

Global Bio-India-2021

Why in News

Recently, the **Union Minister for Health & Family Welfare** inaugurated the **second edition of Global Bio-India-2021** in New Delhi through virtual mode.

- It showcases the strength and opportunities of India's biotechnology sector at national level and to the global community.
- The minister unveiled the "National Biotech Strategy" and also inaugurated the Virtual Exhibition of Global Bio-India at the occasion.

Key Points

- About:
 - It is a mega international congregation of Biotechnology, with stakeholders including international bodies, regulatory bodies, Central and State Ministries, SMEs, large industries, bioclusters, research institutes, investors, and the startup ecosystem.
- Aim:
 - It aims at **facilitating the recognition of India** as an **emerging Innovation Hub** and the bio-manufacturing hub globally.
 - India was ranked 48th in the Global Innovation Index Report 2020.
- Objectives:
 - Bio- Partnering, Policy Discussions, CEO's plans for India and connecting Indian Biotech ecosystem with international ecosystem and creating platforms for new idea evaluation and investments.
 - Showcase and identify key biotechnological innovations, products, services, technologies from national and international companies, start-ups and research institutes.
 - Attracting major contract projects from international companies as well as major global venture funding into India.
 - According to the World Bank's Ease of Doing Business Report 2020, India is now ranked 1st among South-Asian countries compared to 6th rank in 2014.

Organisers:

- - **ABLE** is a **not-for-profit pan-India forum** that represents the Indian **Biotechnology** Sector.

Biotechnology

- Biotechnology is technology that utilizes biological systems, living organisms or parts of this to develop or create different products.
- Biotechnology **deals with industrial scale production** of biopharmaceuticals and biologicals using genetically modified microbes, fungi, plants and animals.
- The applications of biotechnology include therapeutics, diagnostics, genetically modified <u>crops</u> for agriculture, processed food, bioremediation, waste treatment, and energy production.

// Biotechnology

Pros

- High-quality food
- Less herbicides or pesticides have to be used
- More efficient farming
- Higher output levels
- Efficient use of our natural resources
- Mitigation of vitamin and nutrient deficiencies
- Products will have a longer shelf-life
- Effective measure to reduce the starvation problem
- Especially suitable for areas with extreme weather conditions
- Mass production of important medicines
- Diseases related to genetic disorders can be treated more effectively
- · Lower level of dependence on other countries
- Increase in efficiency in industrial processes

Cons

- Involves the use of genetic engineering and GMOs
- GMO characteristics can unintentionally be adapted by other plants
- The soil may become less fertile
- · Problems with hybrids through cross pollination
- Small farmers who don't use GMOs may go out of business
- High levels of local unemployment
- Increase of poverty in some poor countries
- Overproduction may become a big problem
- Food exports may shrink
- Biodiversity loss
- Health problems related to GMOs
- · Excessive amounts of artificial flavors in our food
- Epidemics or pandemics
- Spread of plant diseases

Biotechnology Sector of India

About:

- Biotechnology sector is recognized as one of the key drivers for contributing to India's USD
 Trillion economy target by 2024.
- Policy initiatives of the Government of India (GoI) such as the <u>Make in India</u> program are aimed to develop <u>India as a world-class Biotechnology and Bio-manufacturing hub.</u>
- India is among the top-12 destinations for biotechnology in the world, with approximately 3% share in the global Biotechnology industry.
- Indian Biotechnology industry's economy was valued at USD 70 billion in 2020 and is expected to grow to USD 150 billion by 2025.

Biotechnology Parks:

- The Department of Biotechnology has established <u>Biotechnology Parks</u>/Incubators across the country to translate research into products and services by providing necessary infrastructure support.
- These Biotechnology Parks offer facilities to Scientists, and <u>Small and Medium sized</u> <u>Enterprises (SMEs)</u> for technology incubation, technology demonstration and pilot plant studies for accelerated commercial development of Biotechnology.
- Draft National Biotech Development Strategy 2020-24:

- About:
 - It has called for more engagement with startups and to leverage the publicprivate partnership (PPP) model to take the industry to USD150 billion by 2025.
- o Aim:
 - To build and nurture a vibrant startup, entrepreneurial, and industrial base, connecting academia and industry.
- Focus:
 - Strengthening and nurturing of a strong basic research and innovation driven ecosystem across research institutes and laboratories, both public and private sector, with complete engagement of startups, small industry, and large industry.

