

SEPTEMBER  
2025

# KSG

An Institute For **IAS** Exam...



**CURRENT  
CONNECT**

**WITH LOADED FEATURES**

- **PRE-SHOTS**
- **PHILOSOPHY OF THE MONTH**
- **THEMATIC ESSAYS**
- **CONTEMPORARY ETHICS CASE STUDIES**

**MESSAGE FROM DR. KHAN ....****“From Knowledge to Wisdom, From Preparation to Purpose”****“True education is not about information; it is about transformation.”**

Each month, Current Connect reaches you not as a magazine of data, but as a conversation between ideas and imagination. In a time when the world changes by the hour, it is easy to chase facts and forget meaning. But civil services preparation is not a race of memory; it is a discipline of understanding. Every article you read whether on governance, economy, or ethics is an opportunity to see how thought becomes policy and how knowledge becomes service.

In these pages, you will find the pulse of India the rhythm of its Constitution, the aspirations of its economy, the conscience of its ethics, and the continuity of its civilization. When you study polity, you are not merely learning about institutions; you are studying how power and responsibility co-exist. When you explore the economy, you are not memorising numbers; you are discovering how growth must carry justice along. When you read about the environment, you are not revising ecology; you are learning how survival itself is moral reasoning. Every subject ultimately points to one truth that governance without values is administration without soul.

As aspirants and future administrators, your duty is not only to understand India's challenges but also to interpret them with empathy. The hallmark of a true civil servant is not how precisely he interprets a rule, but how wisely he applies it to human situations. Knowledge gives direction; values give depth. Together, they form the compass of ethical governance.

The young learner often asks, “How can I integrate so many subjects polity, economy, geography, ethics into one understanding?” The answer lies in cultivating connective thinking. Remember, the syllabus may be divided, but life is not. A drought in geography is an economic crisis in the budget, a social issue in migration, a governance challenge in public policy, and an ethical test of distributive justice. The civil servant must therefore think integratively, not compartmentally.

The essays, articles, and case studies in Current Connect are designed to help you cultivate that integration linking analysis with attitude, current affairs with moral reflection. Read every page not merely to “collect points” for an answer, but to collect perspective for life. The real current you must connect to is not just external news, but the internal current of reasoning, responsibility, and reflection.

In our classrooms, I often say: “The mind must be informed; the heart must be involved; and the hand must be inspired.” That triad is the foundation of holistic learning. The UPSC examination is not simply a test of intellect; it is a test of character disguised as one of knowledge. The questions may ask you about fiscal deficits or federalism, but the real evaluation is of your judgment, empathy, and composure under moral pressure.

As you read this edition moving from polity to economy, ethics to society, environment to international affairs see how every sphere mirrors the same larger idea: India's constant search for balance. Between rights and duties, between development and dignity, between diversity and unity this balance defines both our Republic and your preparation.

The purpose of Current Connect is to remind you that preparation is not only about becoming a topper; it is about becoming a torchbearer someone whose clarity of thought can illuminate governance with humanity. Use each article not as information to memorise, but as insight to internalise. Reflect on the questions, debate the dilemmas, and let learning become dialogue.

As you turn these pages, remember: the civil servant's journey is a moral journey from self-interest to service, from competition to compassion, from ambition to responsibility.

“The brightest lamp of Diwali may fade by dawn; but the light of an ethical mind shines through every policy, every decision, every act of governance.”

May this month's Current Connect kindle that light within you to think deeply, to act rightly, and to serve selflessly. For knowledge that does not serve people is noise; and service without knowledge is sentiment. But when knowledge meets empathy, India's progress becomes poetry.

Let that poetry be written through your preparation line by line, choice by choice, act by act.

**– Dr. A. R. Khan**  
**Director, KSG IAS**

## Contents

### INDIAN POLITY .....4

- Pendency in the Supreme Court ..... 4
- C.P. Radhakrishnan is India's New Vice President: Constitutional Implications & Contemporary Significance ..... 5
- Ladakh's Sixth Schedule Demand: Autonomy, Identity and the Limits of India's Federal Design ..... 6
- 28<sup>th</sup> National Conference on e-Governance 2025 ..... 7
- Gram Panchayats in the Spotlight: National e-Governance Awards 2025 ..... 8
- 29<sup>th</sup> Conference of Central and State Statistical Organisations (CoCSSO) ..... 10
- Bihar's Special Intensive Revision and the Supreme Court: ..... 11
- Immigration and Foreigners Act, 2025 ..... 12
- Supreme Court Gets Two New Judges: Alok Aradhe and Vipul Pancholi ..... 13
- Online Gaming Act, 2025: India's First Comprehensive Law to Curb Real-Money Online Gaming ..... 14

### ECONOMY .....16

- GST Rate Cuts to Spur Demand and Ease Retail Prices ..... 16
- Fitch Raises India's FY26 Growth Forecast after Strong Q2 Data ..... 17
- RBI Bulletin Highlights Impact of Tax Reforms on Retail Prices and Consumption ..... 17
- India's Manufacturing and Export Performance: Policy-Driven Momentum ..... 18
- India's Digital Economy & Electronics / Mobile Growth ..... 19
- 11 Years of Make in India: Building Self-Reliance and Industrial Capacity ..... 20
- Three Years of National Logistics Policy & LEADS Index 2025 Update ..... 21
- India-Israel Bilateral Investment Agreement (BIA), 2025 ..... 22
- National Multidimensional Poverty Index (MPI) Workshop, 2025 ..... 22
- World Food India 2025: ₹1.02 Lakh Crore Investment Commitments ..... 23
- National Conclave 2025 for Ex-Servicemen Welfare ..... 24
- PM's Call for Self-Reliance at UP International Trade Show ..... 25

### SOCIAL ISSUES .....26

- National Conference on Transgender Rights: "Revamping Spaces, Reclaiming Voices" ..... 26
- "Children in India 2025" Report Released ..... 26
- Swasth Nari Sashakt Parivar Abhiyan: Nationwide Women's Health Drive ..... 27

- World Suicide Prevention Day 2025: India's Evolving Mental-Health Strategy ..... 28
- "Vridha Mitra" Toolkit and Shrinkhala ..... 29
- Talk Series: Strengthening Senior Citizen Welfare ..... 29

### AGRICULTURE .....30

- India-Australia Mutual Recognition Arrangement (MRA) on Organic Products ..... 30
- National Agriculture Conference – Rabi Abhiyan 2025 ..... 31
- GST Rate Cut on Agricultural Machinery: Boosting Mechanisation and Farmer Savings ..... 32
- National Workshop on Agricultural Disaster Resilience – September 2025 ..... 33
- PMFME Credit Push Announced at World Food India 2025 ..... 34
- Expansion of Food-Processing Infrastructure and Cold Chain Projects ..... 35
- Expansion of Food-Processing Infrastructure and Cold Chain Projects ..... 36
- Investment Push via FDI and PLI Incentives Announced at World Food India 2025 ..... 37
- Digital & Technology Push in Agriculture: AI, Drones and E-Commerce Highlighted at World Food India 2025 ..... 38

### INTERNATIONAL RELATIONS .....39

- India at the 25<sup>th</sup> SCO Summit, Tianjin: Strategic Stakes and Outcomes ..... 39
- India-UAE High Level Joint Task Force on Investments (HLJTFI), 2025 ..... 40
- India-Pakistan Relations: Sports, Diplomacy & the Asia Cup Trophy Standoff ..... 41
- Wassenaar Arrangement: Export Controls and Emerging Tech Controversies ..... 42
- India's Leadership in the Global South ..... 43
- United Nations at 80 Years: Reform or Relevance Crisis? ..... 43
- Revocation of Sanctions Waiver for Chabahar Port: Implications for India's Regional Strategy ..... 44
- Saudi-Pakistan Mutual Defence Pact & India's Strategic Concerns ..... 45
- Nepal's Political Convulsions and Lessons for India: Rethinking South Asian Integration ..... 46
- India-Mauritius Relations: Varanasi Visit Highlights Strategic Trust ..... 47

### ENVIRONMENT .....48

- Environmental Accounting on Forest – 2025 ..... 48
- CPCB's 51st Foundation Day: Strengthening Environmental Regulation ..... 49
- World Ozone Day 2025: From Science to Global Action ..... 50

▪ Swachhata Hi Seva 2025: Clean Green Utsav Across Institutions.....	51
▪ Coal Ministry's Preparations for Special Campaign 5.051	
▪ Cold Desert Biosphere Reserve Joins UNESCO World Network of Biosphere Reserves .....	52
▪ Two New Ramsar Sites in Bihar: India's Wetlands Count Rises to 93 .....	53
▪ Ramsar Sites in India — Key Reference List .....	54
▪ Green Finance and Industry Accountability in India's Environmental Governance.....	55
▪ Eco-Friendly & Zero Waste Initiatives by FCI and Institutions.....	56
<b>SCIENCE &amp; TECHNOLOGY .....</b>	<b>57</b>
▪ India's Semiconductor Push & Tech Sovereignty (SEMICON India 2025).....	57
▪ Chief Science Advisers' Roundtable (CSAR) 2025: Charting India's Deep-Tech Future .....	58
▪ Green Hydrogen Pilots: India's Push Towards Energy Transition .....	58
▪ Gaganyaan Mission Update: Human-Rated Systems Ready for Launch.....	59
▪ India's Roadmap for Fusion Power .....	60
▪ India's Quest for Technological Sovereignty .....	61
▪ Strengthening India's Nuclear Supply Chain .....	61
▪ Road to a Self-Reliant Semiconductor Ecosystem .....	62

▪ India: A Global Bioeconomy Powerhouse .....	63
<b>ART &amp; CULTURE .....</b>	<b>64</b>
▪ Ramnagar Ramlila: Varanasi's Living Epic.....	64
▪ Durga Puja of Kolkata: Intangible Cultural Heritage of Humanity .....	65
▪ Rani Rashmoni: A Pioneer of Social & Cultural Leadership.....	66
▪ Pandit Deendayal Upadhyaya: Philosophy of Integral Humanism.....	66
▪ Engineers' Day: Remembering Sir M. Visvesvaraya.....	67
▪ Bhupen Hazarika Centenary Celebrations: Music as a Bridge of Cultures.....	68
▪ Diamond Jubilee of the Battle of Phillora (1965 War). .....	68
▪ Operation Polo: Integration of Hyderabad into the Indian Union.....	69
<b>GOVERNMENT SCHEMES.....</b>	<b>70</b>
<b>PHILOSOPHY OF THE MONTH .....</b>	<b>72</b>
<b>CASE STUDY OF THE MONTH .....</b>	<b>74</b>
<b>ESSAYS .....</b>	<b>74</b>
▪ "Durga Puja to Ramlila: Living Traditions in a Changing India" .....	74
<b>SPECIES IN NEWS .....</b>	<b>78</b>
<b>PLACES IN THE NEWS .....</b>	<b>81</b>



## INDIAN POLITY

### Pendency in the Supreme Court

One of the enduring challenges in India's judicial system is justice delayed - the backlog or pendency of cases. Even the Supreme Court is not immune. Over recent months, the top court has seen its pending docket climb to record levels, raising serious concerns about access to timely justice, institutional capacity, and judicial legitimacy.

As of mid-2025, the Supreme Court had 88,417 pending cases (across civil and criminal), its highest ever recorded pendency. According to the Supreme Court's National Judicial Data Grid (NJDG), it had 88,251 pending cases as in the latest published monthly snapshot, with 7,078 fresh cases instituted in the previous month and 5,683 disposed (i.e., a disposal rate of 80.3 %).

Pendency is not merely a statistic it reflects systemic stress, procedural inefficiencies, and the risk that justice becomes a privilege rather than a right.

#### Trends & Numbers: What the Data Shows

Indicator	Value / Trend
Pending cases (Supreme Court)	88,417 (record high mid-2025)
Fresh cases instituted in a month	7,078
Cases disposed in same month	5,683 (80.3 % of instituted)
Pendency earlier in 2025	Started year 82,445 in January; fell somewhat until May (81,734) but again climbed to 85,204 in June.
Proportion of total judicial pendency	Even though Supreme Court pendency is a small share relative to lower courts, its impact is high in constitutional adjudication and precedent setting

#### Observations & insights:

- The pendency had been somewhat stable in early 2025, but mid-year saw a sharp rise.
- The disposal rate is well below 100 %, meaning fresh filings outpace disposals, contributing to the backlog.
- The Supreme Court's full strength is 34 judges, and despite operating at that strength (in recent times), pendency has increased, underlining that the issue is not solely about numerical strength.

#### Why Does Pendency Build Up in the Supreme Court?

1. **Case Influx Outweighing Disposals:** The rate at which new petitions and appeals come in often exceeds what the court can dispose of. Over time, this differential accumulates into a backlog.
2. **Complex & Multi-party Matters:** Many matters in the Supreme Court involve constitutional or large commercial issues, multiple parties, interlocutory

appeals, and procedural complexities that slow down adjudication.

3. **Adjournments & Procedural Delays:** Frequent adjournments, overlengthy pleadings, delays in submissions, and procedural inefficiencies (e.g. frequent interlocutory applications) prolong resolution.
4. **Vacancies and Resource Constraints:** While the Supreme Court now operates at full strength, historically, vacancies or delays in appointment have compounded delays. Also, non-judicial staff, support infrastructure, and court administration constraints matter.
5. **Judicial Spillover from Lower Courts:** Some cases reach the Supreme Court because they could not be resolved efficiently at lower levels. Inefficiencies at High Courts and lower courts thereby translate upward.
6. **Judicial Philosophy & Collegium Deliberations:** Some petitions require referral to Constitution Benches, which may be delayed. Prioritization and internal case allocation decisions also influence how quickly they move.
7. **Executive & Legislative Delay in Reforms:** Needed reforms (like better procedural rules, digitisation, alternate dispute resolution) are slow to roll out. Lack of sustained administrative impetus can exacerbate the problem.

#### Impacts & Consequences

- **Access to Justice Undermined:** For litigants, extended waiting means increased costs, uncertainty, and sometimes the outcome becoming moot or irrelevant to present circumstances.
- **Litigation as a Strategy:** A clogged Supreme Court can incentivize procedural obstruction or delay tactics by well-resourced litigants.
- **Weakened Rule of Law & Confidence:** When justice is delayed, public confidence in the judiciary's capacity can erode.
- **Stagnation of Legal Precedents:** Slower adjudication of landmark constitutional issues or conflicting High Court decisions hampers clarity in law.
- **Burden on Lower Courts:** A clogged apex court can create logjams as lower courts await pronouncements, which slows the overall system.

#### Reforms & Remedies: What Can Be Done

Here are some pathways (already under discussion or partially implemented) to reduce pendency:

1. **Case Triage & Prioritisation:** Adopt stricter criteria for listing and triage matters: e.g., filter out frivolous or repetitive petitions; fast-track cases involving fundamental rights or urgent matters.
2. **Time-Bound Procedures for Submissions:** Impose caps on oral arguments, written replies, and limit the number of adjournments.

3. **Alternative Dispute Resolution (ADR) / Mediation:** Encourage mediation, conciliation, or panel arbitration for appropriate matters before resorting to full court hearing.
4. **Constitution Bench Reform:** Regular calibration of which cases need Constitution Bench treatment; more efficient rotations so that such benches are not underutilised.
5. **Capacity & Infrastructure Strengthening:** Boost court support staff, invest in better case-management software, digitisation, e-filing, and automated cause listing systems.
6. **"Authorised Officer" Rule / Screening Committees:** Some suggest prior screening by judges or committees before full court listing, to weed out non-meritorious or stale petitions.
7. **Increased Judicial Strength (if needed):** Though the Supreme Court is at full strength, other levels of judiciary (High Courts and district courts) need further augmentation to reduce spillover.
8. **Performance Metrics & Accountability:** Track disposal rates, pendency reduction, age-wiseness of pendency; set targets and incentivise performance.
9. **Legislative & Procedural Reform:** Update procedural statutes (CPC, etc.) so they reduce delay (e.g. stricter timelines, limitation on interlocutory appeals).
10. **Promote Early Settlement / Withdrawal:** Encourage withdrawal or settlement where possible provide incentives for parties to settle instead of going all the way to the Supreme Court.

#### Challenges & Caveats in Reform

- Too rigid procedural caps may compromise adequate hearing, especially in complex matters.
- Screening mechanisms may risk gatekeeping dissenting voices or novel legal questions prematurely.
- Institutional resistance and culture of "adjournment as norm" need to be changed.
- Reform at the Supreme Court level alone will not suffice systemic change across all levels (High Courts, district courts) is crucial because backlogs are interconnected.

#### Ethics / Values Angle

**From an ethics perspective, the pendency crisis raises strong concerns:**

- Right to timely justice is part of the broader right to life and dignity. Constant delay violates the ethical duty of the State and judiciary to deliver justice.
- The principle of judicial stewardship requires judges and administrators to use judicial time efficiently, avoid waste, and ensure that public resources invested into the judicial system yield value.
- Equity concerns: Marginalised litigants, poor persons, and those relying on public interest litigation have fewer means to wait indefinitely, so pendency disproportionately affects them.

- Professional responsibility of lawyers: Avoiding dilatory tactics, abiding by timelines, meaningful legal drafting rather than prolix arguments helps the system.

#### UPSC Add-ons

##### Prelims-style MCQ

- Q. As per the latest NJDG data, which of the following is closest to the number of pending cases in the Supreme Court (2025)?
- |            |              |
|------------|--------------|
| (a) 60,000 | (b) 75,000   |
| (c) 88,000 | (d) 1,20,000 |

##### Mains Question

- Q. "Pendency in the Supreme Court is not merely a statistical problem but a test of the judiciary's moral legitimacy." Critically analyse, with reference to causes and reforms.

### C.P. Radhakrishnan is India's New Vice President: Constitutional Implications & Contemporary Significance

- Shri C.P. Radhakrishnan was sworn in as the 15th Vice President of India.
- He won the Vice-Presidential election held on 9 September 2025, defeating B. Sudershan Reddy by 152 votes.
- In the polling, out of 781 electors, 767 voted; 752 votes were valid and 15 invalid.
- Radhakrishnan formally took oath before President Droupadi Murmu in a ceremony attended by high dignitaries, including the Prime Minister.

This election was necessitated by the resignation of former Vice President Jagdeep Dhankhar, who stepped down for health reasons prior to the completion of his term.

#### Constitutional & Procedural Framework

##### Constitutional Provisions

- Articles 63–71 of the Indian Constitution govern the office of Vice President.
- Article 66 lays down the election procedure.
- Article 65 empowers the Vice President to act as President in case of vacancy.
- Article 68(2) mandates that an election to fill a vacancy (due to resignation, removal, death, or otherwise) be held "as soon as possible."
- The Vice President also serves ex officio as the Chairperson of the Rajya Sabha.

##### Electoral College & Method

- The Electoral College comprises all elected and nominated members of both Houses of Parliament.
- State Legislatures / MLAs do not participate in the Vice-Presidential election.
- Voting is by proportional representation via the Single Transferable Vote (STV), with secret ballots.
- Each MP's vote has equal weight (unlike Presidential elections where votes have differential weight).

**Election Process in 2025**

- The Election Commission issued the notification, set nomination schedules, scrutiny/withdrawal windows, and polling & counting arrangements.
- Polling ran from 10 AM to 5 PM on 9 September in the designated room in Parliament House.
- Counting was done later that day, and results declared by the Returning Officer (Rajya Sabha Secretary General).

**Profile of C.P. Radhakrishnan & Political Context**

- **Full name:** Chandrapuram Ponnusamy Radhakrishnan.
- He has served as Governor of Maharashtra (since 2024), and earlier held additional charges in Jharkhand, Telangana, and Puducherry.
- He was the NDA's candidate in the vice-presidential contest; his opponent was B. Sudershan Reddy, a former Supreme Court judge.
- He secured 452 valid votes, while Reddy got 300 votes.
- In his victory remarks, Radhakrishnan said that the election was viewed by many as an "ideological fight," and he saw it as a vindication of nationalistic ideas expressed through voting patterns.

His election strengthens the NDA's influence in Parliament and ensures continuity in constitutional leadership.

**What This Means & Key Issues****Role & Significance**

- As Chairperson of Rajya Sabha, Radhakrishnan will preside over upper house proceedings, handle points of order, and have a role in maintaining legislative discipline.
- If the President's office becomes vacant, he will act as President until a new one is elected.
- Though largely ceremonial, the office has symbolic value, especially within parliamentary dynamics.

**Key Questions & Challenges**

- **Impartiality:** As political backgrounds are strong in many Vice Presidents, maintaining neutrality especially in Rajya Sabha proceedings will be closely watched.
- **Centre-State balance:** The Vice President's statements or loyalty perception may impact intergovernmental relations.
- **Legislative backlog & reforms:** The Chairperson's role in managing legislative workflow, calling sessions, and referring bills to committees becomes critical in times of heavy legislative agenda.

**Suggested Reforms & Vigilance**

- **Guidelines for neutrality:** A code of ethics or conduct for the Vice President/Chairperson role to ensure non-partisanship.
- **Greater transparency in election process:** Though secret ballot is constitutionally required, more public disclosure of procedural fairness helps legitimacy.

- **Strengthening Rajya Sabha functioning:** Better procedural rules, time management, and digital support systems to make the Chair's role effective.
- **Role in constitutional crises:** Clarifying the interplay of Vice President and President in emergencies or vacancies in constitutional offices.

**Ethics & Constitutional Lens**

The Vice President must embody the constitutional commitment to balance—serving as both an institutional overseer of the legislature and a prospective head in emergencies.

From the perspective of constitutional morality, the office demands dignity, restraint, impartiality, and respect for institutional boundaries.

**UPSC Add-Ons****Prelims MCQ**

- Q. Which of the following statements is correct for a Vice-Presidential election?
- Only elected MPs vote
  - Only nominated MPs vote
  - Both elected & nominated MPs vote
  - MLAs also vote

(Answer: C)

**Mains Question**

- Q. Compare and contrast the Vice President of India and Vice President of United States of America.

### Ladakh's Sixth Schedule Demand: Autonomy, Identity and the Limits of India's Federal Design

- Massive protests erupted across Leh and Kargil demanding Sixth Schedule status for Ladakh. The Leh Apex Body (LAB) and Kargil Democratic Alliance (KDA) jointly led rallies, calling for:
  - Constitutional safeguards under the Sixth Schedule,
  - A full-fledged Statehood, and
  - Immediate elections to the Ladakh Autonomous Hill Development Councils (LAHDCs).
- Protesters argue that Union Territory (UT) status since 5 August 2019 when Jammu & Kashmir was bifurcated has left Ladakh without meaningful legislative or land protections.

**Background**

- Pre-2019: Ladakh was part of the erstwhile State of Jammu & Kashmir, enjoying limited autonomy through the J&K Constitution and Article 370.
- Post-2019: With the J&K Reorganisation Act, 2019, Ladakh became a Union Territory without a legislature, directly administered by the Lieutenant Governor and the Union Home Ministry.

## C.C. SEPTEMBER '25

- While two Hill Development Councils (Leh and Kargil) remain, their powers are limited and subordinate to the UT administration.

**Constitutional Context: The Sixth Schedule**

- Sixth Schedule (Articles 244(2) & 275(1)) provides autonomous district councils in Assam, Meghalaya, Mizoram, and Tripura.
- It enables self-governance through:
  - Legislative powers on land, forest, customs, and social practices,
  - Control over resources, and
  - Separate judicial structures for customary laws.
- Extension beyond the North-East requires a constitutional amendment under Article 368.

**Core Demands of the Protesters**

1. **Protection of Land & Jobs**– Fear that industrial projects and outside settlement will dilute Ladakh's fragile ecology and cultural identity.
2. **Political Representation**– Absence of an elected legislative assembly denies Ladakhis the autonomy that even other UTs (e.g. Delhi, Puducherry) enjoy.
3. **Cultural & Tribal Safeguards**– Ladakh is home to a majority Scheduled Tribe population (~79 %) including Buddhists and Shia Muslims, comparable to North-Eastern Sixth Schedule areas.

**Union Government's Position**

- The Ministry of Home Affairs (MHA) has held multiple rounds of dialogue with the LAB-KDA leadership since 2021.
- **The government cites:**
  - The presence of existing Hill Councils,
  - The strategic sensitivity of Ladakh as a border region with China and Pakistan, and
  - The need for a balanced development model.
- In February 2024, the MHA promised a "high-powered committee" to explore safeguards, but no final announcement has been made.

**Key Issues and Debates**

- **Federalism vs. National Security:** Ladakh's strategic location makes the Centre wary of ceding too much legislative autonomy.
- **Precedent for Other UTs:** Granting Sixth Schedule rights could trigger similar demands in Andaman & Nicobar or Lakshadweep.
- **Environmental Governance:** Sixth Schedule control over forests and land could strengthen climate-sensitive management in the ecologically fragile Himalayas.

**Possible Pathways**

1. **Enhanced Hill Council Powers**– Amend the Ladakh Autonomous Hill Development Council Act to give near-

Sixth Schedule authority without formal constitutional change.

2. **Special Article 371-like Provision**– A tailor-made constitutional clause (similar to Nagaland/ Mizoram safeguards) to protect land, culture, and employment.
3. **Gradual Move to Statehood**– Promise of an elected Assembly with control over specified subjects, while defence and external affairs remain with the Centre.

**Ethical & Governance Perspective**

The protests highlight the tension between democratic participatory rights and national security concerns.

From an ethics lens, consultation and consent of indigenous populations are essential to the legitimacy of governance, echoing the spirit of constitutional morality and cooperative federalism.

**UPSC Add-Ons****Prelims MCQ**

Q. Which of the following statements about the Sixth Schedule is/are correct?

1. It applies only to States with significant tribal population in the North-East.
2. It allows creation of Autonomous District Councils with legislative powers on land and forest management.
3. Its extension to Ladakh would require a constitutional amendment under Article 368.

Select the correct code:

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

(Answer: D)

**Mains Question**

Q. "Examine the constitutional feasibility and governance implications of extending Sixth Schedule status to Ladakh. How can India balance strategic security with the democratic aspirations of the region's tribal population?"

**28<sup>th</sup> National Conference on e-Governance 2025****Digital Statecraft and the Future of India's Civil Service**

Over 1,500 administrators, technologists, and policy thinkers gathered in Visakhapatnam on 22–23 September 2025, the focus was far more profound than new apps or dashboards. The 28th National Conference on e-Governance (NCeG) became a platform to debate how India's bureaucratic architecture itself must evolve for a billion-plus citizens in a digital republic. Organised jointly by the Department of Administrative Reforms and Public Grievances (DARPG) and the Ministry of Electronics & IT (MeitY), with the Andhra Pradesh government as host, the conference carried the theme "Viksit Bharat: Civil Service and Digital Transformation."



### Historical and Constitutional Context

India's digital-governance journey stretches from the National Informatics Centre network of the 1980s, through the National e-Governance Plan (2006) and Digital India programme (2015), to the present era of AI-driven public services.

#### The constitutional canvas is equally important:

- Articles 73 and 77 empower the Union to frame and execute policies across ministries.
- Article 263 provides for inter-State coordination—a spirit that e-governance demands when platforms must interoperate across jurisdictions.
- Fundamental rights such as Article 14 (equality) and Article 21 (right to life and speedy service delivery) gain real meaning when government services are transparent, timely, and inclusive.

### Key Outcomes of the 2025 Conference

- Visakhapatnam Declaration 2025:** Delegates unanimously adopted a roadmap for embedding AI, blockchain, and predictive analytics into governance while emphasising privacy, security, and accessibility.
- National e-Governance Awards 2025:** Nineteen awards recognised innovation across the Centre, States, Districts and—for the first time—Gram Panchayats, highlighting how the 73rd Amendment's vision of local self-government is being digitally empowered.
- Focus Sessions:** Six plenary and six breakout sessions addressed:
  - AI ethics and algorithmic accountability,
  - Cybersecurity and critical-infrastructure protection,
  - Agriculture digital stacks for climate-smart farming,
  - Citizen-centric grievance redress through CPGRAMS 2.0,
  - Legal safeguards for data under the Digital Personal Data Protection Act (2023) Rules.

### Governance Significance

- Cooperative Federalism in Technology – The Centre and States showcased and learned from each other's platforms, demonstrating practical federalism in action.
- Civil-Service Reform – Mission Karmayogi's competency-based training, paperless offices, and performance dashboards were presented as the backbone of a "tech-ready bureaucracy."
- Citizen Empowerment – Seamless service delivery, from land records to pensions, strengthens the citizen's right to good governance under Article 21.

### Challenges and Concerns

- Digital Divide – Broadband gaps, especially in tribal and hill districts, risk excluding the very citizens governance seeks to empower.

- Privacy & Security – As data sets grow, so do vulnerabilities. The conference repeatedly stressed strict adherence to the DPDP Act and global best practices.
- Change Management – Hardware can be procured quickly, but bureaucratic culture—rules, incentives, accountability—needs steady reform to absorb digital processes.

### Way Forward

1. Interoperable Digital Public Infrastructure (DPI): Build common standards so State innovations can scale nationally.
2. AI Governance Framework: Establish ethics guidelines and independent audits for algorithmic decision-making.
3. Capacity Building: Continuous training under Mission Karmayogi for officers at every level.
4. Equity Lens: Mandate multilingual, offline-compatible services to bridge the digital divide.

### Ethical Perspective

Justice V.R. Krishna Iyer's dictum—"procedure is the soul of justice"—resonates here: technology must be a means to dignity, not a new barrier. Constitutional morality requires that efficiency never trump inclusivity.

### UPSC Add Ons

#### Prelims MCQ

- Q. The theme of NCeG 2025 was:
- (a) Digital India @10
  - (b) Viksit Bharat: Civil Service and Digital Transformation
  - (c) Technology for All
  - (d) AI for Governance

**Answer: (B)**

#### Mains Question

- Q. "Discuss how the Visakhapatnam Declaration 2025 seeks to transform Indian bureaucracy. Evaluate the constitutional safeguards needed to ensure privacy and inclusion in a rapidly digitising governance framework."

### Gram Panchayats in the Spotlight: National e-Governance Awards 2025

The quiet revolution in India's villages became headline news on 23 September 2025, when the National e-Governance Awards 2025 announced at the 28th National Conference on e-Governance in Visakhapatnam honoured Gram Panchayats from eight States for outstanding digital initiatives. These awards mark a significant milestone: the first time the country's highest e-governance recognition formally celebrated village-level governance as the vanguard of India's digital transformation.

### Historical & Constitutional Context

- 73rd Constitutional Amendment (1992) created a three-tier Panchayati Raj system, mandating local bodies to

prepare plans for economic development and social justice (Eleventh Schedule).

- Over the past three decades, successive programmes—e-Panchayat Mission Mode Project (2009), Digital India (2015), and SVAMITVA (2020)—have gradually built the digital spine that today powers service delivery at the village level.
- These awards signal the fruition of that journey: technology is no longer confined to state capitals or district headquarters, but is embedded in the daily functioning of local self-government.



### Award-Winning Innovations

PIB and conference proceedings highlighted a diverse range of projects:

- **Rajasthan** – “Jan Mitra Panchayat” mobile app for real-time grievance redress and DBT verification.
- **Kerala** – AI-driven “Swaraj Audit Dashboard” for continuous social-audit updates on MGNREGA works.
- **Odisha** – Drone-based crop-damage assessment integrated with insurance payouts.
- **Maharashtra** – Blockchain-enabled land-record registry ensuring tamper-proof transactions.
- **North-East (Meghalaya, Assam)** – Multilingual portals for issuing community certificates and environmental clearances.

These initiatives cut across themes of service delivery, environmental management, fiscal transparency, and citizen engagement.

### Governance Significance

1. **Deepening of Democracy:** The awards demonstrate that constitutional devolution is acquiring digital depth, allowing Gram Sabhas to monitor projects, budgets, and welfare outcomes.
2. **Transparency & Accountability:** Digital public dashboards reduce the discretionary space for local elites, aligning with Article 14 (equality before law) and the spirit of the Right to Information Act (2005).
3. **Efficiency & Inclusion:** Instant certificate generation and real-time DBT verification shorten service timelines,

empowering women, elderly citizens, and migrant workers who often face procedural delays.

4. **Replication & Scalability:** By spotlighting best practices, the awards provide templates for other Panchayats and States—key to cooperative federalism in the digital era.

### Persistent Challenges

- **Infrastructure Gaps** – Patchy broadband and unreliable power in remote and tribal regions threaten continuity.
- **Capacity Deficits** – Many Panchayats struggle to recruit and retain trained technical staff; cyber-security skills are particularly scarce.
- **Digital Exclusion** – Low digital literacy among elderly populations and marginalised groups demands multilingual, offline-friendly interfaces and assisted service centres.
- **Financial Sustainability** – Maintenance of hardware, software, and secure servers requires steady funds beyond one-time project grants.

### Way Forward

- **Institutional Support** – Dedicated “Digital Governance Cells” at the district level to mentor and audit Gram Panchayats.
- **Data Protection Compliance** – Full alignment with the **Digital Personal Data Protection Act 2023 Rules (2025)** to secure citizen information.
- **Participatory Design** – Co-creation of apps and dashboards with local user groups to ensure usability and trust.
- **Outcome-Based Grants** – Finance Commissions could reward Panchayats that demonstrate measurable service improvements via digital platforms.

### Ethical Perspective

The Gandhian ideal of **Gram Swaraj** finds new expression in the digital age. Ethical governance demands that technology serve as an equaliser, not a new barrier, and that the poorest citizens can access services without dependence on intermediaries.

### UPSC Add-Ons

- Q. Which constitutional amendment gave constitutional status to Panchayati Raj institutions and forms the basis for Gram Panchayat e-governance initiatives?
- (a) 42<sup>nd</sup> Amendment
  - (b) 61<sup>st</sup> Amendment
  - (c) 73<sup>rd</sup> Amendment
  - (d) 74<sup>th</sup> Amendment

**Answer: (C)**

### Mains Question

- Q. “Critically evaluate how digital innovations at the Gram Panchayat level strengthen participatory democracy and service delivery. What safeguards are needed to prevent exclusion and protect privacy?”

## 29<sup>th</sup> Conference of Central and State Statistical Organisations (CoCSSO)

**Data is the Bedrock of Local Democracy** India's pledge to make governance truly evidence-based gained fresh momentum when the 29<sup>th</sup> Conference of Central and State Statistical Organisations (CoCSSO) concluded in Chandigarh on 26 September 2025. Hosted by the Ministry of Statistics and Programme Implementation (MoSPI), the two-day meet carried the theme "Strengthening Local Level Governance" and convened more than 350 delegates ranging from statisticians and economists to Panchayat leaders, state officials, and international experts from UNDP, FAO and the World Bank.

The deliberations underscored a central idea: robust, credible, and granular data is the lifeblood of participatory democracy and effective public policy.

### Historical and Constitutional Context

The Indian Republic recognised the importance of statistics from its earliest days. The Central Statistical Organisation (CSO) was created in 1951 to provide a uniform statistical system for national planning, followed by the National Sample Survey Office (NSSO) and later the National Statistical Commission.

The Constitution reinforces the role of data through Parts IX and IX-A (Articles 243 to 243Z), which entrust Panchayats and Municipalities with preparing plans for economic development and social justice. Without reliable, disaggregated statistics at the village and ward level, these constitutional responsibilities remain aspirational. Accurate local statistics are equally vital for the functioning of the Finance Commissions, which recommend tax devolution and grants to states and local bodies.

### Key Outcomes of the 2025 Conference

The Chandigarh meet produced a series of concrete decisions designed to bring Indian statistics closer to citizens and local governments.

- **National Framework for Local Area Statistics (NFLAS):** Delegates adopted a framework to generate district, block, and even Gram Panchayat-level data in near real time, allowing policy responses to be tailored to micro-regional realities.
- **Integration with National Data & Analytics Platform (NDAP):** It was resolved that Gram Panchayat and municipal data portals will be linked with the NDAP to ensure a seamless flow of information on health, education, land use, environment, and finances from the grassroots to the Union government.
- **Local Data Cadre:** States will create a dedicated cadre of statistical professionals at the district and sub-district level, supported by MoSPI training institutes and financed partly through upcoming Finance Commission grants.

- **Community Participation and Social Audits:** The conference emphasised participatory data collection—using Gram Sabhas, women's self-help groups, and youth volunteers—to enhance trust, improve accuracy, and make citizens active stakeholders in governance.
- **Global Best Practices:** International partners shared models on open-data governance, geospatial mapping, and privacy-by-design frameworks, offering pathways to harmonise Indian statistics with global standards.

### Governance and Policy Significance

Reliable local statistics are indispensable for fiscal federalism. Finance Commissions depend on them to recommend fair and formula-based tax devolution and to calibrate performance grants for Panchayats and Urban Local Bodies.

**For welfare programmes** - Jal Jeevan Mission, PM Awas Yojana, PM-POSHAN, climate-adaptation projects, and urban transport schemes granular data ensures precise targeting, effective monitoring, and efficient expenditure.

Accurate statistics also strengthen citizen accountability. With publicly accessible, near-real-time data, Gram Sabhas and municipal councils can audit government claims, reinforcing the citizen's fundamental Right to Information (Article 19(1)(a)) and the democratic principle of informed consent.

### Challenges Highlighted

**Despite progress, delegates identified persistent weaknesses:**

- **Capacity Disparities:** Several State Statistical Bureaux face staff shortages, outdated survey techniques, and insufficient funds for regular data collection.
- **Quality and Timeliness:** Delays in household surveys and inconsistencies in methodology reduce the credibility of local statistics.
- **Privacy and Data Protection:** With ever-finer data comes heightened risk of misuse. The conference recommended strict adherence to the Digital Personal Data Protection Act, 2023 Rules (2025) and called for independent privacy audits.
- **Funding Continuity:** Statistical operations require steady investment, not sporadic project grants, to maintain credibility and institutional memory.

### Pathways for Reform

**The CoCSSO resolution proposed a three-tier strategy to transform India's statistical architecture:**

- **Institutional Strengthening:** Expand the National Statistical System to include well-staffed District Statistical Cells, backed by dedicated budgets and a clear career track for local statisticians.
- **Technological Upgradation:** Deploy AI-assisted data cleaning, GIS mapping, and mobile survey apps to reduce time lags and improve accuracy.

- **Open-Data Protocols with Privacy Safeguards:** Establish transparent data-sharing standards while ensuring anonymisation and encryption to protect individual privacy.

### Ethical Perspective

**Statistics are not merely numbers;** they are instruments of justice. Decisions on resource allocation, poverty alleviation, or disaster relief must be grounded in data that communities trust. Ethical data practices—voluntary participation, informed consent, anonymisation—are vital to prevent surveillance or misuse. In the spirit of constitutional morality, citizens must remain the ultimate owners of the data that governs their lives.

### UPSC Add-ons

- Q. With reference to the 29th Conference of Central and State Statistical Organisations (CoCSSO) held in September 2025, which of the following statement is incorrect?
- (a) It adopted a National Framework for Local Area Statistics to generate district and sub-district level data in near real time.
  - (b) It recommended creation of a Local Data Cadre under State Statistical Bureaux to strengthen grassroots statistical capacity.
  - (c) It decided that only Central ministries will collect and publish local data, while States will act only as implementing agencies.
  - (d) The 29 Conference of Central and State Statistical Organisations (CoCSSO) concluded in Chandigarh

**Answer: (C)**

### Mains Question

- Q. "Discuss how strengthening sub-national statistical systems enhances fiscal federalism and participatory democracy in India. Suggest institutional and ethical reforms to ensure accurate and reliable data for local governance."

## Bihar's Special Intensive Revision and the Supreme Court:

### Testing the Boundaries of Electoral Integrity

In September 2025, the quiet procedural exercise of updating Bihar's voter rolls turned into a national constitutional debate. The Election Commission of India (ECI) launched a Special Intensive Revision (SIR) to cleanse and update the electoral list ahead of the Assembly elections. Allegations of mass deletions, inadequate notice, and restricted opportunities for objections triggered a cascade of petitions that has now reached the Supreme Court. The Court's observations suggest its verdict could shape voter-roll management across the country, not just in Bihar.

### What Is the Bihar SIR?

- The SIR required all electors—existing and new—to re-verify their credentials, submitting one of a prescribed set of identity documents.
- Deadlines for claims and objections were tighter than in routine annual revisions, raising fears of inadvertent disenfranchisement.
- Draft lists reportedly showed large numbers of deletions, especially among migrant and marginalised groups, fuelling political outcry.

### Supreme Court Interventions

- **Nationwide Implications:** A Bench led by Justices Surya Kant and Joymalya Bagchi warned that if it finds any illegality in the methodology, "the entire exercise will be struck down" and the ruling will apply pan-India to all SIR processes.
- **Aadhaar Inclusion:** The Court directed the ECI to accept Aadhaar as a valid identity document for voter verification, while reiterating that it cannot serve as proof of citizenship.
- **Access to Remedies:** Responding to reports of difficulties in filing objections, the Court ordered paralegal volunteers to assist voters and left the window open for individual relief in genuine cases, even though it declined to extend the deadline uniformly.
- **Next Steps:** Final hearings on the petitions are scheduled for 7 October 2025, with the Court stressing that it will not "issue piecemeal directions" but deliver a ruling that ensures procedural integrity nationwide.

### Constitutional & Legal Dimensions

- **Right to Vote (Article 326):** Though a statutory right, the Supreme Court has read the right to vote as flowing from Article 14 (equality) and Article 21 (right to life and dignity) when arbitrary exclusion occurs.
- **Due Process:** Natural justice demands transparent criteria and adequate opportunity to contest deletions; petitioners argue the SIR failed this test.
- **Federal Balance:** The case probes the autonomy of the Election Commission—a constitutional body under Article 324—and the extent of judicial oversight over its procedures.
- **Privacy & Identity:** By allowing Aadhaar only as an identity proof and not citizenship proof, the Court reinforced the distinction drawn in the Puttaswamy privacy judgment (2017).

### Political and Governance Impact

- A ruling striking down or altering the SIR would reshape the voter list just months before Bihar's polls, with significant electoral consequences.
- Because the Court has indicated a nationwide precedent, similar special revisions in other states—planned or



underway—will have to conform to whatever standards emerge from this judgment.

- Political parties have seized on the issue: the Congress has termed the SIR “the greatest threat to democracy”, while the ECI maintains it is essential to purge duplicate or bogus entries.

### Broader Significance

This case highlights the tension between administrative efficiency—keeping rolls current and accurate—and the democratic imperative of universal suffrage. It also illustrates how seemingly routine electoral housekeeping can raise fundamental constitutional questions about citizenship, privacy, and equality.

### UPSC Add-Ons

Q. With reference to the Supreme Court’s ongoing scrutiny of Bihar’s Special Intensive Revision (SIR) of electoral rolls, consider the following statements:

1. Aadhaar has been accepted as a valid identity document for inclusion in the voter list but cannot by itself establish citizenship.
2. The Supreme Court has indicated that any finding of procedural illegality in the Bihar SIR will automatically apply to similar revisions across India.
3. The Court has extended the deadline for filing objections to the SIR uniformly across all districts of Bihar.

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: (A)**

### Mains Question

Q. “Special Intensive Revisions of electoral rolls are intended to improve accuracy but can also risk disenfranchisement. Analyse the constitutional safeguards and procedural reforms needed to balance electoral integrity with the citizen’s right to vote.”

## Immigration and Foreigners Act, 2025

India’s New Framework for Regulating Entry, Stay and Exit of Foreign Nationals

### Introduction

The Immigration and Foreigners Act, 2025 officially came into force, replacing a patchwork of colonial-era and post-Independence laws that had long governed the presence of foreigners in India. With this step, India has created a single, consolidated statute to regulate entry, stay, exit, monitoring, and penalties for foreign nationals. The law marks the most significant overhaul of India’s immigration framework in nearly eight decades.

### Background

**India’s previous system relied on four key statutes:**

- Passport (Entry into India) Act, 1920
- Registration of Foreigners Act, 1939
- Foreigners Act, 1946
- Immigration (Carriers’ Liability) Act, 2000

These were fragmented and, according to the Home Ministry, “out of tune with contemporary migration realities.” Parliament passed the Immigration and Foreigners Bill, 2025 during the Budget Session; it received Presidential assent on 4 April 2025, with 1 September notified as the commencement date.

### Key Features of the New Law

- **Single Comprehensive Code:** Merges and repeals the older laws to provide a unified legal framework for immigration control, visa issuance, and deportation.
- **Enhanced Bureau of Immigration Powers:** The Bureau is now the principal authority for tracking, detaining, and deporting foreign nationals staying illegally.
- **Stricter Penalties:** Heavy fines and extended imprisonment for offences such as forged passports, fake visas, or abetting illegal migration.
- **Mandatory Reporting:** Airlines, shipping companies, hotels, and landlords are legally bound to report the stay or movement of foreigners, enabling real-time monitoring.
- **Digital Integration:** Provisions for a national immigration database and biometric verification to ensure faster and more secure border management.

### September 2025 Notifications and Orders

Immediately after the Act commenced, the Ministry of Home Affairs (MHA) issued the Immigration and Foreigners (Exemption) Order, 2025.

This order grants exemptions to certain categories most notably members of the Indian Armed Forces and their families travelling on government transport—from standard documentation and reporting requirements.

This supersedes earlier exemption orders of 1957 and 2007.

### Recent Enforcement Example

Even as the new law took effect, a transitional case highlighted continuing obligations under foreigners legislation. In Patnitop, Jammu & Kashmir, police booked a hotel owner in September 2025 for failing to report the stay of a Finnish national, an offence earlier covered by the 1946 Act and now falling squarely under the new framework. The case illustrates how local establishments are critical nodes in immigration compliance.

### Constitutional and Policy Significance

- **Union List Competence:** Immigration and expulsion of foreigners are subjects under List I (Entry 17) of the Seventh Schedule, giving Parliament exclusive power to legislate.

- **Right to Privacy and Due Process:** The Act must operate within the limits laid down in Justice K.S. Puttaswamy v. Union of India (2017) for data protection and proportionality in surveillance.
- **National Security vs. Human Rights:** While the state has the sovereign right to regulate foreigners, deportation or detention must respect the principles of Article 21 (life and liberty), which the Supreme Court has extended even to non-citizens.

### Implications

- **Stronger Border Management:** Real-time digital tracking aims to curb illegal immigration and forged travel documents.
- **Ease of Doing Business & Tourism:** A unified statute simplifies compliance for airlines, shipping lines, hotels, and foreign investors.
- **Humanitarian Challenges:** India continues to host refugees and stateless persons; balancing security concerns with humanitarian obligations and international refugee law will remain a test of policy.

### Challenges Ahead

- **Data Protection:** Large-scale biometric and travel data collection demands strong privacy safeguards.
- **Capacity Building:** The Bureau of Immigration and state police require upgraded training and infrastructure to enforce new provisions effectively.
- **Coordination with States:** While immigration is a Union subject, hotels and local authorities now bear greater responsibility for reporting and monitoring.

### UPSC Add-Ons

Q. With reference to the Immigration and Foreigners Act, 2025, consider the following statements:

1. It repeals the Foreigners Act, 1946 and the Registration of Foreigners Act, 1939.
2. It empowers the Bureau of Immigration as the principal authority for detention and deportation of illegal migrants.
3. It places immigration under the concurrent jurisdiction of the Union and the States.

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: (A)**

### Mains Question

Q. "Discuss how the Immigration and Foreigners Act, 2025 balances India's sovereign right to regulate the entry of foreigners with constitutional guarantees of due process and international humanitarian obligations."

## Supreme Court Gets Two New Judges: Alok Aradhe and Vipul Pancholi

### Collegium System, Appointment Process and Institutional Significance

Chief Justice of India (CJI) B.R. Gavai administered the oath of office to Justice Alok Aradhe, former Chief Justice of the Bombay High Court, and Justice Vipul Manubhai Pancholi, former Chief Justice of the Patna High Court.

With their elevation, the Supreme Court reached its full sanctioned strength of 34 judges, including the CJI. Their appointment illustrates the functioning of India's unique Collegium system and the continuing dialogue between the judiciary and the executive.

### The Collegium System

- **Constitutional Basis:** Article 124(2) of the Constitution provides that Supreme Court judges are appointed by the President "after consultation with such of the Judges of the Supreme Court and of the High Courts as the President may deem necessary."
- **Judicial Evolution:** Through the First, Second and Third Judges Cases (1981, 1993, 1998), the Supreme Court interpreted "consultation" to mean that the Chief Justice of India's recommendation, made in consultation with a collegium of senior judges, is binding on the President except in rare circumstances.
- **Composition:** For Supreme Court appointments, the collegium comprises the CJI and the four senior-most judges of the Court.
- **Procedure:**
  1. The collegium evaluates High Court Chief Justices and senior judges on merit, integrity, seniority, and regional representation.
  2. Its recommendation goes to the Union Law Ministry, which seeks Intelligence Bureau inputs and forwards it to the Prime Minister and the President.
  3. The President makes the formal appointment.
  4. If the government returns a name for reconsideration and the collegium reiterates it, the President is constitutionally bound to accept.

### The Latest Appointments

- The Collegium headed by CJI Gavai recommended Justices Aradhe and Pancholi on 25 August 2025.
- The Union Government cleared the names promptly, and the President signed the warrants of appointment on 27 August 2025.
- Justice Aradhe, known for expertise in constitutional and commercial law, earlier served in the High Courts of Madhya Pradesh, Jammu & Kashmir, Karnataka and as Chief Justice of the Bombay High Court.
- Justice Pancholi, with a strong background in criminal and civil law, served as Chief Justice of the Patna High Court. By seniority, he is in line to become Chief Justice of India around October 2031.

### Institutional Significance

- **Full Strength Achieved:** With all 34 seats filled, the Court can constitute larger Constitution Benches and reduce backlog.
- **Regional Balance:** Both judges add to the geographical diversity of the Court, a convention that promotes national representation.
- **Transparency Milestone:** For the first time, the Supreme Court placed the entire collegium recommendation file for these appointments in the public domain, marking a step towards greater transparency.

### Constitutional and Policy Implications

- **Judicial Independence:** The Collegium system preserves the autonomy of the judiciary by ensuring that the final word on appointments lies with the judges themselves, consistent with the basic structure doctrine.
- **Checks and Balances:** The executive may return a recommendation once, but a reiterated recommendation is binding, maintaining equilibrium between accountability and independence.
- **Debate on Reform:** Critics call for a re-examination of the National Judicial Appointments Commission (NJAC) model struck down in 2015, arguing for a more broad-based yet constitutionally compliant appointments commission.

### UPSC Add-Ons

Q. Consider the following statements regarding the appointment of Supreme Court judges:

1. The word "Collegium" is mentioned in Article 124 of the Constitution.
2. If the Supreme Court collegium reiterates a recommendation, the President is constitutionally bound to accept it.
3. The 99th Constitutional Amendment, which created the NJAC, is currently in force.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Critically examine the functioning of the Collegium system in light of recent Supreme Court appointments. Should India revisit the idea of a broad-based judicial appointments commission to enhance transparency while preserving judicial independence?"

## Online Gaming Act, 2025: India's First Comprehensive Law to Curb Real-Money Online Gaming

In a landmark move, Parliament enacted the Promotion and Regulation of Online Gaming Act, 2025 popularly dubbed the Online Gaming Ban Act to tackle the rising menace of

real-money gaming and betting on digital platforms. The law received Presidential assent in late August 2025 and, as announced by the Union Minister for Electronics and Information Technology Ashwini Vaishnaw, its provisions come into force on 1 October 2025.

The legislation seeks to strike a delicate balance: prohibiting online games involving monetary stakes while encouraging esports and educational/social gaming. It responds to a decade of exponential growth in India's online gaming industry and mounting public concern over addiction, financial fraud, and exploitation of regulatory grey areas.

### Background and Need for the Law

**Unregulated Boom:** India's online gaming sector was projected to exceed USD 8 billion by 2025, driven by mobile penetration and cheap data. Fantasy sports, rummy, and poker platforms operated across states, often invoking "games of skill" exemptions to avoid local gambling prohibitions.

**Social Costs:** Reports of youth addiction, debt traps, and even suicides created public outcry. Law-enforcement agencies flagged online gaming for money laundering, tax evasion, and cyber fraud. States like Tamil Nadu, Karnataka and Meghalaya passed their own bans, but divergent definitions of "games of skill" versus "games of chance" resulted in patchwork regulation.

**Central Intervention:** Recognising these gaps, the Union Government introduced the Promotion and Regulation of Online Gaming Bill, 2025 in the Monsoon Session. The Bill was passed by both Houses after debate on federalism, individual freedom, and consumer protection. Prime Minister Narendra Modi described it as a step to "protect youth from predatory money games while promoting innovation in esports and educational gaming."

### Key Features of the Act

#### Comprehensive Ban on Money Games

The Act prohibits the offering, operation, or facilitation of any online game where a user pays money in the expectation of winning money or other stakes, irrespective of whether the outcome depends on skill, chance, or a combination.

#### Advertising and Promotion Controls

No entity may advertise or market real-money games in India or target Indian users from abroad. Digital platforms, OTT channels, and social media intermediaries face penalties for hosting such promotions.

#### Regulatory Authority

The Act empowers the Online Gaming Regulatory Authority (OGRA) to:

- classify permissible games,
- license esports and educational/social gaming platforms,
- maintain a national registry of compliant entities, and
- order blocking of illegal websites under the IT Act.

### Penalties and Offences

Violations invite imprisonment up to three years and fines up to ₹1 crore, with repeat offenders facing up to five years' imprisonment and fines of ₹2 crore. Certain offences are cognisable and non-bailable, underscoring the government's zero-tolerance approach.

### Recognition of Esports and Social Games

The Act explicitly protects esports competitions, simulation games for education, and non-monetary casual gaming, provided there is no staking of money or equivalent value.

### Extraterritorial Reach

The law applies to foreign platforms targeting Indian users, allowing authorities to block websites and payment gateways and to prosecute entities with even partial operations in India.

### Developments

- **Implementation Date:** Minister Vaishnaw confirmed 1 October 2025 as the enforcement date.
- **Industry Response:** Global giant Flutter Entertainment shut down its real-money operations for Indian users immediately after the Bill's passage.
- **Domestic Impact:** Indian unicorn Mobile Premier League (MPL) announced plans to lay off about 60% of its workforce as real-money games were its main revenue stream.
- **Freemium Concerns:** Investigations highlighted how "freemium" or pay-to-upgrade features might skirt the definition of money games, prompting calls for tighter OGRA guidelines.

### Constitutional and Legal Dimensions

#### Right to Trade vs. Reasonable Restrictions (Art. 19(1)(g) & 19(6))

Operators may argue that a blanket ban violates the freedom to carry on trade. The government will rely on reasonable restrictions in the interest of public order, morality, and consumer protection.

#### Right to Privacy and Autonomy (Art. 21)

Users might claim a right to personal autonomy and recreational choice. Courts will test the Act on the proportionality doctrine laid down in Puttaswamy (2017).

### Federalism Questions

Gambling and betting are traditionally State subjects (List II, Entry 34). However, the Centre justified the law under its powers for communications and inter-state trade (List I) and the need to regulate cross-border digital services. Challenges from states are likely.

### Due Process & Overbreadth

By banning even skill-based paid games, the Act could be challenged for being overbroad and failing to differentiate harmless competitions from gambling.

### Governance and Economic Impact

- **Consumer Protection:** The law seeks to curb predatory practices, particularly against minors and economically vulnerable adults.
- **Economic Realignment:** Start-ups dependent on fantasy sports or rummy must pivot to esports, casual gaming, or overseas markets, potentially reducing employment and investment in the short term.
- **Tax Revenue Shifts:** GST revenues from real-money gaming significant in some states may decline, pressuring fiscal planning.
- **Innovation in Esports:** By recognising esports and social gaming, the law provides a regulated path for creative, non-monetary digital entertainment.

### International Perspective

Countries such as Singapore and the UK regulate rather than ban real-money online gaming, focusing on licensing and responsible-gaming standards. India's choice of a near-total ban places it closer to China's restrictive model, though with explicit protection for esports.

### Challenges Ahead

- **Enforcement at Scale:** Blocking offshore websites and payment gateways demands coordination between OGRA, the IT Ministry, RBI, and CERT-In.
- **Definition Ambiguity:** Distinguishing between "money game" and "in-game microtransactions" will test regulators and courts.
- **Judicial Review:** Operators have already signalled intent to approach the Supreme Court, setting the stage for a landmark test of digital rights and federal competence.

### UPSC Add-Ons

Q. With reference to the Promotion and Regulation of Online Gaming Act, 2025, consider the following statements:

1. The Act bans all online games involving monetary stakes, whether based on skill or chance.
2. It recognises esports as a legitimate competitive activity outside the ban.
3. Enforcement powers under the Act extend to foreign platforms offering services to Indian users.

Which of the statements given above is/are correct?

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

**Answer: (C)**

### Mains Question

Q. "Critically evaluate the Promotion and Regulation of Online Gaming Act, 2025 in light of the constitutional distribution of powers between the Union and the States, the right to trade and profession, and the need to protect vulnerable users in the digital economy."



## ECONOMY

### GST Rate Cuts to Spur Demand and Ease Retail Prices

#### A September 2025 Tax Reform for Consumption-Led Growth

##### Introduction

The GST Council approved wide-ranging reductions in Goods and Services Tax (GST) rates covering hundreds of consumer items, from packaged food to small cars and everyday household goods.

This reform—described by the Finance Ministry as the “Next Generation GST” initiative—aims to stimulate consumption, moderate inflation, and simplify the tax structure at a time when global demand remains weak.

#### Items to be cheaper under GST

GST rate cut 28-18%	GST rate cut 18-12%	GST rate cut 12-5%	GST rate cut 5%-Nil
<ul style="list-style-type: none"> <li>Paints &amp; varnishes (including enamels and lacquers)</li> <li>Glaaziers' &amp; grouting putty, resin cements</li> <li>Refrigerators, freezers &amp; freezing equipment including water coolers</li> <li>Washing machines</li> <li>Vacuum cleaners</li> <li>Electrical appliances such as food grinders and mixers and shavers, etc.</li> <li>Storage water heaters and immersion heaters, hair and hand dryers</li> <li>Televisions up to the size of 68 cm</li> <li>Toiletries</li> </ul>	<ul style="list-style-type: none"> <li>Handbags including pouches and purses; jewellery box</li> <li>Wooden frames for painting, photographs, mirrors</li> <li>Stone art ware, stone inlay work</li> <li>Glass statues</li> <li>Glass art ware</li> <li>Art ware</li> <li>Handcrafted lamps</li> <li>Bamboo flooring</li> <li>Brass kerosene pressure stove</li> <li>Hand operated rubber roller</li> <li>Zip and slide fasteners</li> </ul>	<ul style="list-style-type: none"> <li>Knitted cap/topi having retail sale value not exceeding Rs 1000</li> <li>Handmade carpets and handmade textile floor coverings</li> <li>Handmade lace</li> <li>Handwoven tapestries</li> </ul>	<ul style="list-style-type: none"> <li>Stone/marble/wood deities</li> <li>Rakhi (other than that of precious or semi-precious material)</li> <li>Sanitary napkins</li> <li>PhoolBhari Jhadoo (Raw material for brooms)</li> <li>Khali dona</li> </ul>

#### Key Measures

- Rate Reductions:**
  - GST on a wide basket of daily-use goods—soaps, packaged foods, small electronic appliances—cut from 18% to 12% or 5%.
  - Small passenger vehicles under 1200 cc now attract a 5 percentage-point lower GST (from 28% to 23%).
- Effective Date:** New rates took effect 22 September 2025.
- Simplification:** Several overlapping rate slabs merged to reduce classification disputes and ease compliance for small traders.

#### Economic Rationale

- Boost Consumption:** By lowering retail prices, the reform is expected to increase discretionary spending and revive demand, particularly in rural and semi-urban markets.
- Moderate Inflation:** RBI's September bulletin noted that these tax cuts could reduce the headline CPI by about 40 basis points in the October–December quarter.
- Ease of Doing Business:** Simplified rate structure reduces litigation and compliance costs, aligning with Make in India and Digital GST 2.0 goals.

#### Governance and Policy Significance

- Cooperative Federalism:** Decisions taken unanimously by the GST Council—a constitutional body under Article 279A—showcase Centre–State consensus in tax policy.
- Fiscal Strategy:** Despite short-term revenue sacrifice (estimated ₹45,000 crore annually), the government banks on higher consumption and indirect tax buoyancy to offset losses.
- Alignment with RBI:** Supports the central bank's growth-friendly stance while keeping inflation expectations anchored.

#### Challenges

- Revenue Impact on States:** States fear a dip in GST collections; the Centre has assured compensation through the GST Compensation Cess Fund.
- Pass-Through to Consumers:** Effective price reductions depend on retailers actually passing on the tax savings.
- Supply Constraints:** Demand revival must be matched with supply to avoid shortages or speculative price hikes.

#### Outlook

Economists expect a 0.3–0.5 percentage-point boost to GDP growth in FY26 from higher consumption, particularly in sectors such as FMCG, consumer durables, and entry-level automobiles.

The reform is likely to be a key driver of India's goal to maintain 7%+ growth despite global uncertainties.

#### UPSC Add-Ons

- Q. With reference to the September 2025 GST reforms, consider the following statements:
- The GST Council reduced rates on several consumer goods effective 22 September 2025.
  - The GST Council is constituted under Article 279A of the Constitution.
  - The reforms are expected to reduce India's headline CPI inflation by about 40 basis points in the short term.

Which of the statements given above is/are correct?

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

**Answer: (C)**

#### Mains Question

- Q. “Discuss the implications of the September 2025 GST rate cuts for India's growth–inflation dynamics. How do cooperative federalism and fiscal management play a role in ensuring the success of these reforms?”

## Fitch Raises India's FY26 Growth Forecast after Strong Q2 Data

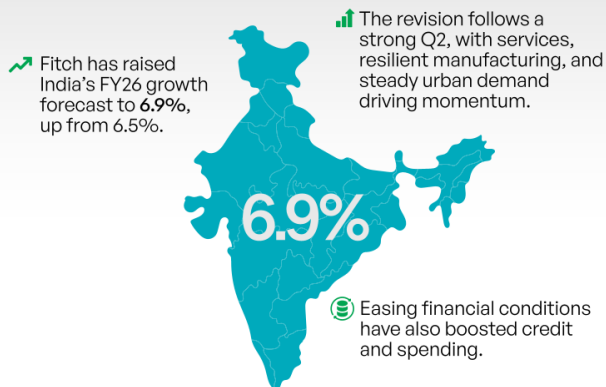
### Confidence in Domestic Demand and Fiscal Stability

#### Introduction

Global ratings agency Fitch Ratings revised India's \*\*FY26 (2025–26) GDP growth forecast upward to 6.9%, from its earlier projection of 6.5%.

The upgrade followed India's robust Q1 FY26 GDP growth of 7.8%, strong manufacturing output, and sustained domestic demand despite global trade headwinds.

### The Upgrade in Focus



#### Background

- India's economy has consistently outperformed global peers in 2024–25 and early 2025–26, supported by high investment rates, resilient services exports, and robust private consumption.
- The upgrade came after the release of Q1 GDP data on 31 August 2025, which showed broad-based growth in manufacturing, construction, and services.
- Fitch also highlighted India's prudent fiscal management and moderating inflation, aided by recent GST rate cuts.

#### Key Drivers Identified by Fitch

- Domestic Demand:** Private consumption remains strong, particularly in urban areas and in high-frequency sectors like automobiles and consumer durables.
- Manufacturing Momentum:** Industrial production grew 3.5% YoY in July 2025, with manufacturing up 5.4%, reflecting success of Production Linked Incentive (PLI) schemes.
- Public Capex:** Continued government capital expenditure on highways, railways, and renewable energy projects provided a stable investment base.
- Inflation Control:** Headline CPI eased to 4.7% in August 2025, within the RBI's comfort zone.

#### Policy and Governance Significance

- Investor Confidence:** An upgrade by a major rating agency strengthens India's case for attracting foreign

portfolio and direct investment, lowering sovereign borrowing costs.

- Macro Stability:** Confirms that fiscal deficit consolidation (projected at 5.1% of GDP for FY26) is credible even after recent GST rate cuts.
- Global Positioning:** Enhances India's reputation as the fastest-growing major economy at a time when global growth remains subdued.

#### Risks Highlighted

- External Headwinds:** Global oil price volatility, geopolitical tensions, and slower U.S./EU demand could dampen exports.
- Monsoon Dependence:** A poor 2025–26 Rabi harvest due to climate anomalies may affect rural consumption.
- Financial Sector Stress:** Though stable now, any sharp interest-rate changes globally could test banking and NBFC resilience.

#### Outlook

- Fitch expects India's real GDP growth to average around 6.8–7.0% through FY27, provided investment momentum and domestic demand remain intact.
- RBI is likely to maintain a neutral monetary policy stance, balancing growth support with inflation vigilance.

#### UPSC Add-Ons

Q. With reference to Fitch Ratings' September 2025 forecast for India, consider the following statements:

- Fitch revised India's FY26 GDP growth forecast to 6.9%.
- The upgrade was primarily due to improved rural consumption after a bumper Rabi harvest in 2025–26.
- Fitch cited strong public capital expenditure and moderating inflation as key factors.

Which of the statements given above is/are correct?

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

**Answer: (A)**

#### Mains Question

Q. "Global rating agencies have recently upgraded India's growth outlook. Analyse the macroeconomic fundamentals driving this confidence and discuss the policy measures required to sustain 7% growth in the face of external shocks."

## RBI Bulletin Highlights Impact of Tax Reforms on Retail Prices and Consumption

### GST Cuts and Fiscal Measures Seen Boosting Demand

#### Introduction

In its September 24, 2025 Bulletin, the Reserve Bank of India (RBI) reported that recent tax reforms—including the September GST rate reductions—are already easing retail inflation and stimulating consumption.

The bulletin, based on early retail price surveys and high-frequency demand indicators, forecasts a short-term consumption boost of 0.4–0.5 percentage points to GDP growth in FY26.

### Key Observations

- **Retail Price Impact:**
  - Average prices of FMCG items like soaps, edible oils, and packaged foods fell 2–3% within two weeks of the GST cuts taking effect on 22 September 2025.
  - Preliminary CPI estimates suggest headline inflation could ease by 35–40 basis points in the October–December quarter.
- **Consumption Indicators:**
  - E-way bills and UPI transaction volumes rose sharply in mid-September, signalling higher goods movement and consumer spending.
  - Automobile sales (particularly small cars and two-wheelers) surged following lower GST on small passenger vehicles.
- **Business Sentiment:**
  - PMI surveys show robust expansion, with input cost pressures easing for consumer-goods manufacturers.

### Policy Significance

- **Monetary–Fiscal Synergy:** RBI notes that coordinated action—fiscal tax cuts alongside monetary policy stability—creates room to maintain the policy repo rate at 6.25%, supporting growth without stoking inflation.
- **Support for Private Investment:** Lower indirect taxes improve margins for consumer-goods companies, potentially leading to capacity expansion and job creation.

### Constitutional & Governance Context

- The reforms stem from decisions of the GST Council under Article 279A, showcasing cooperative federalism where both Centre and States agreed on revenue-sharing mechanisms.
- Reinforces the Centre's strategy of "growth with price stability", balancing fiscal discipline with demand-side stimulus.

### Risks Highlighted by RBI

- **State Revenue Pressures:** Short-term fall in GST collections could widen fiscal gaps if buoyancy does not offset the rate cuts.
- **Imported Inflation:** Global oil or commodity price spikes may partially negate the domestic price relief.
- **Uneven Pass-Through:** Not all retailers have immediately reduced prices; continued monitoring by anti-profiteering authorities is required.

### Outlook

The RBI projects that the combination of tax relief and resilient domestic demand could help maintain FY26 GDP growth near 7%, even as global trade remains subdued.

It expects CPI inflation to average 4.5–4.7% in H2 FY26, well within its 4%  $\pm$ 2% target band.

### UPSC Add-Ons

- Q. With reference to the RBI's September 2025 bulletin on tax reforms, consider the following statements:
1. The bulletin attributes a potential 0.4–0.5 percentage point boost to GDP growth from recent GST rate cuts.
  2. It projects CPI inflation for the second half of FY26 to remain within the 4%  $\pm$ 2% target band.
  3. The reforms were approved solely by the Union Finance Ministry without state involvement.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only  
(b) 1 only  
(c) 1, 2 and 3  
(d) 2 and 3 only

**Answer: (A)**

### Mains Question

- Q. "Evaluate the macroeconomic implications of India's September 2025 tax reforms as analysed in the RBI's bulletin. How do such coordinated monetary–fiscal measures influence inflation management and domestic demand?"

## India's Manufacturing and Export Performance: Policy-Driven Momentum

### September 2025 Update on IIP and Trade Trends

#### Introduction

The Ministry of Commerce & Industry released data through PIB on 19 September 2025 showing that India's manufacturing and export sectors continue to demonstrate resilience despite global headwinds.

The Index of Industrial Production (IIP) for July 2025 recorded a 3.5% year-on-year growth, while manufacturing output rose by 5.4%. Simultaneously, merchandise exports between April–August 2025 grew 2.52% YoY to USD 184.13 billion.

#### Sectoral Highlights

- **Manufacturing Growth:** Strong performance in textiles, pharmaceuticals, automobiles, and electronics contributed to the 5.4% rise.
- **Construction Materials:** Cement and steel saw consistent demand, reflecting the government's capex-led infrastructure push.
- **Exports:** Engineering goods, petroleum products, and gems & jewellery dominated export baskets, despite weak global demand.
- **Employment Linkages:** Rising output in labour-intensive sectors like textiles and food processing indicates job creation potential, particularly under schemes like PM MITRA and PLI.

### Policy Drivers

- **Production Linked Incentive (PLI) Schemes:** Incentivising electronics, pharma, and textile sectors to expand capacity.
- **PM MITRA Parks:** Building integrated textile hubs for efficiency and scale.
- **Ease of Doing Business Reforms:** Faster clearances, digitisation, and reduced compliance burden improving investor sentiment.
- **Export Promotion Schemes:** RoDTEP and Trade Infrastructure for Export Scheme (TIES) supporting exporters.

### Governance and Economic Significance

- Reinforces India's ambition to become a global manufacturing hub, reducing dependence on imports.
- Helps diversify India's export basket, crucial amid rising trade protectionism.
- Stronger manufacturing boosts the employment elasticity of growth, a key factor for India's demographic dividend.
- Positive industrial data strengthens the growth narrative, supporting Fitch and R&I's September 2025 upgrades.

### Challenges

- **Global Slowdown:** Demand from advanced economies remains subdued.
- **High Input Costs:** Energy and logistics costs still weigh on competitiveness.
- **Regional Disparities:** Growth concentrated in select industrial clusters; balanced regional development remains a challenge.

### Outlook

With PLI-led investments, infrastructure spending, and expanding global partnerships, India's manufacturing sector is projected to sustain 6–7% growth in FY26.

If exports maintain momentum, India could cross USD 450 billion merchandise exports in FY26, despite external uncertainties.

### UPSC Add-Ons

Q. Consider the following statements regarding India's manufacturing and trade performance in 2025:

1. The Index of Industrial Production (IIP) recorded 3.5% YoY growth in July 2025.
2. Manufacturing output rose by 5.4% during the same period.
3. India's merchandise exports in April–August 2025 declined compared to the previous year.

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: (A)**

### Mains Question

Q. "Evaluate the role of government initiatives like PLI, PM MITRA, and RoDTEP in sustaining India's manufacturing and export growth. What challenges remain for India to achieve its \$1 trillion export target?"

## India's Digital Economy & Electronics / Mobile Growth

### Introduction

The Ministry of Electronics and Information Technology (MeitY) released a PIB note projecting that India's digital economy will contribute nearly one-fifth of national income by 2029–30.

This vision builds on the rapid growth of electronics and mobile manufacturing, which have become central pillars of India's export and industrial strategy.

### Key Highlights

- **Rising Share of GDP:** Digital economy expected to grow almost twice as fast as overall GDP, expanding its share from 12% (FY24) to 20% by 2029–30.
- **Electronics Growth:** Production increased from USD 31 billion in 2014 to USD 133 billion in FY24.
- **Mobile Phone Exports:** Crossed USD 20 billion in FY25, with a long-term export target of USD 60–65 billion by 2030.
- **Semiconductors & Deep Tech:** The Semicon India programme is focused on chip design, AI, and quantum technologies.
- **Export Ambition:** India is working toward USD 1 trillion total exports in FY26, with electronics as a major contributor.

### Policy Drivers

- Production Linked Incentive (PLI) Schemes for mobiles, IT hardware, and semiconductors.
- Digital India and BharatNet for universal broadband access, enabling digital services in rural areas.
- Make in India & Atmanirbhar Bharat for strengthening domestic manufacturing ecosystems.
- Electronics Clusters & PM MITRA Parks to build value-chain integration.

### Governance and Economic Significance

- Strengthens India's positioning as a trusted alternative to China in global electronics supply chains.
- Creates large-scale employment opportunities, especially in assembly, logistics, and services linked to electronics.
- Enhances foreign exchange reserves by diversifying exports beyond services.
- Supports India's goal of becoming a \$5 trillion economy and a semiconductor hub in the Indo-Pacific.



### Challenges

- Heavy dependence on imported semiconductor wafers and high-value components.
- Need for skilled workforce in chip design and AI to support long-term growth.
- Infrastructure constraints (logistics, power reliability) in expanding manufacturing hubs.
- Cybersecurity risks as rapid digitisation demands strong governance under the Digital Personal Data Protection Act, 2023.

### Outlook

If successful, India's digital economy transformation could mirror its IT revolution of the 1990s—but on a much larger scale, integrating manufacturing, services, and innovation. The government's emphasis on electronics and mobiles as catalysts indicates a shift toward high-value manufacturing-led growth in the next decade.

### UPSC Add-Ons

Q. With reference to India's digital economy growth, consider the following statements:

1. The digital economy is projected to account for nearly one-fifth of India's GDP by 2029–30.
2. Electronics production has grown from USD 31 billion a decade ago to over USD 130 billion.
3. The Semicon India programme is exclusively aimed at promoting mobile phone exports.

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: (A)**

### Mains Question

Q. "India's digital economy is expected to contribute 20% of GDP by 2030. Discuss how electronics and mobile manufacturing can drive this transformation, highlighting challenges in supply chains, skills, and data governance."

## 11 Years of Make in India: Building Self-Reliance and Industrial Capacity

### Introduction

The Prime Minister marked the 11th anniversary of the Make in India initiative, launched in 2014 to transform India into a global manufacturing hub.

The event, highlighted in a PIB release, celebrated the initiative's role in boosting entrepreneurship, industrial growth, and self-reliance, while reaffirming it as a central policy narrative in India's development strategy.

### Key Highlights

- **Industrial Expansion:** Manufacturing's share in GDP has improved gradually, supported by targeted schemes.

- **Foreign Direct Investment (FDI):** India has consistently ranked among the top 3 global FDI destinations, attracting cumulative inflows exceeding USD 600 billion (2014–2025).
- **Sectoral Success Stories:** Growth in electronics, defence, automobiles, railways, and renewable energy through PLI schemes and joint ventures.
- **Employment Impact:** Millions of jobs generated directly and indirectly in formal and informal sectors.
- **Global Standing:** India now positioned as a credible supply chain alternative, reducing reliance on single-country sourcing.

### Policy Drivers

- **Production Linked Incentive (PLI) Schemes** in 14 key sectors including electronics, pharma, textiles, and defence.
- **Ease of Doing Business Reforms:** Decriminalisation of business laws, digitised approvals, and simplified GST compliance.
- **National Infrastructure Pipeline & Gati Shakti Mission** ensuring logistics and energy support.
- **Self-Reliance in Defence:** Higher FDI caps, indigenisation lists, and partnerships under Atmanirbhar Bharat.

### Governance and Economic Significance

- **Employment Elasticity:** Manufacturing-led growth improves quality job creation for India's demographic dividend.
- **Regional Balance:** Industrial corridors (e.g., Delhi-Mumbai, Chennai-Bengaluru) and state-led initiatives decentralise growth.
- **Export Competitiveness:** Integration with global supply chains strengthens India's case for trade diversification.
- **Strategic Autonomy:** Reduces vulnerability in defence, electronics, and energy security.

### Challenges

- **Manufacturing Share:** Despite progress, manufacturing's share of GDP (15–16%) still lags behind China and ASEAN peers.
- **Skill Mismatch:** Need for upskilling workforce in robotics, semiconductors, and AI-based manufacturing.
- **Infrastructure Bottlenecks:** Power reliability and logistics costs remain higher than global benchmarks.
- **FDI Quality:** Ensuring inflows lead to technology transfer, not just assembly-based models.

### Outlook

Make in India 2.0 is expected to align with India's \$5 trillion economy target and Atmanirbhar Bharat roadmap.

The focus is shifting from volume-based assembly to innovation-led, high-value manufacturing, especially in defence, semiconductors, and green technologies.

### UPSC Add-Ons

Q. With reference to the Make in India initiative, consider the following statements:

1. It was launched in 2014 to transform India into a global manufacturing hub.
2. The initiative is linked with sectoral Production Linked Incentive (PLI) schemes.
3. In 2025, Make in India completed a decade of implementation.

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: (D)**

### Mains Question

Q. "Evaluate the achievements and challenges of the Make in India initiative over the past decade. To what extent has it succeeded in boosting manufacturing, FDI, and employment in India?"

## Three Years of National Logistics Policy & LEADS Index 2025 Update

### Introduction

The Government of India marked three years since the launch of the National Logistics Policy (NLP), first unveiled in September 2022.

The Ministry of Commerce and Industry released a PIB note presenting the achievements of NLP, alongside the 2025 edition of the LEADS (Logistics Ease Across Different States) Index, which introduced digital logistics and sustainability metrics.

The government highlighted that the NLP has been central to reducing logistics costs, improving supply-chain resilience, and enhancing India's competitiveness in global trade.

### Key Achievements in Three Years

- **Digital Integration:** The Unified Logistics Interface Platform (ULIP) has processed over 160 crore digital transactions, integrating systems across railways, shipping, customs, and road transport.
- **Cost Reduction Efforts:** India's average logistics cost has been reduced from 13–14% of GDP in 2022 to ~11% in 2025, moving closer to the global benchmark of 8–9%.
- **Skill Development:** Over 1.5 lakh logistics professionals trained under the Logistics Human Resources Development Council.
- **Policy Convergence:** Alignment with PM Gati Shakti National Master Plan, integrating multimodal infrastructure projects.

### LEADS Index 2025 Update

- **The Logistics Ease Across Different States (LEADS) 2025 index now includes:**

- Digital adoption metrics such as ULIP integration and real-time tracking.
- Sustainability indicators covering green transport and carbon efficiency.

- **Top-performing states:** Gujarat, Maharashtra, and Tamil Nadu retained their leadership, with notable improvements in UP and Odisha.

### Governance and Policy Significance

- Strengthens India's export competitiveness by cutting turnaround times at ports and reducing inland logistics delays.
- Encourages federal competition among states to improve logistics ecosystems.
- Supports Make in India, Atmanirbhar Bharat, and global value-chain integration by lowering costs for manufacturers.
- Reinforces India's aspiration to become a \$5-trillion economy by improving trade facilitation.

### Challenges

- **High Fuel Costs:** Remain a burden on logistics operators despite efficiency gains.
- **Last-Mile Connectivity:** Especially in Tier-2/3 cities and rural areas still faces gaps.
- **Data Security & Standardisation:** Rapid digitisation requires safeguards to protect sensitive logistics and trade data.

### Outlook

India aims to bring logistics costs down further to below 10% of GDP by 2030 through multimodal transport corridors, digital integration, and green logistics.

The NLP will continue to serve as a critical policy lever for improving India's competitiveness in global trade, particularly as India eyes the USD 1 trillion export target by FY26.

### UPSC Add-Ons

Q. With reference to the National Logistics Policy and LEADS Index 2025, consider the following statements:

1. The Unified Logistics Interface Platform (ULIP) has processed over 160 crore digital transactions.
2. The LEADS 2025 index includes digital adoption and sustainability metrics for the first time.
3. Logistics costs in India have fallen to about 8–9% of GDP, at par with global benchmarks.

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: (A)**

### Mains Question

Q. "Discuss the achievements of the National Logistics Policy in reducing India's logistics costs over the past three years. How does the LEADS Index promote cooperative federalism and competitiveness among states?"

## India–Israel Bilateral Investment Agreement (BIA), 2025

### Introduction

India and Israel signed a landmark Bilateral Investment Agreement (BIA) in New Delhi.

According to the PIB release, the agreement seeks to enhance investor confidence, ensure dispute resolution mechanisms, and promote greater economic cooperation between the two nations.

It aligns with India's broader strategy of strengthening investment treaties that balance investor protection with sovereign policy space.

### Key Provisions of the Agreement

- **Investment Protection:** Safeguards against unlawful expropriation and guarantees fair and equitable treatment.
- **Capital Transfers:** Allows smooth repatriation of investments, dividends, and capital gains.
- **Dispute Settlement:** Establishes transparent and predictable investor–state dispute settlement (ISDS) mechanisms.
- **Policy Flexibility:** Explicit carve-outs for public health, environment, and national security, ensuring India's regulatory autonomy.
- **Sectoral Scope:** Expected to boost cooperation in defence, water technology, agri-tech, cybersecurity, and renewable energy.

### Governance and Policy Significance

- **Strengthening Strategic Partnership:** Builds on the 2023 India–Israel Vision Statement for Defence Cooperation.
- **Investor Confidence:** Enhances India's reputation as a reliable investment destination amid global uncertainty.
- **FDI Growth:** Supports India's ambition of \$100 billion annual FDI inflows by ensuring legal predictability for foreign investors.
- **Alignment with Model BIT 2016:** Reflects India's updated template for Bilateral Investment Treaties, which prioritises sovereign regulatory powers alongside investor protection.

### Challenges

- **Investor–State Dispute Settlement (ISDS):** While improved, ISDS clauses globally remain controversial for undermining state sovereignty.
- **Balancing Expectations:** India must balance foreign investor demands with domestic developmental priorities.
- **Implementation:** Actual FDI flows depend on ease of doing business, sectoral openness, and geopolitical stability.

### Outlook

The BIA is expected to act as a template for India's future investment treaties, particularly with EU and Indo-Pacific partners.

It could also deepen India's engagement with Israel beyond defence into technology co-development, water efficiency, and green energy innovation.

### UPSC Add-Ons

Q. With reference to the India–Israel Bilateral Investment Agreement (2025), consider the following statements:

1. It provides for fair and equitable treatment of investors, while protecting against unlawful expropriation.
2. It includes explicit safeguards to preserve India's regulatory space in areas like health and environment.
3. It is based on India's Model BIT of 2016.

Which of the statements given above is/are correct?

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

**Answer: (D)**

### Mains Question

Q. "India's new Bilateral Investment Agreement with Israel seeks to balance investor protection with sovereign policy space. Critically analyse how such treaties influence FDI flows, regulatory autonomy, and strategic partnerships."

## National Multidimensional Poverty Index (MPI) Workshop, 2025

### Introduction

NITI Aayog, in collaboration with the United Nations Development Programme (UNDP), organised a National Workshop on the Multidimensional Poverty Index (MPI) in New Delhi.

The PIB note highlighted the workshop's focus on methodology, state-level experiences, and integration of MPI into social protection systems.

The initiative reflects India's commitment to tackling poverty beyond income metrics, aligning with SDG 1: No Poverty.

### What is MPI?

- **Definition:** MPI is a global poverty measure developed by UNDP & Oxford Poverty and Human Development Initiative (OPHI), which assesses deprivation across multiple dimensions.
- **India's MPI:** Based on 12 indicators under 3 broad dimensions – Health, Education, and Standard of Living.
- **NITI Aayog Role:** Publishes the National MPI Report, with baseline (2015–16), midline (2019–21), and upcoming endline (2025–26) rounds.

### Key Highlights from the Workshop

- **Methodology Sessions:** Technical discussions on survey tools, indicator weights, and comparability across states.
- **State Experiences:**
  - Bihar, Uttar Pradesh, and Madhya Pradesh shared lessons in integrating MPI data into welfare targeting.
  - Kerala and Himachal Pradesh showcased best practices in reducing multidimensional poverty through universal healthcare and education access.
- **Policy Convergence:** Focus on embedding MPI metrics into flagship schemes like PM POSHAN, PM Awas Yojana, and Ayushman Bharat.
- **Data Capacity Building:** Emphasis on strengthening state statistical systems and digital poverty dashboards.

### Governance and Policy Significance

- **Beyond Income Poverty:** Recognises deprivation in nutrition, sanitation, housing, and schooling.
- **Targeted Policy:** Helps design evidence-based social protection and direct resources to the most deprived households.
- **Cooperative Federalism:** Encourages states to adopt MPI for planning and monitoring, strengthening Centre–State collaboration.
- **Global Positioning:** Aligns India with UNDP's Global MPI Report and enhances credibility in tracking SDG progress.

### Challenges

- **Data Timeliness:** Household surveys often lag, reducing real-time effectiveness.
- **Intra-State Inequality:** Large disparities exist even within better-performing states.
- **Capacity Gaps:** Many states need technical support for data analysis and integration.

### Outlook

India aims to reduce its multidimensional poverty headcount ratio to below 10% by 2030, in line with SDGs.

By institutionalising MPI into policy design, India seeks to shift from "one-size-fits-all" welfare to precision poverty alleviation.

### UPSC Add-Ons

Q. With reference to the National Multidimensional Poverty Index (MPI), consider the following statements:

1. India's MPI is based on 12 indicators under the dimensions of health, education, and standard of living.
2. NITI Aayog publishes India's National MPI Report in collaboration with UNDP.
3. The MPI measures only income-based poverty, not other deprivations.

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: (A)**

### Mains Question

Q. "Multidimensional Poverty Index provides a holistic measure of deprivation beyond income. Discuss its utility for targeted welfare in India, citing recent state-level applications."

### World Food India 2025: ₹1.02 Lakh Crore Investment Commitments

#### Introduction

The World Food India 2025 event, organised by the Ministry of Food Processing Industries (MoFPI) from 25–28 September 2025 in New Delhi, concluded with over ₹1,02,000 crore worth of investment commitments in India's food processing sector.

According to the PIB release, the event brought together global companies, domestic firms, and policymakers to highlight opportunities in India's agri-food value chain, packaging innovation, and export promotion.



### Key Highlights

- **Investment Commitments:** Over ₹1.02 lakh crore in MoUs covering food processing, cold chain infrastructure, and retail.
- **Global Participation:** 20+ partner countries and 1,200+ exhibitors showcased innovations in agri-tech, food safety, and processing.
- **Sustainability Focus:** Special sessions on biodegradable packaging, food waste valorisation, and the blue economy.
- **Startup Showcase:** 200 food-tech and agri-tech startups presented scalable solutions for supply-chain efficiency and nutrition.
- **Export Push:** Discussions centred on doubling processed food exports by 2030, with a target of USD 100 billion agri-food exports.



### Policy and Governance Significance

- **Doubling Farmer Incomes:** Value-addition through food processing increases farmer share in consumer spending.
- **Employment Creation:** The sector is expected to generate 8–10 million new jobs in processing, logistics, and retail by 2030.
- **Linkages with Schemes:** Supports initiatives like PM Kisan SAMPADA Yojana, Operation Greens, and PLI for Food Processing.
- **Export Competitiveness:** Enhanced branding of Indian products under One District One Product (ODOP) scheme.

### Challenges

- **Cold Chain Gaps:** Nearly 40% of perishable produce in India still lacks integrated storage facilities.
- **Food Safety Standards:** Harmonisation with global norms remains essential for boosting exports.
- **Climate Risks:** Agriculture-linked industries remain vulnerable to rainfall variability and supply shocks.

### Outlook

World Food India 2025 highlights India's ambition to become a global food processing hub, not just an exporter of raw produce.

If investment commitments materialise, India could position itself as a key player in the global value chain for processed foods, while strengthening farmer incomes and rural employment.

### UPSC Add-Ons

Q. With reference to World Food India 2025, consider the following statements:

1. The event was organised by the Ministry of Agriculture & Farmers' Welfare.
2. It resulted in investment commitments exceeding ₹1 lakh crore in the food processing sector.
3. Discussions included biodegradable packaging and blue economy themes.

Which of the statements given above is/are correct?

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

**Answer: (B)**

### Mains Question

Q. "Food processing holds the key to enhancing farmer incomes and export competitiveness. Discuss in light of the investment commitments made at World Food India 2025."

## National Conclave 2025 for Ex-Servicemen Welfare

### Introduction

The Raksha Mantri addressed the National Conclave 2025 for Ex-Servicemen Welfare in New Delhi, organised by the Department of Ex-Servicemen Welfare (DESW), Ministry of Defence.

The PIB release highlighted the conclave's focus on rehabilitation, reskilling, and welfare of veterans, alongside policy discussions on strengthening collaborative governance for India's 34 lakh ex-servicemen.

### Key Highlights

- **Reskilling & Employment:** Initiatives to integrate veterans into the private sector through MoUs with industry bodies and skilling programmes.
- **Health & Social Security:** Expansion of ECHS (Ex-Servicemen Contributory Health Scheme) to cover more hospitals and telemedicine services.
- **Pension & Grievance Redressal:** New digital platforms for pension disbursement and online grievance handling launched.
- **Recognition of Sacrifice:** PM's message reiterated that veteran welfare is central to Rashtra Raksha and national gratitude.
- **Policy Discussions:** Emphasis on integrating veteran welfare into Skill India, Digital India, and Startup India missions.

### Governance and Policy Significance

- **Whole-of-Government Approach:** Moves beyond pensions to holistic welfare—healthcare, jobs, entrepreneurship.
- **Civil-Military Fusion:** Encourages utilisation of veterans' skills in civil sectors such as logistics, security, and administration.
- **Social Cohesion:** Recognition and integration of veterans reinforce national security culture.
- **Global Best Practices:** India is aligning with models from the US and UK where veterans play central roles in civic and industrial sectors.

### Challenges

- **Awareness Gaps:** Many veterans remain unaware of schemes and entitlements.
- **Skill Mismatch:** Transition from military to civilian jobs requires intensive re-skilling.
- **Pension Burden:** Fiscal sustainability of defence pensions remains a challenge, demanding innovative solutions like contributory funds.

### Outlook

The conclave reaffirmed the government's resolve to ensure "Seva, Samman, Suraksha" (Service, Respect, Security) for all veterans.

By linking welfare with employment and entrepreneurship opportunities, the approach marks a shift from passive support to active nation-building participation by veterans.

#### UPSC Add-Ons

Q. With reference to the National Conclave 2025 for Ex-Servicemen Welfare, consider the following statements:

1. It was organised by the Department of Ex-Servicemen Welfare under the Ministry of Defence.
2. The conclave announced expansion of the ECHS to include telemedicine services.
3. It primarily focused only on pension reforms, without any link to employment initiatives.

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: (A)**

#### Mains Question

Q. "Veteran welfare in India is gradually shifting from pension-centric support to a holistic resettlement and nation-building model. Discuss in the context of the National Conclave 2025 for Ex-Servicemen Welfare."

### PM's Call for Self-Reliance at UP International Trade Show

#### Introduction

While inaugurating the UP International Trade Show in Greater Noida, the Prime Minister reiterated India's commitment to self-reliance and Make in India, declaring that "Every product that can be made in India must be made in India."

The PIB release underlined this message as central to India's economic strategy, reinforcing the themes of Atmanirbhar Bharat, local manufacturing, and global competitiveness.

#### Key Highlights

- **Self-Reliance Narrative:** Emphasis on reducing dependence on imports in critical sectors like electronics, defence, and renewable energy.
- **MSME Participation:** Special focus on micro, small, and medium enterprises (MSMEs) as the backbone of manufacturing-led exports.
- **Export Diversification:** Encouragement for states like Uttar Pradesh to integrate with India's target of USD 1 trillion exports in FY26.
- **Entrepreneurial Push:** Calls for youth and startups to innovate in green tech, agri-processing, and digital goods.
- **Cultural Branding:** Leveraging "One District One Product (ODOP)" to take traditional crafts and products to global markets.

#### Governance and Policy Significance

- **Atmanirbhar Bharat Roadmap:** Reinforces the strategic shift toward localised supply chains amid global uncertainties.
- **State-Centre Synergy:** UP highlighted as a model state with rapid infrastructure expansion, industrial corridors, and incentives for investment.
- **Employment Generation:** Expansion of local manufacturing expected to create millions of jobs across formal and informal sectors.
- **Global Value Chains:** India is positioning itself as a reliable partner in supply chains, especially for electronics and defence.

#### Challenges

- **Cost Competitiveness:** Indian products must match global standards in both quality and price.
- **Technology Transfer:** Heavy reliance on imported high-end technology in semiconductors and defence remains a gap.
- **Financing MSMEs:** Access to affordable credit is still limited for many small producers.

#### Outlook

The PM's call signals that self-reliance will remain the defining economic narrative, with Make in India acting as its operational framework.

If combined with innovation, skill development, and strong logistics, India could emerge as a manufacturing powerhouse while preserving cultural uniqueness through ODOP.

#### UPSC Add-Ons

Q. With reference to the PM's address at the UP International Trade Show (2025), consider the following statements:

1. The PM emphasised that every product that can be made in India should be domestically produced.
2. The focus was on integrating state-level initiatives like ODOP into India's global export strategy.
3. The event was organised by the Ministry of External Affairs.

Which of the statements given above is/are correct?

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

**Answer: (A)**

#### Mains Question

Q. "India's push for self-reliance through Make in India and ODOP reflects a balance between global competitiveness and local identity. Analyse in the context of the PM's September 2025 address at the UP International Trade Show."

## SOCIAL ISSUES

### National Conference on Transgender Rights: "Revamping Spaces, Reclaiming Voices"

#### Bridging the Gap Between Law and Lived Reality

##### Introduction

The National Human Rights Commission (NHRC) hosted a landmark National Conference on Transgender Rights in New Delhi under the theme "Revamping Spaces, Reclaiming Voices."

The conference reviewed the progress and persistent gaps in implementing the Transgender Persons (Protection of Rights) Act, 2019, five years after its enactment, and set a forward roadmap for states and civil society.

##### Background

- **Legal Framework:** The 2019 Act prohibits discrimination in education, employment, healthcare, housing, and access to public services. It also mandates the creation of a National Council for Transgender Persons.
- **Ground Reality:** Despite these provisions, surveys indicate high levels of unemployment, health inequities, and violence against transgender persons. Only 16 states have fully operationalised state-level welfare boards.

##### Key Discussions and Recommendations

- **Identity Documentation:** Urgent need for simplified processes to obtain gender-affirming IDs across all government schemes.
- **Healthcare Access:** Proposal for dedicated transgender health clinics in every district hospital and inclusion under Ayushman Bharat PM-JAY packages.
- **Education & Employment:** Call for at least 1% reservation in higher education and skill-development programmes tailored to transgender youth.
- **Police Sensitisation:** Nationwide training modules to prevent harassment and ensure dignified treatment during legal procedures.
- **Social Security:** Recommendation to extend old-age and disability pensions to transgender persons irrespective of family income.

##### Governance and Policy Significance

- Reinforces Articles 14, 15 and 21 of the Constitution guaranteeing equality, non-discrimination, and dignity.
- Aligns with India's commitments under SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities).
- Complements recent Supreme Court judgments like *NALSA v. Union of India* (2014), which recognised the right to self-identification of gender.

##### Challenges Highlighted

- **Low Awareness:** Many district officials remain unaware of the 2019 Act's provisions.
- **Healthcare Stigma:** Shortage of trained doctors for gender-affirming procedures and mental health counselling.

- **Economic Exclusion:** Mainstream employment opportunities remain scarce; most transgender persons work in informal sectors.

##### Way Forward

- Establish a Centralised Gender Identity Portal for quick certification and service delivery.
- Mandate annual social-audit reports by states on transgender welfare.
- Incentivise private sector hiring through tax rebates and corporate social responsibility (CSR) credits.

##### UPSC Add-Ons

Q. Which of the following are mandated under the Transgender Persons (Protection of Rights) Act, 2019?

1. Prohibition of discrimination in education, employment, healthcare, and public services.
2. Creation of a National Council for Transgender Persons.
3. Reservation of 1% seats in all government jobs.

Select the correct code:

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

**Answer: (A)**

##### Mains Question

Q. "Despite a progressive legal framework, the transgender community in India continues to face systemic discrimination. Examine the gaps in implementation of the Transgender Persons (Protection of Rights) Act, 2019 and suggest policy measures for effective inclusion."

### "Children in India 2025" Report Released

#### Assessing Child Health, Nutrition, and Education in a Decade of Change

##### Introduction

The Ministry of Women and Child Development (MWCD) released the flagship report "Children in India 2025", offering a comprehensive review of the status of children across health, nutrition, education, and protection indicators.

Prepared in collaboration with UNICEF India and the **National Statistical Office (NSO)**, the report provides the first full-scale assessment after the COVID-19 pandemic and a decade of major welfare schemes such as **POSHAN Abhiyaan** and **Samagra Shiksha**.



### Key Findings

- **Nutrition:**
  - Stunting among children under five has declined to 29.6%, down from 35.5% (NFHS-5, 2019-21).
  - Wasting stands at 17%, still above the global WHO target of <15%.
  - Anaemia remains high at 55% among adolescent girls.
- **Health Services:**
  - Full immunisation coverage has reached 88%, aided by the Intensified Mission Indradhanush 5.0.
  - Infant Mortality Rate has fallen to 24 per 1,000 live births.
- **Education:**
  - Net enrolment in upper primary schools is now 92%, but secondary school dropout rates are still 14%, with sharper dropouts among girls in rural areas.
  - Digital divide persists: only 47% of rural households with school-going children have regular internet access.
- **Child Protection:**
  - Reported cases under the POCSO Act have risen by 12% over the last five years, partly reflecting improved reporting mechanisms.
  - Child labour has marginally declined to 3.7% of the 5–14 age group.

### Policy Significance

- **Nutrition & Health:** Reinforces the urgency of POSHAN 2.0, the Mid-Day Meal (PM-POSHAN) scheme, and the Anemia Mukht Bharat initiative.
- **Education:** Highlights the need for targeted interventions to keep girls in school, including expansion of the Kasturba Gandhi Balika Vidyalaya and digital infrastructure under PM e-VIDYA.
- **Child Protection:** Calls for stronger convergence of ICPS, Juvenile Justice Act enforcement, and community-based child protection committees.

### Constitutional & International Context

- Upholds Article 21A (Right to Education), Article 24 (prohibition of child labour), and Directive Principles on nutrition and health (Articles 39(e), 47).
- Advances India's commitments to the UN Convention on the Rights of the Child (CRC) and SDG 2 (Zero Hunger), SDG 3 (Good Health), and SDG 4 (Quality Education).

### Challenges

- **Persistent Anaemia:** Despite progress, high anaemia among adolescent girls threatens maternal health and future workforce productivity.
- **Regional Disparities:** States like Bihar and Jharkhand continue to lag behind in nutrition and secondary school enrolment.

- **Digital Divide:** Unequal internet access limits the gains from technology-enabled education.

### Recommendations from the Report

- Scale up fortified foods and diversified diets through the public distribution system and school meals.
- Strengthen school retention incentives—conditional cash transfers and safe transport for girls.
- Expand tele-medicine and mobile health units for hard-to-reach tribal and hill areas.
- Intensify community awareness campaigns on early marriage and child labour.

### UPSC Add-Ons

Q. With reference to the "Children in India 2025" report, consider the following statements:

1. The report is released by the Ministry of Women and Child Development in collaboration with UNICEF and the National Statistical Office.
2. It records that stunting among children under five has fallen below 30%.
3. It states that secondary school dropout rates for girls are below 5% nationwide.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Critically examine the findings of the 'Children in India 2025' report. What do they reveal about the successes and shortcomings of India's nutrition and education policies? Suggest strategies to bridge the persistent gaps in child health and learning outcomes."

### Swasth Nari Sashakt Parivar Abhiyan: Nationwide Women's Health Drive

#### Strengthening Preventive Care and Family Well-Being

#### Introduction

On 18 September 2025, the Ministry of Health and Family Welfare (MoHFW) in partnership with the Ministry of Women and Child Development (MWCD) launched the Swasth Nari Sashakt Parivar Abhiyan (SNSP)—a month-long national campaign to deliver comprehensive health check-ups for women and adolescent girls.

The initiative underscores the principle that "a healthy woman builds a healthy family" and seeks to integrate preventive healthcare, nutrition services, and awareness programmes across rural and urban India.

#### Background

- India continues to face high levels of anaemia among women: the latest Children in India 2025 report records \*55% anaemia prevalence in adolescent girls.



- Maternal Mortality Ratio (MMR) stands at 97 per 1,00,000 live births, with significant inter-state variation.
- Lifestyle-related non-communicable diseases (NCDs) such as diabetes and hypertension are rising among women in both rural and urban areas.

Recognising these challenges, the government designed SNSP as a preventive-care mission that integrates maternal, adolescent, and geriatric women's health services under one umbrella.

### Key Features of the Abhiyan

- **Comprehensive Health Camps:**
  - Held in every district, providing screening for anaemia, hypertension, diabetes, breast and cervical cancers.
  - Free iron-folic acid supplementation and on-the-spot counselling.
- **Mobile Medical Units:**
  - Special outreach to remote tribal and hilly areas with mobile diagnostic vans and tele-medicine links.
- **Nutrition & Lifestyle Education:**
  - Demonstrations on balanced diets, locally available millets, and exercise regimes.
  - Collaboration with the POSHAN 2.0 programme for convergence of nutrition services.
- **Integration with Existing Schemes:**
  - Alignment with Pradhan Mantri Surakshit Matritva Abhiyan, Ayushman Bharat – Health and Wellness Centres, and School Health and Wellness Programme.

### Governance and Policy Significance

- Advances Articles 21 and 47 of the Constitution—right to life and the State's duty to improve public health and nutrition.
- Contributes to SDG 3 (Good Health & Well-Being) and SDG 5 (Gender Equality).
- Strengthens the National Health Mission's focus on preventive care and reduces the burden on tertiary hospitals.

### Expected Impact

- Early detection of NCDs among women, preventing long-term complications.
- Reduction in maternal mortality through timely management of high-risk pregnancies.
- Empowerment of adolescent girls with knowledge of reproductive and mental health, reducing early marriage and teenage pregnancies.

### Challenges Ahead

- **Follow-up Care:** Ensuring women diagnosed with conditions receive consistent treatment after initial screening.
- **Human Resources:** Availability of trained female health workers and specialists in remote areas.
- **Behavioural Change:** Overcoming social barriers that discourage women from seeking preventive care.

### UPSC Add-Ons

Q. With reference to the Swasth Nari Sashakt Parivar Abhiyan launched in September 2025, consider the following statements:

1. It provides free screening for anaemia, diabetes, hypertension, and certain cancers.
2. It is jointly implemented by the Ministry of Health and Family Welfare and the Ministry of Women and Child Development.
3. It is restricted to urban areas to address lifestyle diseases.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Preventive healthcare is key to improving women's health outcomes in India. Critically analyse the objectives and design of the Swasth Nari Sashakt Parivar Abhiyan and suggest measures to ensure effective follow-up and behavioural change."

## World Suicide Prevention Day 2025: India's Evolving Mental-Health Strategy

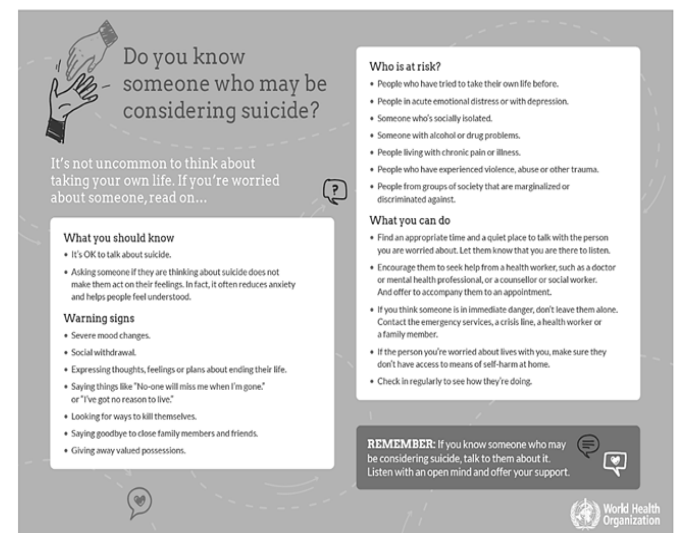
### From Awareness to Action

#### Introduction

India observed World Suicide Prevention Day (WSPD) with the theme "Creating Hope Through Action".

The Ministry of Health and Family Welfare (MoHFW), along with the National Mental Health Authority (NMHA) and civil-society partners, organised a nationwide campaign of awareness drives, counselling helplines, and school outreach programmes.

The day also marked the release of an updated National Suicide Prevention Strategy (2025-2030) aimed at cutting India's suicide mortality rate by at least 10% by 2030.



### Background

- **High Burden:** According to the National Crime Records Bureau (NCRB) 2024 report, India recorded 1.7 lakh suicides in 2024, the highest ever.
- **Demographic Pattern:** The highest rates are among 15–29 year olds, with key drivers including academic stress, unemployment, family conflict, and mental illness.
- **Existing Framework:** The Mental Healthcare Act, 2017 decriminalised suicide (Section 115) and guaranteed the right to mental healthcare. The first National Suicide Prevention Strategy (2022) set a target of 10% reduction by 2030 but required strengthening.

### Key Features of the 2025–2030 Strategy

- **Universal Helpline Network:**
  - Integration of state helplines with the 24×7 national number 14416, offering multi-language counselling.
- **Community Gatekeeper Training:**
  - Large-scale training of ASHA workers, teachers, police personnel, and peer educators to identify early warning signs.
- **School & College Mental-Health Curriculum:**
  - Mandatory life-skills and stress-management modules from Class VI upwards.
- **Workplace Interventions:**
  - Guidelines for corporate mental-health audits and Employee Assistance Programmes (EAPs).
- **High-Risk Group Focus:**
  - Special outreach for farmers, LGBTQ+ youth, migrants, and disaster-affected populations.

### Governance and Policy Significance

- Reinforces Article 21 (Right to Life) by recognising mental health as integral to life and dignity.
- Aligns with SDG 3 (Good Health & Well-Being) and SDG 4 (Quality Education) through its focus on youth resilience.
- Complements schemes like Ayushman Bharat Health and Wellness Centres and the Tele-Manas mental-health tele-consultation network.

### Challenges

- **Workforce Gaps:** India has only about 1.4 psychiatrists per 100,000 population, far below the WHO benchmark of 3.
- **Stigma and Awareness:** Cultural taboos continue to deter individuals from seeking help.
- **Data Limitations:** Under-reporting of suicides hampers accurate planning.

### Way Forward

- Expand district mental-health programmes with dedicated funding and staff.
- Leverage digital tools—AI chatbots, tele-psychiatry—to reach remote areas.

- Integrate mental-health indicators into routine health and education surveys for real-time monitoring.

### UPSC Add-Ons

- Q. With reference to India's National Suicide Prevention Strategy (2025–2030), consider the following statements:
1. It aims to reduce the national suicide mortality rate by at least 10% by 2030.
  2. It mandates mental-health curricula in schools and colleges.
  3. The strategy makes suicide a criminal offence again to deter attempts.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

- Q. "India has the world's highest absolute number of suicides, despite progressive legal reforms. Critically examine the 2025–2030 National Suicide Prevention Strategy in the context of public health infrastructure, stigma reduction, and community-based interventions."

### "Vridha Mitra" Toolkit and Shrinkhala

#### Talk Series: Strengthening Senior Citizen Welfare

#### Promoting Dignity and Active Ageing

#### Introduction

The Ministry of Social Justice and Empowerment (MoSJE) launched the "Vridha Mitra" Toolkit along with a nationwide talk series titled "Shrinkhala" to mark the International Day of Older Persons (ahead of 1 October).

These initiatives aim to empower India's rapidly growing elderly population by improving access to social security, healthcare, and opportunities for active community participation.



#### Background

- **Demographic Shift:** India's elderly (60+ years) population stands at over 14% of the total—nearly 190 million people—and is projected to reach 20% by 2050.
- **Existing Schemes:** The government already implements the National Action Plan for Senior Citizens (NAPsRC), Integrated Programme for Senior Citizens, and provides monthly pensions under Indira Gandhi National Old Age Pension Scheme.

- **Challenges:** Rising life expectancy, migration of younger family members, and the spread of nuclear families have increased loneliness, elder abuse, and economic insecurity.

### Key Features of the Initiatives

- **Vridha Mitra Toolkit**
  - A single-window digital and print resource listing all central and state schemes for senior citizens—covering pensions, health insurance, concessional travel, legal aid, and wellness centres.
  - Available in 12 Indian languages and integrated with the UMANG app for easy mobile access.
  - Includes a quick-reference guide for caregivers on mental health support and emergency contacts.
- **Shrinkhala Talk Series**
  - Monthly discussions in universities, community centres, and panchayats on themes such as financial literacy, intergenerational bonding, and digital skills for seniors.
  - Features experts from geriatrics, law, and social work to foster dialogue between young people and elders.

### Governance and Policy Significance

- Upholds Article 41 of the Constitution, which directs the State to provide public assistance in cases of old age.
- Advances SDG 3 (Good Health) and SDG 10 (Reduced Inequalities) by ensuring inclusive social protection.
- Complements the Maintenance and Welfare of Parents and Senior Citizens Act, 2007, which obligates children and heirs to care for parents and empowers tribunals to enforce maintenance.

### Expected Impact

- **Improved Awareness:** Simplifies access to benefits—especially critical in rural areas where knowledge of entitlements is limited.
- **Digital Inclusion:** Encourages seniors to use smartphones and e-governance services for pensions, healthcare appointments, and grievance redress.
- **Community Engagement:** The talk series promotes intergenerational dialogue, reducing isolation and promoting active ageing.

### Challenges

- **Digital Divide:** Many elderly citizens still lack smartphones or internet literacy.
- **Implementation at Grassroots:** Success depends on trained volunteers and local bodies to conduct sessions and assist seniors.
- **Healthcare Gaps:** Geriatric care infrastructure—specialist doctors and long-term care homes—remains uneven across states.

### UPSC Add-Ons

- Q. With reference to the "Vridha Mitra" initiative launched in September 2025, consider the following statements:

1. It provides a multilingual single-window resource of all central and state welfare schemes for senior citizens.
2. It is implemented under the Ministry of Social Justice and Empowerment.
3. It mandates children to provide compulsory monthly maintenance to parents.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

- Q. "India's ageing population is rising faster than its preparedness to care for them. Evaluate the significance of the 2025 'Vridha Mitra' Toolkit and Shrinkhala talk series in addressing economic insecurity, social isolation, and digital exclusion of the elderly."

## AGRICULTURE

### India–Australia Mutual Recognition Arrangement (MRA) on Organic Products

#### Boosting Trust, Trade, and Farmer Incomes

#### Introduction

India and Australia signed a Mutual Recognition Arrangement (MRA) for Organic Products, enabling two-way trade in certified organic produce without the need for additional re-certification. The pact was finalised during a virtual ceremony between the Agricultural and Processed Food Products Export Development Authority (APEDA) under the Ministry of Commerce & Industry and Australia's Department of Agriculture, Fisheries and Forestry (DAFF).

#### Background

- India is the 5th largest exporter of organic products globally, with exports exceeding USD 1.5 billion in FY 2024–25, mainly to the US, EU, and East Asia.
- Australia, with its vast organic farms and stringent standards, is a major supplier of organic grains, pulses, and wine.
- Prior to this agreement, exporters faced duplicate certification costs and delays as both countries required independent verification of each other's organic standards.

#### Key Provisions of the MRA

- **Mutual Acceptance of Certification:** Organic products certified by APEDA-accredited agencies will be automatically accepted in Australia, and vice versa.
- **Scope of Products:** Includes cereals, pulses, oilseeds, spices, horticulture products, dairy items, and processed organic foods.

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- **Compliance & Audit:** Both sides will conduct periodic joint audits to ensure equivalence of standards and traceability.
- **Digital Verification:** Blockchain-based traceability platforms will be integrated to prevent fraud and enhance consumer confidence.

**Economic and Governance Significance**

- **Reduced Trade Barriers:** Eliminating double certification is expected to cut export costs by 15–20%, improving price realisation for Indian farmers.
- **Farmer Income Growth:** India has over 4.4 million organic farmers, the largest in the world; better market access will help them secure premium prices.
- **Diversification of Export Markets:** Adds a high-value destination for Indian organic produce beyond the EU and US, reducing dependence on a few markets.
- **Strengthening Indo-Pacific Ties:** The arrangement complements the India–Australia Economic Cooperation and Trade Agreement (ECTA) and signals deepening agri-trade cooperation in the Indo-Pacific.

**Policy and Constitutional Context**

- Aligns with the government's National Programme for Organic Production (NPOP) and Jaivik Bharat initiative.
- Supports Article 47 of the Constitution, which directs the State to improve public health and nutrition, and the SDG 12 goal of sustainable consumption and production.
- Demonstrates effective use of India's external trade powers under Article 246, Union List (Entries 41 & 42).

**Challenges Ahead**

- **Quality Assurance:** Maintaining stringent standards across millions of small farmers requires continued training and monitoring.
- **Infrastructure:** Cold-chain and logistics support must expand to handle higher export volumes.
- **Global Competition:** Other major organic exporters (US, EU, Latin America) may intensify competition in premium markets.

**UPSC Add-Ons**

Q. Consider the following statements regarding the India–Australia Mutual Recognition Arrangement (MRA) on Organic Products:

1. It allows organic products certified by India's APEDA to be sold in Australia without additional certification.
2. Only unprocessed agricultural commodities are covered under the arrangement.
3. The agreement is implemented under the National Programme for Organic Production (NPOP).

Which of the statements given above is/are correct?

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

**Answer: (A)**

**Mains Question**

Q. "Analyse the potential of the India–Australia Mutual Recognition Arrangement on Organic Products to enhance India's agri-export competitiveness. Discuss the domestic reforms needed to fully leverage such trade pacts."

**National Agriculture Conference – Rabi Abhiyan 2025****Strategising for a Record Rabi Crop****Introduction**

The National Agriculture Conference on Rabi Abhiyan 2025 was held on 15–16 September 2025 in New Delhi, jointly organised by the Union Ministry of Agriculture & Farmers Welfare and all State Agriculture Departments.

The two-day meet set the stage for India's 2025–26 Rabi season, bringing together state agriculture ministers, secretaries, ICAR scientists, meteorologists, and farmer organisations to plan production, input supply, and climate-smart strategies.

**Background**

- India's agriculture calendar is divided into Kharif (monsoon) and Rabi (winter) seasons. Rabi crops—wheat, mustard, barley, chickpea, lentil, and potato—contribute a major share to food security and farm incomes.
- Erratic rainfall in parts of the 2025 Kharif season and predictions of a mild winter necessitated careful Rabi planning.
- The annual Rabi Conference is the principal platform for the Centre and States to set production targets, input strategies, and contingency plans.

**Key Outcomes**

- **Record Foodgrain Target:** The Conference fixed a national foodgrain production target of 362.5 million tonnes for 2025–26, including 124 million tonnes of wheat and 28 million tonnes of pulses.
- **Focus on Pulses and Oilseeds:** Special emphasis was laid on chickpea, lentil, and mustard to reduce dependence on edible oil imports.
- **Seed and Fertiliser Readiness:** States were directed to ensure 100% certified seed availability and to curb spurious fertilisers and bio-stimulants through strict monitoring.
- **Climate-Smart Strategies:** The Indian Meteorological Department (IMD) shared forecasts of a likely mild El Niño. Contingency plans were drawn for drought-prone districts and areas vulnerable to unseasonal rains.
- **One Nation–One Agriculture–One Team:** The theme highlighted seamless Centre–State coordination to optimise input distribution and market linkages.



### Governance and Policy Significance

- **Food Security:** Achieving the 362.5 MT target will maintain comfortable buffer stocks for the Public Distribution System and schemes like PM-GKAY.
- **Nutritional Security:** Higher pulses output addresses protein needs of a growing population and supports the National Nutrition Mission.
- **Doubling Farmer Income:** Expansion of oilseeds and pulses, backed by MSP hikes, can raise farmer earnings while reducing import bills.
- **Technology Integration:** The Conference urged states to scale up drone-based nutrient application, AI-based pest monitoring, and soil health mapping.

### Constitutional and Policy Context

- The planning exercise reflects the cooperative federalism envisaged in Article 246 (Seventh Schedule)—where agriculture is primarily a State subject but the Centre provides coordination and finance.
- It also supports the Directive Principles of State Policy (Article 47) on raising nutrition levels and improving public health.

### Challenges Highlighted

- **Water Stress:** Declining groundwater in the Indo-Gangetic plains threatens wheat sustainability.
- **Climate Variability:** Unseasonal rainfall and rising minimum temperatures may cut yields unless resilient varieties are adopted.
- **Market Access:** Ensuring remunerative prices and timely procurement remains critical for pulses and oilseeds.

### UPSC Add-Ons

Q. With reference to the National Agriculture Conference – Rabi Abhiyan 2025, consider the following statements:

1. It fixed India's total foodgrain production target for 2025-26 at 362.5 million tonnes.
2. The conference emphasised 100% use of genetically modified wheat seeds across all states.
3. The theme of the conference was "One Nation – One Agriculture – One Team."

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Discuss the significance of the National Agriculture Conference in achieving India's foodgrain self-sufficiency. Highlight how climate-smart strategies and cooperative federalism are critical for meeting the 2025-26 Rabi production targets."

## GST Rate Cut on Agricultural Machinery: Boosting Mechanisation and Farmer Savings

### Lowering Input Costs to Raise Farm Productivity

#### Introduction

The GST Council announced a reduction of Goods and Services Tax (GST) on several categories of agricultural machinery and implements from 12% to 5%.

The move is expected to reduce the purchase price of tractors, harvesters, irrigation pumps, and other essential equipment, directly lowering input costs for farmers and accelerating India's push toward farm mechanisation.



#### Background

- India's farm mechanisation level stands at roughly 45%, significantly lower than countries like China (60%) and the U.S. (90%).
- High upfront costs of equipment and credit constraints have historically limited adoption, particularly among small and marginal farmers, who constitute about 86% of India's cultivators.
- Rising labour costs and rural labour shortages make mechanisation critical for sustaining productivity and ensuring timely sowing and harvesting.

### Key Features of the GST Rate Revision

- **Items Covered:**
  - Tractors up to 50 horsepower
  - Combine harvesters and other crop-residue management machinery
  - Irrigation pumps, sprayers, and other precision-agriculture implements
- **New Rate:** GST reduced from 12% to 5% across these categories.
- **Immediate Impact:**
  - A typical 35–40 HP tractor will now cost about ₹35,000–₹45,000 less, depending on brand and state levies.
  - Irrigation pump prices may fall by ₹5,000–₹7,000.

### Governance and Policy Significance

- **Boost to Mechanisation:** The reduction aligns with the National Mission on Agricultural Mechanization and the PM-KUSUM scheme (for solar pumps), making equipment more affordable.

- **Doubling Farmer Income:** Lower machinery costs reduce input expenditure and labour dependence, raising net farm income.
- **Environmental Benefits:** Wider use of residue-management equipment can help reduce stubble burning, improving air quality in northern India.

### Economic Impact

- The farm equipment market—currently valued at about USD 18 billion—is expected to grow at 8–10% annually following the tax cut.
- Ancillary sectors such as agri-tech start-ups, custom hiring centres, and equipment financing companies will benefit from increased demand.

### Constitutional and Policy Context

- The GST Council operates under Article 279A of the Constitution, requiring cooperative federalism between the Centre and States for tax rate changes.
- Agriculture, though primarily a State subject, gains from uniform national taxation that lowers transaction costs and improves the ease of doing business.

### Challenges

- **Credit Access:** Small farmers may still struggle to afford machinery even with lower taxes; expansion of subsidised loans and Custom Hiring Centres (CHCs) remains essential.
- **After-Sales Service:** Increased sales must be matched with quality servicing and availability of spare parts, especially in remote areas.
- **Regional Imbalance:** Mechanisation gains may be concentrated in already-developed agricultural states unless targeted outreach reaches rain-fed and hilly regions.

### UPSC Add-Ons

Q. With reference to the GST rate cut on agricultural machinery in September 2025, consider the following statements:

1. The GST Council reduced the rate on certain farm equipment from 12% to 5%.
2. This decision was taken under the powers conferred by Article 279A of the Constitution.
3. The move is expected to discourage the establishment of Custom Hiring Centres.

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: (A)**

### Mains Question

Q. "Discuss the implications of the September 2025 GST reduction on agricultural machinery for India's farm mechanisation goals. Highlight the role of cooperative federalism in implementing such tax reforms."

## National Workshop on Agricultural Disaster Resilience – September 2025

### Strengthening Climate Preparedness for Indian Farming

#### Introduction

The Ministry of Agriculture & Farmers Welfare, in collaboration with the National Institute of Disaster Management (NIDM) and the Indian Council of Agricultural Research (ICAR), organised a National Workshop on "Building Agricultural Disaster Resilience" in New Delhi.

The event came against the backdrop of erratic monsoon patterns, flash floods in the north-east, and rising frequency of droughts, highlighting the urgent need for climate-smart and disaster-ready farming systems.

#### Background

- India loses an estimated ₹80,000 crore annually to weather-related crop losses.
- The 2025 Kharif season witnessed regional drought pockets in Maharashtra and unseasonal heavy rains in Himachal Pradesh and Uttarakhand.
- The Sendai Framework (2015-2030) and India's own National Disaster Management Plan call for integrating agriculture more deeply into disaster-risk reduction policies.

#### Key Themes Discussed

- **Climate-Smart Agriculture:** Adoption of drought-tolerant seed varieties, micro-irrigation, and agro-forestry to reduce vulnerability.
- **Early-Warning Systems:** Linking the India Meteorological Department's (IMD) district forecasts with village-level advisories delivered via mobile apps and Kisan Call Centres.
- **Risk Financing & Insurance:** Strengthening the Pradhan Mantri Fasal Bima Yojana (PMFBY) with quicker claim settlement and wider coverage for smallholders.
- **Community-Based Preparedness:** Training Farmer Producer Organisations (FPOs) to act as first responders and maintain local grain banks for emergency food security.
- **Soil & Water Conservation:** Promotion of watershed development, rainwater harvesting, and climate-resilient cropping patterns.

#### Governance and Policy Significance

- Reinforces the objectives of Article 48A (protection of the environment) and Article 47 (improvement of public health and nutrition).
- Complements flagship programmes such as the National Mission on Sustainable Agriculture (NMSA), PM Krishi Sinchai Yojana, and the National Adaptation Fund on Climate Change.
- Encourages Centre-State coordination, with state disaster management authorities committing to

## C.C. SEPTEMBER '25

integrate agricultural risk mapping into district contingency plans.

**Challenges Highlighted**

- **Financing Gaps:** Limited budgetary allocation for long-term adaptation projects.
- **Data & Technology:** Need for high-resolution, real-time climate data at the village level.
- **Capacity Building:** Training local extension workers and farmers to implement resilience strategies remains uneven across states.

**Way Forward**

- Expand climate-linked crop insurance with parametric triggers for faster payouts.
- Scale up digital advisories in regional languages for timely farmer action.
- Foster public-private partnerships for weather-resilient infrastructure like solar-powered cold storage.

**UPSC Add-Ons**

Q. Which of the following were key focus areas of the September 2025 National Workshop on Agricultural Disaster Resilience?

1. Integration of early-warning systems with farm advisories
2. Strengthening of Pradhan Mantri Fasal Bima Yojana
3. Promotion of climate-resilient seed varieties

Select the correct code:

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

**Answer: (D)**

**Mains Question**

Q. "Discuss the importance of integrating disaster-risk reduction into agricultural policy in India. How can the lessons from the September 2025 National Workshop on Agricultural Disaster Resilience help achieve this goal?"

**PMFME Credit Push Announced at World Food India 2025****Strengthening Micro Food Processing Enterprises for Rural Growth****Introduction**

During the World Food India 2025 event held in New Delhi on 25–28 September 2025, the Ministry of Food Processing Industries (MoFPI) announced a major credit boost under the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme.

Over ₹770 crore of new credit assistance has been sanctioned to around 26,000 micro-processing enterprises across the country, with special emphasis on women-led units and Farmer Producer Organisations (FPOs).

**Background**

- Launched in 2020, PMFME provides 35% credit-linked capital subsidy (up to ₹10 lakh per unit) to unorganised micro food processors for upgrading technology, branding, and marketing.
- Micro enterprises account for over 80% of India's food processing sector, but most operate without formal credit or modern infrastructure.
- The new September 2025 credit push is part of the government's strategy to strengthen rural non-farm employment and reduce post-harvest losses.

**Key Announcements at World Food India 2025**

- **₹770 Crore Sanctioned:** Funds to be disbursed through banks and state nodal agencies before March 2026.
- **Focus on Women & FPOs:** At least 40% of the new beneficiaries are women entrepreneurs and farmer collectives.
- **Cluster Development:** Priority for millet, spice, and fruit clusters in states like Maharashtra, Odisha, and the North-East to leverage local produce.
- **Digital Marketplace Linkages:** Integration with the ONDC (Open Network for Digital Commerce) to widen market access.

**Economic & Governance Significance**

- **Employment Generation:** Each enterprise is expected to create or sustain 3–5 jobs, implying nearly one lakh rural jobs from this tranche alone.
- **Value Addition:** Upgrading micro units enhances shelf life, reduces wastage, and increases farmer income by improving farm-gate prices.
- **Boost to Exports:** Better branding and packaging can help small processors tap into growing global demand for Indian spices, millets, and ready-to-eat foods.

**Policy Context**

- Supports Atmanirbhar Bharat and the vision of Doubling Farmers' Income by diversifying rural livelihoods.
- Advances the objectives of Article 43 (promoting cottage industries) and Article 47 (raising nutrition levels).
- Complements the Production Linked Incentive (PLI) Scheme for larger food processing companies, creating a pipeline from micro to medium enterprises.

**Challenges Ahead**

- **Credit Absorption:** Timely disbursement and capacity-building are essential to ensure beneficiaries can utilise funds effectively.
- **Quality Control:** Small processors need training to meet FSSAI safety standards and international export norms.
- **Market Linkages:** Sustained support is required to help micro units compete with large brands and integrate with modern retail chains.

### UPSC Add-Ons

Q. Consider the following statements regarding the September 2025 PMFME credit announcement:

1. The scheme provides a 35% credit-linked capital subsidy to micro food processing units.
2. At least 40% of the newly sanctioned beneficiaries are women entrepreneurs and farmer collectives.
3. The funds are routed entirely through NABARD with no role for commercial banks.

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: (A)**

### Mains Question

Q. "Evaluate the impact of the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) scheme in empowering rural women and farmer-producer organisations. How does the September 2025 credit infusion advance India's goals of rural industrialisation and inclusive growth?"

## Expansion of Food-Processing Infrastructure and Cold Chain Projects

### Key Announcements at World Food India 2025

#### Introduction

At the World Food India 2025 conclave held in New Delhi from 25–28 September 2025, the Ministry of Food Processing Industries (MoFPI) unveiled a major infrastructure expansion plan aimed at reducing post-harvest losses and boosting India's food-processing capacity.

The initiative includes the commissioning of 24 Mega Food Parks, 22 Agro-Processing Clusters, and 289 Integrated Cold Chain Projects across the country.

#### Background

- India loses an estimated ₹92,000 crore annually due to post-harvest wastage, primarily in perishables like fruits, vegetables, fish, and meat.
- Previous phases of the Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) had already established 23 mega food parks and more than 250 cold chain projects.
- The new September 2025 announcement builds on these achievements to meet rising domestic demand and increase export competitiveness.

#### Key Components of the Expansion

- **24 New Mega Food Parks:** Each park will integrate primary processing, packaging, and storage facilities, with a cluster approach linking farmers directly to processors and exporters.
- **289 Integrated Cold Chains:** Covering 28 states and UTs, these projects aim to cut fruit and vegetable wastage from the current 15–20% to below 10% by 2030.

- **22 Agro-Processing Clusters:** Focused on regional produce—spices in Kerala, millets in Rajasthan, seafood in Odisha—creating local value chains and rural jobs.
- **Technology & Green Energy:** Mandatory use of solar-powered refrigeration units and IoT-enabled temperature monitoring.

### Economic & Governance Significance

- **Farmer Income & Price Stability:** Reduced wastage and better storage allow farmers to sell produce off-season at higher prices, supporting the Doubling Farmers' Income goal.
- **Employment Generation:** Each mega food park is expected to create 5,000 direct and 25,000 indirect jobs, spurring rural industrialisation.
- **Export Boost:** Improved supply chains strengthen India's bid to raise processed food exports from USD 49.4 billion (2024–25) to USD 60 billion by 2027.
- **Nutrition Security:** Year-round availability of perishables helps meet the objectives of Poshan Abhiyaan.

### Constitutional and Policy Context

- Operates under Article 47 (raising nutrition levels) and aligns with SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production).
- Reflects cooperative federalism—Centre provides capital grants and policy direction, while states facilitate land acquisition and single-window clearances.

### Challenges Ahead

- **Power and Logistics:** Reliable electricity and last-mile connectivity remain bottlenecks in rural and hilly regions.
- **Private Sector Participation:** Sustained investment is essential for operation and maintenance of cold chains.
- **Quality Standards:** Meeting global sanitary and phytosanitary norms requires continuous training and third-party audits.

### UPSC Add-Ons

Q. With reference to the September 2025 expansion of food-processing infrastructure, consider the following statements:

1. The plan includes commissioning of 24 new Mega Food Parks and 289 Integrated Cold Chain Projects.
2. Solar-powered refrigeration units and IoT temperature monitoring are mandatory features of the new cold chains.
3. The scheme is implemented under the Pradhan Mantri Kisan SAMPADA Yojana.

Which of the statements given above is/are correct?

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

**Answer: (C)**



**Mains Question**

Q. "Discuss how the September 2025 expansion of mega food parks and cold chain projects can transform India's agri-logistics and reduce post-harvest losses. Highlight the governance challenges in ensuring private sector participation and quality compliance."

## Expansion of Food-Processing Infrastructure and Cold Chain Projects

### Key Announcements at World Food India 2025

#### Introduction

At the World Food India 2025 conclave held in New Delhi from 25–28 September 2025, the Ministry of Food Processing Industries (MoFPI) unveiled a major infrastructure expansion plan aimed at reducing post-harvest losses and boosting India's food-processing capacity.

The initiative includes the commissioning of 24 Mega Food Parks, 22 Agro-Processing Clusters, and 289 Integrated Cold Chain Projects across the country.

#### Background

- India loses an estimated ₹92,000 crore annually due to post-harvest wastage, primarily in perishables like fruits, vegetables, fish, and meat.
- Previous phases of the Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) had already established 23 mega food parks and more than 250 cold chain projects.
- The new September 2025 announcement builds on these achievements to meet rising domestic demand and increase export competitiveness.

#### Key Components of the Expansion

- 24 New Mega Food Parks:** Each park will integrate primary processing, packaging, and storage facilities, with a cluster approach linking farmers directly to processors and exporters.
- 289 Integrated Cold Chains:** Covering 28 states and UTs, these projects aim to cut fruit and vegetable wastage from the current 15–20% to below 10% by 2030.
- 22 Agro-Processing Clusters:** Focused on regional produce—spices in Kerala, millets in Rajasthan, seafood in Odisha—creating local value chains and rural jobs.
- Technology & Green Energy:** Mandatory use of solar-powered refrigeration units and IoT-enabled temperature monitoring.



### Economic & Governance Significance

- Farmer Income & Price Stability:** Reduced wastage and better storage allow farmers to sell produce off-season at higher prices, supporting the Doubling Farmers' Income goal.
- Employment Generation:** Each mega food park is expected to create 5,000 direct and 25,000 indirect jobs, spurring rural industrialisation.
- Export Boost:** Improved supply chains strengthen India's bid to raise processed food exports from USD 49.4 billion (2024–25) to USD 60 billion by 2027.
- Nutrition Security:** Year-round availability of perishables helps meet the objectives of Poshan Abhiyaan.

### Constitutional and Policy Context

- Operates under Article 47 (raising nutrition levels) and aligns with SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production).
- Reflects cooperative federalism—Centre provides capital grants and policy direction, while states facilitate land acquisition and single-window clearances.

### Challenges Ahead

- Power and Logistics:** Reliable electricity and last-mile connectivity remain bottlenecks in rural and hilly regions.
- Private Sector Participation:** Sustained investment is essential for operation and maintenance of cold chains.
- Quality Standards:** Meeting global sanitary and phytosanitary norms requires continuous training and third-party audits.

### UPSC Add-Ons

Q. With reference to the September 2025 expansion of food-processing infrastructure, consider the following statements:

- The plan includes commissioning of 24 new Mega Food Parks and 289 Integrated Cold Chain Projects.
- Solar-powered refrigeration units and IoT temperature monitoring are mandatory features of the new cold chains.
- The scheme is implemented under the Pradhan Mantri Kisan SAMPADA Yojana.

Which of the statements given above is/are correct?

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

**Answer: (C)**

### Mains Question

Q. "Discuss how the September 2025 expansion of mega food parks and cold chain projects can transform India's agri-logistics and reduce post-harvest losses. Highlight the governance challenges in ensuring private sector participation and quality compliance."

## Investment Push via FDI and PLI Incentives Announced at World Food India 2025

### Driving Capital and Technology into India's Food-Processing Sector

#### Introduction

At the World Food India (WFI) 2025 conclave held in New Delhi from 25–28 September 2025, the Ministry of Food Processing Industries (MoFPI) unveiled a comprehensive investment package aimed at attracting global capital, technology, and innovation into India's rapidly growing food-processing ecosystem.

The announcements emphasised 100% Foreign Direct Investment (FDI) under the automatic route and expansion of the Production Linked Incentive (PLI) Scheme to catalyse private sector participation.



#### Background

- India's food-processing market is projected to reach USD 535 billion by 2030, driven by rising incomes, urban demand for packaged food, and export potential.
- Despite this potential, the sector has historically attracted modest FDI due to regulatory complexity and infrastructure gaps.
- The earlier PLI Scheme for Food Processing (launched in 2021) offered incentives worth ₹10,900 crore for key segments like ready-to-eat foods, fruits and vegetables, and marine products.



#### Key Announcements at WFI 2025

- Expanded PLI Scheme:**
  - New verticals covering millet-based health foods, plant-based proteins, and functional beverages.
  - Additional ₹6,000 crore incentive pool earmarked for 2025–30.
- 100% FDI under Automatic Route:**
  - Reaffirmed and simplified single-window clearances to draw large-scale investments from global food majors.
  - States encouraged to create dedicated "Food Processing Investment Zones."
- Innovation & Start-ups:**
  - Creation of a National Food Innovation Fund with an initial corpus of ₹1,500 crore to support agri-tech and food-tech start-ups.
- Sustainability Mandates:**
  - Investors required to adopt energy-efficient and low-waste technologies in line with India's Net Zero 2070 targets.

#### Economic and Governance Significance

- Farmer Income Boost:** Greater processing capacity ensures better farm-gate prices and reduces post-harvest losses.
- Job Creation:** MoFPI estimates 2.5 million new jobs—direct and indirect—over the next five years.
- Export Competitiveness:** By upgrading technology and branding, India aims to raise processed food exports from USD 49.4 billion (2024–25) to USD 60 billion by 2027.
- Regional Development:** Investment zones in the North-East and Eastern states aim to correct regional imbalances in processing infrastructure.

#### Policy & Constitutional Context

- The investment package aligns with Article 47 (duty of the State to raise nutrition levels) and the Make in India initiative.
- FDI policy is governed by the Foreign Exchange Management Act (FEMA), 1999, allowing 100% automatic FDI in food retailing and manufacturing.
- The PLI expansion reflects the Centre's use of its powers under Entry 52, Union List (industries of national importance) to spur strategic growth.

#### Challenges Ahead

- State-Level Implementation:** Land acquisition, power supply, and local clearances may still deter investors despite central reforms.
- Global Competition:** India must maintain high sanitary and phytosanitary standards to compete with established exporters.

- **Inclusive Growth:** Ensuring that small farmers and micro-entrepreneurs benefit from large-scale FDI projects requires strong linkage policies.

#### UPSC Add-Ons

Q. Which of the following measures were announced at World Food India 2025 to attract investment in the food-processing sector?

1. Expansion of the Production Linked Incentive (PLI) Scheme with a new ₹6,000 crore allocation.
2. 100% FDI under the automatic route for food processing and retail.
3. Creation of a National Food Innovation Fund for agri-tech start-ups.

Select the correct code:

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

**Answer: (D)**

#### Mains Question

Q. "Discuss how the expanded PLI incentives and liberalised FDI policy announced at World Food India 2025 can transform India into a global food-processing hub. Highlight the challenges of state-level execution and farmer inclusion."

### Digital & Technology Push in Agriculture: AI, Drones and E-Commerce Highlighted at World Food India 2025

#### Transforming India's Farm-to-Fork Supply Chain

##### Introduction

At World Food India (WFI) 2025, held in New Delhi from 25–28 September 2025, Prime Minister Narendra Modi and the Ministry of Food Processing Industries (MoFPI) spotlighted the role of artificial intelligence (AI), drone technology, and digital marketplaces in modernising India's agri-food sector. The conference emphasised that technology adoption across the value chain—from farm production to consumer delivery—is central to doubling farmer incomes and meeting export targets.

##### Key Announcements

- **AI-Driven Crop Monitoring**
  - Nationwide pilot to integrate AI-based pest and disease surveillance with the Agriculture Ministry's digital platforms.
  - AI-powered grading and sorting solutions to reduce post-harvest losses and enhance export-quality assurance.
- **Drone-Based Services**
  - Expansion of the Sub-Mission on Agricultural Mechanisation to subsidise drones for nutrient spraying, crop health imaging, and precision sowing.
  - Creation of 1,000 additional drone service centres operated by Farmer Producer Organisations (FPOs) and start-ups.

#### E-Commerce & ONDC Integration

- Farmers and micro-processors to be linked to the Open Network for Digital Commerce (ONDC) to access national and international buyers.
- Target of onboarding 10 million farmers and small agri-businesses by 2027.

#### Blockchain Traceability

- Pilot blockchain systems for tracking high-value exports like spices, basmati rice, and organic produce to meet international certification norms.

#### Economic & Governance Significance

- **Boost to Farmer Income:** AI and drones cut input costs, improve yields, and enable premium pricing for export-grade produce.
- **Employment Generation:** Agri-tech start-ups and drone service centres create new skilled rural jobs.
- **Supply Chain Efficiency:** Digital marketplaces reduce intermediaries, ensuring better farm-gate prices and reducing consumer costs.

#### Policy & Constitutional Context

- Supports the Digital India mission and the National e-Governance Plan in Agriculture (NeGPA).
- Advances Article 48A (protection of environment) by enabling precision application of fertilisers and pesticides, reducing ecological footprint.
- Complements PM Kisan Drone Yojana, which provides subsidies and training for drone-based farm services.

#### Challenges Ahead

- **Digital Divide:** Limited broadband connectivity and digital literacy in many rural areas.
- **Data Privacy:** Ensuring secure handling of farm-level data under India's new Digital Personal Data Protection Act, 2023.
- **Regulatory Framework:** Need for clear guidelines on drone flight safety, AI algorithms, and liability for crop-loss miscalculations.

#### UPSC Add-Ons

Q. At World Food India 2025, which of the following initiatives were highlighted to enhance technology use in agriculture?

1. Integration of AI-based pest surveillance with national agriculture platforms.
2. Linking farmers and micro-processors to the Open Network for Digital Commerce (ONDC).
3. Mandatory use of genetically modified seeds in all drone-sown crops.

Select the correct code:

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

**Answer: (A)**

#### Mains Question

Q. "Discuss the transformative potential of AI, drone technology, and e-commerce integration in Indian agriculture. What regulatory and infrastructural measures are required to ensure equitable adoption across states?"



## INTERNATIONAL RELATIONS

### India at the 25<sup>th</sup> SCO Summit, Tianjin: Strategic Stakes and Outcomes

#### Context & Basic Facts

- The **25<sup>th</sup> Summit of the Shanghai Cooperation Organization (SCO)** was held in Tianjin, China, from 31 August to 1 September 2025.
- India participated at the highest level, with Prime Minister Narendra Modi attending and delivering India's statement.
- The summit agenda included themes such as SCO Development Strategy, Reform of Global Governance, Counter-Terrorism, Peace & Security, Economic & Financial Cooperation, and Sustainable Development.



**Shanghai Cooperation Organization (SCO)**, is an intergovernmental organization established in 2001 by China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan with the aim of promoting cooperation and peace among its member states, as well as fostering "a new democratic, fair and rational international political and economic order." The organization expanded to include India and Pakistan in 2017, Iran in 2023, and Belarus in 2024, bringing the total to ten member states. The SCO also includes 2 observer states—Mongolia and Afghanistan (currently inactive)—and 14 dialogue partners: Sri Lanka, Turkey, Cambodia, Azerbaijan, Nepal, Armenia, Egypt, Qatar, Saudi Arabia, Bahrain, Kuwait, Myanmar, the Maldives, and the United Arab Emirates. The official languages of the SCO are Chinese and Russian.

#### India's Approach & Key Positions

##### Pillars of India's SCO Strategy

In his address, PM Modi articulated India's vision for its engagement under SCO along three pillars: Security, Connectivity, and Opportunity.

- **Security:** Emphasised the necessity of collective action against terrorism, radicalisation, and terror financing. Called for no double standards and accountability for those who support cross-border terrorism.
- **Connectivity:** India reaffirmed support for strategic projects like Chabahar Port and International North-South Transport Corridor (INSTC) as means to link India

with Central Asia and beyond, under the umbrella of sovereignty respect.

- **Opportunity:** Highlighted India's strengths in start-ups, innovation, youth, and cultural heritage, urging the bloc to tap into these areas for collective growth.

#### Diplomatic Messaging & Global Order Reform

- PM Modi welcomed the establishment of new SCO centers focused on organized crime, drug trafficking, and cybersecurity.
- India called for reform of multilateral institutions, including the United Nations, positioning the SCO as a forum for inclusive global governance.
- In the Summit, the Tianjin Declaration was adopted by the member states.

#### Challenges, Tensions & Strategic Signals

- **Terrorism & Consensus Gaps:** India has repeatedly pushed for explicit language on terrorism and radicalisation. Consensus in SCO forums is often hindered by some states' resistance to strong anti-terror references.
- **India-China Relations:** The summit also became a platform for cautious rapprochement—amid ongoing border tensions, both sides emphasized that the border issue should not define the larger bilateral relationship.
- **Reform & Institutional Depth:** While declarations and center setups were welcomed, much depends on actual institutional capacity, funding, and implementation across SCO states.
- **Multipolar Narratives:** China at this summit proposed expanding the SCO's role—e.g., launching an energy cooperation platform, opening China's BeiDou system to member states, and pushing for a development bank under SCO (as per media reporting)

#### Significance for India's Foreign Policy

- The summit reaffirmed India's commitment to multilateralism and its role in Eurasia connectivity.
- It allowed India to reinforce strategic initiatives like Chabahar and Central Asia outreach, circumventing some over-reliance on land routes through hostile regions.
- SCO remains a platform where India can balance relations with major powers (China, Russia) while pushing its own regional and global agenda.
- India's messaging on terrorism, governance reform, and connectivity helps align it with Global South partners, enhancing its leadership positioning.

#### UPSC Add-Ons

- Q. With reference to the 25th SCO Summit in Tianjin (2025), consider the following statements:
1. India participated through its Prime Minister and proposed its SCO engagement along three pillars: Security, Connectivity, and Opportunity.



2. India's statement avoided any mention of terror financing or holding states accountable.
3. The SCO member states adopted the "Tianjin Declaration" at the summit.

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)**

### Mains Question

Q. "Analyse the importance of the 2025 SCO Summit for India's regional diplomacy. In what ways does India's engagement in SCO reflect its broader strategy in Central Asia and reform of global order?"

## India-UAE High Level Joint Task Force on Investments (HLJTFI), 2025

### Introduction

The 13th Meeting of the India-UAE High Level Joint Task Force on Investments (HLJTFI) was co-chaired in Abu Dhabi by Commerce & Industry Minister Piyush Goyal and Sheikh Hamed bin Zayed Al Nahyan in September 2025.

This mechanism, set up in 2012, has become the apex bilateral investment forum, reviewing progress under the Comprehensive Economic Partnership Agreement (CEPA) and identifying new areas of economic collaboration.

### India-UAE Bilateral Relations

India and the United Arab Emirates (UAE) established diplomatic relations in 1972. While the UAE opened its Embassy in India in 1972, the Indian Embassy in UAE was opened in 1973. The traditionally strong bilateral relations enjoyed by India-UAE gained a new momentum when the Hon'ble Prime Minister Shri Narendra Modi visited in 2015, the first PM of India in 34 years which marked the beginning of a new Comprehensive and Strategic partnership between the two countries. This was followed by five other visits of PM in the last 8 years

### Key Outcomes

- **Review of CEPA Implementation:**
  - CEPA, signed in 2022, has boosted bilateral trade to over USD 85 billion in 2024–25.
  - Both sides agreed to further reduce non-tariff barriers, ease customs procedures, and expand mutual recognition of standards.
- **Investment Facilitation:**
  - UAE expressed readiness to channel sovereign wealth funds (SWFs) into Indian infrastructure, renewables, and digital economy projects.
  - India invited UAE participation in National Infrastructure Pipeline (NIP) and GIFT City (IFSC) projects.
- **Energy & Sustainability:**

- Collaboration in green hydrogen, renewable parks, and carbon trading mechanisms.
- Alignment with both countries' Net Zero 2050 (UAE) and 2070 (India) targets.

- **Financial Integration:**

- Push for linking Rupee–Dirham payment systems and expanding use of Unified Payments Interface (UPI) for smoother trade settlements.

### Strategic Significance

- **Gulf as India's Economic Partner:** The UAE is India's third-largest trading partner and a major energy supplier.
- **Gateway to West Asia & Africa:** UAE offers India strategic access to Middle Eastern and African markets.
- **Diaspora Dimension:** Over 3.5 million Indians in UAE serve as a human bridge, contributing remittances and socio-cultural ties.
- **Global South Cooperation:** India-UAE collaboration in forums like I2U2, BRICS+, and G20 reflects rising strategic coordination.

### Challenges

- **Geopolitical Uncertainty:** Tensions in the West Asian region could impact long-term investment flows.
- **Oil Dependence:** India's trade balance with UAE still relies heavily on hydrocarbons.
- **Implementation Bottlenecks:** Many MoUs signed earlier require faster ground-level execution.

### Outlook

The HLJTFI 2025 demonstrates that India-UAE ties are shifting from trade to deep investment partnerships, with energy transition, infrastructure, and fintech as new frontiers.

For India, the UAE is not just a trading partner but a strategic anchor in the Gulf, crucial for its energy security, diaspora welfare, and regional diplomacy.

### UPSC Add-Ons

Q. With reference to the India-UAE High Level Joint Task Force on Investments (HLJTFI), consider the following statements:

1. It was established in 2012 to promote trade and investment ties.
2. CEPA between India and UAE was signed in 2022.
3. The 2025 meeting focused on infrastructure, renewable energy, and fintech.

Which of the above statements are correct?

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

**Answer: (D)**

### Mains Question

Q. "Discuss the significance of the India–UAE Comprehensive Economic Partnership Agreement (CEPA) and the HLJTFI mechanism in transforming bilateral relations from energy dependence to diversified strategic partnership."

## India–Pakistan Relations: Sports, Diplomacy & the Asia Cup Trophy Standoff

### Introduction

In the 2025 Asia Cup final held in Dubai, India defeated Pakistan by 5 wickets. However, the post-match ceremony spiraled into controversy when Indian players refused to accept the trophy from Mohsin Naqvi, who is both the President of the Asian Cricket Council (ACC) and Chairman of the Pakistan Cricket Board (PCB).

The refusal occurred against the backdrop of heightened political tensions between the two countries, given their recent military escalation and ceasefire agreement earlier in 2025.

This sports diplomacy incident is a sharp illustration of how cultural and symbolic domains intersect with geopolitical friction in India–Pakistan relations.

### The Trophy Refusal Incident: What Happened

- India won the final but declined to accept the trophy and medals from Naqvi, citing his dual role and Pakistan's link to the ACC leadership.
- Presentation proceedings were delayed, eventually canceled; India accepted only individual awards and staged a symbolic "celebration" without the trophy.
- Captain Suryakumar Yadav later expressed disappointment that his team was "denied" the opportunity to lift the trophy despite earning it on the field.
- The BCCI intended to lodge a formal protest at the International Cricket Council (ICC) regarding the role of Naqvi in the presentation.

### Broader Bilateral Context

- Earlier in 2025, India and Pakistan engaged in a brief armed confrontation (Operation Sindoor) after a terrorist attack in Pahalgam, culminating in a ceasefire mediated by diplomatic channels.
- Despite the ceasefire, trust and bilateral channels remain fragile, and the sports field has often become another arena for assertion and symbolism.
- Cricket has historically served as one of the few bridges between the two nations (via "cricket diplomacy"), but recurring incidents like this raise questions on whether that soft diplomacy still functions.
- In refusing to accept the trophy, India projected a message that it will not participate in optics that are

perceived as legitimising Pakistan's institutional presence in sport governance.

### Implications & Significance

#### Diplomacy & Soft Power

- The incident complicates any narrative of normalization or thaw in ties.
- It sends a signal to domestic and international audiences that India distinguishes between engagement and symbolic endorsement.

#### Sport as Geopolitical Symbol

- Sports events, especially between India and Pakistan, carry extraordinary symbolic weight—often bending under political pressure rather than being neutral grounds.
- The neutrality of institutions like ACC or ICC can become challenged when their leadership overlaps with national politics.

#### Institutional Trust & Governance

- The controversy raises questions about conflicts of interest when ACC leadership overlaps with national cricket board heads in tense bilateral contexts.
- It can compel sports bodies and international federations to introspect and reform governance to safeguard impartiality.

### Challenges & Critiques

- Some critics argue that sports should remain insulated from politics, and that refusing the trophy diminishes the spirit of sport.
- India's stance might provoke diplomatic backlash or counter-protests from Pakistan, impacting future bilateral cricketing engagements.
- The ACC and ICC will need to manage fallout and maintain legitimacy in the sport administration.

### Outlook

This episode may influence how future India–Pakistan matches (or tournaments involving them) are structured—especially trophy ceremonies, seating, and leadership roles. It also underscores that diplomacy in the subcontinent has multiple theatres—military, economic, and cultural—all interacting dynamically.

As India continues to assert its strategic autonomy, it will likely leverage such symbolic moments to signal firmness and set red lines in bilateral engagements.

### UPSC Add-Ons

- Q. With respect to the Asia Cup 2025 final trophy refusal, which of the following statements is/are correct?
1. The Indian team refused to accept the winner's trophy from Mohsin Naqvi, the ACC President.
  2. The final trophy was awarded later in a separate ceremony to the Indian captain.

3. Suryakumar Yadav, India's captain, later expressed that his team was "denied" the chance to lift the trophy.
- (a) 1 and 2 only                      (b) 1 and 3 only  
(c) 2 and 3 only                      (d) 1, 2 and 3

**Answer: (B)**

### Mains Question

Q. "Sports diplomacy often mirrors deeper geopolitical fault lines. Analyse how the 2025 Asia Cup trophy refusal incident reflects the strained India-Pakistan relationship, and discuss whether sport can continue to be an effective tool for rapprochement in such a context."

## Wassenaar Arrangement: Export Controls and Emerging Tech Controversies

### Context

Protests erupted recently against Microsoft, after allegations that its Azure cloud services were being used to support Israeli military operations in Palestine, causing civilian harm. Critics argued this exposes loopholes in international export control regimes such as the Wassenaar Arrangement (WA), which regulates the transfer of arms and sensitive dual-use technologies but struggles to keep pace with emerging fields like AI, cloud computing, and cybersecurity infrastructure.

### About the Wassenaar Arrangement

- **What it is:** The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies is the first multilateral body dedicated to regulating exports of arms and sensitive technologies.
- **History:**
  - Established in 1996 in Wassenaar, Netherlands, after the Cold War.
  - It replaced the earlier Coordinating Committee for Multilateral Export Controls (CoCom), which was focused on restricting Western technology transfers to the Soviet bloc.
- **Membership:**
  - Comprises 42 member states, including most major arms exporters (e.g., USA, UK, France, Germany, Japan, India).
  - Members include NATO countries and others like India, Russia, and South Korea. China is not a member.
- **Working Principles:**
  - Operates on the principle of consensus (all decisions must be unanimous).
  - Seeks to promote transparency and responsibility in transfers of arms and sensitive technologies.
  - Maintains control lists of items:
    - Munitions List (conventional arms).

- Dual-Use List (civilian tech that may have military applications, such as surveillance tools, semiconductors, and intrusion software).

### Why It Matters Today

#### • Dual-Use Gaps:

While WA covers items like surveillance software, intrusion tools, and certain cryptography, cloud computing services and AI models fall into a grey zone. This allows global companies like Microsoft, Amazon, and Google to export advanced computing capacity without being flagged.

#### • Israel-Palestine Context:

Allegations that Microsoft's Azure cloud was leveraged for predictive surveillance and targeting in Gaza highlight how digital services with dual-use potential escape scrutiny under current WA frameworks.

#### • India's Role:

India became a member in December 2017, giving it greater say in global export control policy. This membership supports India's NSG (Nuclear Suppliers Group) bid and aligns with its ambition to be seen as a responsible tech power.

### Challenges

- **Consensus Hurdle:** Different members prioritise security vs. commercial gains differently.
- **Rapid Tech Evolution:** Export control lists often lag behind breakthroughs in AI, quantum computing, and cloud infrastructure.
- **Enforcement:** WA decisions are non-binding; implementation depends on national laws.
- **Exclusion of China:** Raises questions about the arrangement's global effectiveness since one of the largest tech exporters isn't bound by its rules.

### UPSC Add-Ons

- Q. With reference to the Wassenaar Arrangement, consider the following statements:
1. It is the first multilateral export control regime for conventional arms and dual-use technologies.
  2. China is one of its founding members.
  3. India joined the Wassenaar Arrangement in 2017.
- Which of the above statements is/are correct?
- (a) 1 only  
(b) 1 and 3 only  
(c) 2 and 3 only  
(d) 1, 2 and 3

**Answer: (B)**

### Mains Question

Q. "Discuss the limitations of the Wassenaar Arrangement in regulating emerging technologies such as cloud services and AI, in the backdrop of allegations of their use in modern conflicts."

## India's Leadership in the Global South

### Why in News?

India's External Affairs Minister convened a High-Level Meeting of Like-Minded Global South Countries in New York on the sidelines of the 80th UNGA session (September 2025).

The meeting aimed to strengthen solidarity, advocate for UN reforms, and ensure that global governance reflects the priorities of developing nations, at a time when multilateralism is weakening.

### Background

- **Global South Concept:** Refers broadly to developing and emerging economies, primarily in Asia, Africa, and Latin America.
- **India's Legacy Role:** From the Non-Aligned Movement (NAM) to platforms like IBSA, BRICS, G20, and G77, India has positioned itself as a bridge between developed and developing worlds.
- **Geopolitical Context:** Successive crises — COVID-19, sovereign debt distress, climate shocks, supply chain disruptions, and energy price volatility — have disproportionately affected Global South nations, highlighting systemic inequities.

### Key Issues Raised

- **UN & Global Governance Reform:**
  - Security Council reform to make it representative, transparent, and accountable.
  - Stronger voice for Africa, Latin America, and Asia in global decision-making.
- **Financing for Development:**
  - Reform in IMF quota systems to reflect current economic realities.
  - Enhanced concessional finance, debt relief, and climate finance commitments by advanced economies.
- **Crisis of Multilateralism:**
  - Multilateral bodies increasingly gridlocked by great-power rivalries.
  - Developed countries' unilateral policies deepen inequalities in trade, tech, and climate responsibilities.

### India's Role

- **Champion of Inclusive Multilateralism:** India projects itself as a reformer and consensus-builder.
- **Platforms Used:** G20 presidency (2023), BRICS+ expansion, International Solar Alliance (ISA), Coalition for Disaster Resilient Infrastructure (CDRI).
- **Global South Summits:** India convened two Voice of Global South Summits (2023, 2024), followed by this UNGA meeting in 2025.
- **Balancing Act:** India asserts solidarity with Global South while preserving strategic partnerships with developed economies.

### Challenges

- **Fragmentation of Global South:** Differing priorities (e.g., Africa's debt vs. Latin America's trade vs. Asia's security).
- **Resource Constraints:** India itself faces developmental challenges, limiting its ability to provide large-scale aid.
- **Geopolitical Cross-Pressures:** Balancing leadership claims while engaging US, EU, Russia, and China.

### Outlook

India's proactive role signals its aspiration to be a spokesperson and problem-solver for the Global South, while advancing reforms in UN, IMF, WTO, and climate governance.

Success will depend on India's ability to convert rhetoric into deliverables, foster coalitions across regions, and demonstrate that it can balance strategic autonomy with global leadership.

### UPSC Add-Ons

Q. Which of the following groupings/platforms is India associated with as part of its Global South diplomacy?

1. BRICS
2. IBSA Dialogue Forum
3. International Solar Alliance
4. G77

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

**Answer: (D)**

### Mains Question

Q. "India aspires to be the voice of the Global South. Critically examine how India can balance its own developmental needs while leading reform efforts in global governance structures."

## United Nations at 80 Years: Reform or Relevance Crisis?

### Why in News?

The United Nations marked its 80th anniversary during the 80th Session of the UN General Assembly (September 2025). The milestone comes amid growing concerns that the UN is struggling to remain effective, even as global challenges such as climate change, pandemics, conflicts, digital governance, and inequality demand strong multilateral responses.

### Background

- **Establishment:** Founded in 1945 after World War II in San Francisco, replacing the League of Nations.
- **Objectives:** To maintain international peace and security, promote cooperation on human rights, development, and international law.
- **Structure:** Comprises six main organs, with the Security Council, General Assembly, and ICJ at the core.



## C.C. SEPTEMBER '25

- **Achievements:** Decolonisation, global norm-setting (human rights, environment), humanitarian operations, peacekeeping.

**Crisis of Multilateralism**

- **Security Council Paralysis:** P5 veto powers (US, UK, France, Russia, China) often block collective action (e.g., Ukraine, Gaza, Syria).
- **North-South Divide:** Global South countries feel under-represented in decision-making.
- **Funding Constraints:** Chronic budgetary shortfalls limit UN peacekeeping and development programmes.
- **Legitimacy Question:** Many argue the UN reflects the 1945 power structure, not today's realities.

**India's Role and Perspective**

- **UNSC Reform Agenda:** India has long demanded expansion of both permanent and non-permanent membership, with representation from Asia, Africa, and Latin America.
- **India's Credentials:**
  - Founding member of the UN.
  - One of the largest contributors to UN peacekeeping missions.
  - Voice of Global South in pushing for inclusivity, sustainable development, and climate justice.
- **Proposals:** Democratisation of UNSC, reform of Bretton Woods institutions (IMF/World Bank), and stronger role for Global South in digital & climate governance.

**Opportunities at 80**

- **Reform Momentum:** The 80th anniversary has renewed calls for reforms, with wide support from G4 (India, Brazil, Germany, Japan) and African Union.
- **New Domains:** Cybersecurity, AI, pandemics, and climate migration require multilateral rule-making.
- **Sustainable Development:** UN remains central to monitoring and achieving SDGs 2030 and beyond.

**Challenges**

- **Consensus Deficit:** P5 unwillingness to dilute privileges.
- **Geopolitical Rivalries:** US-China, Russia-West polarisation makes reforms difficult.
- **Rise of Minilaterals:** Forums like G20, BRICS, Quad increasingly bypass the UN.

**Outlook****The UN at 80 stands at a crossroads:**

- Reform and Renew, by becoming representative and effective; or
- Risk Irrelevance, as states rely more on alternative multilateral and regional platforms.

For India, the anniversary is both a reminder of its long-standing contribution and an opportunity to push for UNSC reforms and Global South priorities.

**UPSC Add-Ons**

Q. Consider the following statements:

1. The UN was established in 1945 by the San Francisco Conference.
2. All UN decisions, including those of the Security Council, require consensus.
3. India is one of the original signatories of the UN Charter.

Which of the above statements is/are correct?

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

**Answer: (C)**

**Mains Question**

Q. "Eighty years after its founding, the United Nations faces a relevance crisis. Critically examine the prospects of UN reform and India's role in making the organisation fit for 21st-century challenges."

## Revocation of Sanctions Waiver for Chabahar Port: Implications for India's Regional Strategy

**Why in News?**

The Trump administration revoked the sanctions waiver for Iran's Chabahar Port project, which had previously allowed India to develop and operate the port despite US sanctions on Iran.

The move affects India's access to Afghanistan and Central Asia, undermining its carefully built strategic position in the region.

**Background**

- **Chabahar Port:** Located in Sistan-Baluchistan province, Iran, Chabahar is India's gateway to Afghanistan and Central Asia, bypassing Pakistan.
- **India-Iran Agreement (2003, revived 2016):** India agreed to develop two terminals and five berths at Chabahar.
- **Sanctions Waiver (2018):** Despite US "maximum pressure" sanctions on Iran, Chabahar was given a special waiver due to its significance for Afghanistan's reconstruction and humanitarian access.
- **Revocation (2025):** The US has now ended this waiver, citing Iran's destabilising role in West Asia.

**Significance of Chabahar for India**

- **Strategic Connectivity:** Links India with Afghanistan, Central Asia, and Eurasia through the International North-South Transport Corridor (INSTC).
- **Bypassing Pakistan:** Provides India a direct trade route avoiding Pakistan's obstruction.
- **Energy Security:** Offers access to Iran's vast oil and gas reserves.

- **Regional Influence:** Strengthens India's role in Eurasian connectivity, balancing China's BRI and Gwadar Port (Pakistan).

### Implications of Waiver Revocation

- **Loss of Strategic Access:** India's investments in Chabahar and its plan for seamless connectivity to Afghanistan, Turkmenistan, and beyond face setbacks.
- **Impact on Afghanistan Policy:** Reduces India's ability to deliver humanitarian aid and infrastructure projects in Afghanistan.
- **Regional Setback vs. China:** Weakens India's balancing position against China's Gwadar Port in Pakistan (only 170 km away).
- **Dependence on Other Routes:** India may have to rely more on INSTC via Russia or maritime alternatives.
- **Strains in India-US Ties:** Undermines the narrative of India-US convergence in Indo-Pacific while showing divergence in West Asia policy.

### Challenges

- **Geopolitical Rivalries:** US-Iran hostility blocks India's strategic autonomy.
- **Balancing Act:** India must balance relations with US (strategic partner), Iran (regional access), and Russia (INSTC link).
- **China Factor:** Beijing is deepening Iran ties via BRI, investing billions in Chabahar's rival Gwadar Port.

### Outlook

#### India faces a strategic dilemma:

- Either lobby the US for a reinstated waiver (unlikely under current US-Iran hostility), or
- Deepen coordination with Iran, Russia, and Central Asian states to keep Chabahar viable.
- India's Act West policy must recalibrate to ensure it is not edged out of the region by China and Pakistan.

### UPSC Add-Ons

Q. With reference to Chabahar Port, consider the following statements:

1. It is located on the Gulf of Oman in Iran.
2. It provides India access to Afghanistan and Central Asia bypassing Pakistan.
3. It is developed jointly by India, Iran, and Russia under the INSTC agreement.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Discuss the strategic significance of Chabahar Port for India. How does the revocation of the US sanctions waiver impact India's regional connectivity and its ability to balance China's influence in West Asia?"

## Saudi-Pakistan Mutual Defence Pact & India's Strategic Concerns

### Why in News?

Saudi Arabia and Pakistan signed a mutual defence pact on 17 September 2025, under which an attack on one will be considered an attack on both.

This move is being seen as one of the strongest security alignments in the Gulf-South Asia corridor in recent years, raising strategic implications for India.



### Key Features of the Pact

- **Collective Defence Commitment:** Any aggression against one party is deemed aggression against both.
- **Strategic Signalling:** The pact comes amid regional volatility—particularly following Israeli strikes in Qatar and shifting security equations in the Gulf.
- **Nuclear Overtones:** Though not explicitly stated, the fact that Pakistan is a nuclear-armed state imbues the pact with potential nuclear deterrence implications.
- **Concealed Terms:** The full text of the agreement has not been publicly disclosed, leaving ambiguity around the operational scope, domain coverage (air, sea, missile), and command structures.

### Strategic & Regional Implications

#### For India

- **Security Calculus Shift:** A formal alliance between Saudi Arabia and a nuclear-armed Pakistan raises the stakes for India's southwestern flank.
- **Gulf Diplomacy Reversal:** India has been deepening its relationships with Gulf states (energy, investment, diaspora). This pact could test Riyadh's balancing act.
- **Pressure on India-Saudi Ties:** India has urged Saudi Arabia to "mind mutual interests and sensitivities" following the announcement.
- **Strategic Leverage for Pakistan:** Pakistan may use the pact as strategic cover to seek deeper defence and deterrence support vis-à-vis India.

#### For the Gulf & Wider Region

- **Gulf Security Reconfiguration:** With rising doubts about the U.S. security guarantee, Gulf states may be diversifying alliances.
- **Deterrence against Iran / Israel:** The pact may be intended partly to signal resolve amid tensions involving Iran, Israel, and proxy conflicts.

- **New Balance in West Asia:** Other regional actors may feel pressure to reconsider alliances or hedging strategies in response.

### Challenges & Ambiguities

- **Implementation Risk:** Mutual defence pacts are only as credible as their operational readiness, trust, and clarity in domain-sharing.
- **Escalation Danger:** Involving a nuclear-armed partner increases risks of miscalculations.
- **India's Response Dilemma:** India must respond strongly enough to safeguard its interests but diplomatically enough to avoid alienating Saudi ties.
- **Ambiguous Terms:** Without transparently disclosed terms, worst-case interpretations may spur arms races.

### Outlook

India will need a calibrated approach combining strategic reassessments, diplomatic engagement, and defence preparedness.

This pact underscores how South Asia and West Asia are increasingly entwined—and how India's security challenges are becoming more regional and global in nature.

### UPSC Add-Ons

- Q. With reference to the Saudi-Pakistan defence pact signed in 2025, consider the following statements:
1. It stipulates that an attack on one country will be considered an attack on both.
  2. The full operational terms of the pact have been made public.
  3. Pakistan is a nuclear-armed signatory to the pact.
- Which of the statements given above is/are correct?
- (a) 1 only                                      (b) 1 and 3 only  
(c) 2 and 3 only                                (d) 1, 2 and 3

**Answer: (B)**

### UPSC Mains Angle

- Q. "Analyse the strategic significance of the Saudi-Pakistan mutual defence pact in the context of India-Gulf relations and regional security. What policy options should India pursue to safeguard its interests without triggering regional escalation?"

## Nepal's Political Convulsions and Lessons for India: Rethinking South Asian Integration

### Why in News?

Nepal has been facing a fresh round of political instability marked by fractious coalition politics, shifting alliances, and governance paralysis.

An editorial in Business Standard (16 Sept 2025) argued that these convulsions in Nepal offer important lessons for India, especially on the fragility of South Asian political systems and the challenges of pursuing regional integration in SAARC and beyond.



### Background

#### • Nepal's Political Flux:

- Since the abolition of monarchy in 2008 and the promulgation of its 2015 Constitution, Nepal has seen frequent government collapses.
- Deep factionalism between the Nepali Congress, CPN-UML, and Maoist Centre has prevented long-term stability.
- The current instability stems from disputes over power-sharing, federal structure, and external alignments.

#### • India-Nepal Relations:

- Tied by geography, history, culture, and economy; open borders and people-to-people linkages.
- However, relations have faced strains over border disputes (e.g., Kalapani-Lipulekh), economic blockades, and perceptions of interference.

### Key Concerns Highlighted

- **Weak Institutions:** Nepal's frequent government changes undermine policy continuity and democratic consolidation.
- **External Balancing:** Kathmandu's tilt between India and China reflects vulnerabilities in small-state politics.
- **Regional Spillover:** Nepal's instability impacts India's border security, trade, and hydropower cooperation.
- **SAARC Paralysis:** South Asian regionalism remains hostage to bilateral tensions and fragile domestic politics.

### Lessons for India

- **Need for Sensitivity:** India must avoid perceptions of "big brother" interference; instead pursue partnership based on respect and reciprocity.

- **Support for Democratic Stability:** Encourage institution-building, constitutional stability, and federal governance in Nepal.
- **Countering China's Influence:** Invest in connectivity, energy, and digital linkages to anchor Nepal within India's strategic orbit.
- **Re-imagining SAARC/Regionalism:** Move beyond the dysfunctional SAARC to sub-regional initiatives like BBIN (Bangladesh–Bhutan–India–Nepal) for pragmatic cooperation.
- **People-Centric Engagement:** Focus on education, healthcare, employment, and cultural exchange to strengthen India's goodwill in Nepalese society.

#### Broader Implications for South Asia

- South Asia remains one of the least integrated regions globally, with intra-regional trade <5%.
- Political instability in one country can derail cross-border projects (hydropower, transport corridors).
- India must balance bilateral diplomacy with regional frameworks like BIMSTEC, BBIN, and G20 Global South leadership.

#### Outlook

Nepal's convulsions serve as a warning: without political stability at home, regional integration in South Asia will remain fragile.

#### For India, the task is twofold:

1. Stabilise bilateral ties with neighbours through sensitivity and sustained engagement.
2. Lead new integration models that are less vulnerable to domestic upheavals in individual states.

#### UPSC Add-Ons

- Q. With reference to South Asian regionalism, consider the following statements:
1. SAARC was established in 1985 in Dhaka with seven founding members.
  2. BBIN is a sub-regional initiative that excludes Pakistan.
  3. Intra-SAARC trade accounts for nearly one-third of the region's total trade volume.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only
  - (b) 2 and 3 only
  - (c) 1 and 3 only
  - (d) 1, 2 and 3

**Answer: (A)**

#### Mains Question

"South Asia's regional integration has been repeatedly stalled by domestic political convulsions and bilateral rivalries. Critically examine this in the context of Nepal's instability and India's leadership role."

## India–Mauritius Relations: Varanasi Visit Highlights Strategic Trust

### Why in News?

During his recent visit to Varanasi (September 2025), Mauritius Prime Minister Pravind Jugnauth described India as a "trusted partner" in Mauritius' socio-economic development and acknowledged India's steadfast support across decades.

The visit showcased the unique civilisational, developmental, and strategic partnership between the two countries.

### Background

- **Historical Ties:**
  - Mauritius has deep cultural and historical linkages with India, with over 68% of Mauritian population of Indian origin.
  - Shared colonial experiences and diaspora bonds underpin political goodwill.
- **Strategic Geography:**
  - Mauritius is located in the Indian Ocean Region (IOR), a crucial maritime hub for India's SAGAR (Security and Growth for All in the Region) vision.

### Highlights of the Visit

- **Acknowledgement of Indian Support:** PM Jugnauth credited India for its consistent role in infrastructure building, human capacity development, and maritime security.
- **Socio-Economic Partnership:** India has financed metro express, Supreme Court building, hospitals, and housing projects in Mauritius through grants and credit lines.
- **Cultural Diplomacy:** The visit to Varanasi reaffirmed civilisational connect, strengthening India's soft power through spiritual and cultural ties.
- **Maritime & Security Cooperation:** India continues to provide patrol vessels, Dornier aircraft, coastal radar systems, and defence training to Mauritius.

### India's Strategic Role in Mauritius

- **Development Partner:** Largest provider of grants and concessional lines of credit to Mauritius.
- **Maritime Security:** Supports surveillance of Exclusive Economic Zone (EEZ) and anti-piracy patrols.
- **Digital & Financial Cooperation:** Assistance in setting up digital public infrastructure, fintech, and cyber security systems.
- **Global Platforms:** Mauritius often backs India's positions at the UN, Commonwealth, and IOC (Indian Ocean Commission).

### Challenges

- **Geopolitical Competition:** China's expanding footprint in the Indian Ocean could test India's primacy in Mauritius.



- **Economic Volatility:** Mauritius' dependence on tourism and financial services makes it vulnerable to shocks, requiring sustained Indian support.
- **Balancing Autonomy:** Mauritius may seek to balance ties between India and other global powers.

### Outlook

Mauritius' description of India as a "trusted partner" underscores the depth of this strategic partnership.

For India, Mauritius is not just a friendly island nation but also a gateway to Africa and a linchpin in its Indian Ocean strategy.

The relationship is likely to expand further in areas like blue economy, digital innovation, defence, and climate resilience.

### UPSC Add-Ons

Q. With reference to India–Mauritius relations, consider the following statements:

1. India has provided Dornier aircraft and patrol vessels to Mauritius for maritime security.
2. Mauritius is a member of the Indian Ocean Commission (IOC).
3. Over half of Mauritius' population traces its ancestry to India.

Which of the statements given above is/are correct?

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

**Answer: (D)**

### Mains Question

Q. "India's partnership with Mauritius exemplifies its role as a development and security partner in the Indian Ocean Region. Analyse this relationship in the context of India's SAGAR vision and its Africa outreach."

## ENVIRONMENT

### Environmental Accounting on Forest – 2025

#### Introduction

The Ministry of Statistics and Programme Implementation (MoSPI) released the 8th edition of "Environmental Accounting on Forest – 2025."

Prepared under the System of Environmental-Economic Accounting (SEEA) framework, the report provides comprehensive estimates of India's forest extent, condition, ecosystem services, and economic valuation.

It aims to integrate forests into national income accounts, ensuring that ecological wealth is not ignored in policy planning.

#### Key Findings

- **Forest Extent:** India's recorded forest area remains 24.6% of geographical area, with steady improvement in tree cover outside forests.

- **Growing Stock:** Forest growing stock increased by 7.32% between 2013 and 2023, showing successful afforestation and conservation efforts.
- **Carbon Services:**
  - The value of carbon retention services rose by 51.82% over the last decade.
  - Forests act as major carbon sinks, absorbing ~2.9 billion tonnes of CO<sub>2</sub> equivalent annually.
- **Ecosystem Services:**
  - Timber, fuelwood, non-timber forest products (NTFPs).
  - Regulating services such as air purification, water regulation, and soil conservation.
  - Cultural services like tourism and livelihoods for forest-dependent communities.
- **Economic Valuation:** Monetary estimates place the contribution of forest ecosystem services at over 7% of India's GDP equivalent when fully accounted.

### Policy and Governance Significance

- **Mainstreaming Ecology in Economics:** Moves beyond GDP by including "natural capital" in growth calculations.
- **Climate Commitments:** Supports India's NDCs under the Paris Agreement and afforestation targets under Nationally Determined Contributions (NDCs) 2030.
- **SDG Alignment:** Contributes to SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 17 (Data for Development).
- **Federal Planning:** Provides state-wise ecosystem accounts for integration into State Action Plans on Climate Change (SAPCCs).

### Challenges

- **Data Gaps:** Regional variations in forest quality are under-reported.
- **Deforestation Pressures:** Infrastructure and mining projects continue to fragment forests.
- **Livelihood Balance:** Reconciling conservation with the needs of 20 crore people dependent on forests.
- **Monetisation Risks:** Over-reliance on monetary valuation may ignore intangible cultural and biodiversity values.

### Outlook

India is moving towards preparing comprehensive Natural Capital Accounts (NCA) by 2030, integrating forests, water, wetlands, and biodiversity.

Such accounting will allow policymakers to weigh trade-offs between economic growth and ecological sustainability.

### UPSC Add-Ons

- Q. With reference to India's Environmental Accounting on Forest – 2025, consider the following statements:
1. It has been prepared by the Ministry of Environment, Forests & Climate Change (MoEFCC).

2. It uses the SEEA framework for measuring forest ecosystem services.
3. The report finds that India's forest carbon retention services increased by more than 50% over the last decade.

Which of the statements given above is/are correct?

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

**Answer: (B)**

### Mains Question

Q. "Environmental accounting is critical for integrating ecology with economics. Discuss the significance of India's 2025 Forest Accounts for sustainable development and climate policy."

## CPCB's 51st Foundation Day: Strengthening Environmental Regulation

### Introduction

The Central Pollution Control Board (CPCB) celebrated its 51st Foundation Day in New Delhi.

The Union Minister for Environment, Forest & Climate Change, Bhupender Yadav, laid the foundation stone of CPCB's new headquarters and inaugurated state-of-the-art regional laboratories in Pune and Shillong.

The PIB release emphasised the need for modernised pollution monitoring, capacity building, and stronger coordination with State Pollution Control Boards (SPCBs).

### Key Highlights

- **Infrastructure Expansion:**
  - New CPCB HQ building in Delhi with advanced monitoring and research facilities.
  - Inauguration of laboratories in Pune (Maharashtra) and Shillong (Meghalaya).
- **Monitoring Focus:**
  - Strengthening air and water quality monitoring networks.
  - New equipment for continuous monitoring of PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and industrial effluents.
- **Capacity Building:**
  - Training modules for SPCB officers to ensure uniform enforcement across states.
  - Introduction of AI-enabled compliance tools for industries.
- **Policy Messaging:**
  - The Minister called for a balance between economic growth and ecological responsibility.
  - Industries were urged to adopt cleaner technologies and green finance frameworks.

### About CPCB

The **Central Pollution Control Board (CPCB)**, statutory organisation, was constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974.

Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It serves as a field formation and also provides technical services to the Ministry of Environment and Forests of the provisions of the Environment (Protection) Act, 1986. Principal **Functions** of the CPCB, as spelt out in the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, (i) to promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution, and (ii) to improve the quality of air and to prevent, control or abate air pollution in the country.

**Air Quality Monitoring** is an important part of the air quality management. The **National Air Monitoring Programme (NAMP)** has been established with objectives to determine the present air quality status and trends and to control and regulate pollution from industries and other source to meet the air quality standards. It also provides background air quality data needed for industrial siting and towns planning.

Besides this, CPCB has an automatic monitoring station at ITO Intersection in New Delhi. At this station Respirable Suspended Particulate Matter (RSPM), Carbon Monoxide (CO), Ozone (O<sub>3</sub>), Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>) and Suspended Particulate Matter (SPM) are being monitored regularly. This information on Air Quality at ITO is updated every week.

**Water Quality Monitoring** is an important part of the Water quality management. Fresh water is a finite resource essential for use in agriculture, industry, propagation of wildlife & fisheries and for human existence. India is a riverine country. It has 14 major rivers, 44 medium rivers and 55 minor rivers besides numerous lakes, ponds and wells which are used as primary source of drinking water even without treatment. Most of the rivers being fed by monsoon rains, which is limited to only three months of the year, run dry throughout the rest of the year often carrying wastewater discharges from industries or cities/towns endangering the quality of our scarce water resources. The parliament of India in its wisdom enacted the Water (Prevention and Control of Pollution) Act, 1974 with a view to maintaining and restoring wholesomeness of our water bodies. One of the mandates of CPCB is to collect, collate and disseminate technical and statistical data relating to water pollution. Hence, **Water Quality Monitoring (WQM)** and Surveillance are of utmost importance.

### Governance and Policy Significance

- **Strengthening Environmental Federalism:** CPCB provides guidelines and oversight while SPCBs enforce at ground level — reinforcing cooperative federalism in environmental governance.
- **Data-Driven Regulation:** With upgraded labs, CPCB can provide reliable datasets for policy, courts, and citizens.

- **International Alignment:** Supports India's obligations under the Paris Agreement, SDG 11 (Sustainable Cities), and SDG 12 (Responsible Consumption & Production).
- **Public Accountability:** Real-time pollution data to be made more accessible to citizens via online dashboards.

### Challenges

- **Enforcement Deficit:** SPCBs often lack staff and resources to ensure compliance.
- **Judicial Dependence:** Many pollution control measures are court-driven rather than policy-driven.
- **Urban Pressures:** Rising vehicular and construction emissions strain monitoring capacity.
- **Industry Resistance:** Pushback from sectors citing compliance costs.

### Outlook

The expansion of CPCB's institutional infrastructure marks a shift towards proactive regulation, with emphasis on technology, transparency, and training.

If implemented effectively, this could strengthen India's fight against air pollution, water contamination, and industrial waste mismanagement.

### UPSC Add-Ons

Q. With reference to the Central Pollution Control Board (CPCB), consider the following statements:

1. It was established under the provisions of the Water (Prevention and Control of Pollution) Act, 1974.
2. It also functions under the Air (Prevention and Control of Pollution) Act, 1981.
3. CPCB reports directly to the Prime Minister's Office (PMO).

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: (A)**

### Mains Question

Q. "Strengthening environmental institutions is as critical as enacting laws. Evaluate the role of CPCB in India's pollution control framework in light of its 51st Foundation Day developments."

## World Ozone Day 2025: From Science to Global Action

### Introduction

India observed World Ozone Day 2025 with the theme "From Science to Global Action."

The celebrations reaffirmed India's global leadership under the Montreal Protocol and commitment to phasing down ozone-depleting substances (ODS) and hydrofluorocarbons (HFCs) in line with the Kigali Amendment.

The PIB note highlighted India's achievements in implementing the India Cooling Action Plan and its role in shaping global climate action.

### Key Highlights

#### • Cooling Action Plan Progress:

- India's India Cooling Action Plan (ICAP) has positioned the country as the first in the world to develop such a strategy.
- Targets include reducing cooling demand by 20–25% and refrigerant demand by 25–30% by 2037.

#### • ODS Phase-out:

- India has already phased out chlorofluorocarbons (CFCs), carbon tetrachloride (CTC), and halons.
- Hydrochlorofluorocarbons (HCFCs) are being phased out as per schedule.

#### • HFC Reduction:

- India is implementing early strategies for HFC alternatives with lower global warming potential (GWP).
- Policies are aligned with the Kigali Amendment commitments.

#### • Awareness Activities:

- Public campaigns, workshops, and student activities were organised to highlight the importance of ozone protection.

### Governance and Policy Significance

- **International Leadership:** India is a key player in Montreal Protocol negotiations and often represents the Global South's concerns.
- **Climate Synergy:** Ozone protection efforts complement India's climate mitigation goals under the Paris Agreement.
- **Health Benefits:** Reduced UV radiation exposure helps in cutting risks of skin cancer and cataracts.
- **Economic Impact:** Encourages adoption of energy-efficient appliances and fosters innovation in green cooling technologies.

### Challenges

- **Technology Transition:** Small and medium enterprises face difficulty in shifting to new refrigerants.
- **Cost Barriers:** Energy-efficient cooling appliances remain unaffordable for many households.
- **Capacity Building:** Need for training technicians in safe handling of alternative refrigerants.

### Outlook

India's commitment under the Montreal Protocol showcases how science-based global agreements can deliver environmental success.

Strengthening domestic manufacturing of low-GWP refrigerants and expanding the reach of ICAP can position India as a leader in sustainable cooling solutions.

### UPSC Add-Ons

Q. With reference to India's ozone protection efforts, consider the following statements:

1. India was the first country to develop a national Cooling Action Plan.

## C.C. SEPTEMBER '25

2. India has already phased out all hydrochlorofluorocarbons (HCFCs).
3. The Kigali Amendment deals with the phasedown of hydrofluorocarbons (HFCs).

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)**

### Mains Question

Q. "Ozone layer protection is often cited as the most successful global environmental treaty achievement. Analyse India's role in this success and its linkages with climate change mitigation."

## Swachhata Hi Seva 2025: Clean Green Utsav Across Institutions

### Introduction

The Swachhata Hi Seva (SHS) 2025 campaign was observed nationwide under the theme "Clean Green Utsav."

Multiple ministries, institutions, and organisations—including ICAR institutions, universities, and government departments—organised activities to promote zero waste practices, awareness on plastic reduction, and sustainable lifestyle adoption.

The campaign builds on the legacy of the Swachh Bharat Mission, linking cleanliness to citizen responsibility.

### Key Highlights

- **Institutional Drives:**
  - ICAR institutions conducted Clean Green Utsav events including cleanliness walks, plantation drives, and human chains for waste awareness.
  - The Legislative Department hosted a zero waste workshop focusing on waste segregation, plastic elimination, and composting.
- **Public Engagement:**
  - Volunteers, students, and staff participated in door-to-door campaigns, clean-up of public spaces, and awareness sessions.
- **Sustainability Themes:**
  - Emphasis on reduce-reuse-recycle (3R) practices.
  - Encouragement of segregation at source and adoption of eco-friendly alternatives.

### Governance and Policy Significance

- **Behavioural Change:** Extends the focus from infrastructure creation (toilets, waste facilities) to citizen-driven behavioural shifts.
- **Community Participation:** Reinforces Gandhiji's philosophy of cleanliness as collective duty.
- **SDG Linkages:** Advances SDG 6 (Clean Water and Sanitation) and SDG 11 (Sustainable Cities).

- **Integration with Other Missions:** Supports Lifestyle for Environment (LiFE) movement and National Action Plan on Climate Change (NAPCC) through sustainable consumption.

### Challenges

- **Plastic Dependence:** Single-use plastics continue to dominate packaging.
- **Urban-Rural Divide:** Rural sanitation challenges differ from urban solid waste management.
- **Monitoring Impact:** Campaign-driven activities often lack consistent monitoring and evaluation.

### Outlook

Swachhata Hi Seva 2025 emphasises that cleanliness is not an event but a continuous responsibility.

By combining policy, community action, and awareness, it seeks to embed cleanliness into India's social and environmental consciousness.

### UPSC Add-Ons

Q. With reference to the Swachhata Hi Seva 2025 campaign, consider the following statements:

1. The theme was "Clean Green Utsav."
2. It was implemented only by the Ministry of Jal Shakti.
3. Activities included human chains, zero waste workshops, and waste segregation campaigns.

Which of the statements given above is/are correct?

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

**Answer: (C)**

### Mains Question

Q. "Citizen participation is central to India's sanitation and waste management revolution. Discuss the significance of campaigns like Swachhata Hi Seva 2025 in sustaining behavioural change."

## Coal Ministry's Preparations for Special Campaign 5.0

### Introduction

The Ministry of Coal initiated preparatory activities for Special Campaign 5.0, focusing on cleanliness, waste management, and sustainable practices in coal sector offices and operations.

The preparatory phase began in September, ahead of the full campaign scheduled for October.

The PIB note highlighted the importance of embedding sustainability and resource efficiency even in traditionally high-impact sectors like coal.

### Key Highlights

- **Office Cleanliness & Scrap Disposal:**
  - Disposal of outdated files, e-waste, and scrap materials across Coal India and its subsidiaries.



- Digitisation of records to reduce paper usage.
- **Field-Level Activities:**
  - Cleanliness drives in mining townships and coalfield regions.
  - Focus on mine reclamation and green cover expansion.
- **Public Interaction:**
  - Grievance redressal linked with citizen feedback portals.
  - Demonstration of corporate social responsibility (CSR) efforts in surrounding communities.
- **Monitoring:**
  - Progress tracked via a digital dashboard shared with the Cabinet Secretariat.

### Governance and Policy Significance

- **Mainstreaming Sustainability in Coal Sector:** Marks a shift from purely extraction-oriented activity to resource responsibility.
- **Transparency:** Scrap disposal and record digitisation reduce corruption and improve efficiency.
- **Public Participation:** Integrates communities in mining regions into the Swachhata movement.
- **Alignment with SDGs:** Advances SDG 12 (Responsible Consumption & Production) and SDG 13 (Climate Action).

### Challenges

- **Scale of Coal Operations:** With India still heavily reliant on coal, sustainable practices in this sector face structural limits.
- **Rehabilitation:** Many abandoned mines lack proper reclamation.
- **Behavioural Shift:** Embedding sustainability into a fossil-fuel dominated sector requires cultural change within institutions.

### Outlook

The campaign indicates a growing government push for "green governance" in all ministries, even those associated with high environmental costs.

If replicated consistently, such initiatives could help improve the environmental footprint of India's coal-dependent energy sector.

### UPSC Add-Ons

- Q. With reference to the Coal Ministry's Special Campaign 5.0, consider the following statements:
1. It includes activities such as scrap disposal, digitisation of records, and mine reclamation.
  2. The campaign is monitored via a centralised digital dashboard.
  3. It is exclusively focused on renewable energy promotion in coal regions.
- Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

- Q. "Even in coal-dominated energy systems, sustainability practices are essential. Discuss the significance of initiatives like Special Campaign 5.0 in greening India's fossil fuel sectors."

## Cold Desert Biosphere Reserve Joins UNESCO World Network of Biosphere Reserves

### Introduction

India's Cold Desert Biosphere Reserve (CDBR), located in Himachal Pradesh, has been inscribed into the UNESCO World Network of Biosphere Reserves (WNBR).

This recognition highlights the ecological and cultural value of India's high-altitude cold desert ecosystems, situated in the western Himalayas, and strengthens India's global standing in conservation initiatives.

### Location and Geography

- **Geographic Spread:**
  - Encompasses areas of Lahaul-Spiti and Kinnaur districts in Himachal Pradesh.
  - Altitude: Between 3,000 to over 6,000 metres above sea level.
  - Climate: Arid, cold desert conditions, very low precipitation, long winters, and short growing seasons.
  - Landscapes: Rugged mountains, deep valleys, glacial lakes, sparse vegetation zones.
- **Hydrology:**
  - Rivers like the Spiti and its tributaries shape the region.
  - Seasonal glacial melt sustains agriculture and pastures.

### Flora

- **Alpine and Cold Desert Vegetation:**
  - Medicinal Plants: Ephedra gerardiana, Artemisia, Aconitum heterophyllum, Saussurea obvallata (Brahma Kamal).
  - Shrubs and Herbs: Caragana, Hippophae (Seabuckthorn), Juniperus, Salix.
  - Grasses: Drought- and cold-resistant alpine grasses support pastoralism.
  - Agro-Biodiversity: Locals cultivate barley, buckwheat, and green peas in limited arable land.

### Fauna

- **Flagship Species:**
  - Snow Leopard (Panthera uncia) – apex predator, symbol of high-altitude conservation.

## C.C. SEPTEMBER '25

- Himalayan Ibex and Blue Sheep (Bharal) – primary prey for snow leopard.
- Tibetan Wolf and Red Fox – other carnivores adapted to the cold desert.
- **Other Mammals:**
  - Himalayan marmot, pikas, musk deer.
- **Avifauna:**
  - Himalayan Snowcock, Golden Eagle, Lammergeier (Bearded Vulture), Himalayan Griffon.
  - Wetland patches attract migratory species like Ruddy Shelduck.
- **Insects & Reptiles:**
  - Hardy insect species adapted to extreme cold.
  - Few reptiles due to the climate.

**Communities and Culture**

- **Inhabitants:** Agro-pastoralist Buddhist communities, primarily in villages of Spiti and Kinnaur.
- **Cultural Heritage:** Ancient monasteries, prayer flags, and traditions integrated with ecological stewardship.
- **Traditional Practices:**
  - Sustainable pastoralism with yaks, sheep, and goats.
  - Traditional water-sharing systems (Kuhl irrigation).

**Significance of UNESCO Recognition**

- **Ecological:** Protects one of the world's rare cold desert ecosystems with unique biodiversity and fragile habitats.
- **Socio-Cultural:** Recognises the harmony of local communities with nature.
- **Global Standing:** Strengthens India's role in UNESCO conservation networks.
- **Sustainability Model:** Encourages eco-tourism, research, and sustainable land use.

**Challenges**

- **Climate Change:** Rapid glacial melt and erratic snowfall altering ecosystems.
- **Overgrazing:** Pressure on fragile alpine pastures.
- **Infrastructure Development:** Roads and hydropower projects risk ecological imbalance.
- **Tourism Pressure:** Rising visitor numbers threaten fragile landscapes.

**Outlook**

With UNESCO recognition, the Cold Desert Biosphere Reserve will benefit from global partnerships, research funding, and policy attention.

Balancing development, tourism, and conservation will be key to protecting this unique high-altitude desert ecosystem.

**UPSC Add-Ons**

Q. With reference to the Cold Desert Biosphere Reserve, consider the following statements:

1. It is located in Himachal Pradesh and covers parts of Lahaul-Spiti and Kinnaur.
2. It is home to flagship species like the snow leopard and Himalayan ibex.
3. It has a dense tropical forest cover owing to heavy rainfall.

Which of the statements given above is/are correct?

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

**Answer: (A)**

**Mains Question**

Q. "High-altitude cold deserts represent one of the most fragile ecosystems in the Himalayas. Discuss the ecological, cultural, and conservation significance of the Cold Desert Biosphere Reserve in Himachal Pradesh."

## Two New Ramsar Sites in Bihar: India's Wetlands Count Rises to 93

**Introduction**

India has added two new wetlands in Bihar to the Ramsar list of Wetlands of International Importance, raising the country's tally to 93 Ramsar sites.

These wetlands, located in the Ganga basin, are vital for flood regulation, biodiversity conservation, and community livelihoods.

The Ramsar designation brings international recognition and ensures stronger protection measures under India's environmental governance framework.

**Location**

- **Site 1 – Gogabeel Wetland (Katihar district):**
  - An oxbow lake formed by the shifting courses of the Ganga, Mahananda, and Kankhar rivers.
  - Functions as a natural flood buffer in north Bihar.
- **Site 2 – Nagi-Nakti Bird Sanctuary Wetlands (Jamui district):**
  - Twin wetlands created by dams on small rivers in the hilly terrains of Jamui.
  - Known as one of the most important bird habitats of Bihar.

(Note: The names reflect earlier notifications and align with recent PIB references on Bihar's wetland expansion.)

**Flora**

- **Aquatic Vegetation:** Rich in hydrophytes like Nymphaea, Nelumbo nucifera (Lotus), Hydrilla, and Vallisneria.
- **Marsh Plants:** Typha (cattails), reeds, and sedges dominate shallow zones.
- **Riparian Vegetation:** Seasonal grasses and floodplain species sustain grazing.
- **Agricultural Integration:** Surrounding wetlands support rice, wheat, and maize cultivation.

## Fauna

### • Avifauna (Birds):

- Nagi–Nakti Wetlands: Wintering ground for migratory birds such as Bar-headed Goose, Greylag Goose, Northern Pintail, Red-crested Pochard, and Ruddy Shelduck.
- Over 160 species of resident and migratory birds recorded.
- Several species are listed under IUCN threatened categories.

### • Aquatic Fauna:

- Rich in indigenous fish species (Catla, Rohu, Hilsa in connected stretches).
- Supports traditional fisheries that sustain local livelihoods.

### • Reptiles & Amphibians:

- Soft-shell turtles, frogs, and marsh crocodiles occasionally sighted.

### • Mammals:

- Wetland peripheries host jackals, wild boar, and small carnivores.

## Ecological Importance

- **Flood Mitigation:** Gogabeel functions as a natural sponge during monsoon floods, reducing disaster risk in Katihar.
- **Groundwater Recharge:** Wetlands recharge aquifers and support irrigation.
- **Biodiversity Hotspot:** Supports migratory bird flyways of the Central Asian Flyway.
- **Carbon Sink:** Wetlands store organic carbon, mitigating climate change.
- **Livelihood Support:** Thousands of households depend on fisheries, reeds, and wetland farming.

## Governance and Policy Significance

- **MoEFCC Oversight:** Ramsar designation requires Integrated Management Plans (IMPs) under the Wetlands (Conservation and Management) Rules, 2017.
- **Community Involvement:** Local panchayats and wetland user groups are central to management.
- **Alignment with Global Goals:** Supports SDG 6 (Clean Water), SDG 13 (Climate Action), and SDG 15 (Life on Land).
- **National Initiatives:** Linked to National Plan for Conservation of Aquatic Ecosystems (NPCA).

## Challenges

- **Encroachment:** Wetland areas shrinking due to agriculture expansion and illegal settlements.
- **Pollution:** Runoff from farms and untreated sewage degrading water quality.
- **Climate Change:** Erratic rainfall and shifting monsoon patterns threaten hydrology.

- **Awareness Deficit:** Many local communities lack information about the Ramsar designation and its benefits.

## Outlook

The recognition of these wetlands under the Ramsar Convention will enhance legal protection, funding opportunities, and scientific monitoring.

If managed properly, Bihar's wetlands could emerge as eco-tourism hubs and models of community-led conservation.

## UPSC Add-Ons

Q. With reference to India's Ramsar wetlands, consider the following statements:

1. Gogabeel in Bihar is an oxbow lake wetland formed by shifting river courses.
2. Nagi–Nakti wetlands in Bihar are significant bird habitats supporting migratory species along the Central Asian Flyway.
3. All Ramsar sites in India automatically become UNESCO Biosphere Reserves.

Which of the statements given above is/are correct?

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

**Answer: (A)**

## Mains Question

Q. "Wetlands are lifelines for ecological stability and human livelihoods. Discuss the significance of Bihar's new Ramsar sites in strengthening India's wetland conservation network."

## Ramsar Sites in India — Key Reference List

State / UT	Ramsar Site(s)	Notes / Distinct Features
Andhra Pradesh	Kolleru Lake	One of the largest freshwater lakes in India
Assam	Deepor Beel	Wetland in Guwahati, important for migratory birds
Bihar	Kanwar (Kabar) Taal; Nagi Bird Sanctuary; Nakti Bird Sanctuary; (plus new ones)	Recent additions including Nagi & Nakti; floodplain wetland function
Goa	Nanda Lake	Small wetland, recognized in recent years
Gujarat	Khijadia Wildlife Sanctuary; Nalsarovar;	Mix of saline, freshwater,

	Thol Lake; Wadhvana Wetland	brackish wetlands
<b>Haryana</b>	Sultanpur National Park; Bhindawas Wildlife Sanctuary	Wetlands in semi-arid region
<b>Himachal Pradesh</b>	Chandra Taal; Pong Dam Lake WLS; Renuka Lake	Alpine, reservoir, mountain lake wetland types
<b>Jammu &amp; Kashmir / J&amp;K</b>	Hokersar Wetland; Hygam; Shallabugh; Wular Lake; Mansar-Surinsar	Cold region and valley wetlands
<b>Jharkhand</b>	Udhwa Lake	Recognized more recently
<b>Karnataka</b>	Ranganathittu Bird Sanctuary; Ankasamudra; Aghanashini Estuary; Magadi Kere	Freshwater and estuarine wetlands
<b>Kerala</b>	Ashtamudi Wetland	Backwater / estuarine system
<b>Madhya Pradesh</b>	Bhoj Wetland; Sakhya Sagar; others	Man-made wetlands and lakes in central India
<b>Manipur</b>	Loktak Lake	Famous for floating phumdis and Keibul Lamjao NP
<b>Maharashtra</b>	Nandur Madhameshwar; Lonar Lake; Thane Creek; others	Includes crater lake (Lonar) and urban wetlands
<b>Odisha</b>	Chilika Lake; Bhitarkanika; Satkosia Gorge; Hirakud Reservoir; Tampara; Ansupa	Large lagoon, mangroves, reservoirs
<b>Punjab</b>	Harike Lake; Beas Conservation Reserve; others	Wetland in riverine plains
<b>Sikkim</b>	Khecheopalli Lake	Recently recognized / one of newer ones
<b>Tamil Nadu</b>	Many, e.g. Karaivetti, Pallikaranai, Pichavaram, Vedanthangal, etc.	Coastal, freshwater, mangrove types
<b>Tripura</b>	Rudrasagar Lake	Northeastern wetland
<b>Uttar Pradesh</b>	Bakhira Sanctuary; Haiderpur; Nawabganj; Parvati Arga; Saman; Samaspur; Sandi;	Many riverine and floodplain wetlands

	Sarsai Nawar; Sur Sarovar; Upper Ganga River stretch	
<b>Uttarakhand</b>	Asan Barrage	Riverine / barrage wetland
<b>West Bengal</b>	East Kolkata Wetlands; Sundarban Wetland	Urban and mangrove wetlands

## Green Finance and Industry Accountability in India's Environmental Governance

### Introduction

In September 2025, the Union Minister for Environment, Forest and Climate Change called upon Indian industries to internalise environmental costs and adopt green finance practices to ensure long-term sustainability.

The PIB note highlighted the importance of integrating climate risk assessment, ESG frameworks, and low-carbon investments into industrial policy for meeting India's climate targets and sustainable development goals.

### Key Highlights

- **Internalising Environmental Costs:**
  - Industries urged to account for pollution, waste, and carbon emissions as part of business expenses.
  - Emphasis on "polluter pays" principle and life-cycle cost analysis.
- **Green Finance:**
  - Mobilisation of resources through green bonds, sustainability-linked loans, and blended finance models.
  - Encouragement for banks and NBFCs to prioritise lending to low-carbon technologies.
- **Corporate Role in Climate Action:**
  - Industries asked to align with India's Net Zero by 2070 roadmap.
  - Adoption of energy-efficient, circular economy practices in manufacturing.
- **Global Alignment:**
  - Integration with G20 Sustainable Finance Working Group (SFWG) recommendations.
  - Consistency with Paris Agreement financing mechanisms.

### Governance and Policy Significance

- **Environmental Governance Shift:** Moves beyond regulatory compliance to market-based accountability.
- **Sustainable Development Goals:** Advances SDG 12 (Responsible Consumption & Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for Goals).
- **Private Sector Role:** Reinforces that climate action cannot be left to government alone; industries must co-lead.



- **Financial Sector Reform:** Encourages RBI and SEBI to strengthen green disclosure and taxonomies.

### Challenges

- **High Transition Costs:** Shifting to clean technology requires large upfront investments.
- **Limited Awareness:** Many MSMEs lack knowledge of ESG and green finance mechanisms.
- **Greenwashing Risks:** Without strict regulation, companies may falsely claim sustainability credentials.
- **Access to Finance:** Smaller firms struggle to secure green loans compared to large corporates.

### Outlook

Green finance is emerging as a strategic tool for India's energy transition and climate resilience.

By embedding environmental costs into financial decision-making, industries can transform from pollution contributors to sustainability leaders.

### UPSC Add-Ons

Q. With reference to green finance in India, consider the following statements:

1. Green bonds are debt instruments specifically used to fund climate and environmental projects.
2. The concept of "polluter pays" requires industries to account for the environmental damage caused by their activities.
3. SEBI has already issued guidelines for green bonds and ESG disclosures.

Which of the statements given above is/are correct?

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

**Answer: (D)**

### Mains Question

Q. "Finance is the backbone of climate action. Discuss how green finance and industry accountability can accelerate India's transition to a low-carbon economy."

## Eco-Friendly & Zero Waste Initiatives by FCI and Institutions

### Introduction

As part of the Swachhata Hi Seva campaign (2025), the Food Corporation of India (FCI) and several other institutions observed Eco-Friendly & Zero Waste Days in September.

The PIB release highlighted FCI's Eastern Zone initiative promoting plastic-free practices, waste segregation, and awareness on sustainable consumption among staff and communities.

Such campaigns mark a step in embedding circular economy principles into everyday institutional functioning.

### Key Highlights

- **Zero Waste Day by FCI:**
  - Conducted across regional and district offices.
  - Awareness sessions on segregation at source and composting of biodegradable waste.
  - Staff pledged to avoid single-use plastics in office and personal life.
- **Workshops & Training:**
  - Demonstrations on eco-alternatives to plastics and waste-to-wealth techniques.
  - Hands-on sessions on paper recycling, cloth bag promotion, and energy-saving practices.
- **Public Engagement:**
  - Outreach programmes in surrounding communities and schools.
  - Dissemination of posters, pamphlets, and digital campaigns on reducing waste.
- **Integration with Swachhata Hi Seva:**
  - Linked to the larger national movement for cleanliness, sustainability, and mission LiFE (Lifestyle for Environment).

### Governance and Policy Significance

- **Circular Economy Push:** Encourages reuse, recycling, and minimal waste generation.
- **Behavioural Change:** Aims at long-term lifestyle modification beyond symbolic campaigns.
- **Institutional Role:** Demonstrates how public sector enterprises can lead by example.
- **SDG Alignment:** Supports SDG 11 (Sustainable Cities), SDG 12 (Responsible Consumption), and SDG 13 (Climate Action).

### Challenges

- **Sustainability of Efforts:** Risk of campaigns becoming one-off events without follow-up.
- **Infrastructure Deficit:** Many towns lack segregation and composting facilities.
- **Plastic Alternatives:** Affordable eco-friendly substitutes are still limited.

### Outlook

The Zero Waste initiatives signify India's growing focus on green governance at the institutional level.

If replicated consistently, such campaigns can normalise waste segregation, plastic reduction, and eco-conscious lifestyles across society.

### UPSC Add-Ons

Q. With reference to the Eco-Friendly & Zero Waste campaign of 2025, consider the following statements:

1. The initiative was organised by the Food Corporation of India (FCI) as part of Swachhata Hi Seva.
2. It included activities like avoiding single-use plastics, segregation at source, and composting.

3. The campaign is directly linked with the national Mission LiFE (Lifestyle for Environment).

Which of the statements given above is/are correct?

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

**Answer: (D)**

### Mains Question

Q. "Behavioural change is the cornerstone of sustainable waste management. Evaluate the significance of institutional campaigns like FCI's Eco-Friendly & Zero Waste initiative in advancing India's environmental goals."

## SCIENCE & TECHNOLOGY

### India's Semiconductor Push & Tech Sovereignty (SEMICON India 2025)

#### Introduction

India hosted SEMICON India 2025, India's largest semiconductor & electronics show, jointly organized by the India Semiconductor Mission (ISM) under MeitY and SEMI.

This event is part of India's larger strategy to move from being a consumer to a creator in the global semiconductor value chain.

#### Key Highlights

- **Investment & Scale:**
  - The Government has committed ₹76,000 crore under the India Semiconductor Mission.
  - In the run-up, an OSAT (Outsourced Semiconductor Assembly & Test) pilot line facility was launched in Sanand, Gujarat.
  - 23 chip design projects have been sanctioned under the Design-Linked Incentive (DLI) scheme to support startups & innovators.
- **Global Participation & Ecosystem Building:**
  - Over 350 exhibiting companies from 33+ countries participated.
  - SEMICON is acting as a platform for cross-border collaborations, skilling, and showcasing India's semiconductor potential.
- **Strategic Importance:**
  - Semiconductors are critical to sectors like defence, aerospace, healthcare, EVs, telecom and digital infrastructure.
  - India seeks to reduce its dependency on imports for chips and high-end electronic components.

#### Policy & Governance Significance

- **Tech Sovereignty:** By building capacities in design, fabrication, packaging, testing, India aims for technological self-reliance in critical infrastructure.

- **Security Implications:** Control over semiconductor supply chains is essential for national security and reducing vulnerability to supply disruptions.
- **Employment & Innovation:** Fosters an ecosystem for startups, research, and manufacturing jobs in high-tech sectors.
- **Global Value Chains:** Positions India strategically within global electronics and tech supply chains, rather than being a low-cost assembly location.

#### Challenges

- **High Entry Costs & Capital Intensity:** Semiconductor fabrication requires huge capital, clean rooms, and advanced infrastructure.
- **Technology Transfer & IP Barriers:** Accessing advanced nodes (5nm, 3nm, etc.) may require cooperation with foreign firms, which guard IP tightly.
- **Ecosystem Synergy:** Ensuring supply chain layers—from raw materials, machinery, tools, chemicals—are mature and domestic.
- **Skilling & Talent:** Shortage of trained engineers, designers, and technicians in cutting-edge semiconductor domains.
- **Global Competition & Geopolitics:** Rival countries may resist technology sharing; chip supply is already a heated geopolitical space.

#### Outlook

SEMICON India 2025 is a bold signal that India is serious about becoming a semiconductor powerhouse. If India can scale fabs, localise supply chains, and foster innovation in chip design, it may become a key node in global tech infrastructure.

The next years will determine whether this momentum translates into sustained technological leadership or remains aspirational.

#### UPSC Add-Ons

- Q. With reference to SEMICON India 2025 and India's semiconductor policy, consider the following statements:
1. The India Semiconductor Mission has a committed outlay of ₹76,000 crore.
  2. An OSAT (Outsourced Semiconductor Assembly & Test) pilot line was launched in Gujarat ahead of the event.
  3. Only foreign companies were allowed to exhibit at SEMICON India 2025.

Which of the statements given above is/are correct?

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

**Answer: (A)**

## Chief Science Advisers' Roundtable (CSAR) 2025: Charting India's Deep-Tech Future

### Why in News?

The Chief Science Advisers' Roundtable (CSAR) 2025 was convened in New Delhi under the Principal Scientific Adviser (PSA) to the Government of India.

It brought together science advisers from 13 ministries, heads of national laboratories, and representatives from industry and academia to frame strategies for India's deep-tech ecosystem and innovation-led growth.

### Key Highlights of the Roundtable

- **Mission-Oriented Approach:**
  - Deliberations were aligned with India's National Deep-Tech Startup Policy (2023) and the National Research Foundation Act (2023).
  - Focus on integrating defence, space, health, energy, and AI-driven innovation with national development goals.
- **Strengthening R&D Ecosystem:**
  - Ministries agreed to expand intra-government collaboration on emerging technologies.
  - Identified areas: semiconductors, green hydrogen, biotechnology, and quantum technologies.
- **Funding & Private Sector Role:**
  - Push for co-funding models combining government grants, CSR initiatives, and venture capital.
  - Encouragement for PPP frameworks to reduce risk in high-capital deep-tech sectors.
- **Talent Development:**
  - Establishing science innovation hubs across universities.
  - Creating joint doctoral fellowships and mobility schemes to bridge research and industry.
- **Global Partnerships:**
  - Building alliances with countries in BRICS, G20, and Quad on critical technologies.
  - Emphasis on technology sovereignty with strategic openness—import substitution while remaining globally integrated.

### Significance for India

- **Strategic Autonomy:** Deep-tech capacities reduce dependence on foreign technology in sensitive areas like defence and cyber-security.
- **Economic Growth:** Supports India's target of a \$1 trillion digital economy by 2030 and enhances job creation in sunrise sectors.
- **National Security:** Ensures India can safeguard itself in domains like AI-warfare, drone tech, and critical energy.
- **Inclusive Development:** Solutions for healthcare, agriculture, and clean energy through cutting-edge tech.

### Challenges Ahead

- **High Costs & Long Gestation:** Deep-tech requires sustained investment before commercialisation.
- **Brain Drain:** Retaining top scientists and preventing talent migration to advanced economies.
- **Coordination Issues:** Ministries and departments often work in silos—risk of duplication of effort.
- **Global IP Barriers:** Access to advanced patents and research in quantum and AI may remain restricted.

### Outlook

CSAR 2025 signals India's intent to create a coordinated deep-tech strategy across ministries, academia, and industry.

If implemented, it can accelerate India's rise as a knowledge economy and innovation leader, while balancing strategic autonomy with global cooperation.

### UPSC Add-Ons

Q. With reference to the Chief Science Advisers' Roundtable (CSAR) 2025, consider the following statements:

1. It is convened by the Principal Scientific Adviser to the Government of India.
2. The 2025 edition focused on deep-tech, including semiconductors, quantum, and biotech.
3. It excluded participation from industry and academia.

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)**

## Green Hydrogen Pilots: India's Push Towards Energy Transition

### Why in News?

The Ministry of New and Renewable Energy (MNRE) announced the launch of a series of Green Hydrogen pilot projects in September 2025.

These pilots are part of the National Green Hydrogen Mission (NGHM), aimed at positioning India as a global hub for hydrogen production, utilisation, and export.

### INDIA'S GREEN HYDROGEN MISSION

Path to a Greener Future



### Key Highlights of the Announcement

- **Pilot Projects Across Sectors:**
  - Refineries and Fertilisers: Integration of green hydrogen for ammonia and methanol production.

- Transport: Trials in hydrogen buses and heavy-duty trucks under FAME-III framework.
- Power and Industry: Hydrogen blending with natural gas in select city gas distribution networks.
- **Electrolyser Manufacturing:**
  - Focus on scaling up indigenous electrolyser technology with support from IITs, CSIR labs, and private sector innovators.
  - Pilot electrolyser units being set up in Gujarat, Tamil Nadu, and Odisha industrial corridors.
- **Funding:**
  - Government earmarked ₹17,000 crore for pilot initiatives under NGHM Phase-I.
  - Additional support through production-linked incentives (PLI) for green hydrogen and electrolyzers.
- **Global Partnerships:**
  - Collaboration with Germany, Japan, and the EU for technology transfer and certification standards.
  - Plans to build hydrogen hubs at ports (Mundra, Paradip, Vizag) for export-oriented production.

#### Significance for India

- **Energy Transition:** Helps India reduce dependence on imported fossil fuels and cut industrial emissions.
- **Climate Commitments:** Supports India's net-zero by 2070 and Nationally Determined Contributions (NDCs) under the Paris Agreement.
- **Economic Opportunity:** Estimated to create 6 lakh+ green jobs by 2030 and open a \$12 billion export market.
- **Strategic Leverage:** Positions India in the emerging global hydrogen supply chain, competing with Australia, Saudi Arabia, and Chile.

#### Challenges

- **High Cost:** Current green hydrogen costs around \$3–6/kg, compared to grey hydrogen's \$1.5/kg.
- **Infrastructure Gaps:** Storage, pipelines, and distribution networks are still underdeveloped.
- **Technology Risks:** Dependence on imported components for advanced electrolyzers.
- **Market Uncertainty:** Demand creation in fertilisers, refineries, and transport sectors still nascent.

#### Outlook

India's pilot projects are a critical first step in making green hydrogen commercially viable.

Scaling up through domestic R&D, global partnerships, and large-scale production hubs will determine whether India can truly emerge as a leader in the global hydrogen economy.

#### UPSC Add-Ons

- Q. With reference to the National Green Hydrogen Mission, consider the following statements:
1. It aims to make India a global hub for production and export of hydrogen.

2. The mission includes PLI support for both hydrogen production and electrolyser manufacturing.
3. Hydrogen blending in city gas networks is one of the pilot initiatives.

Which of the statements given above is/are correct?

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

**Answer: (d)**

### Gaganyaan Mission Update: Human-Rated Systems Ready for Launch

#### Why in News?

ISRO announced in September 2025 that the Gaganyaan Mission—India's first human spaceflight programme—has achieved a critical milestone with human-rated launch systems and abort safety mechanisms fully validated.

This marks India's entry into the league of nations preparing to send humans into space indigenously.

#### Key Highlights

- **Human-Rated Launch Vehicle (HLVM3):**
  - The LVM3 (GSLV Mk-III) has been upgraded with redundant systems and enhanced safety mechanisms to qualify as human-rated.
  - Key modifications: crew escape system, emergency detection units, fault-tolerant avionics.
- **Crew Module & Service Module:**
  - The crew module underwent successful pressure and environmental tests, ensuring astronaut safety in microgravity.
  - Service module integrates life support, navigation, and power systems.
- **Abort & Safety Tests:**
  - ISRO completed Pad Abort Test-II at Sriharikota, validating safe evacuation in case of emergency.
  - Crew Escape System is designed to pull astronauts to safety within milliseconds of failure detection.
- **Astronaut Training:**
  - Four astronauts are undergoing final-phase training at ISRO's Astronaut Training Facility in Bengaluru, after completing sessions in Russia.
  - Simulations cover zero-gravity adaptation, survival training, and mission operation drills.
- **Timeline:**
  - Uncrewed test flights scheduled for late 2025.
  - First human flight targeted for 2026.

#### Significance

- **Strategic Prestige:** India joins an elite group (USA, Russia, China) with indigenous human spaceflight capacity.
- **Science & Technology Boost:** Advances in aerospace engineering, life sciences, avionics, robotics.



- **Industrial Ecosystem:** Over 500 MSMEs and private firms involved in supplying critical components.
- **Defence & Space Diplomacy:** Enhances India's profile in global space governance and tech collaborations.

#### Challenges

- **Safety First:** Human spaceflight is inherently high-risk; multiple redundancies must work flawlessly.
- **Cost & Budgetary Pressure:** Mission outlay exceeds ₹10,000 crore, requiring sustained funding.
- **Post-Mission Sustainability:** Translating human spaceflight gains into future projects like space station modules or lunar exploration.

#### Outlook

The Gaganyaan Mission is more than a spaceflight—it is a symbol of Atmanirbharta in space technology.

If successful, it will pave the way for India's own space station by 2035 and deep-space human missions.

#### UPSC Add-Ons

Q. With reference to the Gaganyaan Mission, consider the following statements:

1. The mission will use a human-rated version of the LVM3 launch vehicle.
2. The Crew Escape System is designed to function only after the spacecraft reaches orbit.
3. Four Indian astronauts are undergoing training for the mission.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### India's Roadmap for Fusion Power

#### Why in News?

India has unveiled its long-term roadmap for nuclear fusion research (Sept 2025), aiming to position itself among the leaders in harnessing fusion as a clean, virtually limitless source of energy.

#### Background

- **Fusion vs. Fission:**
  - Fusion joins light nuclei (like isotopes of hydrogen) to release energy—process powering the Sun.
  - Fission splits heavy nuclei (like uranium, plutonium) used in current nuclear reactors.
- Fusion offers abundant fuel (deuterium from seawater, lithium reserves), no high-level radioactive waste, and negligible accident risks compared to fission.

#### India's Fusion Initiatives

- **ITER Participation:**
  - India is a founding member of the International Thermonuclear Experimental Reactor (ITER) in France.

- Contributed critical components like cryostat base, cooling systems, and diagnostics.
- **National Fusion Mission (Draft):**
  - Establishing a fusion energy research centre in collaboration with BARC, IPR (Institute for Plasma Research), and IITs.
  - Plans for a tokamak test facility by 2030.
- **Materials & Supply Chain:**
  - Focus on plasma-facing materials, superconducting magnets, tritium breeding technologies.
  - Integration with India's nuclear supply chain (pressurised heavy water reactors, fast breeder reactors).

#### Strategic Significance

- **Energy Security:** Fusion promises a near-infinite energy supply with reduced dependence on fossil fuels.
- **Climate Goals:** Critical for achieving net zero by 2070.
- **Geopolitical Leverage:** Early movers in fusion could dominate the global clean energy market.
- **Technology Spin-offs:** Advances in superconductors, lasers, robotics, cryogenics will aid multiple sectors.

#### Challenges

- **Technological Uncertainty:** Commercial fusion reactors are still at least 15–20 years away globally.
- **High Costs:** Massive infrastructure investment required; ITER itself is a ~\$22 billion project.
- **Skill Gaps:** Requires highly specialised talent in plasma physics, materials science, and cryogenics.
- **Global Competition:** China, US, UK, and South Korea are racing ahead with national fusion pilots.

#### Outlook

India's roadmap signals intent to not only contribute to ITER but also to build domestic demonstration plants by the 2040s. If pursued seriously, fusion could be the game-changer in India's 21st-century energy transition.

#### UPSC Add-Ons

Q. With reference to nuclear fusion research, consider the following statements:

1. India is a founding member of ITER.
2. Fusion produces long-lived high-level radioactive waste similar to fission.
3. Deuterium and lithium are potential fuels for nuclear fusion.

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**

#### Mains Question

Q. "Evaluate India's roadmap for nuclear fusion energy in the context of its climate commitments and energy security. How can fusion complement India's existing nuclear and renewable energy strategies?"

## India's Quest for Technological Sovereignty

### Why in News?

An editorial in The Hindu (11 Sept 2025), "The long march ahead to technological independence", highlighted India's efforts to achieve technological sovereignty in critical and emerging technologies.

### Background

- **Concept of Tech Sovereignty:**
  - Refers to a nation's ability to design, develop, and control key technologies without excessive dependence on foreign suppliers.
  - Became critical after global chip shortages, AI race, and geopolitical restrictions (e.g., U.S. curbs on China, EU digital sovereignty drive).
- **India's Vulnerabilities:**
  - Heavy import dependence in semiconductors, AI chips, critical minerals, defence avionics.
  - Strategic sectors like telecom and energy grids exposed to external shocks.

### Current Indian Initiatives

- **Semiconductor Push:**
  - India Semiconductor Mission (ISM) with ₹76,000 crore outlay.
  - Incentives for chip design, fabrication, and packaging.
- **Space & Defence Tech:**
  - DRDO, ISRO, HAL ramping up indigenous systems: Tejas, PSLV, ASAT.
  - Export of defence equipment crossing USD 3 billion in 2025.
- **Digital Public Infrastructure (DPI):**
  - UPI, Aadhaar, ONDC — globally recognised Indian models of sovereign digital platforms.
- **Critical Mineral Diplomacy:**
  - MoUs with Australia, Chile, and Africa for lithium, cobalt, and rare earths.
- **Deep-Tech Policy 2023:**
  - Targets AI, quantum, biotech, green hydrogen with startup incentives and PPP support.

### Strategic Significance

- **National Security:** Reduces vulnerability in defence and cyber domains.
- **Economic Resilience:** Minimises supply chain shocks, fosters industrial independence.
- **Global Competitiveness:** Builds India as a tech-exporter rather than a net importer.
- **Geopolitical Autonomy:** Enables India to navigate multipolar tech rivalries (US–China, EU).

### Challenges

- **High R&D Costs:** India's GERD (Gross Expenditure on R&D) is 0.7% of GDP, far below China (2.4%) and US (3.4%).

- **Brain Drain:** Top AI, quantum, biotech talent migrates to Western labs.
- **Private Sector Gaps:** Indian industry still hesitant to fund long-gestation R&D.
- **Technology Denial Regimes:** Wassenaar Arrangement and other controls limit access to sensitive tech.

### Outlook

India's march to tech sovereignty will be long and uneven, but the trajectory is set.

### Success requires:

1. Tripling R&D investment,
2. Nurturing deep-tech startups,
3. Strategic partnerships without dependence,
4. Building secure and open domestic ecosystems.

If achieved, India could position itself as a third pole in global technology, balancing the US–China duopoly.

### UPSC Add-Ons

Q. With reference to technological sovereignty, consider the following statements:

1. The Wassenaar Arrangement governs global controls over dual-use technologies.
2. India's Gross Expenditure on R&D (GERD) is above 2% of its GDP.
3. ONDC is an example of India's digital public infrastructure.

Which of the statements given above is/are correct?

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

**Answer: (C)**

### Mains Question

Q. "Technological sovereignty is emerging as the new frontier of national security. Analyse India's initiatives to achieve tech independence and the challenges it faces in balancing self-reliance with global interdependence."

## Strengthening India's Nuclear Supply Chain

### Why in News?

A PIB release on 8 September 2025 highlighted India's focus on strengthening its nuclear supply chain, especially with regard to Small Modular Reactors (SMRs), Prototype Fast Breeder Reactors (PFBRs), and diversified reactor technologies.

### Background

- **India's Nuclear Programme:**
  - Based on Homi Bhabha's three-stage plan:
    1. Pressurised Heavy Water Reactors (PHWRs) using natural uranium.
    2. Fast Breeder Reactors (FBRs) using plutonium-based fuels.
- 3. Thorium-based advanced reactors.

- Designed to ensure long-term energy independence using India's thorium reserves.

#### • Energy Transition Context:

- India aims for 500 GW non-fossil fuel capacity by 2030 and Net Zero by 2070.
- Nuclear is seen as a reliable baseload option complementing solar and wind.

#### Current Initiatives

##### • Prototype Fast Breeder Reactor (PFBR):

- At Kalpakkam (Tamil Nadu), nearing commissioning, using mixed oxide fuel (MOX).
- Expected to generate 500 MWe and close the fuel cycle by breeding more fissile material.

##### • Small Modular Reactors (SMRs):

- Discussions on indigenous SMRs of 300 MWe capacity.
- Advantage: factory-built, scalable, safer with modular deployment in smaller grids and industrial hubs.

##### • Light Water Reactors (LWRs):

- Developed with foreign collaboration (e.g., Kudankulam with Russia).
- Diversification to reduce over-dependence on one design.

##### • Domestic Supply Chain Push:

- NPCIL, BHEL, L&T working to indigenise heavy forgings, reactor vessels, and control systems.
- Strengthening fuel supply arrangements with Kazakhstan, Canada, Australia.

#### Strategic Significance

- **Energy Security:** Enhances India's long-term supply of clean, non-intermittent power.
- **Indigenous Capability:** Reduces dependence on imported nuclear tech & fuel.
- **Geopolitical Leverage:** Expands India's role in nuclear diplomacy, climate commitments, and global clean energy forums.
- **Industrial Boost:** Creates demand for heavy engineering, materials science, and advanced metallurgy.

#### Challenges

- **High Capital Costs:** Nuclear power remains costlier per unit than renewables.
- **Safety & Public Concerns:** Fukushima raised fears about accident risks.
- **Fuel Supply Risks:** Despite NSG waiver, India is still outside the Nuclear Suppliers Group.
- **Technology Maturity:** SMRs are still at conceptual stages; global prototypes not yet scaled.

#### Outlook

Strengthening the nuclear supply chain is crucial for India's clean energy mix.

With the PFBR nearing operation, SMR development on the horizon, and supply chain localisation, India is moving closer to becoming a self-reliant nuclear power leader.

#### UPSC Add-Ons

Q. With reference to India's nuclear energy programme, consider the following statements:

1. The Prototype Fast Breeder Reactor (PFBR) at Kalpakkam is designed to use thorium as its immediate fuel.
2. Small Modular Reactors (SMRs) are factory-built, scalable, and designed for safer deployment.
3. India's three-stage nuclear programme was conceptualised to utilise its thorium reserves.

Which of the statements given above is/are correct?

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

**Answer: (B)**

#### Mains Question

Q. "Discuss the role of nuclear energy in India's energy transition strategy. How can innovations like SMRs and PFBRs strengthen the country's nuclear supply chain and ensure long-term energy security?"

### Road to a Self-Reliant Semiconductor Ecosystem

#### Why in News?

An editorial in The Financial Express (3 Sept 2025), "More wafer work", highlighted India's semiconductor ambitions and the challenges in building a self-reliant chip ecosystem. This comes amid global chip supply disruptions and India's renewed push through the India Semiconductor Mission (ISM).

#### Background

##### • Why Semiconductors Matter:

- The "oil of the digital era", semiconductors power electronics, defence, telecom, AI, and EV industries.
- Global shortages during COVID-19 exposed India's heavy import dependence (over 90% of semiconductors are imported).

##### • India's Policy Response:

- India Semiconductor Mission (ISM): ₹76,000 crore programme launched in 2021.
- Incentives for chip design, fabrication (fabs), and assembly (OSAT/ATMP).
- Recent success: Micron's assembly and test facility in Gujarat.

#### Current Developments

##### • Chip Design Strength:

- India already houses 20% of global semiconductor design engineers.

## C.C. SEPTEMBER '25

- 23 startups sanctioned under Design-Linked Incentive (DLI) scheme.
- **Fabrication Challenges:**
  - High capital intensity: A single fab requires \$8–12 billion investment.
  - Lack of ecosystem for ultra-pure chemicals, photolithography machines, and rare gases.
- **Global Partnerships:**
  - MoUs with US, Japan, Taiwan, EU for technology transfer.
  - Quad initiatives exploring semiconductor supply chain resilience.
- **Skilling & Talent:**
  - Chips to Startup (C2S) programme training 85,000 engineers.
  - New semiconductor courses in IITs and IIITs.

**Strategic Significance**

- **Tech Sovereignty:** Reduces exposure to supply shocks and geopolitical denial regimes.
- **Economic Opportunity:** Semiconductor market in India projected to reach \$100 billion by 2030.
- **Global Integration:** Positions India as part of global value chains, not just as an assembly hub.
- **Defence & Security:** Ensures secure chips for critical infrastructure and strategic sectors.

**Challenges**

- **Dependence on Imports:** Key machinery (EUV lithography tools) monopolised by few firms (ASML in Netherlands).
- **High Costs vs. Global Giants:** Competing with Taiwan, South Korea, and US fabs will require sustained subsidies.
- **Uncertain Investor Confidence:** Past attempts (e.g., Hindustan Semiconductor, Vedanta Foxconn project delays).
- **Brain Drain:** Many trained chip designers move abroad due to higher pay.

**Outlook**

India's semiconductor story is a marathon, not a sprint.

**For success, it must:**

1. Build a holistic ecosystem (design–fab–packaging–testing).
2. Secure critical minerals and gases through international agreements.
3. Nurture domestic startups and scale indigenous design IP.
4. Focus on specialised niches like compound semiconductors and power electronics.

If executed well, India can shift from being a chip consumer to a chip power, enhancing both economic and national security.

**UPSC Add-Ons**

Q. With reference to India's semiconductor strategy, consider the following statements:

1. The India Semiconductor Mission provides fiscal support for design as well as fabrication.
2. EUV (Extreme Ultraviolet) lithography machines, critical for chipmaking, are manufactured by multiple firms across Asia.
3. India is a participant in Quad-led semiconductor supply chain initiatives.

Which of the statements given above is/are correct?

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

**Answer: (A)**

**Mains Question**

Q. "India's ambition to build a self-reliant semiconductor ecosystem faces both structural challenges and strategic opportunities. Examine this in light of India's ISM and global supply chain realignments."

**India: A Global Bioeconomy Powerhouse****Why in News?**

A PIB press note (5 September 2025) titled "India: A Global Bioeconomy Powerhouse" reported that India's biotech startup ecosystem has crossed 13,000 firms in 2025, up from 5,365 in 2021 — a 142% increase.

The note also highlighted that India's bioeconomy has scaled from USD 10 billion in 2014 to USD 165.7 billion in 2024, with a new target of USD 300 billion by 2030.

**Key Highlights**

- **Sectoral Composition:**
  - BioIndustrial: 47% share
  - BioPharma: 35%
  - BioAgriculture: 8%
  - BioResearch & Services: 9%
- **Ethanol Blending Milestone:**
  - India achieved 20% ethanol blending (E20) in petrol in 2025 — five years ahead of target.
  - Estimated savings: large forex conservation and increase in farmer incomes.
- **Vaccine & Biomanufacturing Strength:**
  - India is a global vaccine hub; Serum Institute's share in global (non-COVID) vaccine supply rose to ~24% in 2024.
  - Under the BioE<sup>3</sup> policy, the government launched the Biofoundry Network and the BioE<sup>3</sup> Challenge for Youth to catalyse biomanufacturing and biotech innovation.
- **Space-Biotech Experiments:**
  - Microalgae (e.g. Chlorella sorokiniana, Parachlorella kessleri) and cyanobacteria (Spirulina, Synechococcus)



Answer: (D)

are being studied under microgravity conditions aboard the ISS to test carbon capture, nutrient recycling, and life support potential.

• **State-Level Action:**

- DBT inked a MoU with Uttar Pradesh to boost biotech, pharma, and medtech innovation. The focus: fostering startup ecosystem, skill development, and industry linkages.

**Policy & Strategic Significance**

- **BioE<sup>3</sup> Policy as Anchor:** The biotechnology policy (Biotechnology for Economy, Employment & Environment) provides an integrated framework for biotech-led growth across sectors.
- **Tech Sovereignty & Resilience:** Strengthening domestic biomanufacturing can reduce dependence on imports, especially in vaccines, diagnostics, and bio-inputs.
- **Climate & Sustainable Future:** Biotech is poised to contribute to carbon capture, biofuels, bioplastics, and climate-resilient agriculture.
- **State-Centre Models:** Centre–state collaboration (e.g. DBT–UP MoU) indicates decentralised biotech growth and leveraging regional strengths.

**Challenges**

- **Regulation & Biosafety:** Ensuring safety, ethical standards, and public trust in emerging biotech applications (e.g. gene editing).
- **Scale-Up Hurdles:** Many biotech startups struggle to move from pilot to industrial scale.
- **Funding Gaps:** Deep-tech biotech R&D is capital-intensive; consistent funding is essential.
- **Skilled Workforce:** Need for specialised talent in synthetic biology, bioinformatics, process engineering, etc.

**Outlook**

India's biotech trajectory in September 2025 signals that it is not merely catching up but positioning itself to lead globally. If growth in biomanufacturing infrastructure, human capital, regulatory agility, and global collaboration continues, India could become a top-tier bioeconomy nation by 2030.

**UPSC Add-Ons**

Q. With reference to India's biotech ecosystem, consider the following statements:

1. India's biotech startups crossed 13,000 in 2025.
2. India achieved 20% ethanol blending ahead of schedule (in 2025).
3. Microalgae experiments in space are being conducted to test carbon capture and life support.

Which of the statements given above is/are correct?

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

**Mains Question**

Q. "Biotechnology is emerging as a key frontier for India's sustainable growth and strategic autonomy. Critically examine India's 2025 roadmap in the biotech sector in light of global trends, policy frameworks, and strategic challenges."

## ART & CULTURE

### Ramnagar Ramlila: Varanasi's Living Epic

**Why in News?**

The centuries-old Ramnagar Ramlila, staged annually across the Ganga in Varanasi, began its 2025 cycle with the Ravana Janm (birth of Ravana) episode. It remains one of the most celebrated forms of Ramlila, already recognised by UNESCO (2008) as part of the Representative List of Intangible Cultural Heritage of Humanity.

**Background & Origin**

- Started in the early 19<sup>th</sup> century by Maharaja Udit Narayan Singh, the then Kashi Naresh.
- Patronage of the Kashi royal family continues till date; the Kashi Naresh still presides over performances as a symbolic guardian.
- Unlike regular Ramlilas that last 10–12 days, Ramnagar's version runs for a full month (31 days).

**Distinct Features**

- **Moving Theatre:** Instead of a fixed stage, the Ramlila unfolds across different sites in Ramnagar — forests, fields, ghats, and gardens — corresponding to scenes from the Ramayana. Audiences walk alongside, creating an immersive experience.
- **Community Participation:** Thousands of locals, artisans, and volunteers act, build sets, stitch costumes, and manage logistics.
- **Religious & Cultural Blend:** Based largely on Tulsidas's Ramcharitmanas, it integrates bhajans, folk music, and ritual practices.
- **Scale & Diversity:** Combines elements of theatre, music, classical and folk dance, puppetry, and devotional singing.

**UNESCO Recognition**

- **In 2008, UNESCO inscribed Ramlila:** the Traditional Performance of the Ramayana on its Intangible Cultural Heritage list.
- Ramnagar's Ramlila was highlighted as a model of living heritage, where oral traditions, community identity, and religious performance merge seamlessly.

**Contemporary Significance**

- **Cultural Tourism:** Attracts thousands of pilgrims, tourists, and researchers worldwide.
- **Soft Power:** Symbol of India's living traditions, reinforcing the global image of Varanasi as a cultural capital.

- **Educational Value:** Acts as a folk pedagogy for transmitting values of dharma, bhakti, and collective memory of the Ramayana.
- **Social Integration:** Creates platforms for artisans, folk artists, and rural communities, supporting livelihoods and sustaining craft traditions.

### Challenges

- **Urbanisation Pressures:** Encroachment and infrastructure expansion threaten traditional performance spaces.
- **Funding Constraints:** Rising costs for costumes, lighting, sound, and logistics.
- **Youth Engagement:** Digital entertainment competes with traditional theatre, requiring adaptive strategies.
- **Documentation Gaps:** Need for systematic archiving of scripts, music, and oral histories.

### Outlook

The Ramnagar Ramlila is more than a performance — it is a fusion of devotion, heritage, and community spirit.

#### Safeguarding it requires:

- Strong institutional support (Ministry of Culture, Sangeet Natak Akademi).
- Infrastructure development without eroding authenticity.
- Broader digital documentation and promotion.

### UPSC Add-Ons

Q. With reference to Ramnagar Ramlila, consider the following statements:

1. It is based primarily on Valmiki's Ramayana.
2. It lasts for over 30 days, unlike regular 10–12 day Ramlilas.
3. It was inscribed on the UNESCO Intangible Cultural Heritage list in 2008.

Which of the statements given above is/are correct?

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

**Answer: (B)**

### Mains Question

Q. "Ramnagar Ramlila exemplifies the resilience of India's intangible cultural heritage. Examine its significance in preserving collective memory, promoting cultural tourism, and balancing tradition with modernity."

## Durga Puja of Kolkata: Intangible Cultural Heritage of Humanity

### Why in News?

The Durga Puja festivities in Kolkata began in late September 2025 with record participation from community clubs, artisans, and international visitors. Since its recognition by UNESCO in December 2021 as part of the Representative List of Intangible Cultural Heritage of Humanity, Kolkata's Durga Puja has become a global cultural event.

### Background & Origins

- **Historical Roots:** Durga Puja evolved in Bengal in the 16th–17th centuries as a religious and social festival.
- **Colonial Period:** Wealthy zamindars and merchants (notably the Sovabazar Rajbari puja in the 18th century) popularised elaborate celebrations.
- **Community Pujas (Barowari):** In the 20th century, public/community-based pujas replaced exclusive household pujas, turning it into a mass festival.

### Distinct Features of Kolkata's Durga Puja

- **Scale & Creativity:** Thousands of community pandals with innovative themes — from mythological tableaux to contemporary social messages.
- **Artisanship:** Idol-making hub at Kumartuli (Kolkata) supplies clay idols across India and abroad.
- **Cultural Integration:** Blends religious devotion with art exhibitions, theatre, music, and culinary traditions.
- **Inclusivity:** Participation transcends caste, class, and religion — embodying Bengal's syncretic ethos.
- **Economic Impact:** The festival contributes over ₹30,000 crore annually to the state economy (FICCI estimates), boosting tourism, crafts, retail, and services.

### UNESCO Recognition (2021)

- UNESCO recognised "Durga Puja in Kolkata" as an Intangible Cultural Heritage (ICH), noting its ability to blend art, performance, ritual, and community celebration.
- It was the first festival in Asia to receive ICH recognition as a collective public cultural practice.
- Strengthened Kolkata's identity as India's "Cultural Capital."

### Significance for India

- **Soft Power Diplomacy:** Projects India's cultural vibrancy globally, like Yoga and Ayurveda.
- **Tourism Boost:** Draws lakhs of domestic and international visitors annually.
- **Cultural Economy:** Supports artisans, designers, musicians, food vendors, and small enterprises.
- **Urban Identity:** Reinforces Kolkata's reputation as a creative city blending tradition and modernity.

### Challenges

- **Commercialisation:** Risk of excessive corporatisation overshadowing spiritual elements.
- **Environmental Concerns:** Idol immersion and waste management remain recurring issues.
- **Heritage Management:** Need for conservation of traditional art forms within the rapidly changing pandal culture.
- **Overcrowding & Safety:** Managing massive crowds during festivities requires robust disaster preparedness.

### Outlook

Kolkata's Durga Puja is not just a religious event but a fusion of devotion, creativity, and cultural identity.

Going forward, sustainability (eco-friendly idols, waste management) and digital archiving (pandal themes, artisanship) will be key to preserving its authenticity while adapting to global visibility.

### UPSC Add-Ons

Q. With reference to Durga Puja in Kolkata, consider the following statements:

1. It was inscribed on UNESCO's Intangible Cultural Heritage list in 2021.
2. The festival has its historical roots in the zamindar households of Bengal during the colonial period.
3. Kumartuli in Kolkata is famous for idol-making for Durga Puja.

Which of the statements given above is/are correct?

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

**Answer: D**

### Mains Question

Q. "Durga Puja of Kolkata represents a cultural economy as much as a religious practice. Discuss its significance in India's intangible cultural heritage and urban identity."

## Rani Rashmoni: A Pioneer of Social & Cultural Leadership

### Why in News?

Prime Minister Narendra Modi paid tribute to Rani Rashmoni on her birth anniversary in September 2025, acknowledging her enduring contribution to social reform, religious freedom, and cultural preservation in colonial Bengal.

### Background & Life

- **Born:** 28 September 1793 in Halisahar, Bengal.
- **Rise to Prominence:** Married into a wealthy zamindar family, she assumed leadership after her husband's death.
- **Religious Patronage:** Best known for commissioning the Dakshineswar Kali Temple (1847–55) on the banks of the Hooghly, which later became associated with Sri Ramakrishna Paramhansa, the 19th-century mystic.

### Role & Contributions

- **Cultural Preservation:** Her decision to build the Dakshineswar temple was seen as an assertion of indigenous faiths against rising colonial missionary influence.
- **Social Leadership:** As a widow landholder, she managed estates, resisted exploitative revenue systems, and defended tenants' rights.

- **Philanthropy:** Supported religious festivals, pilgrim rest houses, ghats, and social welfare works.
- **Symbol of Women's Leadership:** Her assertiveness in a male-dominated colonial Bengal made her an early icon of women's agency.

### Contemporary Significance

- **Syncretic Legacy:** The Dakshineswar temple became a meeting point for diverse communities, saints, and reformers, influencing Bengal's spiritual renaissance.
- **Heritage Value:** The temple continues as a major pilgrimage centre, drawing millions annually.
- **Policy Relevance:** Her resistance to unfair colonial interference resonates with themes of local autonomy, cultural rights, and women's empowerment.

### UPSC Add-Ons

Q. With reference to Rani Rashmoni, consider the following statements:

1. She built the Dakshineswar Kali Temple in Kolkata, which later became associated with Ramakrishna Paramhansa.
2. She actively opposed colonial revenue policies and supported peasant rights.
3. She was a contemporary of Pandit Ishwar Chandra Vidyasagar and Raja Rammohan Roy.

Which of the statements given above are correct?

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

**Answer: (D)**

### Mains Questions

Q. "Rani Rashmoni's life exemplifies the intersection of cultural patronage, social resistance, and women's leadership in colonial India. Discuss her legacy in the context of India's socio-religious reform and cultural nationalism."

## Pandit Deendayal Upadhyaya: Philosophy of Integral Humanism

### Why in News?

On his birth anniversary (25 September 2025), Prime Minister and leaders across the country paid tributes to Pandit Deendayal Upadhyaya, highlighting the continued relevance of his vision of Integral Humanism and Antyodaya (upliftment of the last person) in India's development discourse.

### Background & Life

- **Born:** 25 September 1916 in Nagla Chandrabhan, Mathura district, Uttar Pradesh.
- **Affiliation:** A key ideologue and leader of the Bharatiya Jana Sangh (precursor to the BJP).
- **Demise:** Passed away under mysterious circumstances in 1968.

- **Philosophy:** Best known for articulating Integral Humanism in 1965, offering an indigenous model of development distinct from both Western capitalism and Marxist socialism.

### Key Contributions & Ideas

- **Integral Humanism:**
  - Advocated a holistic approach to development, balancing material progress with cultural and spiritual values.
  - Critiqued Western models for ignoring India's socio-cultural ethos.
  - Emphasised Dharma, decentralisation, self-reliance, and harmony with nature.
- **Antyodaya Philosophy:**
  - "The measure of development is the upliftment of the last person in the queue."
  - Inspired government programmes like Antyodaya Anna Yojana and Deendayal Antyodaya Yojana (DAY-NULM, DAY-NRLM).
- **Political Legacy:**
  - Strengthened the organisational structure of the Jana Sangh.
  - Advocated 'Integral nationalism' rooted in India's cultural identity.

### Contemporary Relevance

- **Policy Resonance:** The focus on inclusive growth, rural empowerment, and self-reliance (Atmanirbhar Bharat) echoes his philosophy.
- **Ideological Anchor:** His thoughts continue to influence governance models and welfare schemes.
- **Ethical Framework:** Stressed morality in politics, simplicity, and service-driven leadership.

### UPSC Add-Ons

Q. With reference to Pandit Deendayal Upadhyaya, consider the following statements:

1. He was the founder of the Bharatiya Jana Sangh.
2. He propounded the philosophy of Integral Humanism.
3. The Antyodaya Anna Yojana is directly linked to his philosophy.

Which of the statements given above is/are correct?

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

**Answer: (B)**

### Mains Question

Q. "Pandit Deendayal Upadhyaya's Integral Humanism offered an indigenous alternative to Western ideologies. Discuss its relevance for India's inclusive development in the 21st century."

## Engineers' Day: Remembering Sir M. Visvesvaraya

### Why in News?

India observed Engineers' Day on 15 September 2025 to mark the 164th birth anniversary of Sir Mokshagundam Visvesvaraya (1861–1962), one of India's foremost civil engineers, statesmen, and visionaries

### Background: The Man & His Life

- **Born:** 15 September 1861, Muddenahalli, Karnataka.
- **Education:** Civil Engineering from College of Science, Pune (COEP).
- **Key Roles:** Diwan of Mysore (1912–1918), engineer, planner, nation-builder.
- **Awards:** Bharat Ratna (1955); Knight Commander of the British Indian Empire (1915).
- **Longevity:** Lived to the age of 100, passing away in 1962.

### Contributions

- **Engineering Achievements:**
  - Designed the Krishna Raja Sagara (KRS) Dam in Mysore, pioneering flood control and irrigation.
  - Developed automatic sluice gates used in several dams across India.
  - Designed water supply schemes for cities like Bombay (Mumbai), Pune, and Hyderabad.
- **As Diwan of Mysore (1912–1918):**
  - Established Mysore University and other modern educational institutions.
  - Promoted industries such as Mysore Soap Factory, Iron & Steel Works at Bhadravathi, and State Bank of Mysore.
  - Modernised administration and promoted welfare-oriented governance.
- **Vision for India:**
  - Advocated industrialisation and scientific education as tools for national development.
  - Wrote Planned Economy of India (1934), among the earliest blueprints for economic planning in India.

### Contemporary Significance

- **Engineering as Nation-Building:** His life underscores how engineering and innovation form the backbone of infrastructure and economic growth.
- **Inspiration for Policy:** His vision predated India's planned development models post-independence.
- **Role Model:** His simplicity, discipline, and integrity make him an ethical role model for civil servants and engineers alike.

### UPSC Add-Ons

Q. With reference to Sir M. Visvesvaraya, consider the following statements:

1. He designed the Krishna Raja Sagara Dam in Mysore.



## C.C. SEPTEMBER '25

2. He served as the Diwan of Mysore and was conferred Bharat Ratna.
  3. He authored Planned Economy of India.
- Which of the statements given above are correct?
- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 1 and 3 only                      (d) 1, 2 and 3

Answer: (D)

## Mains Question

Q. "Engineering is not merely technical work but a form of nation-building. Discuss with reference to the contributions of Sir M. Visvesvaraya."

### Bhupen Hazarika Centenary Celebrations: Music as a Bridge of Cultures

#### Why in News?

The Government of India launched year-long centenary celebrations of Dr. Bhupen Hazarika in September 2025, honouring the legendary musician, poet, and cultural icon from Assam. The celebrations include concerts, exhibitions, documentaries, and cultural festivals across India and abroad.

#### Background & Life

- **Born:** 8 September 1926 in Sadiya, Assam.
- **Education:** PhD in Mass Communication from Columbia University, USA, where he interacted with Paul Robeson, whose ideas on people's struggles influenced him deeply.
- **Career:** Prolific singer, lyricist, poet, filmmaker, and cultural activist.
- **Awards:** Bharat Ratna (2019), Padma Vibhushan, Dadasaheb Phalke Award, Sangeet Natak Akademi Award.

#### Contributions

- **Musical Legacy:**
  - Songs celebrated humanity, equality, and the struggles of common people.
  - Composed in Assamese but translated into multiple Indian languages.
  - Blended folk traditions with universal themes of justice and dignity.
- **Cinema & Theatre:**
  - Directed several Assamese films and contributed to Indian cinema through music and lyrics.
  - Chaired the Sangeet Natak Akademi and contributed to Doordarshan programming.
- **Political & Social Engagement:**
  - Served as MLA (Assam, 1967–72).
  - Songs became tools of cultural assertion in Northeast India, highlighting regional pride and integration with the Indian mainstream.

#### Global Connect:

- His friendship with Paul Robeson influenced his iconic rendition of "Bistirno Parore", inspired by "We Are in the Same Boat, Brother".
- Established himself as a cultural bridge between India and the world.

#### Contemporary Significance

- **Cultural Integration:** His works emphasised harmony, bridging divides of caste, class, and ethnicity.
- **Nation-Building Role:** Through music and lyrics, he gave voice to the marginalised and strengthened India's cultural pluralism.
- **Soft Power:** His global collaborations showcase India's cultural richness abroad.

#### UPSC Add-Ons

Q. With reference to Bhupen Hazarika, consider the following statements:

1. He was awarded the Bharat Ratna posthumously.
2. His song "Bistirno Parore" was inspired by Paul Robeson's work.
3. He chaired the Sangeet Natak Akademi during his lifetime.

Which of the statements given above is/are correct?

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

Answer: (D)

## Mains Questions

Q. "Bhupen Hazarika's songs captured the aspirations of the Northeast while voicing universal values of justice, equality, and human dignity. Examine his contribution to India's cultural integration and soft power."

### Diamond Jubilee of the Battle of Phillora (1965 War)

#### Why in News?

The Indian Army's Airawat Division commemorated the 60th anniversary (Diamond Jubilee) of the Battle of Phillora, one of the decisive tank battles of the Indo-Pak War of 1965. The event honoured the sacrifices of soldiers and highlighted the battle's role in shaping India's armoured warfare legacy.

#### Background: Indo-Pak War of 1965

- Conflict broke out in August 1965 after Pakistan's Operation Gibraltar, aimed at infiltrating Jammu & Kashmir.
- The war expanded into full-scale hostilities on the western front, including Punjab and Rajasthan sectors.
- The Battle of Phillora was fought between 10–12 September 1965 in the Sialkot sector of Pakistan.

### The Battle of Phillora

- **Indian Forces:** The 1st Armoured Division of the Indian Army (Airawat Division).
- **Pakistani Forces:** Pakistan's 6th Armoured Division.
- **Nature of Battle:**
  - One of the largest tank battles after World War II.
  - Indian forces advanced towards Sialkot and engaged Pakistan's Patton tanks.
- **Outcome:**
  - India destroyed a significant number of Pakistani tanks and captured strategic territory.
  - Boosted morale and established India's prowess in armoured warfare.

### Significance of the Battle

- **Operational Impact:** Halted Pakistan's advance in Punjab and tilted momentum towards India.
- **Military Prestige:** Showcased the effectiveness of India's newly raised 1st Armoured Division.
- **Historical Legacy:** Remembered as one of the defining battles of the 1965 war, often compared to tank battles of WWII.

### Contemporary Relevance

- **Military Heritage:** The commemoration underscores the importance of remembering India's post-independence wars.
- **Doctrine Development:** Lessons from Phillora influenced India's subsequent armoured and mechanised warfare strategies.
- **Patriotism & Legacy:** Acts as a reminder of the sacrifices of soldiers and the need for continual modernisation of India's forces.

### UPSC Add-Ons

Q. With reference to the Battle of Phillora, consider the following statements:

1. It was fought during the 1971 Indo-Pak War in the Rajasthan sector.
2. It is regarded as one of the largest tank battles since World War II.
3. It was fought in the Sialkot sector as part of the 1965 Indo-Pak War.

Which of the statements given above is/are correct?

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

**Answer: (A)**

### Mains Question

Q. "Post-independence wars have been critical in shaping India's defence doctrine and national identity. Examine the significance of the 1965 Indo-Pak War, with reference to battles such as Phillora."

## Operation Polo: Integration of Hyderabad into the Indian Union

### Why in News?

September 2025 marked the 77th anniversary of Operation Polo (1948), the military action that led to the integration of the princely state of Hyderabad into the Indian Union. The anniversary sparked renewed debates on state integration, communal harmony, and the legacy of Sardar Vallabhbhai Patel.

### Background: Hyderabad & Independence

- At the time of Independence (1947), Hyderabad was the largest princely state (82,000 sq. miles; 1.6 crore population).
- The Nizam, Mir Osman Ali Khan, wanted independence rather than joining India or Pakistan.
- Hyderabad had its own army and paramilitary force (Razakars, led by Qasim Razvi of the Majlis-e-Ittehadul Muslimeen), which resisted integration.
- This created a security and communal crisis, with violence and lawlessness spreading across the Deccan.

### Operation Polo (13–17 September 1948)

- **Code Name:** Operation Polo (also called "Police Action").
- **Commander:** Maj. Gen. J. N. Chaudhuri led the Indian Army.
- **Objective:** To integrate Hyderabad into India and end Razakar violence.
- **Events:**
  - Indian forces swiftly advanced from four directions into Hyderabad.
  - Within five days, the Nizam's forces surrendered.
  - On 17 September 1948, the Nizam declared a ceasefire and agreed to Hyderabad's accession to India.

### Significance

- **National Integration:** Hyderabad became part of India, consolidating territorial unity after Junagadh and Kashmir.
- **Role of Sardar Patel:** Reaffirmed Patel's reputation as the "Iron Man of India" for managing the integration of 565 princely states.
- **Communal Tensions:** Operation Polo was accompanied by reports of communal violence, leading to the Sunderlal Committee Report (1948–49), which documented excesses.
- **Deccan Politics:** Shaped political identity in Telangana, Marathwada, and parts of Karnataka.

### Contemporary Relevance

- **Federalism & Unity:** Serves as a case study for the challenges of uniting diverse regions into a single nation.
- **Governance Lessons:** Highlights the balance between diplomacy and force in statecraft.

- **Commemorations:** Telangana, formed in 2014, observes Hyderabad Liberation Day (17 September) annually.

#### UPSC Add-Ons

Q. With reference to Operation Polo, consider the following statements:

1. It was launched in September 1948 to integrate Hyderabad into the Indian Union.
2. The operation was led by Major General J. N. Chaudhuri.
3. The Razakars were a paramilitary force loyal to the Nizam.

Which of the statements given above are correct?

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

**Answer: D**

#### Mains Questions

Q. "Operation Polo was not just a military action but a decisive moment in India's political integration. Examine its impact on Indian federalism, communal harmony, and the legacy of Sardar Vallabhbhai Patel."

## GOVERNMENT SCHEMES

#### Bhavantar Yojana (Madhya Pradesh)

- Provides minimum support price for soybean farmers.
- Farmers can register between Oct 5 – Oct 25, 2025.
- Benefits available from Nov 1, 2025 – Jan 31, 2026.
- Aims to stabilize farmer incomes amid price fluctuations.
- Encourages soybean cultivation and reduces financial distress.
- Includes direct benefit transfer mechanism.
- Part of the state's agriculture welfare programs.
- Supports Madhya Pradesh's food security and crop productivity initiatives.

#### Kisan Credit Card (KCC) Enhancement

- Credit limit increased from ₹3 lakh to ₹5 lakh.
- Benefits 7.7 crore farmers, dairy producers, and fishermen.
- Provides working capital for agricultural activities.
- Supports investment in seeds, fertilizers, and equipment.
- Helps in agriculture mechanization and productivity.
- Aims to reduce dependency on informal loans.
- Strengthens financial inclusion in rural areas.
- Complementary to other central and state agriculture schemes.

#### SWAMIH Fund 2

- Launched to complete 40,000 stalled housing units.

- Focuses on aiding middle-class homebuyers with rent and EMIs.
- Addresses issues of real estate project delays.
- Encourages private sector participation in affordable housing.
- Supports government's housing for all initiatives.
- Provides financial stability to developers and buyers.
- Targets urban infrastructure and housing shortage mitigation.
- Part of broader urban development programs under the government.

#### PM SVANidhi

- Provides micro-credit facilities to street vendors.
- Promotes urban livelihoods and entrepreneurship.
- Supports vendors in recovering from COVID-19 economic impact.
- Includes credit-linked subsidy and digital payment incentives.
- Helps in formalization of urban informal sector.
- Encourages financial inclusion and digital literacy.
- Enables vendors to expand business and access government schemes.
- Continues to strengthen resilience of urban micro-enterprises.

#### PM E-DRIVE Scheme

- Total allocation of ₹10,900 crore for EV charging infrastructure.
- Target to set up 72,300 public EV charging stations across cities & highways.
- ₹2,000 crore allocated in the current phase.
- Promotes adoption of electric vehicles (EVs).
- Supports India's net-zero emission and green mobility goals.
- Encourages private sector investment in EV ecosystem.
- Strengthens urban and highway EV infrastructure.
- Part of government's sustainable transport initiative.

#### India-Bhutan Rail Project

- Cost of ₹4,033 crore.
- Connects Kokrajhar (Assam) with Bhutan's Gelephu and Samtse.
- Enhances bilateral trade and regional connectivity.
- Facilitates cross-border movement of goods and people.
- Strengthens India-Bhutan economic and strategic ties.
- Aims to improve transport efficiency and trade logistics.
- Promotes regional socio-economic integration.

- Complements India's North-East connectivity and infrastructure plan.

#### Bharatiya Bhasha Pustak Scheme

- Provides digital Indian language books for students.
- Targets school and higher education levels.
- Promotes multilingual learning and literacy.
- Supports digital education and e-learning initiatives.
- Encourages use of regional languages in education.
- Aims to preserve cultural heritage through education.
- Aligns with National Education Policy (NEP) objectives.
- Facilitates inclusive access to educational resources.

#### National Centres of Excellence for Skilling

- Five centres to be established with global expertise.
- Equip youth for manufacturing under "Make for India, Make for the World".
- Focus on advanced technical skills and industry readiness.
- Strengthens vocational education and employability.
- Encourages public-private partnerships in skill development.
- Supports India's Make in India and export initiatives.
- Targeted at youth empowerment and job creation.
- Aligns with National Skill Development Mission goals.

#### PM Research Fellowship

- Offers 10,000 fellowships over five years.
- Supports technological and scientific research at IISc and IITs.
- Provides enhanced financial support for research scholars.
- Promotes innovation and cutting-edge research.
- Encourages high-quality publications and patents.
- Strengthens India's research ecosystem and global competitiveness.
- Focuses on STEM and applied sciences.
- Complements other national innovation and R&D programs.

#### e-Shram Portal Expansion

- Plans to register 1 crore gig and platform workers.
- Provides identity cards and social security benefits under PM-JAY.
- Supports healthcare, insurance, and welfare access.
- Strengthens formalization of informal workforce.
- Enhances financial inclusion for gig economy workers.
- Improves data collection and policy targeting.

- Promotes worker empowerment and rights.
- Part of broader social security and welfare initiatives.

#### PM Vishwakarma Scheme

- Supports artisans and craftspeople across 18 trades.
- Provides skill upgradation, credit, and market access.
- Aims to promote traditional craftsmanship and livelihood.
- Enhances entrepreneurship among micro and small artisans.
- Includes end-to-end support for tools, training, and marketing.
- Strengthens Make in India's traditional industry sector.
- Improves income and sustainability for artisans.
- Part of national handicraft and craft development strategy.

#### Focus Product Scheme – Footwear & Leather

- Aims to generate employment for 22 lakh persons.
- Targets turnover of ₹4 lakh crore for the sector.
- Encourages cluster development and MSME support.
- Promotes export-oriented production.
- Enhances domestic manufacturing capabilities.
- Supports skill development and technology adoption.
- Strengthens Make in India and "Atmanirbhar Bharat" goals.
- Focuses on sustainable and innovative product design.

#### Toy Sector Development Initiative

- Focus on developing clusters, skills, and manufacturing ecosystem.
- Encourages high-quality, innovative, and sustainable toys.
- Aims to boost domestic toy production and exports.
- Provides training and skill development for toy industry workers.
- Supports MSMEs and start-ups in toy manufacturing.
- Enhances safety and quality standards in toys.
- Promotes Make in India and export potential.
- Strengthens employment generation in creative and manufacturing sectors.



## PHILOSOPHY OF THE MONTH

### "The Strength of Stillness"

"In the rush of doing, we often forget the power of being."

#### The Noise of the Age

We live in an age that rewards speed and applauds noise. Our mornings begin with notifications, and our nights end with unfinished lists. Every few seconds a screen demands attention, a comparison steals peace, a headline triggers outrage. Somewhere in this constant movement, we confuse motion for meaning.

But pause for a moment and ask are we truly progressing, or merely spinning faster? The world around us keeps accelerating, yet anxiety rises, patience shrinks, and empathy grows thin. The tragedy of our times is not that we do too little, but that we think too little between doing.

For students and civil-service aspirants, this restlessness becomes doubly dangerous. Preparation becomes performance; reading becomes racing. We measure hours, not insight. Yet wisdom the kind that shapes administrators, thinkers, and leaders never grows in haste. It blossoms in stillness, like a lotus that opens only when the waters are calm.

#### Understanding Stillness

Stillness does not mean inaction. It means conscious awareness before action. It is that inner pause between impulse and response where judgment matures. In governance, this pause distinguishes an officer who reacts from one who decides. In personal life, it separates routine existence from purposeful living.

Indian thought has always known this. The Bhagavad Gita describes the wise person as "sthita-prajña" one whose intellect remains steady amid dualities. The Buddha found enlightenment not through travel but through meditation beneath a tree. Guru Nanak's peace began with listening; Gandhi's revolution began with silence. The greatest movements in our history were born not from restlessness, but from reflective restraint.

Stillness, then, is not weakness. It is discipline in disguise the courage to hold one's ground when the world demands haste, the composure to listen when everyone else is shouting, the humility to observe before concluding.

#### The Administrative Parallel

Every civil servant faces storms of urgency: breaking crises, political pressure, social media trials. In such turbulence, knowledge alone is not enough; one needs temperament. A steady mind becomes the first institution of good governance.

History remembers not the administrators who shouted loudest, but those who decided wisely. When Sardar Patel handled the integration of princely states, his strength lay in patience shaped by purpose. When E. Sreedharan built the Konkan Railway and Delhi Metro, his power was not rhetoric but quiet conviction. Their stillness was not silence it was focus.

The art of leadership is to create calm around chaos. The officer who listens deeply, observes quietly, and speaks sparingly commands more respect than the one who acts loudly but

thinks lightly. True authority radiates not from volume but from inner balance.

#### The Psychological Strength

Modern psychology now confirms what our scriptures intuited centuries ago that the human mind performs best when centred. Neuroscience calls it response inhibition; philosophy calls it mindfulness. In moments of pause, the brain shifts from reaction to reflection, from emotion to evaluation.

For aspirants, this means that productive study is not about endless hours but about undistracted attention. Ten focused minutes in stillness can clarify what ten restless hours cannot. In the quiet space between chapters, the mind connects patterns, integrates ideas, and deepens memory.

Stillness also heals. Anxiety, comparison, and doubt often accompany long preparation journeys. Learning to breathe, to journal, to take short pauses of gratitude these are not luxuries; they are mental hygiene. A calm mind is not a lazy mind; it is a prepared mind.

#### The Ethical Dimension

Ethics begins where noise ends. Moral clarity rarely shouts; it whispers in the conscience. The voice of right and wrong is subtle one needs silence to hear it. In moments of pressure, when shortcuts glitter and compromises whisper, stillness becomes the only shield.

Gandhiji called it the "inner voice." He often delayed decisions until that voice spoke clearly. His stillness was moral listening. Similarly, a district magistrate facing a communal flare-up or a collector responding to a protest cannot act purely on instinct or emotion. One must pause, reflect on fairness, empathy, and long-term consequences. That pause that ethical stillness saves both justice and humanity.

The Code of Conduct, constitutional morality, and principles of public service are external frameworks; stillness is their internal anchor. Without it, even good rules become impulsive tools.

#### The Academic and the Aspirational

For aspirants preparing for UPSC or any public exam, stillness is often misunderstood as delay. Students fear that resting means falling behind. But mental rest is not idleness; it is investment. The mind needs recovery the way soil needs monsoon before harvest.

In my classes, I often remind students: "Read less, understand more." When you finish a topic, close the book and sit silently for two minutes. Ask yourself, "Why does this matter to the people I will serve?" That question converts knowledge into wisdom.

Stillness also sharpens writing. Before writing any answer or essay, pause. Frame your first line in thought before pen. The result will not just fetch marks it will reflect maturity. UPSC rewards not information, but reflection structured with clarity.

#### The Social Relevance

A still mind is not selfish; it is socially transformative. In an era of quick outrage and instant opinion, society needs voices of calm courage. The administrator, the teacher, the journalist each must act as a centre of gravity when public discourse sways wildly.

The idea of “collective stillness” is embedded in Indian civic tradition. The Gram Sabha system of deliberation, the Panchayat Baithak, even the ancient Buddhist Sangha all were designed to slow down decision-making so that wisdom could enter. Democracy, at its best, is the institutionalization of patience debate before decree, consensus before command.

### The Civilizational Lens

Indian civilization’s continuity rests on its capacity for introspection. Empires have risen and fallen, technologies have changed, yet the Indian mind remains resilient because it knows how to renew itself through reflection. From Upanishadic dialogues to Bhakti poetry, from Sufi silence to modern-day constitutional debates, the subcontinent’s genius lies in thinking deeply before acting decisively.

This civilizational rhythm should guide modern governance as well. Policies designed in haste often collapse under their own noise. Policies rooted in reflective consultation endure. Whether drafting a law, designing a scheme, or resolving a conflict, the principle is the same: act from clarity, not compulsion.

### The Balance Between Stillness and Action

Stillness is not escape from action; it is preparation for the right kind of action. After meditation, the Buddha walked to teach. After prayer, Gandhiji marched. After reflection, Nehru wrote. True stillness always leads to meaningful motion.

For administrators and aspirants alike, the balance is essential. Too much stillness becomes inertia; too much movement breeds chaos. The ideal is rhythm contemplation followed by committed execution. In Sanskrit, this rhythm is called Yukt Karma action in awareness.

When you learn to pause before acting, you also learn to act without regret. Each decision then carries the calm of conviction rather than the noise of reaction.

### The Practical Cultivation of Stillness

How can one practise stillness amid deadlines and distractions? Start small:

1. **Silent Mornings:** Spend the first ten minutes of your day without screens. Let your thoughts settle before the world’s noise enters.
2. **Focused Reading:** Choose one topic a day to study without multitasking.
3. **Mindful Breaks:** Every two hours, take two minutes to breathe and reflect.
4. **Evening Reflection:** Write down one lesson learned academic or personal.
5. **Digital Discipline:** Remember that attention is your most precious asset. Guard it like time.

These practices are not about isolation; they are about intention. When your mind becomes quieter, your efficiency multiplies, your empathy deepens, and your clarity sharpens.

### The Transformational Outcome

Stillness nurtures three silent revolutions within:

- **Clarity:** You begin to see issues, people, and problems without distortion.
- **Composure:** You remain steady under praise or criticism, success or failure.

- **Compassion:** You listen longer, judge slower, and understand better.

Together they create the foundation of ethical leadership. The aspirant who masters stillness in study becomes the officer who masters balance in service.

### A Personal Reflection

When I meet young aspirants, I often notice their eyes carry both ambition and anxiety. They ask, “Sir, what is the secret of success?” My answer rarely changes: “Calm is the secret. Everything else follows.”

The mind is like a lake; when agitated, it cannot reflect truth. Stillness allows vision. Once you achieve that inner steadiness, your answers improve, your interviews transform, and your relationships with people and society mature. The world outside rarely becomes simpler, but the world inside becomes stronger.

### The Broader Message

The strength of stillness is not confined to individuals; it is the very medicine a restless world needs. Climate change, technological disruption, and political polarization all stem from the same disease: impatience without introspection. Humanity must relearn the art of slowing down to survive. Sustainable development, after all, begins with sustainable thinking.

If our generation can rediscover reflective governance, compassionate economics, and mindful citizenship, we may yet build a future where progress has peace at its core.

To you, the reader whether you are an aspirant, a teacher, or a dreamer I offer this simple invitation: Be still for a few minutes each day. In that stillness, ask yourself:

- What do I seek from success?
- Whom will my knowledge serve?
- What kind of India do I wish to help build?

These questions will guide you more deeply than any syllabus ever could. Remember, the exam will test your memory; life will test your maturity. Stillness is the bridge between the two.

“Silence is the mother of truth,” wrote Leonardo da Vinci. The same silence, when filled with purpose, becomes the strength of the civil servant, the scholar, and the citizen.

As Diwali lights the skies this month, let one lamp burn quietly within the lamp of composure, clarity, and compassion. The world may celebrate brilliance; you must cultivate balance.

May your preparation be intense but not impatient, your ambition vast but not violent, and your achievements luminous yet humble. When you master the art of stillness, you will not only pass an exam you will understand the rhythm of life itself.

“In stillness, the world reveals its order; in silence, the soul finds its voice.”

Keep that voice alive. Let it guide your service, your study, and your spirit.

## CASE STUDY OF THE MONTH

As the festival of Diwali approached, the bustling city of Suryanagar shimmered with anticipation. Streets were being adorned with lights, sweet shops were overflowing with customers, and the air carried a familiar scent of festivity. Yet beneath the glow, a difficult ethical dilemma awaited Raghav Verma, the 35-year-old Municipal Commissioner. The city's air quality had already reached "very poor" levels, and hospitals were reporting a sharp rise in respiratory complaints, particularly among children and the elderly. The National Green Tribunal had recently instructed urban local bodies to curb air and noise pollution during major festivals, and the State Pollution Control Board had urged strict enforcement.

Traditionally, Suryanagar hosted one of the region's grandest fireworks fairs an event that generated substantial income for small traders and informal workers. Around 2,000 families were directly dependent on the sale and manufacture of firecrackers. Many of them had taken loans expecting the Diwali season to repay debts accumulated over the year. A blanket ban, as demanded by some environmental groups, could mean financial ruin for hundreds of families. The Small Firecracker Manufacturers' Association met Raghav and pleaded that they had already shifted to "green crackers" certified by the Council of Scientific and Industrial Research (CSIR), arguing that complete prohibition was unfair.

At the same time, environmental NGOs, citizen collectives, and schoolchildren launched a campaign calling for a "Clean and Safe Diwali", invoking Article 21 of the Constitution that guarantees the right to a clean and healthy environment. They accused the administration of apathy, warning that silence would amount to complicity. A few hospitals released advisories predicting a post-festival health emergency if action was delayed. The district's social media became polarised one group celebrated the "eco-friendly" message, while another trended hashtags like #SaveTradition and #NoBanOnJoy.

Adding to Raghav's difficulties was a senior MLA who privately reminded him that the fireworks fair was "an emotional heritage" and any restriction would invite political backlash during upcoming civic elections. The MLA subtly hinted that "bureaucrats come and go, but local sentiment stays forever." Raghav sensed the implicit threat, yet knew that bending rules could set a dangerous precedent. He was also aware that over-regulation could alienate the very citizens he was meant to serve.

Within the administration, opinions were divided. The health department pressed for an immediate ban. The revenue wing warned that enforcement without preparation could trigger protests and litigation. The municipal legal officer suggested a middle path: designate limited "firecracker zones" on city outskirts, allow only licensed traders selling

verified green crackers, and fix strict time limits under the Noise Pollution Rules. This approach would align with NGT directives yet preserve livelihoods. But such controlled arrangements required massive logistical planning and public communication within a week an almost impossible task.

Raghav now faced a conflict that went beyond rules; it was a clash between environmental ethics, economic justice, cultural freedom, and administrative pragmatism. Each decision carried moral weight: banning fireworks outright could save lives but devastate livelihoods; allowing them unchecked could endanger public health; delaying the decision might protect political neutrality but erode public trust. His inner conscience reminded him of his oath to uphold the Constitution, which balances rights with duties. He wondered how to celebrate the spirit of Diwali symbolising light over darkness without turning it into a festival of smoke.

After consulting experts, faith leaders, and civil society groups, Raghav began drafting a circular that sought to redefine the narrative. Instead of "ban versus celebration," he proposed a "Shared Responsibility Model": encouraging community light shows, eco-friendly clay lamps, and organised firecracker zones with air-quality monitoring. He promised post-festival compensation to verified small traders and initiated a public awareness drive involving schools and Resident Welfare Associations. His decision was not perfect, but it aimed to combine compassion with conscience proving that ethical governance is not about choosing one good over another, but reconciling many goods without betraying the larger good.

### Questions:

- What are the major ethical dilemmas faced by Raghav in this situation?
- Using ethical theories such as utilitarianism, deontological ethics, and virtue ethics, evaluate the options available to him.
- Suggest an ethically sound course of action that balances environmental responsibility, cultural sensitivity, and livelihood protection.
- What broader lessons about ethical leadership, stakeholder engagement, and sustainable celebration practices can public servants derive from this case?

## ESSAYS

### "Durga Puja to Ramlila: Living Traditions in a Changing India"

India's festivals are living philosophies that breathe through streets, courtyards, and human relationships; not only the occasions of mere ritual observance. From the rhythmic beats of the dhak during Durga Puja in Kolkata to the sacred recitation of the Ramcharitmanas echoing across the ghats

of Ramnagar, each celebration embodies how the Indian spirit modernizes without forgetting its roots. In India, tradition does not freeze in time; it flows like a river absorbing, reshaping, and renewing itself while keeping the source intact. Every idol carved in clay and every stage erected in devotion becomes a quiet testimony that faith here is not a private sentiment but a shared act of remembering who we are.

The world too has begun to recognize this continuity in motion. In 2021, UNESCO honoured Durga Puja as a “confluence of art, faith, and creativity,” acknowledging how an entire metropolis transforms into an art gallery of belief. More than a decade earlier, the Ramlila of Ramnagar, patronised by the Kashi Naresh for over two centuries, had been inscribed on the same list for turning a whole town into a moving cosmos of the Ramayana. Both are separated by region yet united by rhythm; in both, devotion overflows beyond the sanctum and becomes collective theatre. These recognitions remind us that India’s heritage does not merely exist in monuments but lives in the participation of its people, renewing meaning through performance and artistry.

Seen through this lens, Durga Puja and Ramlila are more than cultural events they are evolving mirrors of India itself. They reveal the moral energy of a civilization that finds harmony between continuity and change, between sacred memory and civic imagination. Their strength lies in their inclusiveness: the artisan, the priest, the volunteer, the child, all become co-authors of a national story told anew each year. Within them one can trace the philosophical depth of Indian spirituality, the sociological bonds of community, the creative economy of craftsmanship, and the ethical concern for sustainability and justice that modern times demand.

Amid noise, light, and colour, these festivals whisper a gentler truth that a civilization endures not because it resists change, but because it transforms change into continuity. In that transformation, India’s festivals continue to affirm the timeless promise of a culture still ancient, still alive, and forever becoming.

At the heart of India’s living traditions lies a philosophical truth: continuity is not the opposite of change, but its finest expression. Festivals like Durga Puja and Ramlila are not simply re-enactments of divine tales; they are moral dialogues between myth and modernity. Each autumn, when artisans sculpt the ten-armed Goddess out of clay, they do not merely create an idol they recreate the very idea of Shakti, the power of righteous resistance. Durga’s victory over Mahishasura becomes a parable of courage, but also a reflection of social renewal, where good must constantly reassert itself against newer forms of evil be it injustice, inequality, or indifference.

In the same spiritual continuum, Ramlila turns scripture into life. For thirty-one nights in Ramnagar, the boundaries between performer and audience dissolve; the town itself

becomes Ayodhya and Lanka. It is not theatre in the Western sense—it is a collective meditation in motion, where the ethical universe of Maryada Purushottam Rama is lived, not just narrated. Every act of Rama’s restraint, every gesture of Sita’s dignity, and every moment of Hanuman’s devotion becomes a lived lesson in Dharma. The performance thus becomes pedagogy; art turns into ethics.

Philosophically, both traditions mirror India’s ability to translate the metaphysical into the everyday. The Goddess and the Prince, though born of myth, continue to inhabit the public imagination as ideals of strength and morality. This synthesis of the sacred and the civic reflects the Indian worldview where spirituality is not withdrawal but participation, and where Dharma is less about doctrine and more about conduct.

Through these rituals, India rehearses its oldest belief that the divine is not beyond life but within it, and that every generation must reinterpret faith to keep it alive for the next. If philosophy gives festivals their spirit, society gives them their shape. The most beautiful feature of India’s living traditions is that they are not performed for people they are performed by people. Both Durga Puja and Ramlila transform faith into a shared civic experience, turning ordinary citizens into cultural creators. In Kolkata, each para or neighbourhood becomes a miniature republic of imagination. Committees gather months in advance, pooling ideas, funds, and skills. Artisans from rural Bengal migrate to the city to build idols and pandals, while students, homemakers, and local businesses collaborate to make the celebration possible. The result is not just an event it is a temporary community bound by shared effort and aesthetic pride.

This collective participation turns faith into social glue. As Émile Durkheim described, festivals generate collective effervescence a momentary surge of unity where the boundaries of class and status blur. In a single pandal queue, one finds the rickshaw-puller beside the CEO, the painter beside the policymaker, all equal before the Goddess. Similarly, in the Ramlila of Ramnagar, the priest, the farmer, and the artisan join hands, dissolving hierarchies that otherwise divide everyday life. The sacred space thus becomes a democratic stage, reaffirming what Gandhi once called the “soul-force of society.”

Beyond emotion, these festivals also sustain an intricate web of livelihoods. The British Council UNESCO study (2023) estimated that Durga Puja supports over three lakh workers from idol-makers and electricians to food vendors and fabric designers injecting nearly ₹32,000 crore into the regional economy. Yet their real worth lies not merely in income, but in inclusion: they remind every participant that culture is not something we inherit it is something we continually build together.

In a world growing more individualistic, such participatory traditions reassert the social idea of India. They prove that



community is not an obstacle to modern life; it is its moral foundation. When faith becomes a shared enterprise, spirituality turns into social cohesion and that is how a civilization keeps both its humanity and its harmony alive.

If community is the heart of these festivals, the economy is their bloodstream. India's living traditions remind us that culture, when nurtured wisely, becomes an instrument of development rather than a burden of nostalgia. The celebration of Durga Puja, for instance, has evolved into a vast cultural economy that employs thousands of artisans, decorators, weavers, technicians, and performers. Streets become galleries; art merges with entrepreneurship. The British Council–UNESCO 2023 study estimated its contribution to West Bengal's GDP at nearly ₹32,000 crore a figure that rivals many modern industries. The Ramlila of Ramnagar, though less commercial in appearance, sustains an entire ecosystem of tailors, carpenters, musicians, and food vendors, turning devotion into livelihood.

Yet this economic vibrancy does not reduce faith to business; rather, it demonstrates how belief and productivity can coexist without contradiction. The artisan shaping the clay image of Durga is not merely producing an object; he is producing meaning. His labour is creative, moral, and economic all at once. When tourists arrive to witness the grand immersions or the sprawling Ramlila processions, they participate in a form of cultural tourism that strengthens both local identity and national soft power. The HRIDAY scheme for heritage cities and Dekho Apna Desh campaign under the Ministry of Tourism recognise precisely this connection where preserving tradition becomes a pathway to inclusive growth.

Even the informal economy around these festivals reflects the resilience of India's small enterprises. Temporary stalls, cottage industries, street performers, and artisans collectively form what might be called the "economy of emotion" a space where profit is tempered by participation and community spirit. The material and the moral thus intersect, proving that in India, faith is not an escape from work but an extension of it into the realm of beauty and belonging.

Through such synthesis, festivals like Durga Puja and Ramlila embody a distinctive model of sustainable development one that measures prosperity not just in currency, but in continuity.

Change has always been the silent companion of tradition. What distinguishes India's living festivals is their instinctive ability to adapt without surrendering their essence. The modern age has not diminished the spirit of Durga Puja or Ramlila; it has merely rewritten their grammar. Smartphones now record what memory once preserved, and virtual audiences participate from continents away yet the emotional choreography remains unchanged. When the pandemic halted physical gatherings, Kolkata's neighbourhood committees launched "Virtual Pandal

Hopping", live-streaming the Puja through social media. Ramnagar's Ramlila, too, embraced digital platforms, allowing devotees across oceans to watch the timeless dialogue of Dharma unfold under the night sky. Far from eroding authenticity, such innovations expanded access, reaffirming that technology, when anchored in purpose, can be an ally of tradition rather than its adversary.

Environmental consciousness has also entered the sacred vocabulary of festivals. Eco-friendly idols made of natural clay and colours are replacing those painted with toxic chemicals; immersion ponds are being redesigned for recycling and wastewater treatment. In 2024, Kolkata introduced the "Green Puja" initiative, which recycled nearly eighty-five percent of its immersion material, transforming ritual into a lesson in sustainability. In Varanasi, solar lighting and waste segregation are now integral to Ramlila venues proof that even age-old practices can align with the principles of Mission LiFE and the Sustainable Development Goals.

These transformations reflect not dilution but deepening: they show that the sacred can evolve responsibly. By weaving digital inclusion and ecological ethics into their texture, festivals now speak the language of a generation that prays with a smartphone in one hand and an environmental conscience in the other. In that synthesis lies India's quiet genius its ability to let the ancient and the modern walk together, neither dominating, both illuminating.

Behind every living tradition that survives the pressures of modernity stands an ecosystem of governance that protects, nurtures, and reinterprets it for changing times. India's cultural landscape is not sustained merely by devotion or nostalgia; it endures through institutional foresight and democratic participation. From the Sangeet Natak Akademi and Indira Gandhi National Centre for the Arts to the Zonal Cultural Centres across the country, there exists a quiet but vital machinery that documents, funds, and promotes intangible heritage. The recognition of Durga Puja and Ramlila by UNESCO did not happen in isolation; it was the outcome of years of archival work, community engagement, and policy advocacy. Such recognition transforms cultural pride into cultural responsibility reminding the State and the citizen alike that heritage is a shared trust.

The Indian Constitution itself enshrines this responsibility. Article 49 directs the State to protect monuments and objects of artistic importance, while Article 51A(f) makes it a fundamental duty of every citizen to preserve the rich heritage of our composite culture. This blend of constitutional vision and community initiative forms the backbone of India's cultural resilience. Recent programmes such as the National Mission on Cultural Mapping, which aims to geo-tag a million artists and craftspeople, and the HRIDAY scheme for heritage city development, extend this vision into practical governance.

Moreover, the role of local government and civil society is indispensable. Municipal bodies manage crowd logistics, NGOs promote eco-friendly celebration norms, and educational institutions now host heritage clubs that introduce younger minds to ritual art and folklore. In this way, governance becomes not regulation but facilitation a partnership between policy and people that keeps the sacred relevant in the modern state. When the law and the lamp of faith burn together, a civilization achieves what bureaucracy alone never can: continuity with conscience.

Reviving India's living traditions does not mean freezing them in time; it means helping them breathe with awareness in the present. The first step lies in strengthening the very communities that keep these traditions alive. When the idol-maker, the storyteller, and the stage designer are recognized not as seasonal labour but as carriers of civilizational memory, culture regains its dignity. Institutional support must therefore move beyond token awards toward sustained patronage through cultural cooperatives, dedicated heritage funds, and fair-trade platforms that connect local artistry with global audiences.

Education, too, must play its part. Introducing school modules on India's intangible heritage, visits to local performances, and youth volunteer programmes during festivals can turn passive spectators into future custodians. Digital technology can be harnessed not merely for spectacle but for archival documentation and skill transfer, ensuring that the next generation inherits both knowledge and reverence.

Equally vital is embedding sustainability at the heart of celebration. Eco-friendly materials, waste-free immersion practices, and green energy stages should become norms, not novelties. Initiatives like the Green Puja of Kolkata and Mission LiFE exemplify how faith can walk hand in hand with environmental ethics. On a larger canvas, India's diplomacy can use its living heritage as soft power inviting the world to see in Durga and Rama the universal values of courage, duty, and compassion.

Above all, the revival of these traditions demands empathy over spectacle a cultural consciousness where reverence replaces display and participation replaces consumption. When communities celebrate with awareness, policymakers govern with sensitivity, and citizens view culture as responsibility, India's living heritage will not merely survive it will guide modernity itself.

In the final reflection, both Durga Puja and Ramlila remind us that India's true strength lies not in resisting modernity but in transforming it. They prove that the sacred and the social, the ancient and the evolving, can coexist in creative dialogue. The Goddess sculpted from clay and the epic staged under open skies tell the same civilizational story that faith here is not a withdrawal from life but a celebration of it. The journey from Kolkata's luminous pandals to Ramnagar's moonlit arenas is, in essence, a journey of India itself: a civilization that learns, adapts, and yet remains anchored in moral rhythm.

Every generation, knowingly or not, rewrites these festivals in its own language. For artisans, they are employment; for devotees, emotion; for scholars, memory; and for policymakers, heritage. Together they form a cultural continuum where art, economy, and ethics converge. In this sense, India's living traditions are not relics of the past but renewable resources of meaning capable of addressing the spiritual fatigue of a hyper-modern age. As Tagore once said, "The old gives birth to the new not by dying, but by living in a new form." These celebrations are precisely that the old, reborn in beauty.

The tone that has guided this reflection is one of philosophical optimism grounded in realism. Challenges exist commercialization, environmental strain, generational distance yet they are not defeats but signals to act with conscience. A festival that can integrate digital platforms, global recognition, and ecological awareness is proof that tradition in India is not fragile; it is flexible by design.

The call, therefore, is collective and continuous. Citizens must celebrate with awareness, institutions must support with empathy, and educators must teach with pride. Governments can provide structure, but societies must provide soul. When the artisan's hands are valued, when sustainability becomes ritual, and when the young inherit reverence along with enthusiasm, culture ceases to be an event and becomes an ethic.

India's festivals will continue to beat like the nation's pulse ancient yet awake, traditional yet transformative. In every drumbeat of the Puja and every chant of the Ramlila echoes one quiet assurance: that a civilization truly lives not by preserving its past, but by performing it anew each day, with devotion, dignity, and imagination.

## SPECIES IN NEWS

Species	News
<b>Fishing Cat (<i>Prionailurus viverrinus</i>)</b>  "The cat's detection in Ramgarh Vishdhari TR underscores the reserve's role in protecting diverse ecosystems, serving as a key indicator of local wetland health amidst growing habitat pressure."	<b>About:</b> <b>Apex Wetland Predator &amp; Indicator Species:</b> A crucial species whose presence signifies a healthy, functioning freshwater wetland environment. Its confirmed presence in the reserve highlights the success of conservation efforts in tiger reserves for non-tiger species and raises awareness about the fragility of its wetland habitat. <b>Habitat Range Expansion/Monitoring Success:</b> Recorded presence in a major protected area, Ramgarh Vishdhari Tiger Reserve, Rajasthan. Classified as Vulnerable by IUCN. Indicator of healthy freshwater ecosystems. Threats: wetland loss, poaching, and pollution. 
<b>Indo-Burmese Pangolin (<i>Manis aurita</i>)</b>  "With the pangolin's recent reclassification emphasizing its threatened status, CITES Appendix I protections are being strictly enforced to combat the escalating global illegal wildlife trade."	<b>About</b> <b>Critically Endangered Mammal &amp; Pest Controller:</b> The world's most trafficked mammal, vital for soil health (through burrowing) and insect population control. Its plight is frequently in the news due to the illegal wildlife trade crisis and its status as a Critically Endangered species, demanding renewed global conservation and anti-trafficking efforts. <b>Taxonomic &amp; Conservation Focus:</b> Recently reclassified, leading to an emphasis on rigorous monitoring and enhanced anti-smuggling efforts. <b>Critically endangered; native to India, Myanmar, Nepal. Threats:</b> illegal wildlife trade, habitat destruction. Role: controls insect populations. 
<b>Kārearea Falcon (<i>Falco novaeseelandiae</i>)</b>  "Winning the 2025 Bird of the Year title is set to secure vital public support and funding for the Kārearea, New Zealand's sole native falcon, facing threats from habitat fragmentation."	<b>About:</b> <b>Flagship Raptor Species:</b> New Zealand's sole native falcon, a key predator in its ecosystems and a symbol for native bird conservation. The "Bird of the Year 2025" title is a major campaign to boost public awareness, monitoring, and conservation funding for this flagship species against introduced predators. <b>Conservation Awareness/Public Recognition:</b> Recently named New Zealand's Bird of the Year for 2025. New Zealand's only native falcon. Population: 5,000–8,000. Threats: habitat loss, introduced predators. 
<b>Sri Lankan Leaf-Nosed Bat (<i>Hipposideros srilankaensis</i>)</b>  "The documentation of this new bat species underscores Sri Lanka's unique biodiversity, prompting immediate calls to protect its forested habitats and critical cave roosting sites."	<b>About:</b> <b>Endemic Mammal &amp; Insect Controller:</b> A newly documented bat, endemic to Sri Lanka, important for insect control and studies on sophisticated echolocation. Its recent scientific discovery emphasizes that biodiversity is still being uncovered, and its vulnerability highlights the immediate threat that deforestation poses to unique, newly found species. <b>Biodiversity Discovery:</b> A recently described species, highlighting the unique and understudied mammalian biodiversity of Sri Lanka. Newly discovered species, endemic to Sri Lanka. Identified by unique nose-leaf structure and echolocation. Threats: deforestation, cave disturbance. 



**Hybrid Jay (Cyanocorax sp.)**

"The rare Hybrid Jay observation in San Antonio is a vivid, real-time indicator of how climate-induced range shifts are affecting evolutionary processes and avian biodiversity."

**About:**

**Indicator of Evolutionary Change:** A rare genetic hybrid that serves as a living indicator of climate-induced ecological shifts and changes in species range and interaction.

It is in the news because it is a biological signal of climate change. The overlap of species ranges, leading to hybridization, provides scientists with a unique case study on evolutionary adaptation.

**Range Shift & Hybridization Event:** Observed due to ecological changes, particularly those driven by climate change causing the parent species' ranges to overlap.

Rare hybrid of green jay and blue jay in San Antonio, USA. Genetic significance: hybridization affects avian diversity. Threats: habitat fragmentation, climate change.

**Banded Dragonfish (Akarotaxis gouldae)**

"The discovery of the bioluminescent Banded Dragonfish enhances our understanding of the Southern Ocean's bathypelagic zone, but also raises concerns about deep-sea ecosystem threats from ocean warming."

**About:**

**Extreme Environment Organism:** A newly documented, bioluminescent deep-sea fish that contributes to the understanding of deep-sea biodiversity and cold adaptation.

Its discovery is significant for marine biodiversity research and focuses attention on the deep-sea ecosystem, which is highly vulnerable to global threats like climate change and ocean warming.

**Deep-Sea Discovery & Adaptation Research:** A recently discovered species from the bathypelagic zone, adapted to the extreme conditions of the Southern Ocean.

Deep-sea bioluminescent fish from Southern Ocean, Antarctica. Adapted to extreme cold, high-pressure environment. Threats: climate change, ocean warming.

**Mining Bee (Andrena androfovea)**

"The new Mining Bee species highlights the critical role of native ground-nesting pollinators in supporting local agriculture and the urgent threat posed by pesticide use and habitat destruction."

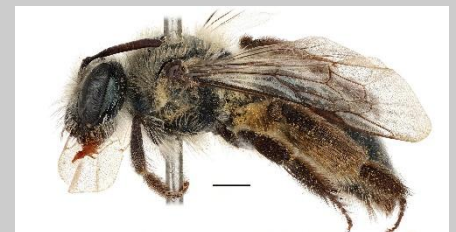
**About:**

**Native Pollinator & Agricultural Support:** A ground-nesting bee crucial for regional ecosystem services and sustainable agriculture.

Its recent identification and role as a key pollinator for important crops bring it into the news as a focus point for pollinator conservation efforts against habitat loss and the increasing use of pesticides.

**New Species Discovery & Ecosystem Service:** A recently identified native pollinator, essential for agricultural crops (Solanaceae family) through its ground-nesting behavior.

Newly identified species from Texas and Oklahoma, USA. Role: pollinates Solanaceae plants and crops. Threats: pesticides, habitat loss, urbanization.

**Indian Star Tortoise (Geochelone elegans)**

"Despite CITES Appendix I listing, the Indian Star Tortoise continues to be a high-value target for the illegal pet trade, prompting intensified anti-trafficking operations and conservation awareness campaigns."

**About:**

**Arid Ecosystem Herbivore & Trafficking Victim:** A protected species that is a key herbivore in dry ecosystems, heavily targeted by the illegal exotic pet trade.

It is often highlighted to increase public awareness about the severe impact of the illegal pet trade and to support anti-trafficking measures and captive breeding programs.

**Conservation Focus:** Recently highlighted for conservation awareness to combat the persistent threat of illegal pet trade and enhance breeding programs.

Native to dry regions of India and Sri Lanka. Listed in CITES Appendix I and Schedule I of WPA 1972. Threats: illegal pet trade, habitat loss.





### Eyelash Palm Pit Viper (Bothriechis khwargi)

"The documentation of this new pit viper species underscores the unexplored biodiversity of Central American cloud forests, which are rapidly shrinking due to deforestation."

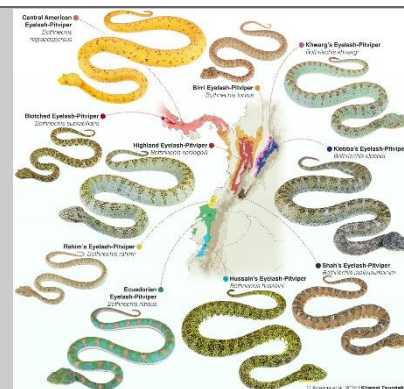
#### About:

**Rainforest Predator & Unique Morphology:** A newly documented snake species, characterized by its distinctive "eyelash" scales and its role in the rainforest food chain.

Its recent scientific documentation highlights the immense, undiscovered biodiversity in rainforests and serves as an urgent reminder of the threats that deforestation and habitat fragmentation pose to yet-to-be-known species.

**Biodiversity Discovery:** A recently described venomous snake, notable for its unique physical traits and its role as a key predator in Central American rainforests.

Newly described species from Central America. Notable for eyelash-like supraocular scales. Threats: deforestation, habitat fragmentation.



### Tardigrades

"Recent 2025 studies on Tardigrades' resilience mechanisms confirm their critical role as model organisms for astrobiology, advancing our understanding of life's potential in extreme environments."

#### About:

**Extremophile Micro-Invertebrate:** Microscopic organisms famous for their ability to survive conditions fatal to almost all other life, including the vacuum of space.

They are frequently in the news due to breakthroughs in astrobiology and stress tolerance research, as scientists study their unique genes to understand biological resilience and its potential applications in medicine and space travel.

**Scientific Research/Model Organism Status:** Recently featured in major scientific research in 2025 due to their extreme resilience (e.g., survival in space, radiation).

Microscopic invertebrates, resilient to extreme conditions. Model organisms for astrobiology and stress tolerance research. Role: indicator species for environmental monitoring.



### Sea Cucumbers

"Sea cucumbers were a focus in 2025 conservation talks, emphasizing the urgent need for sustainable harvesting quotas to protect them from overfishing, which severely impacts benthic ecosystem health."

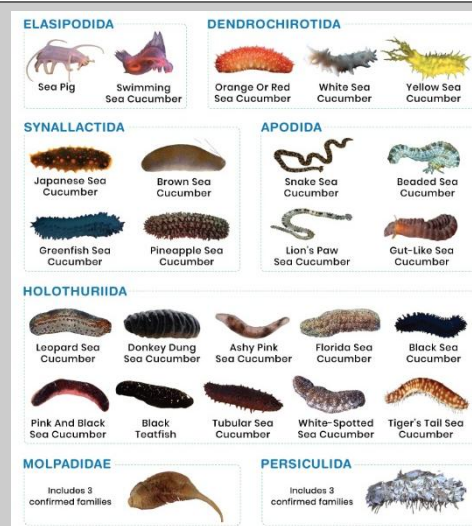
#### About:

**Benthic Ecosystem Engineer:** Marine invertebrates that play a vital role in cleaning the ocean floor by recycling nutrients (benthic health).

They are in the news due to concerns over severe overharvesting for the Asian food and medicinal markets, which threatens their critical role in maintaining the health of seabed ecosystems globally.

**Conservation Focus:** Highlighted in recent 2025 conservation discussions regarding sustainable harvesting and the establishment of marine protected areas.

Marine invertebrates, crucial for nutrient recycling in ocean floors. Threats: overharvesting for food and medicinal purposes. Ecological significance: maintains benthic ecosystem health.

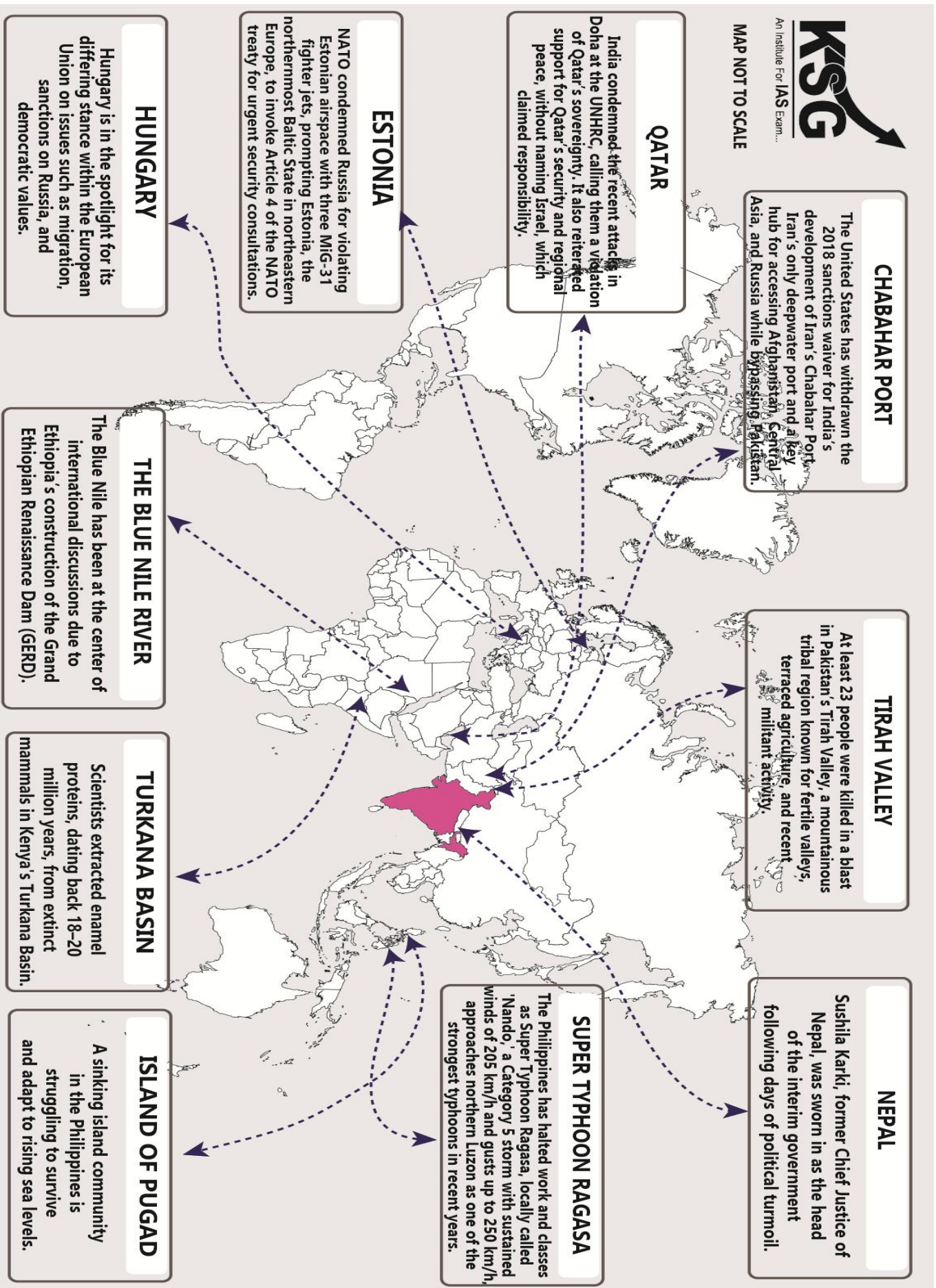


## PLACES IN THE NEWS

Places	News
<b>Achanakmar Tiger Reserve (Chhattisgarh)</b>	<ul style="list-style-type: none"> <li>Located in Bilaspur and Mungeli districts, Chhattisgarh; part of the Achanakmar–Amkantak Biosphere Reserve.</li> <li>Recent reports confirm increased tiger sightings via camera traps.</li> <li>Success attributed to improved prey base, stricter patrolling, and habitat restoration.</li> <li>Reserve is also home to leopards, bears, and diverse bird species.</li> <li>Recognized under <b>Project Tiger since 2009</b>.</li> <li>Eco-development programs involve local communities in conservation.</li> <li>Corridor connectivity with Kanha Tiger Reserve (Madhya Pradesh) supports tiger movement.</li> <li>Positive signs strengthen India's overall big cat conservation record.</li> </ul>
<b>Periyar Tiger Reserve (Kerala)</b>	<ul style="list-style-type: none"> <li><b>Kerala Finance Inspection Wing</b> flagged financial irregularities at PTR.</li> <li>Tourism income was diverted to a <b>"Park Welfare Fund"</b> without government approval.</li> <li>Located in <b>Thekkady, Idukki district</b>, within the <b>Western Ghats</b>.</li> <li><b>A Project Tiger Reserve</b>, known for rich biodiversity and tiger–elephant habitats.</li> <li>Pioneer of <b>community-based ecotourism</b>, involving local people in conservation.</li> <li>Recognized as Best <b>Managed Tiger Reserve (2022)</b> by NTCA under MEE assessment.</li> <li>Also part of UNESCO <b>World Heritage Site – Western Ghats</b>.</li> <li>Issue raises concerns over <b>financial transparency and governance</b>, despite strong conservation success.</li> </ul>
<b>Almatti (Karnataka) Dam</b>	<ul style="list-style-type: none"> <li>Karnataka has proposed raising the Almatti Dam height from <b>519.60 m to 524.256 m</b>.</li> <li>Storage capacity would increase from <b>173 TMC to nearly 300 TMC</b>.</li> <li>Located on the <b>Krishna River in Bagalkot district, Karnataka</b>.</li> <li>Forms the main reservoir of the <b>Upper Krishna Irrigation Project (UKIP)</b>.</li> <li>Commissioned in <b>2005</b>, with <b>hydroelectric capacity of 290 MW</b>.</li> <li>Expansion aims to boost irrigation in drought-prone <b>northern Karnataka</b> and enhance water security.</li> <li>Concerns include <b>environmental impact, displacement, and interstate water disputes</b> with Maharashtra and Andhra Pradesh.</li> <li>Final approval subject to clearance from the <b>Krishna River Management Board (KRMB)</b> and possibly the <b>Supreme Court</b>.</li> </ul>
<b>Bagram Air Base</b>	<ul style="list-style-type: none"> <li>Located about 60 km north of Kabul, Afghanistan.</li> <li>Served as the largest U.S. military base during the war in Afghanistan.</li> <li>Post-U.S. withdrawal (2021), the Taliban took control of the base.</li> <li>Reports suggest it is being used for <b>intelligence and surveillance operations</b>.</li> <li>Strategic due to proximity to Central Asia and South Asia.</li> <li>Symbolizes the long U.S. presence in Afghanistan and its sudden exit.</li> <li>Remains a focal point in discussions of regional counterterrorism.</li> <li>Seen as a reminder of Afghanistan's shifting geopolitical importance.</li> </ul>
<b>Bhagirathi River</b>	<ul style="list-style-type: none"> <li>Major tributary of the Ganga, originates from Gangotri Glacier, Uttarakhand.</li> <li>Heavy rains have led to a sudden rise in water levels.</li> <li>Authorities issued flood alerts in Uttarkashi and surrounding districts.</li> <li>Disaster management teams placed on high alert.</li> <li>River has cultural and religious importance in Hindu traditions.</li> <li>Hydroelectric projects like <b>Tehri Dam</b> depend on its flow.</li> <li>Vulnerability highlights climate risks in Himalayan river systems.</li> <li>State government coordinating evacuation and relief measures.</li> </ul>

<b>Democratic Republic of Congo (DRC)</b>	<ul style="list-style-type: none"> <li>Fresh clashes have erupted in eastern provinces (Ituri, North Kivu).</li> <li>Thousands displaced, worsening existing humanitarian crisis.</li> <li>UN reports highlight food insecurity and disease outbreaks.</li> <li>DRC is mineral-rich (cobalt, copper) but plagued by instability.</li> <li>Armed groups like M23 and militias remain active despite peace efforts.</li> <li>Violence impacts regional stability in Central Africa.</li> <li>Human rights groups call for stronger international response.</li> <li>Crisis underscores the link between resource wealth and conflict.</li> </ul>
<b>Scarborough Shoal</b>	<ul style="list-style-type: none"> <li>Disputed territory in the South China Sea.</li> <li>Claimed by both <b>China and the Philippines</b>.</li> <li>Recent confrontations between the Chinese coast guard and Philippine vessels.</li> <li>Manila filed diplomatic protests against Chinese actions.</li> <li>U.S. reaffirmed support for the Philippines under the mutual defense treaty.</li> <li>Shoal is strategically important for fishing and sea trade routes.</li> <li>Tensions risk destabilizing ASEAN-China relations.</li> <li>Flashpoint that highlights wider Indo-Pacific maritime disputes.</li> </ul>
<b>Indian Navy's First Training Squadron in Seychelles</b>	<ul style="list-style-type: none"> <li>Squadron arrived in Seychelles as part of an overseas deployment.</li> <li>Includes ships <b>INS Tir, INS Sujata, and ICGS Sarathi</b>.</li> <li>Conducting training sessions and joint drills with the Seychelles Coast Guard.</li> <li>Focus on <b>capacity building, maritime domain awareness, and interoperability</b>.</li> <li>Strengthens India's role in the <b>Indian Ocean Region (IOR)</b>.</li> <li>Part of India's "Security and Growth for All in the Region" (SAGAR) vision.</li> <li>Enhances defense diplomacy and people-to-people ties.</li> <li>Reinforces India's position as a net security provider in IOR.</li> </ul>
<b>UN Declares Famine in Gaza</b>	<ul style="list-style-type: none"> <li>The United Nations has officially declared famine in parts of Gaza.</li> <li>Conflict and continuous blockade have severely disrupted food supply chains.</li> <li>UN agencies warn over <b>1 million people face catastrophic hunger levels</b>.</li> <li>Malnutrition among children is rising at an alarming rate.</li> <li>Humanitarian aid access remains restricted due to security concerns.</li> <li>International pressure mounts for a ceasefire and relief corridors.</li> <li>Relief agencies stress immediate intervention to prevent mass starvation.</li> <li>Crisis underlines the devastating impact of prolonged conflict on civilians.</li> </ul>
<b>Sir Bani Yas Island (UAE)</b>	<ul style="list-style-type: none"> <li>Located off the coast of Abu Dhabi, UAE.</li> <li>Recognized globally as a successful model of <b>eco-tourism and wildlife conservation</b>.</li> <li>Home to endangered species like <b>Arabian Oryx, cheetahs, giraffes, and gazelles</b>.</li> <li>Established as a protected reserve by late Sheikh Zayed bin Sultan Al Nahyan.</li> <li>Supports reforestation and environmental restoration initiatives.</li> <li>Attracts tourists for safaris, birdwatching, and heritage sites.</li> <li>Contributes to UAE's sustainable development and conservation goals.</li> <li>Serves as an example of balancing economic growth with biodiversity protection.</li> </ul>







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