

Daily Current Affairs



by Dhananjay Gautam

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GS Paper 2 - Governance, Constitution, Polity, Social Justice

1

Presidential Reference and the Supreme Court: Can Past Verdicts Be Clarified Without Being Overturned?

Context: In a significant constitutional development, the Supreme Court of India has issued notices to the Union Government and all States following a Presidential Reference under Article 143 of the Constitution. The move seeks the apex court's advisory opinion on whether courts can compel constitutional authorities like the President and Governors to act within specific timelines on Bills passed by State legislatures.



A Constitution Bench led by Chief Justice B.R. Gavai is slated to commence detailed hearings by mid-August 2025.

Background: April 2025 Judgment Under Review

This Reference stems from a landmark **April 2025 ruling** delivered in response to a petition by the **Tamil Nadu government**. In that case, the **Supreme Court ruled that the inordinate delay by Governor R.N. Ravi** in assenting to **ten State Bills**—which had been re-enacted by the legislature—was "**constitutionally impermissible**." For the first time, the Court introduced **judicially enforceable timelines** for both **Presidential and Gubernatorial assent** to Bills.

Following this, President Droupadi Murmu, exercising powers under Article 143(1), referred 14 constitutional questions to the Court, seeking clarity on the limits of judicial supervision over constitutional authorities.

Understanding Article 143: The Supreme Court's Advisory Jurisdiction

Article 143(1) empowers the **President** to seek the **Supreme Court's advisory opinion** on matters of **law or fact of public importance**, even if **no case is currently before the Court**.

- This provision has roots in the Government of India Act, 1935.
- It has been invoked at least 14 times since Independence, dealing with matters such as the Berubari Union, Ram Janmabhoomi, and the Collegium system.
- The Court's opinion is advisory, not binding, but carries tremendous persuasive authority.

However, **Article 145(3)** mandates that such References must be heard by a **Constitution Bench of at least five judges**, ensuring constitutional depth and balance.

Can the Supreme Court Decline a Presidential Reference?

Yes. Though Article 143 uses the word "may", implying discretion, this was judicially confirmed in the Special Courts Bill case (1978). The Supreme Court may refuse to answer, especially if the questions are:

- Hypothetical
- Purely political
- Require expert, non-legal evidence

In **Ismail Faruqui v. Union of India (1994)**, the Court declined a Reference linked to the **Ayodhya-Babri Masjid dispute**, citing **ongoing civil proceedings and political sensitivities**. Similarly, in **1982**, it refused to answer a question on a law regarding **migrant resettlement in J&K** after it was already enacted.

Are Supreme Court's Advisory Opinions Binding?

The **legal status** of advisory opinions has remained **ambiguous**:

• In **St. Xavier's College v. State of Gujarat (1974)**, the Court ruled that advisory opinions are **not binding** under **Article 141**, which covers "**law declared**" by the Court.

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- Yet in R.K. Garg v. Union of India (1981), the Court treated reasoning in an advisory opinion as binding.
- In the Cauvery Water Disputes case (1991), the Court observed that such opinions "deserve due respect and weight" but stopped short of making them binding.

Thus, while **not enforceable**, advisory opinions **strongly guide legal and constitutional developments**.

Can the April 2025 Verdict Be Reversed Through a Presidential Reference?

Absolutely not. The Supreme Court has consistently held that a Presidential Reference cannot override or reverse a binding judgment rendered under its adjudicatory jurisdiction.

- In the Cauvery Water Disputes case, the Court clarified that Article 143 is not a backdoor for review.
- The only legal route to challenge a final verdict is through a review petition or curative petition, as per Articles 137 and 142.

However, the Court may use the **Reference to clarify or expand on its legal reasoning**, as seen in:

- 1998 Collegium case, where clarification led to modifications in the appointment process of judges.
- **Natural Resources Allocation case (2012)**, where the Court clarified the meaning of "auction" in the allocation of national resources without altering its earlier rulings.

What This Means for the Future:

While the **April 2025 decision remains final and enforce**able, the present Reference provides an opportunity for the **Supreme Court to elaborate its constitutional reasoning**, especially regarding the **doctrine of separation of powers**, the **scope of judicial review**, and the **autonomy of constitutional functionaries**.

Crucially, the **14 questions** raised in the current Reference **go beyond the Tamil Nadu case**, potentially impacting **ongoing cases in Kerala, Punjab**, and other States where Governors have allegedly delayed assent to Bills.

Additional Insight: Why This Matters Now

In recent years, there has been growing friction between **State governments and Governors**, particularly in **non-BJP-ruled States**. Governors have increasingly been accused of **withholding or delaying assent** for **political or ideological reasons**, raising serious concerns about **federal balance** and **legislative sovereignty**.

This Presidential Reference could, therefore, play a pivotal role in shaping the contours of Indian federalism, reaffirming or redefining the powers and duties of Governors and the President in a parliamentary democracy.

Conclusion: The upcoming hearings on this **Presidential Reference** are more than a legal formality—they are a **constitutional moment**. While the **Supreme Court cannot and will not undo its April 2025 verdict**, it holds the power to **clarify critical constitutional doctrines** that will shape the functioning of **State legislatures**, **the Union executive**, **and India's democratic ethos** for years to come.





GS Paper 3 - Defence & Science & Technology

2

MiG-21 Bison: India's Iconic Fighter Jet Nears Final Flight

Context: The **Indian Air Force (IAF)** is preparing to bid farewell to one of its most iconic aircraft — the **MiG-21 Bison**. By **September 2025**, the last of these Russian-origin fighter jets will be retired from service, bringing an end to over **six decades of operational legacy**. The retirement marks the closure of a historic chapter in India's military aviation.



A Supersonic Trailblazer: First of Its Kind in India

The **MiG-21** was the **first supersonic jet** to be inducted into the Indian Air Force, entering service in **1963**. Designed by the **Mikoyan-Gurevich Design Bureau** of the **former Soviet Union**, it became a symbol of India's aspirations for aerial dominance during the Cold War era.

- India acquired license production rights from the USSR and went on to build 657 MiG-21s domestically through Hindustan Aeronautics Limited (HAL).
- It remains the second most produced fighter aircraft in the world, after the American F-4 Phantom.

Known by Many Names, Feared by Many Adversaries

The aircraft earned several nicknames across the globe:

- NATO reporting name: Fishbed
- 'Balalaika' due to its triangular wing design resembling the Russian string instrument
- 'Ołówek' (Polish for "pencil") for its slender fuselage
- 'Én Bac' (Vietnamese for "silver swallow") for its agility and shine

Its unique delta-wing configuration and compact build made it ideal for high-speed interception and dogfights.

A Veteran of Every Indian Conflict Since 1963:

The **MiG-21** has participated in **almost every conflict India has faced** post-independence:

- 1965 India-Pakistan War
- 1971 Indo-Pak War, including the creation of Bangladesh
- **Kargil War of 1999**, where it was used for ground-attack roles
- **Balakot Airstrikes in 2019**, where a MiG-21 Bison famously engaged in aerial combat with Pakistani F-16s
- Operation Sindoor a recent mission that further added to its combat résumé

With these engagements, the MiG-21 has arguably seen **more combat than any other fighter in Indian service**.

A Machine of Mixed Legacy: Power and Controversy

While the MiG-21 holds a **glorious record in air defense**, it has also drawn criticism for its **high accident rate** in later years. Often referred to in headlines as the "Flying Coffin", the aging aircraft has suffered from **maintenance challenges**, **outdated avionics**, and **pilot safety issues**.

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Over **400 accidents involving MiG-21s** have been reported since their induction, raising questions about continued reliance on an aging fleet. However, in its early decades, it was considered cutting-edge and unmatched in speed and maneuverability.

Why the Retirement Matters:

The retirement of the MiG-21 reflects a **generational shift in India's airpower** strategy:

- The IAF is now modernizing its fleet with Rafale, LCA Tejas, and plans for fifth-generation stealth aircraft under the AMCA (Advanced Medium Combat Aircraft) project.
- The phase-out of the MiG-21 opens the way for newer technologies, enhanced safety, and improved battlefield effectiveness.

Did You Know?

- The MiG-21 holds the record for being the **longest-serving combat aircraft** in the history of the IAF.
- Globally, over **11,000 MiG-21s** were built making it **one of the most mass-produced jet fighters** ever.
- Apart from India, it served in over 60 countries, including Vietnam, Egypt, Libya, Poland, and North Korea.
- The MiG-21 was one of the first aircraft capable of achieving Mach 2 speed, which is twice the speed of sound.

The End of an Era, but a Legacy That Will Fly Forever

As the Indian Air Force prepares to send off the MiG-21 Bison, it is more than just the retirement of an aircraft — it is the **farewell of a legend** that shaped India's skies for decades. It trained generations of pilots, defended the nation in its darkest hours, and became an indelible part of India's military and strategic history.

The MiG-21 may soon stop flying, but its legacy will remain etched in the annals of Indian aviation for generations to come.





GS Paper 3 - Environment and Disaster Management

3

Sea Slugs: Nature's Colorful Marvels Revealing New Secrets

Context: In an exciting discovery for marine biology, scientists have recently identified **two previously unknown species** of **wart sea slugs** off the coast of **North Sulawesi, Indonesia**. These new species—**Phyllidia ovata** and **Phyllidia fontjei**—have now been **formally described**, adding to the rich biodiversity of the Indo-Pacific region. The find highlights the **undiscovered potential of coral reef ecosystems**, which continue to surprise researchers with their hidden wonders.



What Are Sea Slugs?

Commonly referred to as **sea slugs**, these fascinating creatures are part of a group called **nudibranchs**—a type of **soft-bodied marine mollusc** belonging to **Phylum Mollusca** and **Class Gastropoda**. Found in **oceans worldwide**, from **shallow tropical reefs** to the **deepest trenches**, sea slugs have evolved into some of the most **visually striking animals on Earth**.

Nature's Living Rainbows:

Sea slugs are famous for their **vibrant colours**, **bold patterns**, and **fluid movements**—traits that are not just beautiful but also **defensive**. Their dazzling appearances often act as **warning signals** to predators, as many species are **highly toxic**.

- Their toxicity is often acquired from their diet, especially from sponges, jellyfish, and anemones.
- Some can even retain the stinging cells (nematocysts) of jellyfish and use them as defense
 mechanisms.

Naked but Not Defenseless:

Unlike other molluscs, sea slugs lack external shells, which is why they're sometimes described as "naked snails." Despite this, they have adapted incredible survival mechanisms:

- **Photosynthetic Abilities**: Some species, like *Elysia chlorotica*, can **photosynthesise** by incorporating **chloroplasts** from the algae they consume—a phenomenon known as **kleptoplasty**.
- Gene Theft: Certain sea slugs can steal genes from their prey and incorporate them into their own DNA.
- **Limb Regeneration**: In some species, **lost body parts can regenerate**, adding another layer to their survival toolkit.

Ecological Importance of Sea Slugs:

Sea slugs are more than just eye-catching marine creatures. They play a **vital ecological role** in **coral reef ecosystems**:

- Their presence is often a **positive indicator of coral health**.
- They help **control populations of algae and sponges**, contributing to **reef balance**.
- Some even act as **bioindicators**—their **sensitivity to pollution and climate change** helps scientists monitor reef health.

Behaviours and Lifestyle:





- Feeding Habits: These slow grazers feed on algae, hydroids, small invertebrates, and even other nudibranchs.
- **Diurnal and Nocturnal**: While many species are **active during the day**, some are **nocturnal** and venture out under the cover of darkness.
- **Reproduction**: Sea slugs are **simultaneous hermaphrodites**, meaning they carry both male and female reproductive organs, often exchanging roles during mating.

A Field of Endless Discovery:

With over **3,000 known species** and more being discovered regularly, sea slugs continue to captivate scientists and divers alike. The discovery of **Phyllidia ovata** and **Phyllidia fontjei** is a **reminder of how much remains unexplored** beneath the waves.

Conclusion: Small Creatures, Big Impact

Sea slugs, despite their delicate and miniature appearance, represent some of the **most complex and adaptive life forms** in the ocean. Their **brilliant adaptations**, **striking appearance**, and **ecological importance** make them a symbol of the **hidden intelligence and beauty of marine life**.





GS Paper 1 – Geography



Kanniyakumari Wildlife Sanctuary: A Biodiversity Hotspot at India's Southern Tip

Context: In a remarkable revelation highlighting the sanctuary's rich biodiversity, a research scholar recently documented around 450 species of moths at the Kanniyakumari Wildlife Sanctuary. This discovery emphasizes the ecological significance of the region and showcases its potential for scientific research and conservation.



Location: Where Land Meets Three Seas

The Kanniyakumari Wildlife Sanctuary is located in Kanyakumari district, Tamil Nadu, near the southernmost tip of mainland India. It lies at the unique confluence of the Arabian Sea, Bay of Bengal, and Indian Ocean, making it not only geographically important but also ecologically diverse.

- To the north, the sanctuary shares its boundary with the Kalakkad Mundanthurai Tiger Reserve.
- To the south, it is flanked by the Kodayar left bank channel and the Thovalai channel.
- To the west, it borders the state of Kerala.

Lifeline Rivers and Lush Landscapes:

The sanctuary is the **origin point for seven rivers**, including the well-known **Pahrali** and **Thamirabarani** rivers. These rivers play a vital role in supporting **agriculture**, **biodiversity**, **and the livelihoods of local communities**.

Diverse Vegetation Covering Multiple Ecozones:

The natural vegetation of Kanniyakumari Wildlife Sanctuary spans across several ecological zones:

- Southern thorn forests
- Dry and moist deciduous forests
- Semi-evergreen and evergreen hill sholas
- Grassy hilltops and downs

This variety in vegetation supports an equally wide array of **flora and fauna**, making it one of the **most ecologically rich sanctuaries in southern India**.

Rich and Rare Fauna: A Sanctuary for the Wild

The sanctuary provides safe haven to several **threatened and endemic species**, including:

- Indian Bison (Gaur)
- Asiatic Elephant
- **Nilgiri Tahr** an endangered mountain goat species found only in the Western Ghats
- Sambar Deer
- Lion-tailed Macaque one of the most endangered primates in the world

In addition to these, the forest is also home to **reptiles like the Indian Rock Python**, and now, as revealed, **hundreds of moth species**, many of which are indicators of **healthy ecosystems**.

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Home to Indigenous Communities:

Several **tribal communities** reside in the **reserve forests adjacent to the sanctuary**, living in close harmony with nature. Their **traditional knowledge** of the forests and sustainable practices are an **integral part of the sanctuary's cultural heritage**.

Conservation Significance:

- The sanctuary lies within the **Western Ghats**, which is one of the **eight "hottest hotspots" of biodiversity in the world**, as declared by Conservation International.
- It forms a crucial part of the **Agasthyamalai Biosphere Reserve**, contributing to the conservation of rare and endemic species.
- The discovery of 450+ moth species serves as an indicator of the sanctuary's excellent environmental health, as moths play key roles in pollination, food webs, and ecosystem stability.

Did You Know?

- Kanniyakumari district is the only place in India where you can watch the sunrise and sunset over the ocean from the same spot.
- The region is home to Agasthiyar Malai, a sacred peak named after the sage Agastya and considered
 one of the oldest geological formations in the country.

Conclusion: A Sanctuary Worth Protecting

The **Kanniyakumari Wildlife Sanctuary** is much more than just a green expanse—it's a living mosaic of **natural wonders, ancient forests, cultural richness, and ecological balance**. As new species continue to be discovered, its importance as a **biodiversity reserve** and **conservation model** becomes ever clearer.

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GS Paper 3 – Digital Economy

5

Unified Payments Interface (UPI): India's Digital Payment Revolution Gains Global Recognition

Context: The **International Monetary Fund (IMF)**, in its recent report titled "Growing Retail Digital Payments: The Value of Interoperability," has **praised the Unified Payments Interface (UPI)** for revolutionizing India's digital payments ecosystem. The IMF emphasized UPI's **interoperable design**, calling it a model for developing countries aiming for **inclusive and scalable payment systems**.



What is UPI? A Game-Changer in Digital Transactions

The **Unified Payments Interface (UPI)** is a **real-time payment system** developed by the **National Payments Corporation of India (NPCI)**. It allows users to **link multiple bank accounts** in a single app to **send and receive money instantly**, without needing to input card or bank details repeatedly.

- Dual Functionality: UPI supports both push (sending) and pull (receiving) transactions using a
 Virtual Payment Address (VPA), offering high convenience and security through two-factor
 authentication.
- Built on Robust Tech: It leverages the Immediate Payment Service (IMPS) and integrates with the Aadhaar Enabled Payment System (AePS).
 - IMPS enables fast fund transfers using mobile numbers and account details.
 - o **AePS** allows Aadhaar-based services like cash withdrawal, deposits, and balance checks through biometric verification.

BHIM App: India's UPI at Your Fingertips

The BHIM (Bharat Interface for Money) app, launched by NPCI, is a flagship UPI-based mobile application designed to promote easy, secure, and fast transactions—especially in rural and semi-urban India.

How UPI Reshaped India's Digital Economy:

Unprecedented Growth and Reach

- In June 2025 alone, UPI processed 24.03 lakh crore across 18.39 billion transactions.
- UPI now caters to 491 million users and 65 million merchants, connecting over 675 banks.
- It has become the **world's largest real-time payments platform**, handling **over 640 million daily transactions**, surpassing global giants like **Visa**.

Seamless Interoperability Across Apps and Banks:

UPI broke the limitations of **closed-loop systems** (like individual digital wallets), enabling users to **transact across different apps and banks** with ease.

- This platform-agnostic model fosters innovation, improves competition, and enhances user experience.
- **QR codes** powered by UPI are now commonplace, making **cashless payments effortless even at local shops and street vendors**.

Empowering Financial Inclusion:

One of UPI's most transformative roles has been in **bridging the financial divide**:

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- With zero-cost and real-time transfers, UPI has made digital payments accessible to small vendors, self-employed individuals, and first-time users.
- It has empowered kirana stores, gig workers, and rural communities, while also boosting digital literacy and trust in financial systems.

UPI's Global Footprint Expands:

India's digital diplomacy has taken UPI across borders. It is now live in 7 countries:

- UAE, Singapore, Bhutan, Nepal, Sri Lanka, France, and Mauritius.
- Its **launch in France** marked UPI's **European debut**.
- India is actively promoting UPI integration within **BRICS** nations, aiming to ease cross-border **remittances and payments** for Indian migrants and travelers.

Digital Backbone Behind UPI's Success:

The rise of UPI wasn't an overnight miracle—it stands on a **strong digital foundation** known as the **JAM** Trinity:

1. Jan Dhan Yojana (Financial Inclusion):

- Over **55.9 crore bank accounts** opened under Jan Dhan as of July 2025.
- Enabled **direct benefit transfers (DBTs)** and brought millions into the **formal banking system**.

2. Aadhaar (Digital Identity):

- Over **142 crore Aadhaar IDs** issued by June 2025.
- Enabled secure, biometric-based authentication, facilitating digital governance and payments.

3. Mobile Connectivity:

- India now boasts one of the world's fastest-growing 5G networks, with 4.74 lakh base stations covering nearly all districts.
- **Mobile data costs** dropped from 308/GB in 2014 to just 9.34 in 2022, making internet access highly affordable.
- Over **116 crore mobile subscribers** now use mobile-based financial services, many for the first time.

Did You Know?

- UPI handles more than 85% of India's digital retail payments and accounts for almost half of global real-time transactions.
- Several African and Southeast Asian nations are studying the **UPI model** to replicate it for their financial inclusion goals.
- India's RuPay card and UPI system have begun integrating to create a seamless card-to-app transaction ecosystem.

Conclusion: UPI - A Blueprint for Digital Transformation

The Unified Payments Interface has transformed how India pays, banks, and transacts, becoming a symbol of **self-reliant innovation** and **inclusive digital progress**. As it expands globally, UPI stands not just as a **technological success**, but as a **model for empowering people through digital infrastructure**.





GS Paper 3 – Biodiversity and Environment

Lantana Camara: A Beautiful Menace Threatening India's Forest Ecosystems

Context: The invasive plant **Lantana camara**, once introduced in India as an **ornamental shrub**, has now become a serious ecological threat. Recent reports reveal that it has infested nearly 3.25 lakh hectares of forest land in Himachal Pradesh alone, severely endangering native **biodiversity** and disrupting the natural balance of ecosystems.



What is Lantana Camara?

Lantana camara is an **invasive alien species** that has spread rapidly across the **tropical and subtropical regions** of India.

- Originally native to Central and South America, it belongs to the Verbenaceae family.
- It was first introduced in India during the early 1800s by the British for use in gardens and **hedges** due to its vibrant, colorful flowers.
- However, over time, it has **escaped cultivation** and now grows **wild**, covering vast stretches of forest and grassland.

Rapid Spread and Invasion Pattern:

Lantana grows **aggressively**, forming **dense thickets** that block sunlight and suppress the growth of other plant species.

- Its invasion pattern shows an alarming trend—it spreads from low-lying regions to higher altitudes, gradually conquering hills and forested slopes.
- In India, Lantana has now become **one of the most widespread invasive weeds**, especially across the Western Ghats, central India, and the Himalayan foothills.

Ecological Consequences:

The presence of **Lantana camara** in forested areas leads to a **significant decline in native flora and fauna**.

- It **releases allelochemicals**—toxic compounds that **inhibit the germination and growth** of nearby native plants.
- This results in **monoculture-like conditions**, reducing **plant diversity**, and in turn, affecting **insects, birds, and other wildlife** that depend on indigenous vegetation.
- **Forest regeneration slows down**, and in extreme cases, native species may **disappear entirely**.

Socio-Economic and Agricultural Impact:

Lantana not only impacts biodiversity but also poses threats to agriculture and rural livelihoods:

- It **invades grazing lands**, reducing fodder availability for livestock.
- Farmlands adjacent to forested areas are vulnerable to its spread, forcing farmers to spend on manual or chemical removal.
- It increases **forest fire risks**, as the plant's **woody biomass** is highly **flammable during dry seasons**.

Can Lantana Be Managed? Turning a Threat into a Resource

Despite its destructive nature, Lantana's biomass holds **potential for productive use**, if managed wisely:



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- Its **wood** can be used to make **low-cost furniture**, **handicrafts**, **and fuelwood**.
- When processed properly, its leaves and stems can be converted into organic compost and **vermicompost**—a sustainable alternative to **chemical fertilizers**.
- **Livelihood programs** in parts of India, including **Madhya Pradesh and Uttarakhand**, have begun engaging local communities in Lantana removal and biomass utilization, offering employment and environmental restoration.

Interesting Fact: From Poisonous Shrub to Useful Product

While toxic to many animals, certain parts of the Lantana plant are being experimented with in biopesticide research. In some regions, Lantana extract has been shown to repel insects and may serve as an eco-friendly pest control solution.

Conclusion: The Dual Nature of Lantana

Lantana camara is a classic example of how a non-native species, when unchecked, can outcompete **native biodiversity** and alter entire ecosystems. While its **vivid flowers** may deceive the eye, its ecological impact is far from beautiful.

Yet, with **innovative management strategies**, **community participation**, and **scientific research**, India can transform this invasive threat into a **valuable resource**—protecting both nature and livelihoods in the process.

