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# **VIDHVATH IAS KAS ACADEMY & STUDY CENTRE**

## **DAILY CURRENT AFFAIRS**

**FOR UPSC CIVIL SERVICE EXAMINATION**

**DATE: 26/02/2026 (THURSDAY)**



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## **Table of Contents**

1. India-Israel Strategic Partnership: Prime Minister's Address to the Knesset .....	2
2. Policy Shift: Rajasthan Scraps Two-Child Norm for Local Elections .....	3
3. Public Health Crisis: Meghalaya Emerges as India's HIV Hotspot .....	5
4. Ecological Indicator: Smew Sighting in Kaziranga and Climate Implications .....	6
5. Cultural Heritage & Rural Economy: The Kakkur Kalavayal Agricultural Fair .....	8
6. Judicial Integrity vs. Academic Content: The NCERT Controversy .....	9
7. Sabarimala Review and the Evolution of Religious Freedom Jurisprudence .....	11
8. Unpackaging the Risks: The Crisis of Bottled Water in India .....	12
9. Decolonising the Public Imagination: Beyond National Science Day .....	14
10. UDAN Scheme: Analyzing the Deceleration in Regional Connectivity .....	16
11. The Russia-Iran-China Oil Triad: Shifts in Global Energy Flows.....	17
12. Carbon Capture and Utilisation (CCU): A Catalyst for India's Net-Zero Transition .....	19



## 1. India-Israel Strategic Partnership: Prime Minister's Address to the Knesset

### Key Highlights of the Visit

- **Zero Tolerance for Terrorism:** Prime Minister Modi reaffirmed India's "uncompromising policy of zero tolerance" for terrorism, explicitly condemning the October 7 Hamas attacks as barbaric and drawing parallels to India's experience with the 26/11 Mumbai attacks.
- **Support for Peace Initiatives:** India formally endorsed the Gaza Peace Initiative (UNSC-backed), emphasizing it as a pathway to a "just and durable peace" that must address the Palestinian issue alongside Israeli security.
- **Shift to De-hyphenation:** The visit underscores India's "de-hyphenation" policy—maintaining an independent, robust strategic partnership with Israel while simultaneously advocating for a sovereign Palestinian state through diplomatic channels.
- **Sectoral Cooperation:** Bilateral talks focused on the "3 Pillars" of cooperation: Water Management (desalination and drip irrigation), Agriculture (Centers of Excellence), and Talent Partnership (mobility of skilled professionals).
- **Strategic Convergence:** Both nations highlighted their roles as vibrant democracies and technological hubs, seeking to align their defense and innovation ecosystems under the "India-Israel Vision 2.0."
- **Global Positioning:** The address signals India's intent to act as a stabilizing power in West Asia, balancing its historical ties with the Arab world against its modern strategic requirements with Israel.



### Important Terms & Definitions

- **Knesset:** The unicameral national legislature of Israel; the supreme power of the state.
- **De-hyphenation:** A diplomatic strategy where India deals with Israel and Palestine as two separate, independent relationships, rather than viewing them through the prism of each other.
- **Gaza Peace Initiative:** A framework endorsed by the UN Security Council aimed at a permanent ceasefire, the release of hostages, and the reconstruction of Gaza.

### Constitutional and Legal Context

- **Article 51 (Directive Principles):** Directs the State to promote international peace and security, maintain just and honorable relations between nations, and foster respect for international law.
- **Extradition Treaty (1993):** A foundational legal framework between India and Israel to combat transnational crime and terrorism.
- **Unlawful Activities (Prevention) Act (UAPA):** India's primary counter-terrorism law, which aligns with the Prime Minister's stance on "Zero Tolerance" expressed at the Knesset.

### Strategic Significance

1. **Defense & Technology:** Israel is one of India's top four arms suppliers. The relationship has evolved from a buyer-seller model to "Make in India" collaborations (e.g., Barak-8 Missiles).
2. **Food & Water Security:** Given India's climatic challenges, Israeli expertise in semi-arid farming and water recycling is critical for India's sustainable development goals.



3. **I2U2 Grouping:** Part of the "West Asian Quad" (India, Israel, USA, UAE), which focuses on joint investments in water, energy, transportation, and space.

**Conclusion** India's stance at the Knesset reflects a sophisticated balancing act. By condemning terrorism while supporting a UN-backed peace process for Palestine, New Delhi reinforces its image as a responsible global actor. The transition from a "transnational relationship" to a "strategic partnership" signals that India views Israel not just as a defense supplier, but as a critical ally in long-term technological and internal security stability.

#### UPSC Relevance

- **GS Paper II:** International Relations (Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests).
- **GS Paper III:** Internal Security (Linkages between development and spread of extremism; Role of external state and non-state actors).
- **Prelims:** Locations in West Asia, UN Security Council Resolutions, and bilateral defense exercises (e.g., Blue Flag).

## 2. Policy Shift: Rajasthan Scraps Two-Child Norm for Local Elections

- **Legislative Amendment:** The Rajasthan Cabinet has approved the removal of the three-decade-old disqualification criteria under Section 19 of the Rajasthan Panchayati Raj Act, 1994, and Section 24 of the Rajasthan Municipalities Act, 2009, which barred individuals with more than two children from contesting local polls.
- **Demographic Justification:** The government cited a significant decline in the Total Fertility Rate (TFR) from 3.6 in the 1991-94 period to approximately 2.0 currently, rendering the 1995 population control measure "outdated" and irrelevant in the modern socio-political context.
- **Democratic Inclusivity:** The move addresses long-standing criticism from social organizations that labeled the norm "discriminatory," arguing that it restricted the fundamental political rights of large sections of the rural population and was inconsistent with democratic principles.
- **Historical Context:** Originally introduced in 1995 under the Bhairon Singh Shekhawat administration, the norm was intended as a pioneering move to incentivize small family units through electoral disqualification, a model later emulated by several other Indian states.
- **Institutional Reforms:** Alongside the electoral shift, the Cabinet approved the creation of a Directorate of Revenue Intelligence and Economic Offences and a new Industrial Park Promotion Policy to streamline state governance and economic growth.
- **Socio-Political Debate:** While the government views this as a progressive alignment with current demographic realities, the opposition has questioned the timing, linking it to broader ideological debates regarding population growth and community representation.





## Key Definitions and Concepts

- **Total Fertility Rate (TFR):** The average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates through her reproductive years. A TFR of 2.1 is generally considered the "replacement level."
- **Local Self-Government (LSG):** Refers to the management of local affairs by elected bodies such as Panchayats in rural areas and Municipalities in urban areas, empowered by the 73rd and 74th Constitutional Amendment Acts.
- **Replacement Level Fertility:** The level of fertility at which a population exactly replaces itself from one generation to the next, without migration.

## Constitutional and Legal Provisions

- **Article 243-F & 243-V:** These articles grant State Legislatures the power to define disqualifications for membership of Panchayats and Municipalities, respectively.
- **73rd & 74th Amendments (1992):** These constitutional milestones provided the framework for decentralized governance. While the center provided the skeleton, specific eligibility criteria (like the two-child norm) remained a State List prerogative.
- **Entry 20-A (Concurrent List):** "Population control and family planning" was added to the Concurrent List by the 42nd Amendment Act, 1976, allowing both Union and State governments to legislate on the matter.
- **Doctrine of Reasonable Classification:** Under Article 14 (Right to Equality), courts have previously upheld such norms (e.g., in *Javed v. State of Haryana*) as "reasonable classification" for the purpose of promoting a state policy, though the Rajasthan government is now choosing to repeal it on merit.

## Additional State Decisions

- **Health & Education:** Approval for an Ayurvedic, Yoga, and Naturopathy University in Ajmer to bolster traditional medicine systems.
- **Infrastructure:** A revised financial model for the Rajasthan Mandapam and Global Capability Centre (GCC) in Jaipur to attract international investments and corporate hubs.

## Conclusion

The decision to scrap the two-child norm marks a departure from punitive population control measures toward a rights-based democratic approach. By acknowledging that Rajasthan has reached the replacement level of fertility (TFR of 2.0), the state is shifting its focus from quantitative control to qualitative representation. This move ensures that local governance becomes more inclusive, removing a barrier that disproportionately affected certain demographics while reflecting the success of past family welfare programs.

## UPSC Relevance

- **GS Paper II:** Governance, Constitution, and Issues related to Local Self-Government. It highlights the evolving nature of eligibility criteria for grassroots democracy.
- **GS Paper I:** Social Issues and Population Dynamics. This serves as a case study on how state policy reacts to changing Total Fertility Rates (TFR) and demographic transitions.



- **Ethics (GS Paper IV):** The debate between state-mandated population control versus individual reproductive rights and democratic participation.

### 3. Public Health Crisis: Meghalaya Emerges as India's HIV Hotspot

#### Key Findings and Alarming Trends

- **Highest Caseload:** As of February 2026, Meghalaya has recorded the highest human immunodeficiency virus (HIV) caseload in India, with **10,293 patients** currently receiving Antiretroviral Therapy (ART).
- **Mortality Data:** Over the last decade, the state has recorded **949 deaths** linked to the virus. Notably, the government clarified that these deaths resulted from **opportunistic infections** (infections that occur more frequently in people with weakened immune systems) rather than the virus itself.
- **Geographic Concentration:** The **East Khasi Hills** district is the most affected region, accounting for nearly **46%** (435 cases) of the total deaths in the state.
- **Funding and Mission Mode:** The state government has sanctioned a **₹25-crore intervention programme** spanning the next five years. This "mission-mode" approach aims to expand testing centers, increase manpower, and strengthen the Meghalaya AIDS Control Society.
- **Dual Challenges:** Health officials identified **social stigma** and strict **confidentiality laws** as double-edged swords; while they protect privacy, they also complicate early detection as testing requires explicit consent and treatment cannot be legally mandated.
- **Driving Factors:** In the broader Northeast context, the rise is attributed to a "twin crisis" of **injecting drug use (IDU)**—linked to proximity to the 'Golden Triangle'—and a steady shift toward **unsafe heterosexual transmission**.



#### Important Terms & Definitions

- **Antiretroviral Therapy (ART):** A medical treatment that uses a combination of medicines to manage HIV. It does not cure HIV but reduces the viral load, allowing patients to live longer, healthier lives and reducing the risk of transmission.
- **Opportunistic Infections (OIs):** Infections (like tuberculosis or pneumonia) that take advantage of a very weak immune system. They are the primary cause of death for people with advanced HIV/AIDS.
- **95-95-95 Targets:** A global roadmap by UNAIDS aiming for 95% of people living with HIV to know their status, 95% of those diagnosed to receive ART, and 95% of those on treatment to achieve viral suppression by 2030.

#### Constitutional & Legal Provisions

- **HIV and AIDS (Prevention and Control) Act, 2017:**
  - **Non-Discrimination:** Prohibits discrimination in employment, healthcare, and education.
  - **Informed Consent:** Mandates that no HIV test or treatment be conducted without the "informed consent" of the individual.



- **Confidentiality:** Legally protects the HIV status of a person; disclosure is only permitted under specific court orders or for epidemiological research (anonymously).
- **Right to Treatment:** Establishes that every person in the care and custody of the state has a right to HIV prevention, testing, and treatment.
- **Article 21:** The Supreme Court has interpreted the "Right to Life" to include the right to health and the right to live with dignity for HIV-positive individuals.

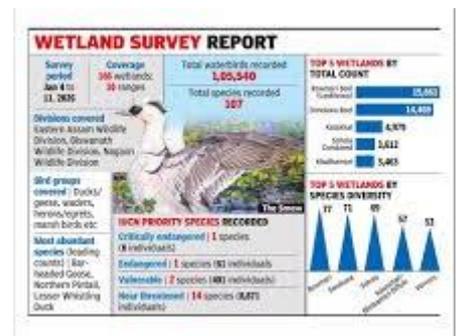
**Conclusion** Meghalaya's status as the state with the highest HIV caseload underscores a critical public health shift in Northeast India. While national trends show a decline, the "alarming rise" in this region highlights the need for a decentralized, community-led response. The success of the state's ₹25-crore mission will depend on balancing the legal requirement of patient confidentiality with the urgent need for mass screening and the destigmatization of the disease.

### UPSC Relevance

- **GS Paper II:** Issues relating to the development and management of Social Sector/Health; Functions and responsibilities of the Union and the States.
- **GS Paper III:** Internal Security (Linkages between drug trafficking and health security in border states).
- **Social Issues:** Impact of social stigma on public health outcomes and the effectiveness of rights-based legislation like the 2017 Act.

## 4. Ecological Indicator: Smew Sighting in Kaziranga and Climate Implications

- **First-Ever Record:** The seventh waterbird count at Kaziranga National Park and Tiger Reserve (KNPTR) has documented the first-ever sighting of the **Smew (*Mergellus albellus*)**, a rare migratory diving duck from the Eurasian taiga breeding grounds.
- **Climate Change Marker:** While the sighting highlights the resilience of Assam's floodplains, ornithologists categorize it as a "vagrant" status. This suggests climate-driven range shifts, where birds deviate from traditional migratory paths due to changing global temperatures and habitat degradation.
- **Census Overview:** The 2026 census recorded **105,540 individual waterbirds** across 107 species. Although the count showed a slight dip compared to 2025 (112,062 individuals), officials noted the high diversity across 166 surveyed wetlands.
- **Wetland Health:** The presence of the Smew is considered a bio-indicator of wetland health, specifically favoring fish-rich, sheltered waters. However, its arrival also flags the urgent need to protect "refueling stops" from threats like hunting, oil pollution, and encroachment.
- **Biodiversity Hotspots:** The Rowmari and Donduwa beels in the Laokhowa-Burhachapori landscape emerged as the most significant sites for both bird abundance and species diversity, reinforcing their status as Important Bird Areas (IBAs).
- **Conservation Status:** The census identified 18 species listed on the IUCN Red List (Critically Endangered to Near-Vulnerable), emphasizing that Kaziranga is not merely a rhino sanctuary but a vital link in the Central Asian Flyway.





## Key Definitions and Concepts

- **Vagrant Species:** A bird that has strayed far outside its expected breeding, wintering, or migrating range. In the context of climate change, frequent "vagrancy" often indicates shifting ecological niches.
- **Taiga:** Also known as boreal forest, it is a biome characterized by coniferous forests consisting mostly of pines, spruces, and larches; it is the primary breeding ground for the Smew.
- **Beel:** A term used in Assam for a lake-like wetland with stagnant water, often formed by a shift in a river's course (oxbow lakes), which are crucial for migratory waterfowl.
- **Important Bird Area (IBA):** An area identified using an internationally agreed set of criteria as being globally important for the conservation of bird populations.

## Constitutional and Legal Provisions

- **Article 48-A:** Mandates the State to endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.
- **Article 51-A(g):** Establishes a Fundamental Duty for citizens to protect and improve the natural environment including forests, lakes, rivers, and wildlife.
- **Wildlife (Protection) Act, 1972:** Provides the legal framework for the protection of various species of wild animals and plants and the management of habitats like Kaziranga.
- **Environment (Protection) Act, 1986:** Empowers the Central Government to protect and improve environmental quality, often utilized in regulating "Eco-Sensitive Zones" around National Parks.

## Summary of Findings (Table)

Metric	2025 Count (6th)	2026 Count (7th)
Total Individuals	112,062	105,540
Total Species	124	107
New Record	N/A	Smew (Diving Duck)
Key Area	KNP Core Area	Rowmari-Donduwa Beels

## Conclusion

The arrival of the Eurasian Smew in Kaziranga is a double-edged sword for conservationists. While it underscores the park's importance as a premier wetland habitat, it serves as a "canary in the coal mine" for climate-induced migratory disruptions. Protecting the interconnected "Beel" ecosystem of the Brahmaputra floodplain is now as critical for global avian flyways as it is for the survival of the Greater One-Horned Rhinoceros.

## UPSC Relevance

- **GS Paper III:** Environment and Biodiversity (Conservation, environmental pollution and degradation, environmental impact assessment).
- **GS Paper I:** Geography (Distribution of key natural resources, changes in critical geographical features).



- **Prelims Focus:** Location of Laokhowa and Burhachapori Wildlife Sanctuaries, IUCN status of migratory birds (Bar-headed Goose, Northern Pintail), and the "Central Asian Flyway" (CAF) initiative.

## 5. Cultural Heritage & Rural Economy: The Kakkur Kalavayal Agricultural Fair

- **Historical Significance:** The Kakkur Kalavayal is a traditional post-harvest agricultural festival held in the Ernakulam district of Kerala. Historically, it served as a major trade hub for farmers to exchange seeds, cattle, and indigenous agricultural implements.
- **The Kalavayal (Cattle Race):** A central attraction of the fair is the cattle race (maramadi), which showcases the strength and speed of local bovine breeds. These events are deeply rooted in the agrarian calendar, marking the transition between harvest and the next sowing season.
- **Agro-Biodiversity Promotion:** The week-long fair acts as a platform for displaying indigenous cattle breeds and organic produce, encouraging farmers to move away from monoculture and preserve local genetic diversity in livestock.
- **Socio-Economic Integration:** Beyond entertainment, the fair facilitates direct interaction between producers and consumers, reducing the role of middlemen and boosting the local rural economy through the sale of handicrafts, traditional food, and farm equipment.
- **Legal and Animal Welfare Balance:** While being a celebrated tradition, the event is conducted under strict supervision to ensure compliance with judicial guidelines regarding the treatment of animals, reflecting the ongoing national dialogue between cultural rights and animal welfare.
- **Tourism and Soft Power:** The festival has evolved into a significant cultural tourism event, attracting visitors from across the state and promoting Kerala's "living heritage" and traditional agrarian lifestyles to a modern audience.



### Key Definitions and Concepts

- **Kalavayal:** Literally translated to "Cattle Market" or "Field of Bulls." It refers to traditional rural congregations where trade and festivities occur simultaneously.
- **Maramadi:** A traditional form of cattle racing or bull surfing practiced in rural Kerala, typically in flooded paddy fields or dry agrarian tracts after the harvest.
- **Agro-ecology:** A holistic approach to farming that integrates ecological principles with social and economic aspects of agricultural systems.

### Constitutional and Legal Provisions

- **Article 51-A(g):** Mandates a Fundamental Duty to have compassion for living creatures, often cited in legal debates surrounding animal-centric cultural events.
- **Article 51-A(f):** Directs citizens to value and preserve the rich heritage of the country's composite culture.
- **Prevention of Cruelty to Animals (PCA) Act, 1960:** The primary central legislation governing the conduct of animal-related events. Following the 2023 Supreme Court ruling on Jallikattu, such



events are permitted provided they are conducted under state-specific rules that mitigate pain and suffering to the animals.

- **Seventh Schedule (Entry 15):** "Preservation, protection and improvement of stock and prevention of animal diseases; veterinary training and practice" falls under the State List, giving Kerala the authority to regulate these fairs.

### Current Status and Judicial Context

The legal landscape for such events changed significantly following the Supreme Court's Constitution Bench judgment in *The Animal Welfare Board of India v. Union of India (2023)*. The court upheld state amendments to the PCA Act, allowing traditional sports like Jallikattu, Kambala, and Bullock Cart races, provided they are part of a cultural heritage and follow strict safety and welfare protocols. The Kakkur Kalavayal operates within this framework of "Regulated Tradition."

### Conclusion

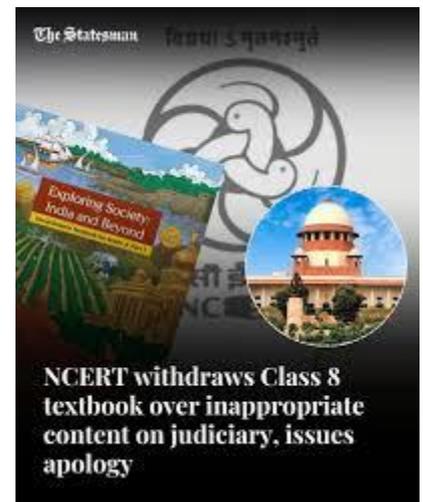
The Kakkur Kalavayal is more than a sporting event; it is a repository of Kerala's agrarian history and a vital link to rural livelihoods. By balancing the "Right to Culture" with modern ethical standards for animal welfare, the fair demonstrates how traditional practices can adapt to contemporary legal and social sensibilities. It remains a crucial event for the conservation of indigenous livestock and the promotion of rural entrepreneurship in South India.

### UPSC Relevance

- **GS Paper I:** Indian Culture - Salient aspects of Art Forms, Literature, and Architecture from ancient to modern times (Festivals and traditional sports).
- **GS Paper II:** Statutory, regulatory, and various quasi-judicial bodies (Animal Welfare Board of India) and the role of the judiciary in interpreting cultural rights.
- **GS Paper III:** Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System; Economics of animal-rearing.

## 6. Judicial Integrity vs. Academic Content: The NCERT Controversy

- **Suo Motu Intervention:** The Supreme Court of India, led by Chief Justice Surya Kant, has registered a *suo motu* case following reports that a new NCERT Class 8 Social Science textbook includes sections alleging "corruption in the judiciary".
- **Judicial Stance on Institutional Defamation:** Chief Justice Surya Kant took serious exception to the content, stating that the Court will not allow anyone to play with the integrity of the judiciary or defame the institution.
- **Textbook Challenges Listed:** The new textbook specifically identifies "corruption in the judiciary" and "massive backlog" as significant challenges facing the Indian legal system.
- **Systemic Issues Noted by NCERT:** The curriculum points to several hurdles, including a lack of an adequate number of judges, complicated legal procedures, and poor infrastructure as reasons for judicial delays.





- **Evolution of Content:** The previous version of the textbook primarily described the role of the judiciary and the importance of an independent judicial system, whereas the new edition introduces critical views on judicial conduct.
- **Judicial Reaction:** The CJI described the inclusion of such content as "very calculated" and "deep-rooted," indicating a concern that the curriculum might undermine public trust in the judicial branch.

### Key Definitions

- **Suo Motu:** A Latin term meaning "on its own motion." It refers to a situation where a court takes up a case on its own initiative without a formal petition being filed by a party.
- **NCERT:** The National Council of Educational Research and Training, an autonomous organization that assists the Central and State Governments on policies and programmes for qualitative improvement in school education.
- **Defamation:** The act of damaging the good reputation of someone or an institution; in this context, it refers to statements that may lower the dignity of the judiciary in the eyes of the public.

### Constitutional and Legal Provisions

- **Article 129:** Grants the Supreme Court the power to punish for contempt of itself, which includes acts that scandalize or lower the authority of the court.
- **Article 142:** Provides the Supreme Court with the power to pass any order necessary for doing "complete justice" in any cause or matter pending before it.
- **Independence of Judiciary:** A "Basic Structure" of the Constitution (as per the *Kesavananda Bharati* case) which ensures the judiciary remains free from influence by the executive or legislature.
- **Contempt of Courts Act, 1971:** Defines civil and criminal contempt, where "criminal contempt" includes scandalizing the court or interfering with the administration of justice.

### Additional Key Points

- **The "Justice Delayed" Concept:** The textbook utilizes the phrase "justice delayed is justice denied" to characterize the extended time periods required for cases to be resolved in Indian courts.
- **Institutional Integrity:** The core of the CJI's objection rests on the balance between academic freedom/critical thinking and the preservation of the sanctity of constitutional institutions.

**Conclusion:** The conflict between the judiciary and educational content highlights the delicate balance between systemic criticism and institutional defamation. While addressal of judicial delays and infrastructural gaps is a recognized necessity, the attribution of "corruption" as a standard challenge in school textbooks has been viewed by the Supreme Court as a threat to judicial integrity. This case will likely define the boundaries of how state-sponsored educational materials can critique constitutional bodies.

### UPSC Relevance

- **GS Paper II:** Structure, organization, and functioning of the Judiciary; Issues arising out of the design and implementation of policies; Issues relating to the development and management of Social Sector/Education.
- **Ethics (GS Paper IV):** Institutional ethics and the role of education in shaping the perception of constitutional values and public trust.



- **Essay/Mains:** Potential topic regarding "Judicial Accountability vs. Judicial Independence" or "The Role of Education in Strengthening/Weakening Democracy."

## 7. Sabarimala Review and the Evolution of Religious Freedom Jurisprudence

The Sabarimala case remains a watershed moment in Indian constitutional law, shifting the focus from theological determinations to the protection of individual dignity within religious practices. As the Supreme Court prepares for final arguments on review petitions, the discourse centers on balancing the autonomy of religious denominations with the fundamental rights of individuals.

### Core Summary of the Sabarimala Verdict and Legal Transition

- **The 2018 Ruling:** A 4:1 majority in *Indian Young Lawyers Association vs. State of Kerala* struck down the ban on women aged 10–50 entering the Sabarimala temple, citing violations of the right to equality and freedom of religion.
- **Denominational Status:** The Court ruled that devotees of Lord Ayyappa do not constitute a separate "religious denomination," thereby limiting their protection under Article 26 to manage internal affairs exclusively.
- **Essential Religious Practice (ERP) Test:** Historically, courts have used the ERP test to decide if a practice is central to a religion. Critics argue this forces judges to act as "theological arbiters," often relying on selective scriptural interpretations.
- **The Anti-Exclusion Test:** Proposed as an alternative, this test shifts the inquiry from whether a practice is "essential" to whether its consequences systematically exclude individuals or impair their fundamental dignity.
- **Constitutional Primacy:** The judiciary emphasizes that while Article 25 (individual right) and Article 26 (group right) protect faith, they are subject to "public order, morality, and health" and other fundamental rights.
- **Broad Implications:** The final outcome of the review will set a precedent for other sensitive issues, including Dawoodi Bohra excommunication and the rights of Parsi women marrying outside their faith.



### Key Definitions

- **Religious Denomination:** A collection of individuals having a system of beliefs, a common organization, and designated by a distinctive name (as per the *Shirur Mutt* case).
- **Essential Religious Practice:** Those rituals and beliefs that are considered integral to a religion, such that their removal would alter the very character of that religion.
- **Constitutional Morality:** A principle where the "morality" mentioned in Articles 25 and 26 is interpreted as the values of the Constitution (justice, liberty, equality) rather than popular or social morality.



## Constitutional and Legal Provisions

Provision	Description
Article 25	Guarantees freedom of conscience and the right to freely profess, practice, and propagate religion, subject to public order, morality, and health.
Article 26	Grants religious denominations the right to manage their own affairs in matters of religion.
Article 14 & 15	Guarantee equality before the law and prohibit discrimination on grounds of religion, race, caste, sex, or place of birth.
Rule 3(b), 1965 Rules	The specific Kerala Hindu Places of Public Worship Rule that previously allowed for the exclusion of women based on custom; now declared unconstitutional.

### The "Essentiality" vs. "Anti-Exclusion" Debate

The ERP test has been criticized for being intrusive and subjective. The proposed **Anti-Exclusion Test** represents a "Transformative Constitutionalism" approach:

1. **Deference:** It respects the autonomy of a group to define its own tenets.
2. **Intervention:** It only intervenes when a practice results in the "civil death" or systematic exclusion of a person from the social or spiritual mainstream.
3. **Focus:** It moves the spotlight from "Scripture" to "Dignity."

### Conclusion

The Sabarimala review serves as a litmus test for India's secularism. By moving toward an anti-exclusion framework, the judiciary seeks to protect the "autonomy of faith" without licensing "discrimination in its name." The ultimate goal is to ensure that the individual remains the basic unit of constitutional concern, even within the communal space of religion.

### UPSC Relevance

- **GS Paper II:** Functions and responsibilities of the Judiciary; Pressure groups and formal/informal associations; Fundamental Rights (Articles 14, 15, 25, 26).
- **GS Paper IV:** Ethics and Religious Values; Conflict between traditional morality and constitutional morality.
- **Essay:** Topics related to Women's Empowerment, Social Justice, or the evolution of the Indian Constitution.

## 8. Unpackaging the Risks: The Crisis of Bottled Water in India

The shift from municipal tap water to packaged drinking water in India reflects a declining trust in public infrastructure. However, emerging scientific evidence suggests that the perceived safety of bottled water is being undermined by invisible contaminants, specifically microplastics and chemical leaching, posing significant long-term health and environmental challenges.

### Key Summary of Emerging Concerns



- **The Myth of Purity:** While bottled water is regulated for microbiological safety (bacteria/pathogens), it is increasingly found to be a primary vector for microplastics—particles smaller than 5mm.
- **Widespread Contamination:** Studies across Nagpur, Mumbai, and Andhra Pradesh have detected microplastics in 100% of samples, with local brands often showing higher concentrations (up to 212 particles/litre) than national ones.
- **Chemical Leaching:** Plastic containers are prone to leaching antimony, phthalates, and plasticizers into the water, a process accelerated by India's high ambient temperatures and UV exposure during transport and storage.
- **Regulatory Lag:** Current FSSAI and BIS standards focus on short-term contaminants but lack protocols for testing microplastics or the cumulative effect of long-term exposure to multiple plastic additives.
- **Environmental Feedback Loop:** The proliferation of single-use plastic bottles contributes to a waste crisis where degrading plastic fragments re-enter the ecosystem, eventually contaminating the very water sources used for bottling.
- **Infrastructural Dependency:** Over-reliance on bottled water highlights a systemic failure in municipal water supply, necessitating a shift toward strengthened public utilities and transparent water quality disclosure.



### Definitions of Key Concepts

- **Microplastics:** Small plastic pieces less than 5mm in length which can be harmful to our ocean and aquatic life, and increasingly, human health.
- **Nanoplastics:** Particles even smaller than microplastics (typically <1 micrometre) that can cross biological barriers (like the gut or blood-brain barrier) and currently elude standard detection methods.
- **Chemical Leaching:** The process by which chemicals from plastic packaging migrate into the liquid content, often triggered by heat or prolonged shelf life.

### Constitutional & Legal Provisions

Provision/Authority	Relevance to Water and Health
Article 21	The Right to Life includes the right to clean drinking water as interpreted by the Judiciary.
Article 47	Directive Principle mandating the State to improve public health as a primary duty.
FSSAI (Food Safety and Standards Authority of India)	The primary regulatory body for licensing and quality compliance of packaged water.
Plastic Waste Management Rules, 2016	Framework for managing plastic waste, emphasizing Extended Producer Responsibility (EPR).



### Additional Key Insights

- **The Nagpur Study:** Highlights the disparity between local and national brands, suggesting that smaller bottling units often operate with minimal oversight and sub-standard filtration.
- **Detection Thresholds:** A critical gap exists where nanoplastics remain outside the purview of safety regulations because they are "invisible" to current standardized testing equipment.
- **Point-of-Use (POU) Alternatives:** Rather than bottled water, experts suggest POU filtration (like RO or UV systems) and public water ATMs as more sustainable and potentially safer long-term solutions.

### Conclusion

The challenge of bottled water in India is a dual crisis of public health and environmental governance. While it remains a temporary necessity in disaster-prone areas, its "routine" status is unsustainable. Addressing this requires a "Right to Water" approach that prioritizes the rejuvenation of municipal supply lines and the modernization of FSSAI standards to include microplastic limits, ensuring that "safe" water does not come at the cost of long-term biological or ecological integrity.

### UPSC Relevance

- **GS Paper II:** Statutory, regulatory and various quasi-judicial bodies (FSSAI/BIS); Issues relating to development and management of Social Sector/Services relating to Health.
- **GS Paper III:** Environmental pollution and degradation; Science and Technology- developments and their applications and effects in everyday life (Microplastics/Nanotechnology).
- **Essay:** Interplay between consumerism, environmental sustainability, and public health.

## 9. Decolonising the Public Imagination: Beyond National Science Day

National Science Day, observed on February 28 to mark the discovery of the Raman Effect, serves as a ritual that defines what the state recognizes as "legitimate" science. However, a decolonial perspective suggests that India's scientific imagination remains tethered to external prestige and elite markers like the Nobel Prize, often ignoring the vast landscape of practical knowledge and marginalized scientific labor.

### Core Summary of the Decolonial Scientific Narrative

- **The Politics of Recognition:** National Science Day often prioritizes "world-class discoveries" over impactful social achievements, such as improvements in maternal health, thereby legitimizing an elite, award-centric view of science.
- **De-Nobelising Science:** True decolonisation requires shifting focus away from external validation (like the Nobel Prize) and expanding the definition of scientific actors to include farmers, artisans, and technicians.
- **Jugaad as Innovation:** While often dismissed or co-opted by management culture as "frugal innovation," *jugaad* represents a grassroots inventiveness that challenges formal, elite templates of scientific progress.





- **Reclaiming the Commons:** The term *poromboke* (historically meaning communal land) highlights how state classifications of "wasteland" marginalize the ecological knowledge and legitimacy of communities residing there.
- **Democratizing the Laboratory:** Scientific authority is not confined to "mega-labs"; it is performed daily in "minor labs" like diagnostic centers, where the public actually interacts with science.
- **Labor Hierarchy:** The current scientific narrative overlooks the "hidden" labor of field staff, nurses, lab attendants, and data collectors, whose contributions are essential for knowledge production but rarely commemorated.

### Key Definitions

- **Raman Effect:** A phenomenon in spectroscopy discovered by C.V. Raman where light scatters with a change in wavelength when passing through a transparent medium.
- **Jugaad:** A colloquial term for a non-conventional, frugal innovation or a "hack"; in a scientific context, it represents indigenous problem-solving.
- **Poromboke:** A Tamil revenue term for land not yielding revenue, often used for public or communal purposes; socially, it reflects how the state determines "productive" versus "disposable" landscapes.
- **Decolonisation of Science:** The process of deconstructing the hierarchy that privileges Western/Elite scientific methods over indigenous, local, and practical knowledge systems.

### Constitutional & Legal Provisions

Provision	Context in Science and Society
Article 51A(h)	Fundamental Duty to develop the <b>scientific temper</b> , humanism, and the spirit of inquiry and reform.
Article 39(b) & (c)	Directive Principles ensuring that the ownership and control of material resources (like the <i>poromboke</i> /commons) are distributed to subserve the common good.
National Research Foundation (NRF)	A legal framework aimed at seeding and growing research across Indian universities and colleges, potentially bridging the gap between "minor" and "mega" labs.

### Key Dimensions of Scientific Labor

- **The Elite vs. The Minor:** Scientific history focuses on the "Genius" in isolation, whereas modern science is a social institution involving communal rituals and hierarchical structures.
- **The Language of Innovation:** Science communication often requires "packaging" for elite consumption in English, which renders the vocabularies of local fishers or craftspeople invisible.
- **Transformative Recognition:** Shifting the focus of National Science Day from "Global Awards" to "Local Utility" would align science more closely with the needs of the Indian citizenry.

### Conclusion

To truly celebrate science in the Indian context, the state must move beyond "Nobel-shaped" stories of individual genius. National Science Day should evolve into a platform for discussing the social and political



life of science—recognizing that the labor of a nurse or a field collector is as vital to the "scientific temper" of the nation as the research conducted in prestigious institutes.

### UPSC Relevance

- **GS Paper I:** Social Empowerment (Caste and Gender hierarchies in institutions); Indian Culture (Traditional knowledge vs. modern science).
- **GS Paper II:** Government policies and interventions for development in various sectors; Issues relating to health and education.
- **GS Paper III:** Science and Technology- developments and their applications in everyday life; Awareness in the fields of IT, Space, Computers, Robotics, Nanotechnology, and Bio-technology.
- **Ethics (GS IV):** Ethical issues in science and technology; Human values and the "scientific temper."

## 10. UDAN Scheme: Analyzing the Deceleration in Regional Connectivity

The Union Government's flagship Regional Connectivity Scheme (RCS)—UDAN (Ude Desh ka Aam Nagrik)—has witnessed a significant slowdown in FY26. With only four airports operationalized, the current fiscal marks a nine-year low. While the Ministry of Civil Aviation attributes this to the increasing complexity of remaining projects, the trend raises critical questions regarding the sustainability of regional aviation and the operational viability of smaller airstrips.

### Key Summary of UDAN Performance and Trends

- **Record Low Operationalization:** In FY26, only four airports (Amravati, Pune, Datia, and Satna) were operationalized, significantly missing the budgetary target of 12 new airports.
- **Operational Sustainability Issues:** A major challenge is the "reversion" of airports; for instance, Datia became non-operational shortly after inauguration due to airline service suspensions, while Satna found no bidders.
- **Transition in Project Nature:** The Ministry notes that "low-hanging fruit" (airstrips requiring minor upgrades) were exhausted in earlier phases. Remaining projects involve complex land acquisition, multi-agency clearances, and extensive airside works.
- **Fiscal Trajectory:** Airport additions peaked in FY19 (18 airports) but have seen a steady decline, dropping from 10 in FY24 to 6 in FY25, and finally 4 in the current year.
- **Current Infrastructure Status:** Out of 93 airports developed under the scheme since 2016, 15 are currently non-operational, reflecting the fragility of the regional aviation ecosystem.
- **Strategic Reach:** Despite the slowdown, the scheme maintains a network of 78 operational airports covering 650 routes, connecting Tier-2 and Tier-3 towns with major economic hubs.



### Definitions of Key Concepts

- **VGF (Viability Gap Funding):** A financial concession provided by the government to bridge the gap between the cost of operations and expected revenues, making unviable routes attractive to airlines.
- **Water Aerodromes:** An area of open water used regularly by seaplanes or amphibious aircraft for landing and taking off.



- **Airside Works:** Activities related to the movement area of an airport, including runways, taxiways, and aprons, which require stringent safety validations.

### Constitutional & Legal Framework

Provision/Authority	Relevance to Civil Aviation
Union List (Entry 29)	"Airways; aircraft and air navigation..." falls under the exclusive legislative domain of the Parliament (Seventh Schedule).
NCAP 2016	The National Civil Aviation Policy which provides the foundational vision for the UDAN/RCS scheme to achieve 30crore domestic ticketing by 2022.
DGCA Guidelines	The Directorate General of Civil Aviation enforces safety and operational standards that new UDAN airports must strictly meet before certification.

### Challenges to Regional Connectivity

- **Airline Failure:** Small regional carriers (e.g., FlyBig) often struggle with high operating costs and maintenance issues, leading to the sudden closure of UDAN routes.
- **Infrastructure Bottlenecks:** Lack of night landing facilities and specialized equipment at smaller airports limits the number of daily flights.
- **Land Acquisition:** State governments often struggle to provide the required land for runway extensions, which is a prerequisite for larger aircraft (like ATR-72 or Q400).
- **Demand Volatility:** Unlike metros, regional routes often see seasonal or erratic passenger loads, making them heavily dependent on government subsidies.

### Conclusion

The slowdown in UDAN's expansion highlights a shift from "quantity" to "complexity." While the initial phases successfully revived existing airstrips, the future of the scheme depends on solving deep-rooted structural issues: land availability, regional airline stability, and the high cost of aviation turbine fuel (ATF). The transition toward more difficult greenfield and brownfield projects necessitates a more robust partnership between the Centre and States to ensure that "connectivity" translates into "sustainability."

### UPSC Relevance

- **GS Paper II:** Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
- **GS Paper III:** Infrastructure: Energy, Ports, Roads, Airports, Railways etc.; Effects of liberalization on the economy.
- **Current Affairs:** Sectoral performance of the Indian economy and the status of "Ease of Doing Business" in the transport sector.

## 11. The Russia-Iran-China Oil Triad: Shifts in Global Energy Flows

The global oil market is witnessing a strategic realignment as Russia and Iran intensify a "price war" to secure dominance in the Chinese market. This development is primarily triggered by India's recent retreat from Russian crude, creating a surplus of sanctioned oil that is now converging on China's independent



refiners. For UPSC aspirants, this highlights the intersection of energy security, "strategic autonomy," and the evolving "China-Russia-Iran" axis.

### Key Summary of the Oil Market Realignment

- **India’s Strategic Retreat:** Following increased U.S. sanctions on Russian majors (Rosneft/Lukoil) and a reported "2026 India-US trade understanding," India’s Russian oil imports are projected to drop by nearly 40%.
- **Deepening Discounts:** To absorb displaced Russian Urals (now \$12/barrel below Brent) and Iranian Light (\$11/barrel below Brent), both nations are offering aggressive discounts to stay competitive.
- **The "Teapot" Constraint:** China’s independent refiners (teapots), which process about 25% of its capacity, are the primary buyers of this crude but are nearing their structural and storage limits.
- **Floating Storage Surge:** Unsold Iranian oil idling at sea has risen to nearly 48 million barrels (mostly in the Yellow Sea), indicating a supply glut that China cannot fully absorb.
- **Geopolitical Risk Premium:** While Russia is viewed as a "lower-risk" supplier due to potential Ukraine ceasefires, Iran faces higher volatility amid fears of U.S. strikes on its energy infrastructure.
- **Market Fragmentation:** The emergence of a "sanctioned oil ecosystem" is creating a two-tier global market, separating mainstream trade from a closed loop of discounted, politically aligned transactions.



### Key Definitions

- **Urals Grade:** Russia's flagship medium-sour crude oil, which is the primary grade exported to Europe and Asia.
- **Teapot Refiners:** Small, independent Chinese refineries that operate outside the major state-owned giants (like Sinopec) and are more willing to process sanctioned barrels.
- **Brent Benchmark:** The global pricing standard for Atlantic basin crude oils; used as the reference point for calculating discounts.

### Constitutional & Legal Provisions (India Context)

Provision/Authority	Relevance to Energy & Foreign Policy
Article 21	The Right to Life includes the right to a stable economy and basic needs (like affordable fuel), often cited to justify energy "Strategic Autonomy."
Article 51	Directive Principle promoting international peace and security; guides India’s balancing act between rival global blocs.
OFAC Sanctions	The U.S. Office of Foreign Assets Control; its designation of Russian/Iranian entities directly influences Indian refiners’ procurement choices.



## Strategic Implications for India

1. **Diversification of Sourcing:** India is pivoting back toward traditional Middle Eastern suppliers and newer sources like Venezuela and the U.S. to mitigate secondary sanction risks.
2. **Inflation Management:** The loss of discounted Russian oil (which previously made up 35% of the basket) may strain fiscal margins and impact domestic fuel price stability.
3. **Refinery Calibration:** Most Indian refineries are "technically suited" for Russian grades; switching to different crude types (e.g., U.S. light-sweet) requires technical adjustments and potential downtime.

## Conclusion

The Russia-Iran price war signifies more than a commercial dispute; it is a symptom of a world where energy trade is increasingly weaponized. For India, the transition away from Russian crude marks a recalibration of its "Strategic Autonomy," prioritizing long-term trade relations with the West and regional stability over short-term price advantages. As oil piles up at sea, the limits of China's "absorber" role will dictate the next phase of this global energy shift.

## UPSC Relevance

- **GS Paper II:** International Relations (Effect of policies of developed/developing countries on India's interests); Bilateral groupings and agreements involving India.
- **GS Paper III:** Indian Economy (Energy Security and its impact on Fiscal Deficit); Infrastructure (Energy).
- **Current Affairs:** Dynamics of the Russia-Ukraine conflict and Middle East tensions on global commodity prices.

## 12. Carbon Capture and Utilisation (CCU): A Catalyst for India's Net-Zero Transition

Carbon Capture and Utilisation (CCU) represents a transformative suite of technologies designed to intercept carbon dioxide ( $\text{CO}_2$ ) from industrial exhausts or the atmosphere and repurpose it into commercially viable products. Unlike traditional sequestration, which treats carbon as waste to be buried, CCU integrates carbon into the circular economy, offering a pragmatic solution for India's "hard-to-abate" industrial sectors.

### Strategic Significance and Implementation of CCU in India

- **Decarbonising Hard-to-Abate Sectors:** While renewables address the power sector, industries like steel, cement, and chemicals are inherently carbon-intensive. CCU provides a vital pathway to mitigate emissions where electrification is technically challenging.
- **Circular Economy Integration:** CCU converts  $\text{CO}_2$  into high-value raw materials for synthetic fuels, polymers, and building materials (like lightweight concrete), effectively turning a pollutant into a resource.
- **National Policy Roadmap:** The Department of Science and Technology (DST) and the Ministry of Petroleum and Natural Gas have established R&D roadmaps to align CCU with India's 2070 Net-Zero target.
- **Emerging Pilot Projects:** Significant private-sector participation is visible, with Ambuja Cements and IIT Bombay developing  $\text{CO}_2$ -to-fuel technologies, and Organic Recycling Systems (ORSL) pioneering Bio-CCU to produce bio-alcohols.



- **Global Benchmarking:** India is following international leads, such as the EU's Bioeconomy Strategy and the U.S. tax credit model, to integrate carbon capture with green hydrogen and chemical manufacturing.
- **Economic and Structural Risks:** The transition faces hurdles in cost-competitiveness against fossil-based alternatives, high energy intensity of conversion, and a lack of specialized infrastructure for CO<sub>2</sub> transport and storage.

### Key Definitions

- **Carbon Capture and Utilisation (CCU):** The process of capturing CO<sub>2</sub> and recycling it for further use in manufacturing processes, rather than just storing it.
- **Hard-to-Abate Sectors:** Industries such as heavy manufacturing and long-haul transport where reducing carbon emissions is exceptionally difficult or expensive with current technology.
- **Bio-CCU:** A biological approach to carbon utilization where micro-organisms or biological catalysts convert CO<sub>2</sub> into specialty chemicals or fuels.

### Constitutional and Legal Provisions

Provision/Policy	Relevance to CCU and Environment
Article 48A	Directive Principle mandating the State to protect and improve the environment.
Article 51A(g)	Fundamental Duty of citizens to protect and improve the natural environment.
Panchamrit Targets	India's five-fold commitment at COP26, including achieving Net-Zero by 2070.
Energy Conservation (Amendment) Act, 2022	Provides a legal framework for a Carbon Credit Trading Scheme in India, which could incentivize CCU.

### Key Challenges to Scaling CCU in India

1. **Cost Disparity:** CCU-derived products currently have a higher "green premium" compared to conventional products, necessitating government subsidies or carbon pricing.
2. **Energy Penalty:** The energy required to capture and convert CO<sub>2</sub> can sometimes offset the environmental gains if the energy source is not renewable.
3. **Infrastructure Gaps:** India requires "Carbon Clusters" where capture sites (factories) are closely linked to utilization sites (chemical plants) to minimize transport costs.

### Conclusion

CCU is not merely an environmental tool but a strategic industrial necessity for India. By bridging the gap between current carbon-heavy manufacturing and a future low-carbon economy, CCU allows India to maintain its industrial growth while adhering to global climate commitments. The successful scaling of this technology will depend on bridging the "innovation-to-market" gap through robust policy signals, specialized infrastructure, and standardized carbon certification.



### UPSC Relevance

- **GS Paper III (Environment):** Conservation, environmental pollution, and degradation; climate change mitigation strategies.
  - **GS Paper III (Science & Technology):** Indigenization of technology and developing new technology; Renewable energy.
  - **GS Paper II (Governance):** Government policies and interventions for development in various sectors.
  - **Prelims:** Definitions of CCUS, Net-Zero targets, and institutional roles (DST, NITI Aayog).
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