

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO-288
ANSWERED ON 08-12-2022**

INDIAN BIOLOGICAL DATA CENTRE

288. SHRI BRIJLAL:

Will the Minister of Science and Technology be pleased to state:

- (a) the salient features of the country's first Indian Biological Data Centre (IBDC) set up at regional centre of biotechnology in Faridabad;
- (b) the likely benefits of IBDC in medical and other fields in future, the details thereof;
- (c) the amount sanctioned and released by Government for this purpose; and
- (d) whether Government also proposes to set up more such centres in other parts of the country and if so, the modalities thereof?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES

(DR. JITENDRA SINGH)

- (a) The salient features of Indian Biological Data Centre, set up by Department of Biotechnology (DBT), GoI are as follow:
 - Department of Biotechnology (DBT), GoI has set up Indian Biological Data Centre (IBDC) for deposition, storage, annotation and sharing of biological data generated in the country, subsequent to the release of 'Biotech PRIDE (Promotion of Research and Innovation through Data Exchange) Guidelines'.
 - The IBDC has objectives of (i) creating IT platforms for storage/distribution of biological data and development of appropriate web portal for data deposition/retrieval, (ii) development of Standard Operating Procedures (SOPs) and training of staff for storing the data, (iii) development/installation of software for analysis of stored datasets by researchers on IBDC portal and development of web based tools/APIs for data sharing/retrieval and (iv) organization of training programs on high throughput data analysis and performance of

outreach activities for sensitizing researchers on benefits of data sharing; to enable deposition, storage, annotation and sharing of biological data.

- IBDC set up at Regional Centre for Biotechnology, NCR Bioscience Cluster, Faridabad has a data storage capacity of about 4.0 PetaBytes and houses the High Performance Computing facility with its disaster data recovery site at NIC, Bhubaneswar. The main aim is to develop SOPs and training of staff for storing the data.

(b) The national IBDC will enable researchers in all fields of life sciences to deposit biological data specifically high-throughput, high-volume data in a central repository. The national IBDC will perform quality control, curation, and annotation of data. These efforts will help to establish benchmarks for the quality of data deposited and thus improve the quality of experimental research conducted in the country in medical and all other biological sciences sectors. IBDC will also facilitate distribution of biological data to researchers for further analysis and the discovery of emergent properties in biological systems. Training programs conducted on data storage and analytics will help increase the number of manpower skilled in data science in the country.

(c) Department of Biotechnology has sanctioned Rs. 75.78 crores to set up pilot Indian Biological Data Centre at Regional Centre for Biotechnology, NCR Bioscience Cluster, Faridabad with its disaster data recovery site at NIC, Bhubaneswar. Rs. 61.52 crores has been released so far.

(d) The current Indian Biological Data Centre (IBDC) is a pilot facility. After development of the SOPs, the major datasets and bioinformatics centres in the country will be bridged to the mega IBDC. The national IBDC will enable deposition, storage, annotation and sharing of all biological knowledge, information and data generated through research within the country. The national IBDC will be responsible for promotion of research and innovation through data exchange in the country as stated in the 'Biotech PRIDE Guidelines'

(<https://dbtindia.gov.in/sites/default/files/uploadfiles/Biotech%20PRIDE%20Guidelines.pdf>).
