



Mains Practice Question

Q. “Indian Biological Data Bank will reduce the dependency of Indian researchers on American and European data banks.” In the light of the statement, discuss key features of indigenous data bank centre. (250 words)

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Approach

- Describe in brief about Indian Biological Data Bank.
- Discuss briefly about its significance in reducing India's dependency on American or European banks.
- Discuss the key features of Indian Biological Bank.
- Conclude accordingly.

Introduction

- Recently, government has set up **'Indian Biological Data Bank' at the Regional Centre for Biotechnology (RCB), Faridabad.**
- It is the **first national repository for life science data in India**, where the data will not only be submitted from across India but can be accessed by researchers from across India.

Body

- **Significance in reducing India's dependency on foreign banks:**
 - The indigenous data bank will **reduce the dependency** of Indian researchers on American and European data banks and **help in protecting the critical data of our citizens**, otherwise data would be left at the mercy of foreign banks to access and exploit critical data of Indian citizens.
 - It will not only provide a platform to researchers to securely store their data within the country, it will **also provide access to a large database of indigenous sequences for analyses.**
- **Key features of Indian Biological Data Bank (IBDC):**
 - The digitised data will be stored on a **four-petabyte supercomputer called 'Brahm'.**
 - **Different sections of IBDC** would typically deal with **particular type(s) of life science data.**
 - IBDC has a backup data **'Disaster Recovery' site at NIC.**
 - Further, IBDC shall also develop **highly curated data sets in order to facilitate knowledge discovery** in various domains of life sciences.
 - It would also provide **infrastructure and expertise for biological data analysis.**
 - It will also **help researchers in studying zoonotic diseases.**
 - Although the database **currently only accepts such genomic sequences, it is likely to expand later to storage of protein sequences and imaging data** such as copies of Ultrasound and Magnetic Resonance Imaging (MRI).
 - It is **mandated to archive all life science data in IBDC generated from publicly funded research** in India.

Conclusion

The establishment of Indian Biological Data Bank would provide IT platform for perpetually archiving biological data in the country and helps India in transforming biotechnologically for the betterment of its citizen as well as for humanity.

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