

NEWS TODAY

Ministry of Science and Technology unveiled BioSaarthi Mentorship Initiative for Biotech Startups

Along with the Initiative, **India Bioeconomy Report 2025 (IBER 2025)** was also released.

- **IBER 2025** has been prepared by the **Biotechnology Industry Research Assistance Council (BIRAC)**, a Public Sector Enterprise, set up by **Department of Biotechnology (DBT)**.

About the BioSaarthi Initiative

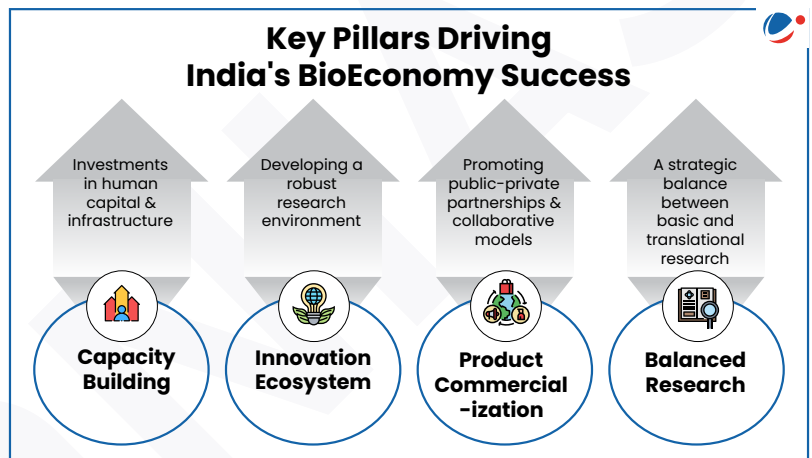
- It is a six-month cohort program, will provide **structured mentor-mentee engagements**, offering **personalized guidance** to **emerging biotech entrepreneurs**.
- It will strengthen **industry-academia collaboration**.
 - ⊕ Under it, overseas experts will be engaged, particularly from **Indian diaspora** as **international mentors**.

India's Bioeconomy

- **Status:** \$165.7 billion in 2024 (witnessed growth from \$10 billion in 2014, marking a 16-fold increase)
- **Contribution to GDP (Nominal): 4.3%**
- **Sectors wise Contribution:** **Bioindustrial** (largest contributor with 47.2%) followed by BioPharma, Bio Services and BioAgri.
- **Regional contribution:** **South Zone** contributed 45.40% to the national BioEconomy followed by West Zone North and East Zones.
- **State Wise Contribution:** States like Andhra Pradesh, Maharashtra, Karnataka, Gujarat, etc. are key contributors.
- **Startup:** Biotech startup ecosystem has grown from just 50 startups a decade ago to over 10,075.

Key Initiative which facilitated growth of India's Bioeconomy Sector

- **Biotechnology for Economy, Environment and Employment (BioE3Policy), 2024**
- **Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE), 2024**
- **National Biopharma Mission (NBM), 2017**
- **Other:** National Mission on Bioeconomy, 2016, etc.



Significant Milestones in Bio-economy Sector in Recent Years

- Launched **Nafithromycin**, an indigenous antibiotic aimed at combating **Antimicrobial Resistance (AMR)**.
- Immuneel Therapeutics launched **Qartemi**, CAR T-cell therapy for adult B-cell non-Hodgkin lymphoma.
- **Introduced Geniee:** A Personalized **Genomics Platform** for Tailored Health Insights

10 year of District Mineral Foundation (DMF)

Ministry of Mines, through amendment in **Mines & Minerals (Development & Regulation) (MMDR) Act**, in 2015, has made a provision for establishment of DMF in all districts affected by mining.

About DMF

- **DMFs** are established as a non-profit Trust in 645 districts across 23 states.
- **Objective:** To work for the interest and benefit of persons and areas affected by mining related operations.
- Composition and functions of DMF shall be such as may be prescribed by State Government.
- DMF has the responsibility to implement **Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY)**.
 - ⊕ Under PMKKKY, **70% of the fund** should go for **high priority** and **30%** for other priority sectors.
- **Fund collected:** DMFs have accumulated over Rs 1,03,000 crores.

Key Issues with DMF and PMKKKY

- **Unspent Funds:** More than half remains unspent due to poor fund deployment and execution.
 - ⊕ **Only 3 states** have allocated over 70% of funds toward **high-priority sectors**.
- **Lack of Local Representation:** DMF bodies are dominated by officials and political members; only 5 states have mining-affected communities in the Governing body.
- **Lack of Planning:** No districts have published a five-year perspective plan despite a 2022 directive.
- **Impact Assessments:** DMFs have not conducted social audits or impact assessments to measure the effectiveness of their investments.

Way Forward

- Restructure **DMF bodies** to increase the representation of mining-affected communities.
- Establish an independent **DMF investment board** for prudent fund management.
- Align DMF investments with just transition measures, etc.

WHO Released New Guidance on Mental Health Policy and Strategic Action Plans

WHO's new guidance replaces its 2004 mental health policy framework and service guidance package, offering a clear path for countries to improve mental health systems.

- It stresses that mental health should be integrated as a core component of Universal Health Coverage (UHC).

About Mental Health

- **Definition:** WHO defines mental health as a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.
- **Prevalence in India:** 10.6% of adults in India suffer from mental disorders (NMHS Survey 2015-16)

Need for Reforming Mental Health Policies

- **Global Commitment:**
 - ⊕ **Convention on the Rights of Persons with Disabilities (CRPD):** Prohibits all forms of disability (including psychosocial disabilities)-based discrimination.
 - ⊕ **WHO Comprehensive mental health action plan 2013–2030:** Calls for 80% of the endorsing countries to update and implement national policies (on mental health) by 2030.
- **Limited Access to Care:** In some countries, up to 90% of people with severe mental health conditions receive no care.
- **Poor Funding & Resource Allocation:**
 - ⊕ Public spending on mental health is minimal, with a global median of just 2% of government health budgets.
 - ⊕ Funds are often spent on outdated institutions instead of community-based care.
- **Lack of Inclusion:** Contrary to the ethos of CRPD, people with mental health conditions have long been excluded from personal and societal decisions.

Five Key Policy Areas for Mental Health Reform under WHO Guidance



Strengthening Leadership and Governance
Ensure sustainability, accountability, and effective implementation of mental health policy reforms



Community-Based Mental Health Services
Develop comprehensive, rights-based, person-centred, and recovery-oriented support services



Workforce Development
Build a diverse, competent, and resilient workforce delivering person-centred, rights-based services



Person-Centred Assessment and Interventions
Implement rights-based, recovery-oriented assessment, interventions, and support



Expanding the mental health Sector's Role
Expand mental health sector's role in addressing social and structural determinants of mental Health

NHAI Completes Largest Infrastructure Investment Trust (InvIT) Monetization in Roads Sector

National Highways Infra Trust (NHIT) raised about Rs.18,380 crore in the 4th round of fundraising.

- NHIT is the InvIT set up by National Highways Authority of India (NHAI) in 2020 to support India's Monetization programme.

Infrastructure Investment Trust (InvIT)

- **Definition:** It is an investment vehicle, like a mutual fund or Real Estate Investment Trusts (REITs).
- InvITs enable direct investment of money from individual and institutional investors in infrastructure projects.
 - ⊕ Investments can be made directly or through SPV (Special Purpose Vehicle)/Holding Company by the InvIT.
- InvITs earn income through tolls, rents, interest or dividends from their investments.
 - ⊕ The interest, dividend, and rental income are taxable in the hand of the unitholder.
- **Regulation:** InvIT are regulated by the SEBI (Infrastructure Investment Trusts) Regulations, 2014.
 - ⊕ SEBI requires InvITs to distribute at least 90% of their income to investors.
 - ⊕ InvITs are recognized as borrowers under the 'Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002'.
- **Types of InvITs:** Public InvITs, Private listed InvITs and Private unlisted InvITs.
- **Advantages of InvITs:** Access to retail investors to invest in large infrastructure projects, low ticket size, liquidity (as units are listed on stock exchanges), etc.

Infrastructure Investment Trust (InvIT)

Structural Overview of Investment Mechanism



Sponsor
Infrastructure Company or Private Equity Firm

Key Actions:

- Establish InvIT
- Transfer Infrastructure Assets

Asset Transfer



InvIT Trust
Manages Infrastructure Assets

Primary Functions:

- Hold Infrastructure Assets
- Issue Investment Units



Investors

Receive Units Representing Ownership Stake

Asset Monetization (AM)

- AM is the process of creating new sources of revenue for the government and its entities by unlocking the economic value of unutilised or underutilised public assets.
- **India's Monetization Programme**
 - ⊕ **National Monetisation Pipeline (NMP):** Developed by NITI Aayog to tap the aggregate monetisation potential of Rs. 6 lakh crores over a period of 2022-2025.
 - ⊕ **2nd Asset Monetization Plan (2025-2030):** Launched in the Budget 2025, aimed at generating Rs. 10 lakh crore through monetization.
 - ⊕ **Others:** National Land Monetization Corporation, etc.

Parliamentary Committee on Public Accounts Sought Comprehensive Review Of GST Framework

Key Issues Highlighting the Need for Review of GST Framework

- **Issues of MSMEs:** Struggle with compliance due to **complexity of Inverted Duty Structure** and administrative burden.
- **Issues of Exporters:** Face **delays in input tax credit (ITC) refunds**, causing cash flow issues and reducing global competitiveness.
- **Issues of steel rolling mills:** Pay **dual taxes as scrap dealers evade GST** (thus, hindering ITC claims by mills); some businesses relocate to states with GST relaxations.
- **Tax evasion by Online Gaming Sector:** Despite recent amendments to the GST law targeting this sector, tax evasion persists due to varied business models.
 - ⊕ From October 1, 2023, **online gaming is taxed at 28% GST.**
 - ⊕ **Suppliers of online money gaming** must register under the Simplified Registration Scheme of the IGST Act.
 - ⊕ The **Directorate General of GST Intelligence (DGGI)** can direct intermediaries to block unregistered offshore gaming platforms violating the IGST Act.

Way ahead

- **Simplified GST compliance framework** specifically designed for MSMEs,
- **Dedicated fast-track refund processing system** for exporters, ensuring that ITC claims related to exports,
- **A detailed independent study to understand the revenue streaming models** adopted by various **gaming platforms** and accordingly develop a comprehensive guidelines specifically tailored to the online gaming sector.



Goods and Services Tax (GST)



Launched in July 2017

After the Constitution (One Hundred and First Amendment) Act, 2016



Comprehensive Destination-Based Indirect Tax

- Imposed at every level of supply chain
- Eliminates Cascading Tax Effect ('Tax on Tax')



Input Tax Credit (ITC)

- Reduces tax liability by claiming credit for GST paid on purchases



Central Taxes Subsumed

- Service Tax
- Central Excise Duty
- Additional Duties of Excise (Goods of Special Importance)
- Excise Duty under Medicinal & Toilet Preparation (Excise Duties) Act, 1995
- Additional Duties of Customs (known as CVD)
- Special Additional Duty of Customs (SAD)
- Surcharges & Cesses



State Taxes Subsumed

- VAT / Sales Tax
- Central Sales Tax
- Purchase Tax
- Entertainment and Amusement Tax (other than those levied by local bodies)
- Luxury Tax
- Octroi and Entry Tax (All forms)
- Taxes on lotteries, betting & gambling
- Taxes on advertisements
- State Cesses and Surcharges

Also In News

Abel Prize

Japanese mathematician **Masaki Kashiwara (78)** won the **Abel Prize**, often called the "**Nobel of Mathematics**."

- He was honored for his work in **algebraic analysis, representation theory, D-modules, and crystal bases.**

About Abel Prize

- **Annual award** for outstanding mathematicians.
- **Named after mathematicians** Niels Henrik Abel (1802–29).
 - ⊕ Abel demonstrated the **impossibility of solving the general quintic equation in radicals.**
 - ⊕ He was also an innovator in the field of **elliptic functions (Abelian functions).**
- **Established** in 2002 by the Norwegian Government.
- **Managed by** the Norwegian Academy of Science and Letters.
- **First winner:** Jean-Pierre Serre (2003).
- **Prize:** 7.5 million kroner (~\$720,000) and a glass plaque.

NOTE: International Mathematical Union, with **UNESCO's** support, declared **2000** as **World Mathematical Year**.

Euclid telescope

Euclid telescope has captured high-resolution images of 26 million galaxies.

About Euclid Telescope (2023)

- **Name After:** Euclid of Alexandria, an ancient Greek mathematician known for his contributions to geometry.
- **Space Agency:** Euclid is a fully European mission, built and operated by the European Space Agency (ESA), with contributions from NASA.
- **Size:** 1.2-m-diameter
- **Objectives:**
 - ⊕ Euclid will study the Universe's evolution over the past 10 billion years, revealing how it expanded and formed structures, and providing insights into dark energy, dark matter, and gravity.
 - ⊕ It will create a 3D map by observing billions of galaxies up to 10 billion light-years away.
- **Orbit:** Positioned 1.5 million km from Earth at the stable Lagrange Point 2 (L2).



T-800 Carbon Fibre

Public Accounts Committee reported on the premature closure of the T-800 carbon fibre project.

- Vikram Sarabhai Space Centre signed an MoU with NAL (chosen for its T-300 fibre expertise) in 2006 for an import substitute,
 - ⊕ But delays led to its closure in 2019.

T-800 Carbon Fibre

- T-800 carbon fibre is crucial for launch vehicles, spacecraft tanks, and Gaganyaan
 - ⊕ Carbon fibre (graphite fibre), is made of thin carbon strands (5-10 microns thick).
 - ◆ It is lightweight yet very strong with high tensile strength.
- Need for Indigenization: Due to dual-use potential and geopolitical risks, local production is crucial.
- Major suppliers: Toray (Japan), Formosa (Taiwan), Hyosung (Korea), and Hexcel (USA).



Magnetic Resonance Imaging (MRI)

India has developed its first indigenous 1.5 Tesla Magnetic Resonance Imaging (MRI) machine.

- It will be installed in All India Institute of Medical Sciences (AIIMS), New Delhi.
- It is developed through a partnership of the Ministry of Electronics and Information Technology (MeitY), Centre for Development of Advanced Computing (C-DAC), etc.
- Implementing agency: Society for Applied Microwave Electronics Engineering and Research (SAMEER), Mumbai.

About MRI

- It is a non-invasive medical imaging test used to visualize soft tissues.
- They use large magnets and radio waves. No ionizing radiation is produced during an MRI exam, unlike X-rays.
- Images produced by an MRI scan can show organs, bones, muscles and blood vessels.



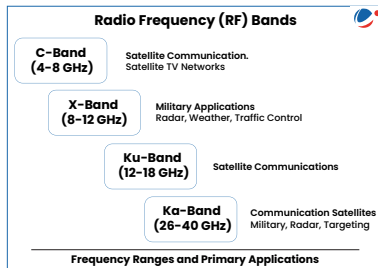
GSAT-18 Communication Satellite

Public Accounts Committee raised concerns over avoidable costs, as six transponders on the GSAT-18 satellite will remain unused until 2027. About GSAT-18

- Launch: 2016, aboard Ariane-5 VA-231 from French Guiana.

- Orbit: Placed in Geosynchronous Transfer Orbit (GTO), later moved to Geostationary Orbit.

- Transponders: 48 in total across three frequency bands:



- ⊕ Normal C-band
- ⊕ Upper Extended C-band
- ⊕ Ku-band



National Council for Vocational Education and Training (NCVET)

NCVET has officially recognized the National Institute of Social Defence (NISD) as an Awarding Body (Dual Category).

- Now, NISD can award, assess and certify the learners.
- NISD, an autonomous body under the Union Ministry of Social Justice and Empowerment, is the nodal training and research institute for social defence.

About NCVET

- Genesis: Established on 2018, the NCVET is the regulatory body for the Technical and Vocational Education and Training (TVET) sector.
- Ministry: Ministry of Skill Development & Entrepreneurship (MSDE)
- Key Functions:
 - ⊕ Recognition and regulation of Awarding Bodies (ABs), Assessment Agencies (AAs), and Skill-related Information Providers.
 - ⊕ Approval of qualifications based on the National Skills Qualification Framework (NSQF).



Doctrine of 'Eminent Domain'

Supreme Court in (DAMB v. Bhagwan Devi, 2025) ruled that land acquired for public use under eminent domain cannot be reversed by third-party claims or private agreements.

- Under doctrine of 'Eminent Domain', the government can acquire private land for public use with just compensation.

Case Background

- 1963: Land acquired for Delhi Agricultural Marketing Board (DAMB) to establish a grain market.
- 1986: Compensation awarded to Bhagwan Devi under Land Acquisition Act 1894.
 - ⊕ Later she claimed part of the land and made a private agreement with DAMB to get some of it back.
 - ⊕ The SC, quashed the agreement.

NOTE: Land Acquisition Act 1894 is replaced by The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act 2013)



YuWaah

The Ministry of Rural Development (MoRD) and United Nations Children's Fund (UNICEF) YuWaah have signed a Statement of Intent (SOI) to empower rural women and youth across India.

About (UNICEF) YuWaah, 2019

- It is a platform where youth-centric action is co-created, especially facilitated by young Indians from diverse backgrounds.
- Objective: Building skills and creating socio-economic and change-making opportunities for young people, with a special focus on women and marginalized groups.
 - ⊕ It will unlock the potential of India's 350 million young people.
- It fosters Public-Private-Youth Partnerships to drive innovative solutions, creating pathways for learning to earning transition and youth-led climate action.

Personality in News



Mata Karma (1017AD-1064AD)

The Department of Posts released a stamp on Mata Karma's 1009th birth anniversary.

About Mata Karma

A Bhakti saint and social reformer from the Sahu Teli community, she was known for her devotion and social contributions.

Key Contributions

- Devotion: Lord Krishna is believed to have accepted her khichdi in Puri.
 - ⊕ Since then, the 1st offering of Mata Karmabai's khichdi is dedicated to Lord Jagannath at Puri.
- Social Reform: Fought untouchability, conservatism, and empowered women.

Values

Courage, selfless service, and devotion.

