

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY**

**LOK SABHA
UNSTARRED QUESTION NO. 5373
ANSWERED ON 25.03.2026**

Bio-economy

5373: Shri Anoop Pradhan Valmiki:

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

- (a)** whether the Bio-ride scheme has successfully provided momentum to India's goal of achieving 300 billion US Dollar bio-economy by the year 2030 and if so, the details thereof;
- (b)** the manner in which newly added Bio-manufacturing and Bio-foundry units have been helpful in the production of high-value indigenous bio-products;
- (c)** the major achievements of the BioPharma Shakti initiative in reducing the dependency of our country on import of important biosimilars; and
- (d)** the manner in which Bio-technology Ignition Grant (BIG) has been helpful in supporting more than 1,000 early-stage startups by March 2026?

ANSWER

**MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE
MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES
(DR. JITENDRA SINGH)**

(a) Yes. Bio-RIDE scheme is aimed at transforming the country's biotechnology landscape and to contribute towards achieving a \$300 billion bioeconomy by 2030. Implementation of various programs on biotechnology research, development and innovation, human resource and infrastructure development, approval of BioE3 Policy and other Government of India reforms have contributed to maintain a consistent growth of biotechnology sector during last decade. India's bioeconomy has reached \$195.3 billion in 2025, up from \$165 billion in 2024,

reflecting an 18% annual growth rate as detailed in the India Bioeconomy Report 2026 released on 19.03.2026.

(b) The Department of Biotechnology (DBT), Government of India, and its PSU Biotechnology Industry Research Assistance Council (BIRAC) recently announced the launch of India's first Biofoundry Network, a landmark initiative aimed at transforming the country's biotechnology landscape and achieving a \$300 billion bioeconomy by 2030. Rolled out under the BioE3 Policy (Biotechnology for Environment, Economy & Employment), the network will serve as a national platform to accelerate advanced biomanufacturing.

The initiative brings together BIRAC supported 15 cutting-edge bio-enabler facilities across India, offering shared infrastructure to start-ups, SMEs, industries, and academic institutions. These centers will support pilot and pre-commercial scale technologies across diverse sectors, including microbial biomanufacturing, sustainable agriculture, smart proteins, functional foods, precision biotherapeutics, marine biotechnology, carbon capture, and next-generation cell and gene therapies.

The facilities range from biofoundries working on microbial strains, smart proteins, probiotics, and bio-based chemicals to biomanufacturing hubs developing next-generation cell therapies, mRNA-based medicines, marine bio-innovations, and sustainable biofuels. Collectively, these will act as bio-enablers of innovation and commercialization, unlocking new opportunities for industry and academia alike. These Bioenablers will drive advanced biomanufacturing, reduce reliance on imports, generate employment, and position India as a global bioeconomy leader.

With its wide-ranging impact across health, agriculture, food, energy, and environment, the Biofoundry Network is expected to play a pivotal role in India's transition to clean and green technologies, reduce import dependence, helpful in the production of high-value indigenous bio-products and establish the country as a frontrunner in the global bioeconomy.

(c) With a view to strengthen the domestic biopharmaceutical sector and enhance global competitiveness in biologics and biosimilars, the Government has announced the Biopharma SHAKTI scheme with an outlay of ₹10,000 crore over five years with an objective to build a globally competitive domestic ecosystem for biologics and biosimilars to support affordable healthcare in India and enable India to emerge as a global biopharma manufacturing and innovation hub.

(d) The **Biotechnology Ignition Grant (BIG)** programme, implemented by the Biotechnology Industry Research Assistance Council (BIRAC), a Section 8 Public Sector Enterprise under the Department of Biotechnology (DBT), Government of India, has played a pivotal role in strengthening early-stage biotechnology innovation and entrepreneurship in the country.

The Biotechnology Ignition Grant (BIG) is BIRAC's flagship programme designed to support early-stage startups and entrepreneurs in the biotechnology sector. Launched in 2012, the scheme aims to nurture the innovation ecosystem by de-risking initial investments through grant-in-aid support of up to ₹50 lakh for a period of 18 months, enabling the establishment of proof-of-concept (PoC) for innovative ideas. Over time, the programme has emerged as one of the largest early-stage biotech funding initiatives in India. It serves as a launchpad for first-generation

biotechnology entrepreneurs and has created a strong startup pipeline, contributing to the growth of a self-reliant and globally competitive biotechnology innovation ecosystem.

It is implemented through a network of 8 BIG Partners (BioNEST incubators) that provide end-to-end handholding, thorough mentorship (technical, IP, business), and networking support from the pre-submission stage to completion of the project (and even after).

As of March 2026, the programme has:

- Supported more than 1,000 early-stage startups and innovators
- Enabled translation of innovative ideas into 200+ developed products/technologies
- Facilitated creation of 800+ intellectual property filings
- Mobilized ₹3,500+ crore in follow-on funding
- Supported 250+ women entrepreneurs
- Generated 3,500+ skilled employment opportunities
- Encouraged participation from Tier 2 and Tier 3 regions through an expanded incubator network

The programme has significantly contributed to de-risking early-stage innovation, strengthening the startup pipeline, and fostering a culture of science-led entrepreneurship in the biotechnology sector, thereby enabling the growth of a robust and self-reliant bio-economy.
