Commission. Various schemes & projects involving genetic engineering are implemented to develop skilled human resource and teaching aids; support laboratory infrastructure, technology platforms and bio-clusters and international cooperation for training abroad and undertake bilateral joint collaborative research projects.

(b) The number of institutions having genetic engineering research facilities in the country, State / UT-wise are Gujarat (40); Tamil Nadu (28); Kerala (15); Maharashtra (102); Goa (4); Punjab (17); Uttar Pradesh (29); Madhya Pradesh (12); Haryana (21); Bihar (5); Jharkhand (1); Delhi (44); Pondicherry (3); Himachal Pradesh (7); Karnataka (52); Andhra Pradesh & Telangana (122); Assam (7); Manipur (1); Meghalaya (1); Orissa (6); Rajasthan (6); Tripura (1); Uttarakhand (5); and West Bengal (20).

(c) It is difficult to estimate the details of funds earmarked year-wise to research facilities by various agencies for genetic engineering activities since genetic engineering is an integral part of many major programmes / schemes involving other conventional approaches and technologies. In so far as the Department of Biotechnology is concerned, financial support has been provided for such facilities to the extent of Rs.1066.44 lakhs during 2013-14; Rs.1936.62 lakhs during 2014-15; Rs. 961.64 lakhs during 2015-16; and Rs. 159.71 lakhs during the current year.

(d) Research work undertaken by these research centres in the country includes development of genetically engineered plants and animals with useful traits such as biotic and abiotic stress tolerance, high yield, improved nutrition, hybrid vigour and male sterility; understanding the mechanism of plant developmental pathways; functional genomic studies for identification of useful genes and validation of their functions; development of genetically engineered mosquito and silkworm with useful traits etc.

(e & f) The Government is not planning/considering to open new genetic engineering research facilities in the country since such facilities are already available in about 600 institutions in the country and the government is making all efforts to strengthen the existing facilities in these institutions.
