

# NEWS TODAY

## President flags Supreme Court overreach, seeks clarity on assent timelines

Invoking **Article 143**, President Murmu has sent a **Presidential Reference to the SC** to clarify if it can set timelines for President and Governors to grant assent to bills amid row over **Article 142 powers**.

- Previously, Supreme Court in 'State of Tamil Nadu vs Governor of Tamil Nadu' case, set time limits for -
  - ⊕ **The Governors under Article 200** on the bills sent to them by the State Legislative Assemblies.
  - ⊕ **The President under Article 201** on the Bills which the Governor has reserved for the President's assent.
- In the **14-point reference**, the President invoked multiple articles seeking clarifications regarding -
  - ⊕ the **three-month timeline** for the President under **Article 201**.
  - ⊕ Whether Governors are bound by the **Council of Ministers' advice under Article 200**, etc.

### Different articles invoked in the Presidential Reference

- **Article 143**: Allows the **President to seek the SC's opinion** in matters of legal and public importance.
- **Article 200**: Outlines **Governor's power regarding bills** passed by the state legislature.
- **Article 201**: Outlines **President's power on Bills** reserved by Governor.
- **Article 361**: Protection of **President and Governors and Rajpramukhs** to be answerable to any court for the exercise of powers and duties of their office.
- **Article 142**: Grants the SC the power to pass any order necessary **to secure complete justice**.
- **Article 145(3)**: Mandates **minimum 5 Judges** for the purpose of deciding any case involving a substantial question of law as to the **interpretation of this Constitution** or to hear **any reference under Article 143**.
- **Article 131**: Related to the **Original jurisdiction of the SC**.

## Minister of Defence Urged International Atomic Energy Agency (IAEA) Oversight of Pakistan's Nuclear Arsenal

### About IAEA

- **Headquarters: Vienna, Austria**
- **Genesis**: Established in 1957 as an autonomous international organisation within the UN.
- **Motto**: Atoms for Peace and Development
- **Members: 180** (India is a member)
  - ⊕ **North Korea**: Joined in 1974, withdrew in 1994
- **General Conference**: All member states meet annually in Vienna.
- **Recognition**: Awarded the **Nobel Peace Prize in 2005** for promoting peaceful nuclear use and global safety
- **IAEA and NPT**: The **IAEA is not a member** of the Non-Proliferation of Nuclear Weapons (NPT) but plays a **key verification** responsibilities under the Treaty.
  - ⊕ Each **non-nuclear-weapon State** party is required under NPT to conclude a **comprehensive safeguards agreement (CSA)** with the **IAEA** to enable the **IAEA** to verify the fulfilment of their obligation.

### THE ROLE OF IAEA

 <p><b>Global Focal Point</b> Serves as the global focal point for nuclear cooperation</p>	 <p><b>Peaceful Applications</b> Assists Member States in using nuclear science for peaceful purposes</p>	 <p><b>Safety Standards</b> Develops nuclear safety standards and promotes maintenance of high safety levels</p>	 <p><b>Verification &amp; Compliance</b> Verifies that States comply with commitments to use nuclear facilities only for peaceful purposes</p>
---	--	---	---

### About NPT

- The **NPT is a binding international treaty** whose objective is to **prevent the spread of nuclear weapons and weapons technology**.
- It **came into force in 1970** and was extended indefinitely in 1995.
- So far, **191 countries have joined**, including all **five recognized nuclear-weapon states** (China, France, Russia, the UK, and the US).
  - ⊕ **India, Israel, and Pakistan** have never joined, while **North Korea withdrew in 2003**.

### Other Treaties to Prevent Nuclear Proliferation

- **Partial Test Ban Treaty 1963**: Treaty banning nuclear weapon tests in the atmosphere, in outer space and underwater (India has signed and ratified).
- **Comprehensive Nuclear Test Ban Treaty (CTBT), 1996**: CTBT bans all nuclear explosions, whether for military or peaceful purposes (India did not sign).
- **Prohibition of Nuclear Weapons (TPNW) 2017**: includes a comprehensive set of prohibitions on participating in any nuclear weapon activities (India did not sign).

## India plans to Study sustainability of Human Life in Space under BioE3 Policy

Recently, Union Minister of State for Science & Technology announced that India is set to conduct its **first-ever biological experiments aboard the International Space Station (ISS)** to study the **sustainability of Human life in Space**.

### About the Experiments

- Experiments, **spearheaded by the ISRO** in collaboration with the Department of Biotechnology (DBT), will be carried out as **part of the upcoming ISS mission AXIOM-4**.
- It shall include **two experiments**:
  - ⊕ **Microalgae experiment**: Examining impact of microgravity and space radiation on the growth of edible microalgae
    - ◆ Microalgae, **nutrient-rich potential food source**, are promising for safe and sustainable space-based nutrition for **long-duration space missions**.
  - ⊕ **Cyanobacteria experiment**: To study the growth and proteomic responses of cyanobacteria, such as Spirulina and Synechococcus, under microgravity conditions using urea- and nitrate-based media.
- Experiment also aim to explore **Spirulina as a "superfood"** (foods that have a very high nutritional density) due to its high protein and vitamin content, compare growth of cyanobacterial cells in urea versus nitrate environments.

### About BioE3 (Biotechnology for Economy, Environment and Employment) Policy

- **Objective**: To set forth a framework that ensures the adoption of cutting-edge advanced technologies, align innovative research aimed at revolutionizing biomanufacturing processes.
- **Implemented by**: Department of Biotechnology, Union Ministry of Science and Technology.

**Strategic Implications of India's Space Biotech**  
Positioning India as a Global Leader in Space Life Sciences

<b>SPACE BIOTECH LEADERSHIP</b> Positions India as a leader in space biotechnology <ul style="list-style-type: none"> <li>▶ Advanced R&amp;D hub</li> <li>▶ Microgravity research</li> <li>▶ Sustainable tech</li> <li>▶ Space medicine</li> </ul>	<b>BIOTECH ASPIRATIONS</b> Builds on India's aspiration for biotech leadership <ul style="list-style-type: none"> <li>▶ Knowledge economy</li> <li>▶ Innovation pipeline</li> <li>▶ Tech sovereignty</li> <li>▶ Global competitiveness</li> </ul>	<b>INTERNATIONAL PARTNERSHIPS</b> Leverages global partnerships <ul style="list-style-type: none"> <li>▶ NASA</li> <li>▶ AXIOM Space</li> <li>▶ ESA collaborations</li> <li>▶ Industry partnerships</li> </ul>
---	--	---

ADVANCING INDIA'S POSITION IN GLOBAL SPACE LIFE SCIENCES

## 'Samudrayaan Mission' to be launched by 2026 end: NIOT

'Samudrayaan Mission, a component of **Deep Ocean Mission (DOM)**, will explore the ocean at **6,000-metre depth** using **manned submersible vehicle 'Matsya'**.

- This mission is expected to open new **opportunities for** :
  - ⊕ India's **deep-sea research**,
  - ⊕ The **assessment of both living and non-living resources** in the deep ocean
  - ⊕ Comprehensive ocean observation, and the **potential for deep-sea tourism**.
- So far, **only the U.S., Russia, China, France and Japan** have carried out successful deep-ocean crewed missions.

### About Matsya-6000

- MATSYA 6000 is India's **4<sup>th</sup> Generation self-propelled** deep-ocean human scientific submersible vehicle.
- It is being **developed by National Institute of Ocean Technology (Chennai)**.
- It has successfully completed Wet Testing.
- It has an **endurance of 12 hours** under normal operation and **96 hours in case of emergency**.

### About DOM

- **Nodal Ministry**: Ministry of Earth Sciences
- **Tenure**: Launched in 2021, to be completed in 5 years.
- **Purpose**: to explore deep ocean for resources and develop deep sea technologies for sustainable use of ocean resources, thus supporting India's **Blue Economy** initiatives.
  - ⊕ Blue Economy is **sustainable use of ocean resources for economic growth, improved livelihoods etc**. Its size in India is about **4% of the GDP**.

### Major Components of DOM

 <b>Development of Technologies</b> for Deep Sea Mining, and Manned Submersible	 Development of Ocean Climate <b>Change Advisory Services</b>	 <b>Technological innovations</b> for exploration and conservation of deep-sea biodiversity	 Deep Ocean <b>Survey and Exploration</b>	 <b>Energy and freshwater</b> from Ocean	 Advanced Marine Station for <b>Ocean Biology</b>
--	--	--	--	---	--

## Himalayan Yala Glacier declared dead in Langtang, Nepal

Glaciologists and local communities mourned the loss of Nepal's Yala glacier after it has **shrunk by 66%** since the 1970s, making it among Nepal's first likely to be declared dead.

### Glacier Funeral

- It is a symbolic ceremony held to mark **rapid disappearance of glaciers due to climate change.**
- Other major glaciers declared dead:** Pizol Glacier, Switzerland (2019); Clark Glacier, US (2020); Ayoloco glacier, Mexico (2021); etc.
  - The **world's first funeral** was held for **Okjokull glacier in Iceland** in 2019.

### Consequences of Glacial Loss

- Accelerates global warming:** Reduced Glaciers will have **less albedo effect** and therefore will increase heat absorption.
- Accelerates sea level rise:** According to a **Nature study**, melting glaciers have caused nearly **2 cm to global sea level rise** since 2001.
- Disrupted water cycles:** Nearly **three-quarters of Earth's freshwater** is stored in glaciers. Their rapid melting **threatens water security** and endangers **biodiversity**.
- Natural disasters:** It increases risks of **Glacial Lake Outburst Floods (GLOFs)** and **avalanches**.

### Initiatives for conservation of Glaciers

#### Global

- UN Initiatives**
  - 2025 designated as the **International Year of Glaciers' Preservation**.
  - March 21** to be observed annually as **World Day for Glaciers**.
- UNESCO Intergovernmental Hydrological Programme**
- Himalayan Adaptation Network by IUCN**
- Living Himalayas Initiative** by World Wide Fund for Nature.

#### India's Initiatives

- National Mission for Sustaining the Himalayan Ecosystem.**
- Network Programme on the Himalayan Cryosphere**
- Indian National Centre for Ocean Information Services (INCOIS):** It monitors glacier-related events and issues GLOF alerts.
- Himansh Research Station** studies the dynamics and the rate of change of Himalayan glaciers.
- Missions to Arctic & Antarctic e.g., IndARC (2014).**

## DTAB Approves Sub-Committee Report Suggesting Prohibition Of 16 FDCs

The Drugs Technical Advisory Board (DTAB) has approved a **sub-committee report recommending a ban on 16 Fixed-Dose Combinations (FDCs)**, citing serious health risks.

- The DTAB is set up by the Union Government under the **Drugs and Cosmetics Act, 1940** to advise the Central/State Government.

### What Are FDCs?

- FDCs are medicines that have **more than one active ingredient** (chemical compounds in medicines that have an effect on the body) in a **single pill, capsule, or shot**.
- They are meant for patients with **conditions such as tuberculosis and diabetes** for which they need to take **multiple medicines regularly**.
- They **reduce the number of pills the patient needs to take each day, and help improve adherence to the treatment**.

### Why are FDCs being Banned?

- Lack of Proper Trials:** Many banned FDCs were approved **without proper clinical trials**, as individual ingredients were already approved.
  - According to the **new drugs and clinical trial rules of 2019**, **FDCs must be treated as new drugs** and approved by the central drug regulator.
- Irrational intake:** Some FDCs contain **drugs that are unnecessary for all patients**.
- Antibiotic Resistance:** Overuse of antibiotic FDCs can cause **antibiotic resistance**, making infections harder to treat.
  - Despite previous bans, a 2023 study found that **antibiotic FDC sales in India increased from 32.9% (2008) to 37.3% (2020)**.
- Price Control Evasion:** Drug companies often use FDCs to **avoid government price controls** on essential medicines by marketing them as new combinations.



## Also In News



### POCSO Court

Supreme Court directs Centre to set up **Special POC SO Courts** on priority, to exclusively deal with cases of sexual offenses against children.

#### About POC SO Court

- Protection of Children from Sexual Offences (POCSO) Act, 2012 provides for the establishment of Special Courts for the purpose of **ensuring speedy trial**.
- These courts shall be **Court of Session, notified in Official Gazette by State Governments in consultation with the Chief Justice of the High Courts**.
- Features**
  - Child's evidence to be recorded **within 30 days** of court taking cognizance.
  - Special Court to complete the trial, **as far as possible, within 1 year**.



### Mahadei River

A protest erupted in **Goa** after a report by **CSIR-National Institute of Oceanography, Goa**, claimed that **Karnataka's diversion of Mahadei river water** would have "less impact" on Goa.

- Goa and Karnataka are in a dispute over the **Kalasa-Banduri Project**, aimed at diverting water from **Mahadei's tributaries (Kalasa and Banduri)** to the **Malaprabha river** to supply drinking water to drought-hit northern Karnataka.

#### About Mahadei River

- Also called the **Mandovi River**.
- Origin:** Bhimgad Wildlife Sanctuary, **Belagavi, Karnataka**.
- Flows westward into Goa** and drains into the **Arabian Sea at Panaji**.
- River basin:**
  - 2/3<sup>rd</sup> in Goa**, rest in **Karnataka and Maharashtra**.
- Dudhsagar Falls** is on the Mahadei River.



### Sikkim Statehood

Sikkim celebrates 50<sup>th</sup> anniversary of its Statehood.

#### About Sikkim Statehood

- Sikkim was made a full-fledged State of the Union of India under the Constitution (36<sup>th</sup> Amendment) Act, 1975.
  - ⊕ Earlier, Constitution (35<sup>th</sup> Amendment) Act, 1974 granted Sikkim the status of an "Associate State" of the Union of India under Article 2A.
    - ◆ Article 2A was repealed by the Constitution (36<sup>th</sup> Amendment) Act, 1975.
- It became 22<sup>nd</sup> State of India.
- Article 371F grants certain special provisions to the state of Sikkim.



### Pushkar Kumbh and Saraswati Pushkaralu

Once-in-a-year festivals Pushkar Kumbh and Saraswati Pushkaralu are being celebrated in Uttarakhand and Telangana, respectively.

#### About Pushkar Kumbh

- Occurs every 12 years when Jupiter enters the Gemini zodiac sign.
- Held at Keshav Prayag (confluence of Alaknanda and Saraswati rivers) in Mana village, Uttarakhand.
- Religious Significance:
  - ⊕ Sacred site where Ved Vyas composed Mahabharata.
  - ⊕ Vaishnav pilgrimage: As saints Ramanujacharya and Madhvacharya attained divine knowledge from Goddess Saraswati here.

#### About Saraswati Pushkaralu

- Dedicated to worshipping the subterranean Saraswati River, which converges with Godavari and Pranahita at confluence point called Triveni Sangamam in Kaleshwaram.
- Held at the temple town Kaleshwaram, the abode of Sri Kaleshwara Sri Mukteshwara Swamy temple, Telangana.



### Monoliths of Willong Khullen

Concerns have been raised over the lack of research and promotion of the ancient monoliths in Willong Khullen, Senapati district (Manipur).

#### About the Monoliths

- Believed to date back to the Megalithic period.
- Known as the "Stonehenge of Manipur" due to its resemblance to the famous British monument (believed to be constructed about 4,500 years ago).
  - ⊕ Unlike Britain's Stonehenge, these stones lack symmetry and appear randomly arranged, possibly for ritual or symbolic purposes.
- It features a mysterious set of large stone structures of unknown origins.
  - ⊕ However, they are believed to be part of ancient traditions of the Maram tribe.



### Kaziranga National Park and Tiger Reserve

Officials of the UNESCO World Heritage Site documented various species across 36 genera during a rapid survey conducted in the Kaziranga Tiger Reserve.

#### About Kaziranga National Park and Tiger Reserve

- Location: Located in the Brahmaputra floodplain, at the foothills of Karbi-Anglong, spanning Golaghat, Nagaon, and Sonitpur districts.
- Forest type and Biomes: It includes alluvial grasslands, semi-evergreen and moist deciduous forests, wetlands, and sandy chauras.
- Key Flora: Bombax ceiba, Albizzia procera, Careya arborea, Lagerstroemia etc.
- Key Fauna: Rhino, Tiger, Eastern swamp deer, Elephant, Buffalo, Hoolock gibbon, Capped langur and Gangetic river dolphin etc.
- River: River Diphalu, River Moradifalu.
- Park was declared as a World Heritage Site by UNESCO in 1985.



### Chandrayaan-5 mission/ LUPEX

India, Japan to enter design phase of Chandrayaan-5/ LUPEX (Lunar Polar EXploration) mission.

- The mission follows the legacy of
  - ⊕ Chandrayaan-1 and 2 (orbiter-based lunar exploration),
  - ⊕ Chandrayaan-3 (lander-rover based in-situ exploration)
  - ⊕ Forthcoming Chandrayaan-4 (India's first lunar sample return mission)
- India aims to send astronauts to the Moon by 2040.

#### About Chandrayaan-5

- Aim: To study lunar volatile materials, of the south pole.
- International collaboration:
  - ⊕ ISRO will primarily build the lander, while JAXA (Japan) will provide the rover.
  - ⊕ Observation Instruments will also come from NASA and ESA.



### GRAIL (Gravity Recovery and Interior Laboratory) Mission

NASA's GRAIL Mission created the most detailed map of the Moon's gravity.

- GRAIL Mission was launched in 2011 as a part of NASA Discovery Program.
- Map will contribute to establishing a precise lunar reference frame and time system, enabling safer navigation for future lunar missions.

#### Key findings of the mission

- Uneven Moon Interior: The Moon's nearside (facing Earth) is warmer and more geologically active than the farside (never visible from Earth).
- Tidal Deformation: Earth's gravity causes the nearside to flex more than the farside during the Moon's orbit. This flexing shows structural differences between the two sides of the Moon.
  - ⊕ Nearside is covered by vast plains (called mare), but farside has much more rugged terrain.

## Personality in News



### Sukhdev Thapar (1907 - 1931)

Eminent revolutionary leader in India's freedom struggle Shaheed Sukhdev Thapar was remembered on his birth anniversary (May 15).

#### About Sukhdev Thapar

- Born in Ludhiana, Punjab.
- He was a member of the Hindustan Socialist Republican Association (HSRA).

#### Key Contributions

- Organized revolutionary cells in Punjab and other parts of Northern India.
- Founded the Naujawan Bharat Sabha (1926, Lahore) to mobilize youth for the independence struggle.
- Was at forefront of several revolutionary activities:
  - ⊕ Prison Hunger Strike (1929): Protested against the inhuman treatment meted out to the inmates in jail.
  - ⊕ Lahore Conspiracy Case (1928): Sukhdev and his accomplices Shivaram Rajguru and Bhagat Singh plotted to assassinate James A Scott (responsible for the death of Lala Lajpat Rai) but mistakenly shot J P Saunders, the Deputy Superintendent of Police.
- Later, Hanged on March 23, 1931 in Lahore Jail, along with Shaheed Bhagat Singh and Shivaram Rajguru, observed as Shaheed Diwas (Martyr's Day).

