

28th March Daily Current Affairs

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India Pitch for UNSC Reforms

Key Highlights

- **Peacekeeper Security:** Peacekeepers face threats from non-state actors, armed groups, and terrorists. India underscores the need for their safety and demands accountability for crimes committed against them.
- **Modernization:** Advocates for incorporating advanced surveillance, communication systems, and data analytics into peacekeeping efforts. India supports this by offering training through the Centre for UN Peacekeeping (CUNPK).
- **Adequate Funding:** Emphasizes the necessity of well-funded peacekeeping missions, ensuring resources align with their mandates.
- **Inclusive Mandate Formation:** Urges the

Cont.

United Nations Security Council (UNSC)

- **Primary Role:** Responsible for maintaining international peace and security.
- **Establishment:** Founded in 1945 under the UN Charter.
- **Membership:**
 - 15 member states in total.
 - 5 permanent members with veto power – China, France, Russia, the United Kingdom, and the United States.
 - 10 non-permanent members elected by the General Assembly for two-year terms.
- **Headquarters:** Located in New York City.

India-China Look Forward to Stabilize Ties

India-China Relations (75 Years of Diplomatic Ties in 2025)

- **Panchsheel Agreement (1954):** Established the principles of peaceful coexistence, mutual respect for sovereignty, and non-interference, forming the basis of diplomatic relations.
- **Historical Tensions:**
 - Strained ties since the 1962 Sino-Indian war, worsened by recent border clashes and mutual distrust.
 - India imposed restrictions on Chinese investments, banned apps like TikTok, and suspended flights to China.
- **Trade Relations:**
 - In 2024, China surpassed the U.S. as India's largest trading partner, with imports exceeding \$100 billion.
 - Despite tensions, economic engagement remains strong.
- **Conflict Resolution Mechanisms:**
 - Special Representatives (SR) and the Working Mechanism for Consultation and Coordination (WMCC) continue efforts to manage border disputes.
- **Recent Developments (2024):**
 - Both countries announced successful disengagement in eastern Ladakh.



Public Accounts Committee Recommendations For GST Regime

Goods and Services Tax (GST)

- **Origins:** The concept of GST in India was first proposed during Atal Bihari Vajpayee's tenure.
- **Legislative Process:**
 - The Constitution (122nd Amendment) Bill was introduced in December 2014, passed in 2015, and ratified in 2016 as the 101st Constitutional Amendment, enabling GST implementation.
- **Implementation:** Officially launched on 1st July 2017 by Prime Minister Narendra Modi, marking a major tax reform.
- **Nature of Tax:**
 - A destination-based consumption tax applied at every stage, from manufacturing to final consumption.
 - Provides tax credit for payments made at earlier stages.
- **Tax Burden & Revenue Allocation:**
 - The final consumer bears the tax burden.
 - Revenue is assigned to the authority governing the place of consumption (place of supply).

Latest Recommendations

- **Framework Review:** The Public Accounts Committee (PAC) urged the Finance Ministry to simplify the existing GST framework by removing unnecessary complexities and easing compliance.
- **Aadhaar Authentication Issues:** Concerns were raised about problems in the biometric-based Aadhaar authentication process, which could impact the "One Nation, One Tax" initiative.

Other Recommendations

- **Process Simplification:**
 - Consolidating forms and reducing filing frequency.
 - Introducing a tiered compliance approach for small businesses.
- **Improved User Experience:** Enhancing the GST portal's usability and providing clearer guidance for taxpayers.
- **Fairer Compliance Measures:** Addressing excessive criminal penalties for unintentional errors, particularly for honest taxpayers.
- **Data-Driven Revenue Estimation:** Leveraging AI and data analytics to improve GST revenue projections and address the decline in indirect tax share.
- **Efficient Refund System:** Implementing clear timelines, regular updates, and a dedicated grievance redressal mechanism for refunds.
- **MSME-Friendly Reforms:**

Govt. Submits Status Report on Deepfakes

Deepfake Technology

- **Definition:** The term "deepfake" combines "deep learning" and "fake," referring to AI-generated synthetic media that alters or replaces real content with highly realistic fabricated versions.
- **Technology Used:** Deepfake models rely on **Generative Adversarial Networks (GANs)**, where two AI models—the **generator** and the **discriminator**—compete to enhance the authenticity of the created content.

How Deepfakes Work

1. **Data Collection:** AI is trained on vast datasets containing images, videos, or audio recordings of the target individual.
2. **Feature Learning:** The deep learning model analyzes facial structures, expressions, and speech patterns.
3. **Synthesis & Manipulation:** AI algorithms create synthetic media that can alter faces, modify expressions, or replicate voices.
4. **Refinement with GANs:** The generated content is continuously improved to enhance realism and minimize detectable flaws.

Government Response and Legal Framework

- **Information Technology (IT) Act, 2000:** It provides a broad framework for cybercrimes but lacks specific provisions addressing deepfake-related offenses.
 - **Section 66D:** Punishes identity theft and impersonation using digital means.
 - **Section 67:** Penalizes the publishing of obscene material, which can be used against deepfake pornography.
- **Personal Data Protection Bill (PDPB) [Now Digital Personal Data Protection (DPDP) Act, 2023]:** It aims to regulate the collection and use of personal data. Misuse of deepfakes involving personal identity could be challenged under this act.
- **Intermediary Guidelines & Digital Media Ethics Code (2021):** These rules mandate social media platforms to proactively monitor and remove harmful content, including deepfakes, failing which they may lose legal immunity under the IT Act.
- **Fact-Checking and AI Detection Initiatives:** Platforms like **PIB Fact Check** have been actively debunking deepfake videos spreading misinformation.
 - Indian start-ups and researchers are developing AI tools to detect and flag deepfake content.
- **Global Collaboration:** India is collaborating with global tech firms and governments to combat deepfakes through policy discussions and AI

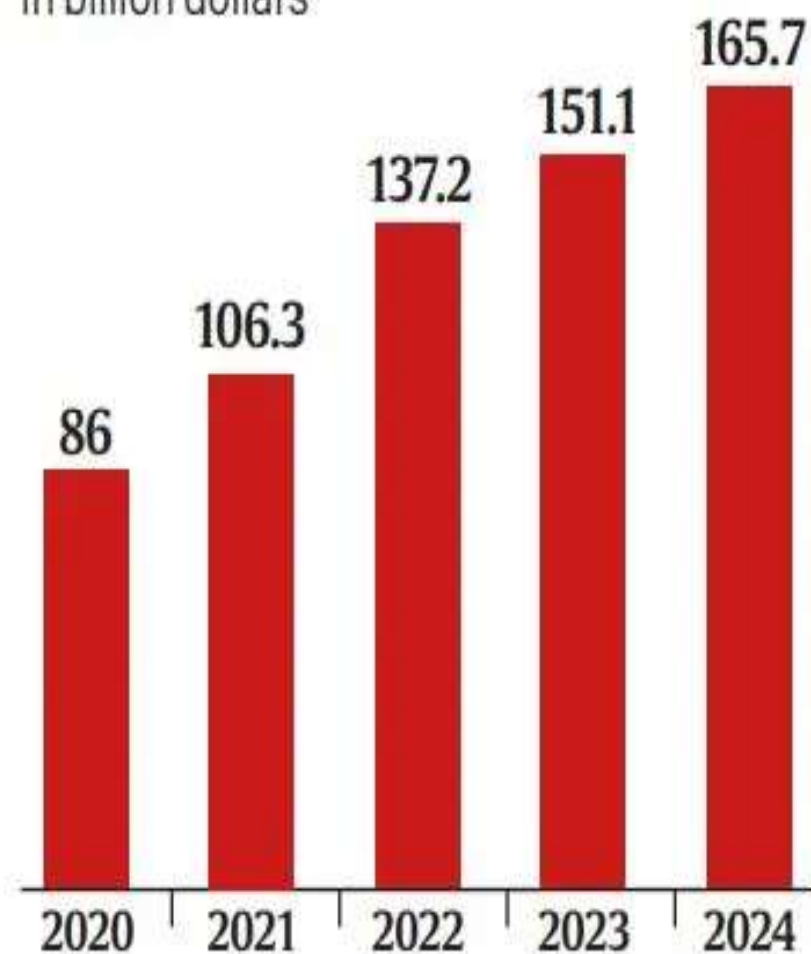
India's Bioeconomy & Road Ahead

What is Bioeconomy?

- **Definition:** Bioeconomy involves utilizing biological resources—such as plants, animals, and microorganisms—for industrial purposes and replicating natural biological processes to manufacture goods and services.
- **Key Features:**
 - Bioresources like plants and microorganisms are **renewable, cost-effective, and locally accessible**.
 - Natural processes are **more sustainable and environmentally friendly** than conventional methods.
- **Example:** The increasing use of **ethanol**, produced through the fermentation of crops like sugarcane or corn by microorganisms, serves as a **biological alternative to fossil fuel-based energy sources**.

VALUE OF INDIA'S BIOECONOMY

in billion dollars



TOP CONTRIBUTING STATES (IN 2024)

State	Value*	Share of total value
Maharashtra	35.45	21.4%
Karnataka	32.4	19.5%
Telangana	19.9	12%
Gujarat	12.9	7.8%
Andhra Pradesh	11.1	6.7%
Tamil Nadu	9.9	6%
Uttar Pradesh	7.7	4.6%

*in billion \$. Source: India BioEconomy Report

Importance of Bioeconomy for India

1. Economic Growth & Employment

- Expected to contribute **\$1 trillion by 2047**.
- The number of bioeconomy-related companies has grown by nearly **90% in the last three years**.
- The industrial sector, including **biofuels and bioplastics**, accounts for nearly **\$78 billion** of the bioeconomy's value.

2. Food & Agriculture Security

- **GM technologies** enhance crop yields by **21%**.
- **Biofertilizers** improve soil health and sustainability.
- Innovations like **golden rice** help address micronutrient deficiencies.

3. Healthcare Advancements

- Enables **affordable drug and vaccine production** (e.g., **CERVAVAC – HPV vaccine**).
- Progress in **gene therapy** (e.g., trials for **Hemophilia A**).
- India supplies **25% of the WHO's total vaccine demand**.

4. Environmental Benefits

- Supports a **circular economy** with **waste-to-energy technologies**.
- Reduces dependency on **fossil fuels** through **biogas and ethanol**.
- Aids **biodiversity conservation and eco-restoration** (e.g., **TERI's Oilzapper**).

5. Climate Action

- Supports India's **net-zero emissions goal by 2070**.

BioE3 Push For India's Bioeconomy

- To catalyze this growth, the government launched the **BioE3 policy in 2024**—Biotechnology for Economy, Environment, and Employment.
- The policy **promotes**:
 - Establishment of **Bio-AI Hubs, Bio-Foundries, and Bio-Enabler Hubs**
 - Focus on advanced technologies, sustainable biomanufacturing, and pan-India implementation
 - **Assam became the first state to formally adopt the BioE3 framework**, setting the stage for widespread national rollout.

Bedmap3

✦ **Syllabus:** GS1 / Geography

In News

- Scientists have developed **Bedmap3**, the most detailed map yet of Antarctica's landscape beneath its ice sheet.

What is Bedmap3?

- An extension of the **previous Bedmap2 dataset**.
- Incorporates **84 new aero-geophysical surveys, 15 additional data sources, 52 million extra data points, and 1.9 million line-km of measurements**.
- **Bridges knowledge gaps** by providing insights into mountain ranges, East Antarctica's deep interior, and the coastlines of West Antarctica & the Antarctic Peninsula.

Significance

- Offers a **detailed view of Antarctica's subglacial terrain** and ice distribution, aiding in **ice sheet modeling and understanding the continent's evolution**.
- Enhances research on **ice-bedrock interactions** and helps predict **future ice loss and sea-level rise** due to climate change.

Did You Know?

- **Antarctica** is the **fifth-largest continent** and home to **Earth's South Pole**.
- It has **no trees or bushes**—only **lichens, mosses, and algae** survive its extreme cold.

Privilege Motion

✦ Syllabus: GS2 / Governance

In News

- An opposition leader has moved a **privilege motion** against the **Minister of State for Rural Development**, alleging that he made a false statement about **MGNREGS fund allocation** for Tamil Nadu and Uttar Pradesh.

What is a Privilege Motion?

- A **privilege motion** is raised when a **Member of Parliament (MP)** believes that **parliamentary privileges** have been violated.
- It must be based on a **recent incident** and require the **House's intervention**.
- The motion's acceptance or rejection lies with the **Speaker (Lok Sabha)** or **Chairman (Rajya Sabha)**.

Procedure

- If accepted, it is referred to the **Committee of Privileges**, which:
 - **Investigates** the matter.
 - **May summon** witnesses or documents.
 - **Submits a report** within one month.
- The House reviews the report and may recommend **penal action in extreme cases**.

Difference Between Breach of Privilege & Contempt of the House

- **Breach of Privilege:** Occurs when **special rights of the House or its members** are violated.
- **Contempt of the House:** Refers to any act that **disrupts parliamentary proceedings**, even if no specific privilege is breached.

Parliamentary Privileges

Constitutional Provisions

- **Article 105:** Defines the powers, privileges, and immunities of Parliament and its members.
- **Article 122:** Restricts courts from questioning the validity of parliamentary proceedings.

Key Features

- **Freedom of speech** in the House (with restrictions, e.g., judicial conduct under Article 121).
- **Immunity from legal proceedings** for speeches and votes within Parliament or its committees.
- **Protection from arrest in civil cases** during sessions and 40 days before and after.
- **No immunity in criminal cases.**
- **No member can be arrested within Parliament's premises** without the Speaker's or Chairman's approval.

Abel Prize

★ **Syllabus:** Miscellaneous

In News

- Japanese mathematician **Masaki Kashiwara** has been awarded the **Abel Prize** for his pioneering contributions to **algebraic analysis, representation theory, D-modules, and crystal bases**.

About the Abel Prize

- Named after renowned Norwegian mathematician **Niels Henrik Abel (1802–1829)**, the prize was instituted by the **Norwegian Parliament in 2002** to mark Abel's **200th birth anniversary**.
- First awarded in **2003**, it is considered the **Nobel Prize of Mathematics**.
- Recipients are chosen by a **committee appointed by the Academy**, in collaboration with the **International Mathematical Union (IMU)** and the **European Mathematical Society (EMS)**.
- The prize includes a **monetary award** and a **glass plaque** crafted by Norwegian artist **Henrik Haugan**.

Black Sea

★ Syllabus: GS1/Places in News

Context

- Russia and Ukraine have agreed to **pause military strikes** in the **Black Sea** and on **energy infrastructure** following **U.S.-brokered talks**.

About the Black Sea

- A **large inland sea** in **southeastern Europe**, bordered by **Bulgaria, Romania, Ukraine, Russia, Georgia, and Turkey**.
- Connected to the **Mediterranean Sea** via the **Bosporus Strait, the Sea of Marmara, and the Dardanelles Strait**.
- The **deep waters** lack **oxygen** and contain **hydrogen sulfide**, making them uninhabitable for most marine life, while the **upper layers** support marine ecosystems.

Strategic Importance

- Major ports include **Odessa (Ukraine), Constanta (Romania), Varna (Bulgaria), and Novorossiysk (Russia)**.
- Crucial for **trade, fishing, energy resources (natural gas and oil), and shipping**.
- A **key geopolitical zone**, historically witnessing numerous **conflicts** due to its strategic control over access to the **Mediterranean Sea**.

