

#RiseWithRICE

RICE IAS

Weekly EXPECTED **CURRENT** **AFFAIRS**

for

IAS EXAMINATION



From
24th Aug *to* **29th Aug 2026**



INDEX

1. POLITY & GOVERNANCE	1
1.1. Jojari River Pollution: Supreme Court Restrictions in Rajasthan	1
1.2. Cauvery Water Sharing Dispute Rises Again	2
1.3. Supreme Court's Observations on MGNREGA	4
2. ECONOMY	5
2.1. A Revival Roadmap for Darjeeling and Dooars Tea	5
2.2. PNGRB Authorises 1,800 Km of LPG Pipeline Infrastructure	7
3. ENVIRONMENT & GEOGRAPHY	9
3.1. Kaziranga, Mining and Wildlife Corridors: Understanding the Issue	9
3.2. Trans-Boundary Himalayan Disaster in Nepal	10
3.3. Feedstock Procurement: The Operational Backbone of the CBG Ecosystem	12
4. SCIENCE & TECHNOLOGY	14
4.1. Indigenous Popcorn Maize Hybrid: A Step Towards Agricultural Self-Reliance	14
5. HISTORY & CULTURE	16
5.1. Mysuru Dasara's Ceremonial Elephant March Bids Farewell	16
5.2. Legal Protection for Vande Mataram	17

POLITY & GOVERNANCE

1.1. JOJARI RIVER POLLUTION: SUPREME COURT RESTRICTIONS IN RAJASTHAN

Context

- Recently, The **Supreme Court** has **banned construction and development activities within 100 metres of the Jojari River in Rajasthan** to curb pollution and protect the river ecosystem.
- It has also prohibited **hazardous industries within 500 metres** of either side of the river's existing flow path and directed the authorities to prepare a **20-point plan** to address pollution.



About Jojari River

- The **Jojari (Jojri) River** is a **seasonal river of Rajasthan** and forms part of the **Luni River system**.
- It passes through **Pali and Jodhpur districts** and ultimately joins the **Luni River near Balotra**.

Environmental Principles & Constitutional Linkages

- Precautionary Principle:** Prevent environmental harm even without complete scientific certainty.
- Polluter Pays Principle:** Polluter bears the cost of preventing and remedying environmental damage.
- Sustainable Development:** Balance development with environmental protection and **inter-generational equity**.
- Public Trust Doctrine:** State holds natural resources like **rivers, forests and water bodies** in trust for the public.
- Constitutional Basis:** **Article 21** – clean environment as part of right to life; **Article 48A** – State's duty to protect environment; **Article 51A(g)** – citizens' duty to protect nature.

About Luni River

- Origin:** Near the **Pushkar Valley/Ajmer region of Rajasthan**.
- Direction:** Flows generally towards the **southwest**.
- Important tributaries:** **Jojari, Sukri, Bandi and Jawai**.
- Characteristic:** It is an **ephemeral/seasonal river** in much of its course.
- Lower course:** Its water becomes increasingly **saline**.
- Terminal region:** The river system ultimately drains towards the **Rann of Kachchh**.

Q. Consider the following statements regarding the Jojari River:

- It is a tributary of the Luni River system.
- It flows through the arid region of Rajasthan.
- The Luni River ultimately drains towards the Rann of Kachchh.
- The Jojari is a perennial river originating in the Himalayas.

Which of the statements given above are correct?

- (a) 1, 2 and 3 only
(b) 1 and 4 only

- (c) 2 and 3 only
(d) 1, 2, 3 and 4

Answer: (a)

- **Statement 1 is Correct:** The **Joari River** is a tributary of the **Luni River** in Rajasthan and joins the Luni near **Balotra**.
- **Statement 2 is Correct:** The Joari flows through the **arid and semi-arid region of Rajasthan**, particularly around **Jodhpur and Pali**, where water availability is limited.
- **Statement 3 is Correct:** The **Luni River flows southwestwards** and its drainage system ultimately reaches the **Rann of Kachchh**.
- **Statement 4 is Incorrect:** The Joari is **not a Himalayan river** and is **not a perennial river**. It is associated with the **seasonal drainage system of Rajasthan**.

1.2. CAUVERY WATER SHARING DISPUTE RISES AGAIN

Context

- Tamil Nadu has complained that Karnataka is not releasing its **proportionate share of Cauvery water**, leading to a shortage in Tamil Nadu. Karnataka has said that its own water availability is affected by rainfall and reservoir levels.



The Supreme Court has asked Tamil Nadu to take the issue to the **Cauvery Water Management Authority (CWMA)**, which manages water sharing between the two States.

About the Cauvery River Dispute

- The **Cauvery River Dispute** is a long-running conflict over sharing Cauvery water, mainly between **Karnataka and Tamil Nadu**, with Kerala and Puducherry also involved. The dispute arises because **Karnataka, the upper-riparian state, needs water for its farmers and cities**, while **downstream Tamil Nadu depends heavily on Cauvery water for agriculture and drinking needs**.
- The **Supreme Court in 2018** led the formation of the Cauvery Water Management Authority (CWMA) to **implement its Cauvery water-sharing arrangement** and **monitor, regulate and manage the sharing and release of water** among Karnataka, Tamil Nadu, Kerala and Puducherry.
- **It is recurring problem due to Poor rainfall and drought** often lead to disagreements over how much water Karnataka should release.

Cauvery Water Management Authority (CWMA)

- **It was** Set up under the **Cauvery Water Management Scheme, 2018**, following the Supreme Court's final verdict on the Cauvery dispute.
- It implements the Tribunal's award and regulates **storage, sharing and release of Cauvery water** among Karnataka, Tamil Nadu, Kerala and Puducherry.

- Headed by a **full-time Chairman**, with members from the **Ministry of Jal Shakti, CWC** and representatives of the four States.
- **Cauvery Water Regulation Committee (CWRC)** is the subordinate technical body assisting the **CWMA** with real-time monitoring of reservoir storage and water releases.

Legal Framework for Inter-State River Disputes

- **Constitutional Basis: Article 262** empowers Parliament to provide for adjudication of inter-State river water disputes and to bar the jurisdiction of the Supreme Court and other courts in such matters.
- The **Inter-State River Water Disputes Act, 1956** provides for constitution of tribunals; the **River Boards Act, 1956** provides for boards to regulate and develop inter-State rivers.
- **The Cauvery Tribunal:** The **Cauvery Water Disputes Tribunal** was constituted in **1990**; its final award, given in **2007**, was modified by the Supreme Court in its **2018** judgment.

About The River Cauvery

Origin & Course: The **Cauvery River** originates at **Talakaveri in Karnataka**, flows through Karnataka and Tamil Nadu, and finally drains into the **Bay of Bengal**.

Major Dams: Important dams include **Krishna Raja Sagara (KRS) and Kabini in Karnataka**, and **Mettur Dam in Tamil Nadu**.

Importance: It is a major source of **irrigation, drinking water and hydropower**, especially for Karnataka and Tamil Nadu.

Q. With reference to the above, consider the following statements:

- I. The Cauvery Water Management Authority was constituted under the Cauvery Water Management Scheme, 2018, pursuant to the Supreme Court's final verdict in the Cauvery water dispute.
- II. The Cauvery Water Regulation Committee (CWRC) functions independently of the CWMA and holds final authority over inter-State water allocation.
- III. Under Article 262 of the Constitution, Parliament may by law bar the jurisdiction of the Supreme Court and other courts in respect of inter-State river water disputes.

Which of the statements given above is/are correct?

- (a). I and II only
- (b). II and III only
- (c). I and III only
- (d). I, II and III

Answer: (c). I and III only

Explanation

Statement I is Correct: The CWMA was constituted in **June 2018** under the Cauvery Water Management Scheme, notified by the Central Government following the Supreme Court's **February 2018** judgment finally adjudicating the Cauvery water dispute.

Statement II is Incorrect: The CWRC operates under the superintendence of the CWMA and provides technical support in real-time monitoring of releases; it does not function independently, and final allocation authority vests in the CWMA.

Statement III is Correct: Article 262(2) empowers Parliament to enact a law excluding the jurisdiction of the Supreme Court and other courts over inter-State river water disputes, which it did through the Inter-State River Water Disputes Act, 1956.

1.3. SUPREME COURT'S OBSERVATIONS ON MGNREGA

Context

- The **Supreme Court**, while hearing a petition concerning **delayed payment of wages under MGNREGA**, observed that the scheme is a **"good, effective scheme"** and should be implemented properly.



About MGNREGA

- Full Name:** Mahatma Gandhi National Rural Employment Guarantee Act, 2005
- Initially enacted as the **National Rural Employment Guarantee Act (NREGA), 2005**.
- Renamed **MGNREGA in 2009**.
- Implemented by the **Ministry of Rural Development**.

Objective

- To enhance the **livelihood security of rural households** by providing at least **100 days of guaranteed wage employment** in a financial year to every rural household whose adult members volunteer to undertake **unskilled manual work**.

Key Features of MGNREGA

1. Demand-Driven Employment

- Provides employment within **15 days of demand**.
- Failure to provide work makes the applicant eligible for **unemployment allowance**.

2. Statutory Guarantee

- Guarantees employment under an **Act of Parliament**.
- The **Right to Work** is a **Directive Principle under Article 41**, not a Fundamental Right.

3. Timely Wage Payment

- Wages should be paid within **15 days**.
- Delay attracts **compensation**, as per applicable rules.

Constitutional Connection

- Article 21:** Guarantees the **Right to Life and Personal Liberty**, including life with dignity through judicial interpretation.
- Article 41:** Directs the State to provide for the **Right to Work, Education and Public Assistance**, subject to its economic capacity.
- MGNREGA employment is a statutory entitlement**, not a Fundamental Right.

About VB-G RAM G Act, 2025:

- MGNREGA, 2005 was repealed with effect from 1 July 2026 and replaced by the Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) **[VB-G RAM G] Act, 2025**.
- The new Act provides a statutory guarantee of **125 days of wage employment** per rural household in a financial year, compared to **100 days under MGNREGA**.

- **Existing job cards and ongoing works** were transitioned to the new framework.

Q. With reference to the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), consider the following statements:

1. It provides a statutory guarantee of at least 100 days of wage employment in a financial year to every rural household whose adult members volunteer to undertake unskilled manual work.
2. The Right to Work under MGNREGA is explicitly guaranteed as a Fundamental Right under Article 21 of the Constitution.
3. If employment is not provided within the stipulated period after demand, the applicant may become entitled to an unemployment allowance.
4. Social audit is an important mechanism for ensuring transparency and accountability under MGNREGA.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1, 3 and 4 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Answer: (b) 1, 3 and 4 only

- **Statement 1 – Correct:** MGNREGA guarantees at least **100 days of wage employment** to eligible rural households.
- **Statement 2 – Incorrect:** The Right to Work is **not explicitly a Fundamental Right under Article 21**. Article 41 deals with the right to work as a **Directive Principle of State Policy**.
- **Statement 3 – Correct:** Failure to provide employment within the stipulated period can lead to entitlement to an **unemployment allowance**.
- **Statement 4 – Correct:** **Social audit** is an important accountability mechanism under MGNREGA.

Scan to know more about our courses...



IAS 2-Year GS PCM



IAS 10-Month GS PCM



Degree + IAS



Prelims Test Series

2.1. A REVIVAL ROADMAP FOR DARJEELING AND DOOARS TEA

Context

- The **Indian Tea Association (ITA)** has sought urgent government intervention to revive the **Darjeeling, Dooars and Terai tea industries**, which face declining production, climate stress, rising costs and market challenges.



About Darjeeling Tea

Darjeeling Tea is a **GI-tagged premium orthodox tea** grown in the **Darjeeling hills of West Bengal**, renowned for its distinctive aroma and flavour and known as the **“Champagne of Teas.”**

Key Facts on Darjeeling Tea

- GI Tag:** First Indian product to receive a **GI tag (2004)**.
- Tea type:** Predominantly **orthodox tea**; high-altitude cultivation, cool climate and well-drained soils contribute to its unique quality.
- Challenges:** **Ageing bushes, climate stress, rising costs, labour issues and competition from Nepalese tea.**
- Current issue:** Production declined from **14.49 million kg (1990) to 5.6 million kg (2025)**.
- Revival:** **Indian Tea Association (ITA)** has sought government support for **plantation rejuvenation, modernisation and market protection.**

Why Revival Roadmap for Darjeeling and Dooars Tea is needed?

- Darjeeling tea production fell from **14.49 million kg (1990) to 5.6 million kg (2025)** due to **ageing bushes, climate pressures, rising costs, Nepalese imports and weak markets**. ITA proposed a **₹113-crore annual package** covering orthodox tea, working-capital interest, transport, mechanisation, social security, plantation rejuvenation and factory modernisation; a separate White Paper flags **structural, financial, climatic, labour and market challenges**.
- Hence ITA seeks **Minimum Sustainable Price for Made Tea, Minimum Import Price for orthodox tea, rationalised GST on ready-to-drink tea** and enhanced **RoDTEP** support for exports, alongside integration of revival measures with **government schemes**.

Decline in Darjeeling Tea Production

- Production Slump:** The **Darjeeling White Paper** highlighted a sharp decline in production, from **14.49 million kg in 1990 to 5.6 million kg in 2025**.
- GI Heritage at Risk:** The paper called for urgent, targeted intervention to safeguard the globally recognised **Geographical Indication (GI)** heritage of **Darjeeling tea**.
- Financial Support Proposed:** The ITA proposed an indicative annual financial support package of approximately **Rs 113 crore**, covering orthodox production, working capital, transport, mechanisation, social security and factory modernisation.

About Indian Tea Association (ITA)

Indian Tea Association (ITA) is one of India's **oldest and leading tea-industry associations**, representing tea producers and plantation interests.

Key Facts

- **Established: 1881**
- **Headquarters: Kolkata, West Bengal**
- **Role:** Represents tea producers on issues related to **production, labour, trade, taxation, exports and government policy**.
- Primarily it is associated with tea plantations in **Assam, West Bengal and other major tea-growing regions**.

Q. Consider the following statements:

- Darjeeling tea** has been accorded a **Geographical Indication (GI)** tag.
- Small tea growers account for the majority of production in the **Dooars-Terai** tea-growing region.
- The **Indian Tea Association's** White Papers were released jointly with the **Tea Board of India** as the sole implementing authority.

Which of the statements given above is/are correct?

- I and II only
- I and III only
- II and III only
- I, II and III

Answer: (a). I and II only

Explanation

Statement I is Correct: **Darjeeling tea** carries a globally recognised **GI tag**, which the White Paper flagged as being at risk from the sharp decline in production.

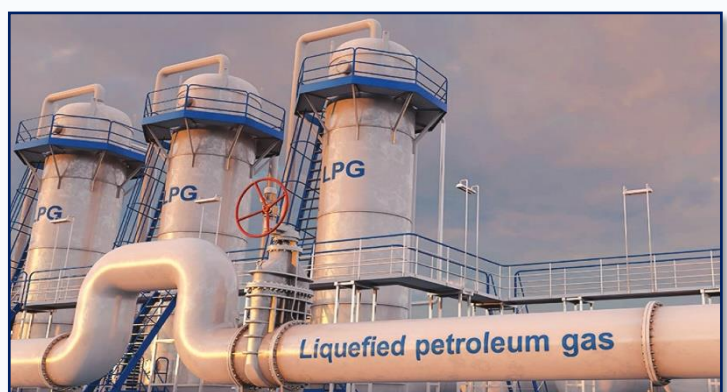
Statement II is Correct: Small tea growers account for **68%** of production in the **Dooars-Terai** region, exceeding output from organised estates.

Statement III is Incorrect: The White Papers were published by the **Indian Tea Association** and presented to West Bengal's state government representatives; the source does not indicate the **Tea Board of India** as a joint or sole implementing authority.

2.2. PNGRB AUTHORISES 1,800 KM OF LPG PIPELINE INFRASTRUCTURE

Context

- The **Petroleum and Natural Gas Regulatory Board (PNGRB)** has authorised the development of around 1,800 km of LPG pipeline infrastructure across **Telangana, Maharashtra, Uttar Pradesh, Uttarakhand, Karnataka and Goa**.



Key Pipeline Projects

Route	Length
Cherlapally (Telangana) – Nagpur (Maharashtra)	556 km
Jhansi (Uttar Pradesh) – Sitarganj (Uttarakhand)	611 km
Shikrapur (Maharashtra) – Goa and Hubli (Karnataka)	633 km

About PNGRB

- It is a **statutory body** established under the **Petroleum and Natural Gas Regulatory Board Act, 2006**.
- It regulates the **midstream and downstream petroleum and natural gas sectors**.
- Its mandate covers **refining, processing, storage, transportation, distribution, marketing and sale** of petroleum, petroleum products and natural gas.
- Production of crude oil and natural gas is excluded** from its regulatory mandate.

Q. With reference to the Petroleum and Natural Gas Regulatory Board (PNGRB), consider the following statements:

- It is a statutory body established under the Petroleum and Natural Gas Regulatory Board Act, 2006.
- It regulates the production of crude oil and natural gas in India.
- It can authorise entities to lay, build, operate or expand petroleum and natural gas pipelines.
- It can lay down technical and safety standards for downstream petroleum and natural gas infrastructure.

Which of the statements given above are correct?

- 1, 2 and 3 only
- 1, 3 and 4 only
- 2 and 4 only
- 1, 2, 3 and 4

Answer: (b) 1, 3 and 4 only

- Statement 1 – Correct:** PNGRB is a statutory body established under the **PNGRB Act, 2006**.
- Statement 2 – Incorrect:** Its mandate excludes the **production of crude oil and natural gas**.
- Statement 3 – Correct:** PNGRB can authorise entities to develop and operate specified pipeline infrastructure.
- Statement 4 – Correct:** It lays down **technical and safety standards** for downstream petroleum and natural gas activities.

3.1. KAZIRANGA, MINING AND WILDLIFE CORRIDORS: UNDERSTANDING THE ISSUE

Context

- Alleged mining activities near the **Kaziranga–Karbi Anglong** landscape have raised concerns over the protection of wildlife corridors, elephant movement routes and ecological connectivity. The issue has also highlighted the role of the **Central Empowered Committee (CEC)** and the regulation of activities within **Eco-Sensitive Zones (ESZs)**.



Why Kaziranga–Karbi Anglong is An Important Ecological Landscape?

- Kaziranga is not an isolated protected area. Its ecological security is closely linked with the **forested Karbi Anglong Hills**.
- During floods in the Brahmaputra floodplains, animals move towards the relatively elevated Karbi Anglong landscape. Thus, wildlife corridors between these areas are crucial for maintaining **habitat connectivity and seasonal animal movement**.

About Kaziranga National Park

- Location:** Located in **Assam**, mainly in the floodplains of the **Brahmaputra River**.
- One-Horned Rhinoceros:** Kaziranga is globally famous for the **Greater One-Horned Rhinoceros (*Rhinoceros unicornis*)** and is one of its most important conservation areas.
- Brahmaputra River:** The **Brahmaputra forms the northern boundary** of Kaziranga and its annual floods play an important role in maintaining the park's grassland and wetland ecosystem.
- Tiger Reserve:** Kaziranga is part of the **Kaziranga Tiger Reserve** and supports a significant population of **Royal Bengal Tigers**.
- UNESCO World Heritage Site:** Kaziranga National Park was inscribed as a **UNESCO World Heritage Site in 1985** for its exceptional biodiversity and conservation importance.

Q. With reference to the Kaziranga–Karbi Anglong landscape, consider the following statements:

- The Kaziranga–Karbi Anglong Elephant Reserve is the largest elephant reserve in Assam.
- Wildlife corridors connecting Kaziranga National Park with the Karbi Anglong Hills facilitate ecological connectivity and animal movement.
- Eco-Sensitive Zones around protected areas must necessarily have a uniform width throughout the boundary of the protected area.
- The Central Empowered Committee is associated with monitoring compliance with Supreme Court orders relating to forests and wildlife.

Which of the statements given above are correct?

- (a) 1, 2 and 4 only
- (b) 1 and 3 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Answer: (a) 1, 2 and 4 only

- **Statement 1 – Correct:** Kaziranga–Karbi Anglong Elephant Reserve (~3,270 sq km) is Assam’s largest elephant reserve.
- **Statement 2 – Correct:** Wildlife corridors connect Kaziranga with Karbi Anglong, enabling animal movement and ecological connectivity.
- **Statement 3 – Incorrect:** ESZ width is site-specific and need not be uniform.
- **Statement 4 – Correct:** The Central Empowered Committee (CEC) monitors compliance with Supreme Court directions on forests and wildlife.

3.2. TRANS-BOUNDARY HIMALAYAN DISASTER IN NEPAL

Context

Recently, a **massive flash flood along Nepal’s Bhotekoshi River** killed over a hundred people and left hundreds missing, following a **rock-and-ice landslide along the Nepal–China border** that triggered a debris-laden flood.

The disaster caused extensive damage to **villages, bridges and infrastructure**, while a possible **minor earthquake and ice avalanche** are being investigated as triggers through satellite imagery.



Location of the Flash Flood

- Mainly **Rasuwa district**, around the **Bhotekoshi River** and **Rasuwadighi** near the Nepal–China border.

About FLASH FLOODS

Flash floods are **sudden and highly localised floods** that develop within **a few hours**, generally when intense rainfall produces runoff faster than the **soil, rivers and drainage systems** can absorb or carry it.

Major Causes

- **Cloudbursts & extreme rainfall** - sudden, very high-volume runoff; **IMD defines a cloudburst as ≥ 100 mm rainfall in about 1 hour** over a small area.
- **Steep slopes & narrow valleys** - rapidly concentrate and accelerate water flow, especially in mountainous regions.
- **Rapid snow/glacier melt** - sudden increase in river discharge, particularly when combined with heavy rainfall.
- **Dam/embankment failure** - sudden release of a large volume of stored water.

- **Deforestation & urbanisation** - reduce infiltration and increase **surface runoff**.
- **Landslides & ice/rock avalanches** - can suddenly introduce huge volumes of **debris, ice and sediment into river channels**, triggering destructive **debris-laden flash floods**, as recently witnessed in the **Bhotekoshi River, Nepal**.

Why are they highly destructive?

Steep terrain + intense runoff + saturated/impermeable surfaces can cause water levels to rise extremely rapidly. **Siltation, landslides and blocked river channels** may temporarily obstruct flow and then trigger sudden downstream flooding.

Flash floods generally have **less than 6 hours between the causative rainfall/event and the peak flooding**, leaving very little time for warning and evacuation.

Geomorphological Trigger for Bhotekoshi River flash flood

- A **rock-and-ice landslide/ice avalanche** along the **Himalayan Nepal–China border** introduced large amounts of **ice, rock and sediment** into the **Bhotekoshi River system**.
- The sudden debris influx generated a **debris-laden flash flood**, significantly increasing its destructive potential downstream.

About the Bhotekoshi River

- **Origin:** Rises in **Tibet (China)** and enters **Nepal** through the Himalayas.
- **River System:** A major tributary of the **Sunkoshi River**, forming part of the **Koshi river system**.
- **Course:** Flows through the **steep, tectonically active Himalayan terrain** of central Nepal.
- **Significance:** Known for its **high hydropower potential** and susceptibility to **landslides and flash floods**.

Q. Consider the following statements:

- The **Bhotekoshi River** eventually enters India as the **Gandak River**.
- The flood was officially confirmed by Nepali authorities to be a classic **Glacial Lake Outburst Flood (GLOF)**.
- Rainfall was recorded on the Tibetan side of the border before the flood, while the Nepali side received no rain.

Which of the statements given above is/are correct?

- I and II only
- I and III only
- II and III only
- I, II and III

Answer: (b) I and III only

Explanation

Statement I is Correct: The **Bhotekoshi River**, originating in Tibet, joins Nepal's **Trishuli River** and eventually enters India as the **Gandak River**.

Statement II is Incorrect: Nepali authorities cited a suspected rock-and-ice landslide as the trigger; the disaster was not officially confirmed as a classic **GLOF**, and the exact sequence remained under verification.

Statement III is Correct: Nepali authorities noted no rainfall in the affected region before the flood, while rainfall was recorded on the Tibetan side of the border.

3.3. FEEDSTOCK PROCUREMENT: THE OPERATIONAL BACKBONE OF THE CBG ECOSYSTEM

Context

- Recently following the Union Cabinet's approval of the revamped **₹23,731-crore GOBARdhan (Galvanising Organic Bio-Agro Resources Dhan) scheme** (operational till 2036), establishing efficient feedstock supply chains has emerged as the critical operational lever to scale **India's Compressed Bio-Gas (CBG)** output.



Supply Chain & Logistical Constraints

- Aggregator-Based Model:** Connects farmers with CBG plants without requiring rigid, legally binding industrial contracts.
- Storage Hazards:** Requires specialized inventory handling to mitigate summer fire risks and monsoon moisture degradation.
- Proximity Imperative:** Sourcing must remain strictly localized to prevent high transport emissions from offsetting CBG's net carbon benefits.

Policy Targets & Infrastructure Scale

- Operational Capacity:** **1,302 functional CBG plants** registered on the **GOBARdhan** portal, with **256 plants** currently under construction.
- Mandatory Phased Blending Pipeline (CNG & Domestic PNG):**
 - FY 2026–27:** 3% CBG blending
 - FY 2027–28:** 4% CBG blending
 - Subsequent FYs:** 5% CBG blending

About Compressed Biogas (CBG)

- What is CBG?** Compressed Biogas is a **purified form of biogas**, produced through the anaerobic digestion of organic waste such as **cattle dung, agricultural residues, food waste and sewage**.
- Production Process:** Organic waste → **Anaerobic digestion** → Biogas → **Purification/upgrading** → Removal of CO₂, H₂S and moisture → **Compression** → CBG.
- Composition:** CBG primarily contains **methane (CH₄)** and has properties similar to **Compressed Natural Gas (CNG)**, allowing it to be used as a transport fuel.
- Major Government Initiative:** The **SATAT (Sustainable Alternative Towards Affordable Transportation)** initiative promotes the production and use of CBG in India by encouraging entrepreneurs to establish CBG plants.
- Environmental Benefits:** CBG helps in **waste management, reducing methane emissions from untreated organic waste, lowering dependence on fossil fuels**, and producing **bio-manure** as a by-product.

Major Feedstocks

CBG can be produced from:

- Agricultural residue
- Animal waste and cattle dung
- Food and kitchen waste
- Municipal organic waste
- Other biodegradable biomass

Q. With reference to Compressed Bio-Gas (CBG), consider the following statements:

1. CBG can be produced from biogas generated through the decomposition of organic matter in the absence of oxygen.
2. CBG can serve as an alternative to conventional fossil fuels.
3. CBG can be produced only from cattle dung.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (a) 1 and 2 only

Explanation:

- **Statement 1 — Correct:** Biogas is generated through the **anaerobic decomposition** of organic matter, i.e., decomposition in the absence of oxygen. After purification and compression, it can be converted into CBG.
- **Statement 2 — Correct:** CBG is a cleaner gaseous fuel and can serve as an alternative to conventional fossil fuels such as natural gas-based fuels.
- **Statement 3 — Incorrect:** CBG is **not restricted to cattle dung**. Agricultural residues, food waste, kitchen waste, municipal organic waste and other biodegradable biomass can also be used.

Scan to know more about our courses...



IAS 2-Year GS PCM



IAS 10-Month GS PCM



Degree + IAS



Prelims Test Series

4.1. INDIGENOUS POPCORN MAIZE HYBRID: A STEP TOWARDS AGRICULTURAL SELF-RELIANCE

Context

- Recently, India has launched its **first indigenous, non-genetically modified (non-GM), high-expansion popcorn maize hybrid** in **Eluru district, Andhra Pradesh**.

About Indigenous Popcorn Maize Hybrid

- The newly launched variety is an **indigenously developed hybrid popcorn maize** with **high expansion capacity**, an important quality for commercial popcorn production.
- It is described as **non-GM**, meaning it has not been developed through genetic modification involving direct alteration of its genetic material using modern genetic engineering techniques.
- It seeks to reduce India's dependence on **imported hybrid technology** for high-quality popcorn maize.



Why is Popcorn Maize Different?

- Popcorn is a special type of **maize (Zea mays)** whose kernels contain a suitable proportion of **hard endosperm and moisture**.
- When heated, the moisture inside the kernel turns into steam, generating pressure that causes the kernel to **explode and form popcorn**.
- Expansion volume** is an important quality parameter for commercial popcorn.

Agricultural Significance

- Self-reliance:** Reducing dependence on imported hybrid technology.
- Indigenous innovation:** Promoting Indian agricultural research and locally developed varieties.
- Value addition:** Converting maize into higher-value processed food products.
- Farmer income:** Creating opportunities for farmers linked to specialised maize markets.
- Export potential:** Developing an Indian popcorn value chain with global market potential.

Hybrid Crop vs GM Crop

Hybrid Crop	GM Crop
Produced by crossing two genetically different varieties through conventional breeding.	Produced by directly modifying DNA using genetic engineering .
Combines desirable traits already present in the parent plants.	Can introduce, modify or silence specific genes.
No direct genetic engineering is involved.	Genetic modification is central to its development.
Example: Hybrid maize, hybrid tomato .	Example: Bt cotton .

Traits may not remain stable across generations.

Introduced traits can be maintained through propagation.

About Maize

- **Scientific name:** *Zea mays*.
- Maize is an important **cereal crop** and is used as food, animal feed and industrial raw material.
- It is used in products such as **starch, corn oil, ethanol and processed foods**.
- **Popcorn is a specialised type of maize** selected for its popping characteristics.

Q. Consider the following statements regarding popcorn maize:

1. Popcorn is a specialised type of maize selected for its ability to expand when heated.
2. Hybridisation necessarily involves genetic modification of the crop using genetic engineering.
3. A crop variety can be both **hybrid and non-GM**.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b) 1 and 3 only

- **Statement 1 – Correct:** Popcorn is a specialised maize type whose kernels expand and pop when heated.
- **Statement 2 – Incorrect:** Hybridisation involves crossing genetically different parent lines; it does **not necessarily involve genetic engineering**.
- **Statement 3 – Correct:** A hybrid can be developed through conventional breeding and therefore can be **non-GM**.

HISTORY & CULTURE

5.1. MYSURU DASARA'S CEREMONIAL ELEPHANT MARCH BIDS FAREWELL

Context

- Recently, the **Karnataka Forest Department** conducted **Gajapayana** at **Veeranahosahalli**, on the outskirts of **Nagarahole Tiger Reserve**, marking the beginning of preparations for **Mysuru Dasara**; veteran tusker **Abhimanyu** was given a ceremonial farewell.



What is Mysuru Dasara?

- Historical Origins:** The tradition of elephants participating in the royal procession dates to **1610 AD** at **Srirangapatna**, with celebrations traced further to the **Vijayanagara Empire** and later continued by the **Wadiyar dynasty** of Mysuru.
- State Festival Status:** **Mysuru Dasara** is designated Karnataka's **Nadahabba** (state festival) and is celebrated over ten to eleven days, culminating in the **Jamboo Savari** on **Vijayadashami**.

Gajapayana: The March to Mysuru

- Ritual Purpose:** **Gajapayana**, literally the "elephant march," is the ceremonial journey of selected elephants from forest camps to **Mysuru**, marking the formal start of **Mysuru Dasara** preparations.
- Rituals Performed:** Before departure, the elephants undergo purification rites and are offered a traditional naivedya, with prayers directed to the forest deity and **Goddess Chamundeshwari**.
- The **2026** Gajapayana included a ceremonial farewell to tusker **Abhimanyu**, recognising his service as a member of the **Dasara jumbo squad** and the **Forest Department**.

Jamboo Savari and the Golden Howdah

- Golden Howdah:** The **Jamboo Savari** procession on Vijayadashami carries the idol of **Goddess Chamundeshwari** in a **750-kg golden howdah** borne by a specially trained lead elephant.
- Mahout & Kavadi:** Each Dasara elephant is cared for by a dedicated **mahout** (handler) and **kavadi** (assistant), who train and accompany the animal throughout the festivities.

Q. With respect to the following statements:

- Gajapayana refers to the ceremonial elephant march that marks the beginning of Mysuru Dasara preparations.
- The Golden Howdah used to carry the deity during the Jamboo Savari weighs approximately 750 kg.
- Mysuru Dasara is celebrated primarily to commemorate Lord Rama's victory over Ravana, as described in the Ramayana.

Which of them given above is/are correct?

- I and II only
- II and III only

(c) I and III only

(d) I, II and III

Answer: (a). I and II only

Explanation

Statement I is Correct: **Gajapayana**, the ceremonial journey of elephants from forest camps to **Mysuru**, formally marks the start of preparations for the **Mysuru Dasara** festivities.

Statement II is Correct: The idol of **Goddess Chamundeshwari** is carried in a **750-kg golden howdah** during the **Jamboo Savari** procession on Vijayadashami.

Statement III is Incorrect: **Mysuru Dasara** primarily commemorates **Goddess Chamundeshwari's** (a form of Durga) victory over the demon **Mahishasura**, not Lord Rama's victory over Ravana.

5.2. LEGAL PROTECTION FOR VANDE MATARAM

Context

Recently, Parliament passed the **Prevention of Insults to National Honour (Amendment) Act, 2026**, giving **Vande Mataram** the same legal protection as the **National Anthem**.

The law punishes anyone who **intentionally disrupts or prevents the singing** of the National Anthem or Vande Mataram, but **does not force anyone to sing or participate**.



About the National Honour (Amendment) Act, 2026

- **Purpose:** Gives **Vande Mataram** the same legal protection against insult and disruption as the **National Anthem**.
- **What it prohibits:** Intentionally **preventing or disrupting** the singing of the National Anthem or Vande Mataram is punishable.
- **No compulsion:** The Act **does not force citizens to sing or participate** in either song.
- **Freedom of choice:** It does not prescribe **which stanzas must be sung** or how a person must participate.

The Bijoe Emmanuel Precedent (1986)

- **Bijoe Emmanuel case (1986):** The Supreme Court held that students who **stood respectfully but did not sing the National Anthem** could not be punished for their genuine religious belief.
- **Fundamental Rights:** Forcing someone to sing can violate **Article 19(1)(a) (freedom of expression)** and **Article 25(1) (freedom of conscience)**.
- **Key principle:** **Fundamental Duties cannot override Fundamental Rights**, and respectful silence without disruption is not an offence.

Status of Vande Mataram Since 1950

- On **January 24, 1950**, at the Constituent Assembly's last sitting, **Dr. Rajendra Prasad** declared **Jana Gana Mana** the National Anthem, giving **Vande Mataram** equal status as the national song

- The Constitution contains **no reference** to a national song; its status rests entirely on this 1950 statement and subsequent convention
- In **October 1937**, the **Congress Working Committee** resolved that only the first two, secular stanzas be sung at official gatherings, excluding the later devotional verses invoking Hindu goddesses

Relevant Constitutional Provisions

- **Article 25 & Article 26**: freedom of conscience, free profession/practice/propagation of religion, and freedom to manage religious affairs without State interference
- **Article 19(1)(a)**: freedom of speech and expression, extended by courts to include the freedom to remain silent
- **Article 51A**: Fundamental Duties, including respect for the national anthem -- held subordinate to Part III rights

Q. With reference to the above, consider the following statements:

- I. The Prevention of Insults to National Honour (Amendment) Act, 2026 makes it mandatory to sing all six stanzas of Vande Mataram at official functions.
- II. The Supreme Court in *Bijoe Emmanuel v. State of Kerala* (1986) held that the Fundamental Duties under Article 51A cannot override the Fundamental Rights guaranteed under Part III.
- III. Vande Mataram was accorded equal status with Jana Gana Mana through a statement by Dr. Rajendra Prasad at the Constituent Assembly in 1950.

Which of the statements given above is/are correct?

- (a). I and II only
- (b). II and III only
- (c). I and III only
- (d). I, II and III

Answer: (b). II and III only

Explanation

Statement I is Incorrect: The 2026 Amendment does not mandate singing of the song or prescribe any particular stanzas; it penalises only the intentional prevention or disturbance of a singing already taking place.

Statement II is Correct: In *Bijoe Emmanuel* (1986), Justice O. Chinnappa Reddy's Bench held that Article 51A duties cannot be used to cut down or override the fundamental rights guaranteed under Part III of the Constitution.

Statement III is Correct: Dr. Rajendra Prasad's presidential statement at the Constituent Assembly's last sitting on January 24, 1950 gave Vande Mataram equal status with Jana Gana Mana, though it did not make it the anthem or a co-anthem.

Scan to know more about our courses...



IAS 2-Year GS PCM



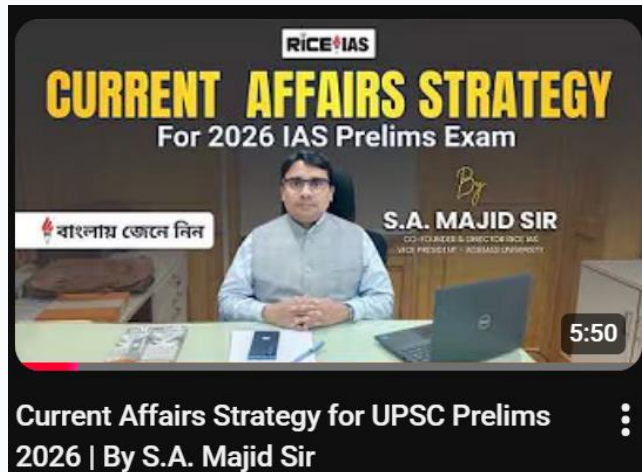
IAS 10-Month GS PCM



Degree + IAS



Prelims Test Series



[Click here to watch this video](#)