

**GOVERNMENT OF INDIA**  
**MINISTRY OF SCIENCE & TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**LOK SABHA**  
**ADMITTED/UNSTARRED QUESTION NO. 251**  
**TO BE ANSWERED ON 27/11/2024**  
**“BioE3 Policy in Biotechnology”**

251: Shri Captain Brijesh Chowta:  
Shri Shankar Lalwani:  
Shri Ganesh Singh:  
Shri Yogender Chandolia:  
Smt. Smita Uday Wagh:  
Smt. Aparajita Sarangi:  
Shri Jagdambika Pal:

Will the **Minister of SCIENCE & TECHNOLOGY**

विज्ञान और प्रौद्योगिकी मंत्री

be pleased to state:

- (a) the aims and objectives of the BioE3 policy and whether it will be instrumental in fostering high-performance bio-manufacturing;
- (b) the details of national initiatives aligned with the BioE3 policy;
- (c) the details of achievements of bio economy during the last ten years;
- (d) whether the Government has the list of Bio-manufacturing and Bio-AI hubs that are planned to be set up in Karnataka as a whole and Dakshina Kannada in particular and if so, the details thereof; and
- (e) the process for identification of districts to set up the Bio-manufacturing & Bio-AI hubs ?

**ANSWER**

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

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)  
(डॉ. जितेन्द्र सिंह)

- (a)** The objective of the BioE3 Policy is to set forth a framework that ensures the adoption of cutting-edge advanced technologies, and aligning innovative research for promoting Biomanufacturing. The BioE3 Policy outlines guidelines and principles for enabling mechanisms for '*Fostering High Performance Biomanufacturing*' in the country across diverse sectors. The Policy aims at revolutionizing biomanufacturing process for enhanced efficiency, sustainability, and quality while also accelerating the development and production of bio-based high-value products.
- (b)** The BioE3 Policy is aligned with India's vision of Green Growth (announced in the Union Budget 2023-24) and also with the clarion call of the Hon'ble Prime Minister on '*Lifestyle for Environment (LiFE)*' that envisions collective approach towards sustainability. The Policy also aligns with the Hon'ble Prime Ministers vision of '*Net-Zero*' carbon economy of the country. Further, the Biomanufacturing and Biofoundry initiative has been announced as a scheme during Government's Interim Budget for 2024-25.
- (c)** Highlights of achievements of India Bioeconomy over the last ten years are as follows:
- As in December 2023, Bioeconomy contributes 4.25% to India's Gross Domestic Product (GDP) of \$3.55 trillion
  - Indian Bioeconomy has grown from \$10 billion in 2014 to \$151 billion in 2023, achieving this target two years ahead of projections for 2025.
  - Number of Biotech Startups have grown from 50 Biotech Startups in 2014 to 8,531 Biotech Startups in 2023.
- (d) and (e)** DBT-BIRAC have issued a joint call to invite proposals for setting up of "*मूलांकुर* BioEnablers – Biofoundries and Biomanufacturing Hubs" in the country. All the proposals received are under evaluation.