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VICE-PRESIDENT RESIGNATION

Why in News: In a rare event, the **Vice-President of India resigned mid-term** due to health concerns by submitting his resignation to the President of India under **Article 67(a)** of the Constitution.

Important Details

The resignation came on **July 21, 2025**, the very first day of the Monsoon Session of Parliament.

This makes him only the **third Vice-President to resign mid-term**, after:

- **V.V. Giri (1969)** – who resigned to contest the Presidential election.
- **R. Venkataraman (1987)** – who resigned after being elected as President.

Currently, **India has no sitting Vice-President**, and the **Deputy Chairman of Rajya Sabha, Harivansh Narayan Singh**, is presiding over the Upper House until a new Vice-President is elected. A **by-election is scheduled for September 9, 2025**.

How Does a Vice-President Resign?

- The Vice-President must send a **written resignation letter** addressed to the **President of India**.
- The resignation takes effect **immediately** upon acceptance by the President (or from the date mentioned in the letter).

Vacancy and Elections

When the Vice-President's office falls vacant due to **resignation, removal, death, or otherwise**:

- An **election must be held within six months (Article-68)**.
- The **Election Commission of India** announces the schedule.
- The election follows the **Presidential and Vice-Presidential Elections Act, 1952**.
- The **Secretary General of either House of Parliament** is appointed as the Returning Officer (on a rotational basis).

Who Performs Duties in the Meantime?

- The **Constitution does not provide for an acting Vice-President**.
- Until the new Vice-President is elected, the **Deputy Chairman of Rajya Sabha** performs the duties of the Chairman (since the Vice-President is ex-officio Chairman of Rajya Sabha).
- If both the Chairman and Deputy Chairman resign, a

panel of Vice-Chairpersons (elected from among Rajya Sabha members) presides over the House.

Vice-President of India

- **Articles 63 to 71** of the Constitution deal with the Vice-President.
- **Article 63:** "There shall be a Vice-President of India."
- **Election:**
 - Elected by an **electoral college** consisting of members of both Houses of Parliament (Lok Sabha + Rajya Sabha, including nominated members).
 - Uses **proportional representation with single transferable vote**.
 - **State legislatures do not participate** in this election.
- **Oath:** Administered by the **President of India**.
- **Term:**
 - 5 years, but can resign anytime by writing to the President.
 - Can be re-elected any number of times.
- **Eligibility:**
 - Must be a **citizen of India**.
 - At least **35 years old**.
 - Eligible for election as a **Rajya Sabha member**.
 - Must not hold an **office of profit** under Union or State governments.
- **Key Role:**
 - Ex-officio **Chairman of the Rajya Sabha**.
 - Can act as **President of India in case of a vacancy** until a new President is elected.

Why This Matters?

The Vice-President's resignation comes at a politically sensitive time. In December 2024, the Opposition had already moved a no-confidence motion against him in his capacity as Rajya Sabha Chairman. Now, with the post lying vacant, the smooth functioning of Parliament requires effective interim arrangements until a new Vice-President takes charge.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding the Vice-President of India:

1. The Vice-President is elected by the members of both Houses of Parliament, including nominated members.

2. The Vice-President must be qualified for election as a member of the Lok Sabha.
3. The Vice-President can act as President in case of vacancy in the office of the President.
4. The Vice-President is a member of the Union Council of Ministers.

Which of the statements given above are correct?

- | | |
|------------------|---------------------|
| (a) 1 and 3 only | (b) 1, 2 and 3 only |
| (c) 1 and 4 only | (d) 2, 3 and 4 only |
- (a) :।ᄁᄁᄁᄁ

SIX YEARS AFTER ARTICLE 370

Why in News: August 5, 2025, marks six years since the abrogation of Article 370 and Article 35A of the Indian Constitution. This historic decision of 2019 revoked the special status of Jammu & Kashmir (J&K), reorganised it into two Union Territories (J&K and Ladakh), and aimed to bring the region closer to the rest of India. The move was seen as a step toward full integration, equal rights, greater development, and improved security.

Six years on, the results are visible but mixed—progress in some areas, persistent challenges in others.

Key Developments Since 2019

1. Political Changes

- **Revival of Politics:** Political parties like the National Conference (NC) and People's Democratic Party (PDP), once sceptical, have rejoined the democratic process.
- **Supreme Court Verdict (2023):** The apex court upheld the abrogation but directed that J&K's statehood be restored and assembly elections held.
- **Grassroots Democracy:** Panchayat and municipal elections have strengthened local governance.
- **Demand for Statehood:** There is now wide agreement among political groups (excluding Ladakh) for restoring full statehood.

2. Security Landscape

- **Improved Law and Order:** Large-scale terror networks have weakened, and urban areas are relatively more peaceful.
- **New Security Threats:** However, "hybrid militancy" (individuals with no prior record turning to violence suddenly) and lone-wolf attacks continue, as seen in incidents like the recent Pahalgam attack.
- **Stronger Surveillance:** The use of drones, CCTV networks, and intelligence-led policing has grown.

3. Economic and Infrastructure Growth

- **Investment:** The government claims proposals worth over ₹65,000 crore, with focus on IT, handicrafts, horticulture, and tourism.

• Connectivity:

- New stretches of the Udhampur–Srinagar–Baramulla Rail Link completed.
- Highways widened, tunnels like Zojila under progress.
- Direct flights now link Srinagar and Jammu to tier-1 cities across India.

- **Agriculture and Handicrafts:** Modernisation of apple cultivation, saffron schemes, and GI tagging of Kashmiri crafts to boost exports.

4. Tourism Revival

- **Record Arrivals:** Before recent security incidents, J&K saw historic highs in tourist numbers.
- **Winter & Cultural Tourism:** Gulmarg ski slopes, film shootings, and cultural festivals have given tourism a diversified push.

5. Administrative and Legal Integration

- **Central Laws:** Over 800 central laws now apply to J&K, replacing state-specific ones.
- **Direct Benefit Transfers:** Schemes like PM-KISAN, Ayushman Bharat, and others have reached citizens directly.

The Challenges That Remain

- **Statehood Delay:** Assembly elections are yet to be held despite the Supreme Court's 2024 timeline.
- **Security Fragility:** Terror attacks, even if sporadic, disrupt perceptions of normalcy and scare away investors and tourists.
- **Public Trust Deficit:** Many still feel the 2019 move eroded J&K's autonomy, leading to political alienation.
- **Unemployment:** Job creation has not kept pace with expectations, especially among youth.
- **Tourism Vulnerability:** Security incidents directly hit livelihoods dependent on tourism.

Way Forward

1. **Restore Statehood Timely** – Holding free and fair elections will strengthen democracy and trust.
2. **Tackle Hybrid Militancy** – Security strategies must evolve without causing civilian hardships.
3. **Inclusive Dialogue** – Government should engage mainstream political parties, local leaders, and civil society.
4. **Diversify the Economy** – Move beyond tourism and horticulture into IT, renewable energy, and agro-processing.
5. **Youth Employment** – Skill development programmes must align with new industries.
6. **Shape the Narrative** – Use film, culture, and international outreach to project stability and opportunity.

Conclusion

Six years after Article 370's abrogation, Jammu & Kashmir stands at a crossroads. Roads, railways, and flights have improved; central laws and welfare schemes have reached people; and politics has restarted. Yet, security concerns, delays in statehood, and public trust deficits remain hurdles. The region's future now depends on how well governance, security, and inclusion are balanced to achieve lasting peace and prosperity.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to developments in J&K after the abrogation of Article 370 in 2019, consider the following statements:

1. The Supreme Court in 2023 upheld the abrogation and directed restoration of statehood with assembly elections.
2. Over 800 central laws have been extended to J&K.
3. The Udhampur–Srinagar–Baramulla Rail Link has been fully completed and is operational up to Leh in Ladakh.
4. Tourism has seen record arrivals, though incidents like the Pahalgam attack disrupted the momentum.

Which of the statements given above are correct?

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

(b) :Answer

DENOTIFIED, NOMADIC, AND SEMI-NOMADIC TRIBES

Why in News: The National Conference of De-notified Tribes (DNTs) saw heightened demands for the creation of a permanent National Commission for Denotified, Nomadic, and Semi-Nomadic Tribes.

Key Details

- The Idade Commission, established in 2014, was formed to address the enduring socio-economic issues faced by De-notified Tribes (DNTs), Nomadic Tribes (NTs), and Semi-Nomadic Tribes (SNTs).
- Although a permanent commission has not yet been officially set up, the Development and Welfare Board for DNTs (DWBDNCs) was established in 2019 with the aim of prioritizing their welfare.
- The government has initiated the Scheme for Economic Empowerment of DNTs (SEED) to offer support in livelihood, education, healthcare, and housing to DNTs.

De-Notified Tribes (DNTs)	Nomadic Tribes (NTs)	Semi-Nomadic Tribes (SNTs)
• These communities were previously identified under the British-era Criminal Tribes Act of 1871. • This act categorized specific communities as inherently criminal due to their lineage, resulting in their stigmatization and marginalization. • In 1952, the Indian government abolished this act and 'de-notified' these communities. • Nevertheless, the repercussions of the act persist, as these communities frequently encounter social exclusion and economic difficulties. • Although the majority of Denotified Tribes (DNTs) fall under the categories of Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC), there are some DNTs that are not covered into any of these categories.	• These communities typically migrate from one location to another instead of establishing a permanent residence. • They frequently depend on conventional livelihoods such as livestock herding, commerce, or artisanal crafts. • Examples of Nomadic Tribes in India include the Van Gujjars, Lambadis, and Gujjar-Bakarwals.	• These communities exhibit partial nomadism, indicating that they may possess certain established locations or engage in seasonal migrations while still maintaining some nomadic traditions. • Examples of Semi-Nomadic Tribes include the Raikas and Banjaras.

DNTs in India

- Denotified, Nomadic, and Semi-Nomadic Tribes (DNTs) in India represent a significant population, estimated to be around 10.74 crore, encompassing more than 1,400 communities.
- This figure is based on the 2001 census data and was estimated by the Renke Commission in 2008.

- Examples of DNT communities include Banjara, Gadia Lohar, Rabari, Madari, Kalbelia, and Nat, among others.

Challenges faced by DNTs

- **Lack of recognition and documentation:** Many DNT communities lack proper documentation, hindering their access to government welfare schemes and other essential services.

- **Discrimination:** Historical criminalization and negative stereotypes continue to impact DNT communities.
- **Economic Marginalization:** DNTs often face challenges in accessing employment opportunities, resources, and markets, leading to poverty and economic dependence on traditional occupations.
- **Lack of Education:** High dropout rates, low literacy levels, and limited access to quality education.
 - **No data:** The exact number of the nomadic tribes in India is still unknown as there is no formal census conducted.

Way Forward

Focus Area	Key Actions
Legal Status	Separate category, implement Idade Report
Education	Residential schools, bridge courses
Livelihood	Traditional skills, MNREGA, land rights
Housing & Services	PMAY, mobile services, IDs
Representation	National Commission, local reservation
De-stigmatization	Awareness campaigns, police training
Data and Research	DNT-specific surveys and data
Civil society involvement	CBO support, leadership training

Conclusion

DNTs are not just marginalized; they are often invisible to the system. It's time India recognizes DNTs not as relics of a colonial label, but as citizens with dignity, potential, and equal rights.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Despite being Denotified over seven decades ago, DNTs in India continue to face systemic exclusion and invisibility. Critically examine the socio-political challenges faced by DNTs and evaluate the effectiveness of recent government initiatives aimed at their empowerment. [250 word] [15 marks]

COLLUSIVE LITIGATION

Why in News: The Supreme Court of India has recently taken suo motu (on its own) cognisance of *collusive litigations* involving officials of the Bengaluru Development Authority (BDA). The case revolves around 3 acres and 33 guntas of land in Bengaluru North Taluk and has brought to light how legal procedures can be misused by statutory bodies themselves. The Court has directed the registry to file a petition under **Article 32 of the Constitution** to ensure justice.

What is Collusive Litigation?

Collusive litigation is a type of court case where the parties involved are **not truly fighting against each other**. Instead, they secretly agree beforehand to manipulate the legal process for a desired outcome.

Example: Imagine two people filing a property dispute in court. One “pretends” to contest ownership, but both have already decided that the other will “win”. When the court passes a judgment in favour of the “winner,” that person gets legal ownership—even though the process was a fraud.

This way, the court’s authority is used as a **tool to legitimise illegal gains**.

Legal Position on Collusive Litigation

Indian courts strongly disapprove of such cases because they **undermine the very foundation of justice**. If a case is found to be collusive:

- The court can dismiss it outright.
- The parties may be penalised.
- Any judgment passed earlier can be declared **void**.

Also, under **Article 227 of the Constitution**, High Courts have supervisory powers over lower courts and can strike down any collusive or fraudulent decree.

Key Judicial Pronouncements

1. S.P. Chengalvaraya Naidu v. Jagannath (1994)

- The Supreme Court famously held: “*Fraud vitiates everything.*”
- Even if a case looks proper on paper, fraud and collusion make the decree invalid.

2. K.K. Modi v. K.N. Modi (1998)

- The Court stressed that misuse of court process includes fraudulent conduct, collusion, and attempts to achieve illegal objectives.
- Such cases deserve dismissal with **exemplary costs** (extra penalty to deter future misuse).

3. A.V. Papayya Sastry v. Govt. of A.P. (2007)

- Reaffirmed that any order obtained by fraud or collusion is a **nullity**—it has no legal existence.
- Courts have a duty to strike down such cases, even suo motu.

4. Ramesh Kumar v. Furu Ram (2011)

- Clarified that collusive suits cannot claim protection under *Res Judicata* (Section 11 of CPC), since there was no real dispute in the first place.

5. Approaches taken by Courts

Principle	Judicial Approach
Fraud and Collusion	Decree is a nullity and can be challenged even in collateral proceedings.
Abuse of Process	Courts may dismiss the suit, impose costs, or initiate contempt proceedings.
Duty of the court	Courts are bound to prevent miscarriage of justice by actively identifying collusion.
Role of third parties	Even third parties (e.g. intervenors) can raise the issue of collusion if affected.

Why Is This a Big Problem?

Collusive litigation is not just about two parties tricking the system—it damages the **credibility of the judiciary itself**. When courts are seen as a playground for manipulation, ordinary citizens lose faith in the justice system.

The Way Forward

To deal with this menace, both the judiciary and the legislature need to act together:

- **Judiciary's Role:**
 - Actively detect and dismiss collusive suits.
 - Impose heavy penalties to discourage misuse.
 - Use suo motu powers wherever fraud is suspected.
- **Legislature's Role:**
 - Strengthen laws to criminalise deliberate collusive litigation.
 - Provide safeguards against misuse of public institutions (like the BDA case).

Conclusion

Collusive litigation is like a termite that weakens the pillars of justice. It gives an impression that courts can be “managed” for private gain. By taking strict action against such practices, the judiciary not only protects the rule of law but also restores public faith in the system. At the same time, stronger legal reforms are needed to ensure that such manipulative tactics have no place in India's democracy.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Collusive litigation undermines the very foundation of justice and erodes public faith in the judiciary.” In light of this statement, discuss the judicial approach to collusive litigation in India. How can the judiciary and legislature work together to curb this menace? (150 words | 10 marks)

LEGAL INSANITY DOCTRINE

Why in News: Recently, the Chhattisgarh High Court acquitted a man who had earlier been sentenced to life imprisonment, by applying the principle of “legal insanity.” The man, who had suffered a head injury and was undergoing treatment at a mental hospital, was found incapable of understanding the nature of his act at the time of the crime.

Note: The court relied on Section 22 of the Bharatiya Nyaya Sanhita (BNS), which has replaced Section 84 of the Indian Penal Code (IPC).

What is Legal Insanity?

When we hear the word *insanity*, we usually think of a medical condition diagnosed by doctors. But the law does not treat all mental illnesses the same way.

- **Medical Insanity** deals with diagnosis and treatment of mental disorders by doctors and psychiatrists.
- **Legal Insanity**, on the other hand, is a narrow concept. It applies only when a person, due to unsoundness of mind, is unable to understand **what they are doing** or that **their act is wrong or unlawful** at the exact time of committing the offence. In such cases, the law says that the person cannot be held criminally responsible.

Section 22 of BNS (Earlier Section 84 of IPC)

The provision clearly states: *An act is not an offence if it is done by a person who, due to unsoundness of mind, is incapable of knowing the nature of the act, or that it is wrong or contrary to law.*

This is essentially the legal definition of the **insanity defense** in India.

Historical Roots (The M'Naughton Rule)

- The idea of legal insanity is not new. It comes from the **M'Naughton Rule**, laid down in 1843 by the House of Lords in Britain. This rule still guides courts in India and many other countries.
- It asks a simple but tough question: *Was the accused, at the time of the crime, so mentally unsound that they did not know what they were doing, or that it was wrong?*
- If the answer is yes, then the person is not held criminally liable.

Judicial Approach in India

The Indian judiciary has developed some important safeguards around this doctrine:

- **Dahyabhai Chhaganbhai Thakkar v. State of Gujarat (1964):** If there is any evidence of insanity, the benefit of doubt must go to the accused.
- **Ratan Lal v. State of Madhya Pradesh (1971):** The crucial moment to judge insanity is the *exact time of the crime*.
- **Surendra Mishra v. State of Jharkhand (2011):** Merely being mentally ill is not enough. It must be proved that the accused was incapable of understanding their act *when the crime was committed*.

Why Courts are Cautious?

Legal insanity is a **narrow defense**. Courts are careful not to misuse it, because:

- On one hand, justice must be served to the victim.
- On the other, a mentally ill person who genuinely did not understand their actions cannot be treated like an ordinary criminal.

This balancing act is what makes the doctrine both sensitive and controversial.

Conclusion

The doctrine of legal insanity reflects the humane side of criminal law. It recognizes that not every wrongful act is committed with criminal intent. At the same time, courts make sure that this defense is not misused by those trying to escape punishment.

In simple words, legal insanity is not about all mental illnesses, but only about those rare cases where the mind was so clouded at the moment of the act that the person did not even know what they were doing.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Legal insanity refers to:

- (a) Any mental illness diagnosed by a doctor
- (b) Being unconscious during arrest
- (c) Unsoundness of mind affecting understanding of the act at the time of the offence
- (d) Hallucinations experienced in jail

Answer: (c)

MASTER OF ROSTER

Why in News: The Supreme Court held that the Chief Justice of a High Court is the master of the roster, but when matters raise institutional concerns affecting the rule of law, it may be compelled to step in and take corrective steps.

Key Details

- A Supreme Court Bench has instructed that Justice Prashant Kumar of the Allahabad High Court be assigned to work alongside a senior judge and that he should not be allocated a criminal roster until his retirement, due to an 'erroneous' order.
- Lawyers from the High Court and Chief Justice Arun Bhansali expressed their concerns regarding the interference with the administrative authority of the Chief Justice.
- Subsequent to a correspondence from the Chief Justice of India, B.R. Gavai, the Supreme Court later amended its order, clarifying that it did not aim to dispute the 'Master of Roster' authority.

Erroneous Order

- The core meaning of "erroneous" is "containing error" or being "mistaken". An erroneous order is therefore not accurate or true.
- It implies that the order deviates from what is right, true, or lawful. This could involve errors in the process of making the order, the information used, or the final decision itself.

What is the "Master of the Roster"?

In India's judiciary, the **Chief Justice of India (CJI)** is considered the "Master of the Roster" in the Supreme Court, and the **Chief Justice of a High Court** plays the same role in their court.

This authority means they decide:

- Which judge hears which case.
- How benches (single judge, two-judge, or larger benches) are formed.
- What type of cases (criminal, civil, constitutional, etc.) go before which judges.

It is a vital administrative function to ensure smooth functioning of courts.

Legal Basis & Precedents

- The doctrine isn't found in the Constitution, but it's well-established through judicial practice and Supreme Court rulings.
- In the 2018 case *Campaign for Judicial Accountability and Reforms v. Union of India*, the Supreme Court reaffirmed that the CJI is the "Master of the Roster" and administrative head of the judiciary.
- This came after internal tensions in the judiciary, particularly the 2018 press conference by four senior Supreme Court judges, who questioned how sensitive cases were being assigned.

Criticism & Controversy

- The "Master of the Roster" power has been criticized for lack of transparency.
- Concerns are often raised when politically sensitive or high-profile cases are allocated to particular benches.
- Calls have been made for a more transparent and rule-based system for case allocation.

Need for Reform

- **Legal experts and former judges have recommended:**
 - Publishing roster rules.
 - Rotating bench assignments.
 - Making the process more institutional and less discretionary.

Landmark judgments

- **State of Rajasthan vs. Prakash Chand (1998):** Only CJ can decide which judge hears which case.

- **State of Rajasthan vs. Devi Dayal (1959):** HC CJ decides single/division bench composition.
- **Mayavaram Financial Corporation (Madras HC, 1991):** CJ has inherent powers for judicial business allocation.

Way Forward

- **Codify the Roster system:** Formal rules and guidelines should be published and codified.
- **Transparent case allocation:** Sensitive or high-profile cases should be handled based on clear, pre-existing norms.
- **Roaster Committee:** Instead of sole discretion of the Chief Justice, a collegial body (CJI + 2 senior most judges) can be formed to oversee bench composition, discuss and agree on allocation of sensitive cases, and ensure fairness and institutional integrity.
- **Judicial Accountability mechanism:** A body like the Judicial Council (as recommended in the Judicial Standards and Accountability Bill) can be created to monitor administrative decisions, including case allocation.
- **Stakeholder consultation:** The judiciary should engage with the bar (advocates' associations), Legal scholars, Civil society, and retired judges.
- **Periodic review:** Roster practices and case allocation patterns should undergo periodic audit to check for consistency, possible biases, and equal workload among judges.
- **Ensure Non-Interference:** The Executive or Legislature must not interfere in the process. But judicial independence must coexist with internal accountability and procedural integrity.

Conclusion

The Master of the Roster principle is essential for judicial administration, but it needs reforms to prevent misuse and build public trust. Judicial independence must go hand-in-hand with internal accountability and transparency. Striking this balance will strengthen faith in the judiciary as the ultimate guardian of justice.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What is one major concern associated with the Master of the Roster system?
- Delay in appointment of judges
 - Excessive interference by Parliament
 - Lack of transparency in case allocation
 - Increasing pendency of civil suits

Answer: (c)

REMOVAL PROCESS OF THE CHIEF ELECTION COMMISSIONER

Why in News: The **INDIA bloc** is considering moving a motion against the Chief Election Commissioner (CEC), demanding his removal. The step comes amidst a larger debate on the independence and neutrality of the Election Commission of India (ECI), especially after the **controversial revision of voter rolls in Bihar**, where about **65 lakh names** were excluded.

The Bihar Voter Roll Controversy

During the **Special Intensive Revision (SIR)** in Bihar, lakhs of voters were removed from the electoral rolls for reasons such as death, migration, duplication, or incomplete forms. The Opposition alleged that this mass deletion was arbitrary and targeted.

The **Supreme Court intervened**, directing the Election Commission to:

- Publish a booth-wise searchable list of excluded names with reasons.
- Accept Aadhaar as valid ID proof during claims and objections.

The Election Commission, however, defended itself, claiming that these deletions were only "temporary" and had already been shared with political parties.

This clash triggered debates on **transparency, voter rights, and the credibility of the ECI**.

Removal Process

- The CEC can be removed from office in the same manner and on the same grounds as a Supreme Court judge, as stated in Article 324(5) of the Constitution.
- The process is also set down in Section 11 of the Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023.

Article 324 (5) – Security of Tenure of Election Commissioners

- This process involves Parliament passing a resolution, but unlike the direct impeachment process, there isn't a formal impeachment procedure as such; it relies on the same manner and grounds as removing a Supreme Court Judge, which is typically done through a special majority in both houses of Parliament.

Grounds for removal

- **Misbehavior:** includes corruption, abuse of office, or failure to discharge duties.
- **Incapacity:** inability to perform constitutional functions.

Process of Removal

- **Parliamentary Process:** A resolution for removal must be passed by both houses of Parliament.

- **Special Majority:** The resolution must be supported by a special majority in both houses, meaning a majority of the total membership of each House and a majority of not less than two-thirds of the members present and voting.
- **Presidential Order:** If the resolution is passed by both houses, an order of removal is issued by the President of India.

Section 11 of the Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023

- **Resignation:** The Chief Election Commissioner (CEC) or any Election Commissioner (EC) may resign at any time by submitting a written resignation to the President of India.
- **Removal of the CEC:** The CEC can only be removed from office in the same manner and on the same grounds as a Judge of the Supreme Court—that is, through the Parliament's impeachment process for proven misbehavior or incapacity.

Section 3 of the Judges Inquiry Act, 1968

- The Judges Inquiry Act, 1968, Section 3, which pertains to "Investigation into misbehaviour or incapacity of Judge by Committee" provides that "If notice is given of a motion for presenting an address to President praying for the removal of a Judge.
 - In the case of a notice given in the House of the People, by not less than one hundred members of that House;
 - In the case of a notice given in the Council of States, by not less than fifty members of that Council.

Immunity to CEC

- Clause 16 of the CEC and the Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023 provides immunity to the CEC and ECs from legal actions regarding decisions made during their tenure.
- No court shall accept or proceed with any civil or criminal cases against any individual who is or has been a CED or an EC for any actions, statements, or words made while performing their official duties or functions.

Voter Rights

- **Mass Exclusion Raises Red Flags:** The exclusion of approximately 65 lakh voters from Bihar's draft rolls struck at the very foundation of democracy—universal adult suffrage under Article 326. It raised concerns that even constitutionally qualified citizens were effectively rendered "non-citizens" without due process.
- **Documentation Burden on Marginalized Groups:** The demand for fresh, valid proofs—often excluding commonly held documents like Aadhaar or voter IDs—placed the bureaucratic burden on vulnerable populations, including migrants, the poor, and women.
- **Late Relief from Supreme Court:** The apex court's directive to accept Aadhaar as proof and to publicly publish the list of excluded names was a critical corrective step—but came after many had already been deleted from the rolls.

Electoral Fairness

- **Transparency in Revision Process:** Reports of duplicate EPICs, incomplete documentation, and reject notices not reaching affected voters sparked fears of electoral manipulation and disenfranchisement.
- **Complexity Amid Tight Timelines:** The tight SIR schedule, combined with unclear rules and limited outreach, compounded inequities—especially for those unaware or unable to respond promptly.
- **Institutional Checks via Judiciary:** The Supreme Court's intervention served as an essential constitutional oversight, reinforcing administrative accountability and striving to restore fairness.

Credibility of the Election Commission

- **Trust Deficit Deepens:** The perceived opacity around deletion lists, resistance to disclose reasons, and shifting documentation norms led to political backlash, protests, and calls for accountability—even impeachment proceedings for the Chief Election Commissioner.
- **Neutral Arbitrator or Biased Actor:** Opposition and civil society voices questioned whether the ECI's SIR exercise was a transparent administrative clean-up or a veiled tool for influencing voter composition.
- **Rebuilding Electoral Integrity:** To restore faith, the ECI must prioritize clarity, proactive civic outreach, and responsiveness to procedural gaps. Trust-building measures now determine whether future interventions will be seen as fair or partisan impositions.

Key Reforms needed

- **Transparent Voter Roll Management:**
 - Mandatory publication of names and reasons for deleted voters.
 - Real-time, booth-level public disclosure of additions and deletions.
 - Use of AI tools to detect duplicate/dead entries without mass exclusions.
- **Independent Appointment Mechanism:**
 - Implement collegium system for appointing the Chief Election Commissioner and Election Commissioners, as suggested by the Supreme Court (2023), involving the PM, LoP, and CJI.
- **Legal Codification of Powers:**
 - Enact a comprehensive Election Commission Act to define powers, roles, and removal procedures of ECs, moving beyond Article 324's broad mandate.
- **Public Consultation & Outreach:**
 - Involve civil society, local bodies, and political parties during revision of rolls.
 - Launch awareness drives in rural and migrant-heavy areas before deletions.

- **Stronger Internal Oversight:**
 - Establish an independent oversight board within the ECI for grievance redressal and audit of electoral processes.
- **Judicial Review & Timely Redressal:**
 - Ensure all voter grievances related to exclusion are addressed within fixed timelines, possibly via fast-track electoral tribunals.

Conclusion

The controversy surrounding the Bihar SIR exercise highlights the urgent need to safeguard voter rights, ensure transparency in electoral processes, and restore public trust in the Election Commission as a neutral and accountable constitutional body.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The recent electoral roll revision exercise in Bihar has raised serious concerns regarding voter rights, electoral fairness, and the credibility of the Election Commission." Critically examine the implications of this controversy on democratic processes in India. Also, suggest reforms to strengthen the transparency and accountability of the Election Commission. [250 words] [15 Marks]

ASSAM'S AGGRESSIVE EVICTION DRIVES

Why in News: Assam has recently carried out large-scale eviction drives, demolishing thousands of homes and clearing people from forestlands and government property. These operations have triggered strong reactions within the State and from its neighbours, raising questions about ecology, migration, politics, and human rights.

Why the Aggressive Eviction Drive from Forestlands?

The Assam government has justified the eviction campaigns on the grounds of:

- **Conservation of Forest Land:** Encroachments are seen as a direct threat to the ecological balance of reserve forests such as Paikan and Burhachapori.
- **Demographic Pressures:** Many evicted families are Bengali-speaking Muslims, whom the government alleges are "illegal settlers" occupying forest and government land. This links the issue to Assam's long history of migration politics.
- **Political Assertion:** Critics argue the timing and scale of the evictions—razing thousands of homes in a single operation—are politically motivated, meant to consolidate support among indigenous communities ahead of the 2026 State elections.

Reaction in Neighbouring States

- **Nagaland, Meghalaya, and Manipur** have increased surveillance along their borders to prevent an influx of displaced people from Assam.
- **Task forces and border checks** have been set up, with reports of vehicles being turned back if suspected of carrying evicted families.
- **Civil society groups** in these States fear demographic shifts and social tensions if evicted populations attempt to resettle outside Assam.

Why Does Assam Have Boundary Disputes with Its Neighbours?

Assam shares borders with **Arunachal Pradesh, Meghalaya, Mizoram, and Nagaland**, and disputes with each arise from colonial-era demarcations:

- **Arunachal Pradesh:** Stems from the shifting of forest tracts under the 1951 notification, leading to contested ownership of several reserve forests.
- **Meghalaya:** Inherited disputes from the Assam Reorganisation Act, 1971, where 12 stretches of land are contested.
- **Mizoram:** Linked to the 1875 and 1933 colonial boundary notifications; Mizoram accuses Assam of encroaching beyond the "inner line" reserved for tribal areas.
- **Nagaland:** A long-standing dispute since Nagaland's creation in 1963, especially over forested areas in the Sivasagar and Jorhat belts.

Gauhati High Court's Directive

Amid the escalating tensions, the **Gauhati High Court** has intervened with key directions:

- All Northeastern States must **take steps to prevent encroachment** of reserve forests and ensure their protection.
- States have been directed to **work in coordination with Assam** to maintain law and order along disputed boundaries.
- The Court emphasized the **need for ecological preservation** and upheld the legal responsibility of governments to safeguard forestlands from unauthorized occupation.

Conclusion

- *Assam's aggressive eviction drives highlight the intersection of environmental conservation, migration politics, and inter-State tensions. While the State government projects them as a necessary step to reclaim forestlands, the humanitarian fallout and regional instability cannot be ignored.*
- *Neighboring States' defensive reactions, combined with unresolved boundary disputes, make the issue highly sensitive. Moving forward, balanced policy interventions, coordinated inter-State dialogue, and humane rehabilitation measures will be crucial to prevent further unrest in the Northeast.*

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following pairs of Assam's boundary disputes and their historical origins:

Dispute with	Origin of Dispute
1. Mizoram	Linked to colonial notifications of 1875 and 1933
2. Meghalaya	Disputes inherited from Assam Reorganisation Act, 1971
3. Nagaland	Dispute dates back to Nagaland's creation in 1963
4. Arunachal Pradesh	Linked to 1951 transfer of forest tracts

Which of the pairs given above are correctly matched?

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

(c) : Answer

ONLINE GAMING BILL, 2025

Why in News: Recently, the Promotion and Regulation of Online Gaming Bill 2025, was passed by the Parliament.

Provisions of the bill

- The bill forbids dangerous practices associated with online money games and establishes a comprehensive framework to encourage safe digital enjoyment.
- Encouragement of E-Sports:** In India, e-sports are now accepted as a real competitive sport. Tournament rules and regulations will be created by the Ministry of Youth Affairs and Sports.
- Encouragement of Educational and Social Games:** The Central Government has the authority to identify and register age-appropriate and safe social games. These games could emphasise skills, culture, or education.
- Outlawing Dangerous Online Money Games:** Online money games are completely prohibited by the bill. It is completely forbidden to advertise or promote such games. Banks and payment systems are prohibited to handle financial transactions pertaining to these platforms.
- Regulatory Authority for Online Gaming:** An existing regulatory body may be assigned for supervision, or a new one at the national level will be created. Its duties will include classifying and registering online games, determining if a game is a money game, and handling complaints from the general public.
- Penalties and Offences:** A fine of up to one crore rupees and three years in prison are possible penalties for offering or facilitating online money games. Similar penalties

apply to financial transactions connected to these games. Promoting such games carries a maximum punishment of fifty lakh rupees and a maximum jail sentence of two years. More severe penalties, such as up to five years in prison and fines of up to two crore rupees, are imposed on repeated offenders.

- Investigative and Enforcement Powers:** Officers may be authorised by the Central Government to look into, search, and confiscate physical and digital property connected to violations. Officers may occasionally be able to enter a building and conduct an arrest without a warrant.
- Authority to Make Rules:** The power to establish regulations for the promotion of social games and e-sports, the identification and registration of online games, and the operation of the Online Gaming Authority will rest with the Central Government.
- 3 Different Categories Games:**
 - Esports:** This is a reference to organised tournaments in which teams or individuals compete in competitive digital sports.
 - Online Social Games:** Casual games that are a part of daily leisure are known as online social games. They are mostly skill-based and intended for social interaction, education, or amusement.
 - Online Money Games:** This category includes games with monetary stakes, whether they are determined by skill, luck, or a mix of the two.

Need of the Bill

- World Health Organization:** According to the World Health Organization's International Classification of Diseases, **gaming disorder** is a pattern of play characterised by a lack of control, disregard for other everyday activities, and perseverance in the face of negative outcomes.
- Monetary losses:** An estimated 45 crore individuals have suffered losses of about Rs. **20,000 crores** as a result of playing online money games. To bridge these gaps and safeguard residents, the government has taken action.
- Financial ruin and addiction:** Many gamers chase the false promise of rapid returns and end up losing all of their savings. Families have been forced into financial hardship and debt.
- Mental Health and Suicides:** Suicide and despair have been linked to the stress of significant financial loss. By outlawing these predatory platforms, the bill aims to stop tragedies of this nature.
- Money Laundering and National Security Threat:** A number of platforms have been abused for illicit purposes, concealing their source by transferring illicit profits through legitimate channels as well as using such platforms for illicit messaging and terror financing, endangering national security.

Positive impacts of bill

- **Boost to the Creative Economy:** The Bill supports India's position as a hub for digital creativity. By encouraging e-sports and safe online games, it will expand opportunities for exports, create new jobs and promote innovation in the gaming sector.
- **Empowering Youth:** E-sports and skill-based digital games will help them build confidence, discipline and teamwork. These avenues will also open career pathways for talented players.
- **Safer Digital Environment:** Families will be protected from predatory money-gaming practices. By removing such threats, the Bill creates a healthier and safer digital space.
- **Strengthening Global Leadership:** The Bill demonstrates how a nation can balance innovation with social protection. This positions India as a model for other countries that are facing similar challenges from online money games.

Conclusion

The Promotion and Regulation of Online Gaming Bill, 2025, marks a decisive step in India's digital journey. It recognises the dangers of unregulated money gaming and responds with firm safeguards to protect citizens. Most importantly, it ensures that technology serves society rather than harms it.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The Promotion and Regulation of Online Gaming Bill 2025 strikes a balance between innovation and regulation. Critically analyse in the context of India's digital governance challenges. [250 Words] [15 Marks]

INDIA PORTS BILL, 2025

Why in News: Recently, the Parliament passed the Indian Ports Bill, 2025 to consolidate the law relating to ports, promote integrated port development, facilitate ease of doing business and ensure the optimum utilization of India's coastline.

Highlights of the Bill

- The **Indian Ports Act of 1908** is intended to be replaced by the bill.
- **State Maritime Boards:**
 - All State Maritime Boards established by coastal states will have **statutory status** under the Bill.
 - The **management and control of minor ports** in their states will fall under the purview of State Maritime Boards.
 - **Among their duties are:**
 - (i) Port infrastructure design and development,
 - (ii) Licence issuance,

(iii) Tariff setting and

(iv) Oversight of adherence to environmental, safety, and security regulations.

- **Maritime State Development Council:**

- The Maritime State Development Council is also granted **statutory recognition** by the Bill.
- The **Union Minister for Ports, Shipping, and Waterways** will serve as the **council's chair**.
- The Council will **establish guidelines** regarding:
 - (i) Data or information that ports must gather, as well as how they must gather, update, store, and submit it to the Council;
 - (ii) Distribution of port-related data or information and
 - (iii) Guaranteeing port tariff transparency.
- Additionally, it will **advise the central government on the creation of a national perspective plan** and offer suggestions on issues pertaining to legislative sufficiency, port efficiency, and port connectivity.

- **Committee for Dispute Resolution:**

- In order to **resolve conflicts between concessionaires, users, service providers, and non-major ports within a state**, the Bill mandates that state governments establish a Dispute Resolution Committee (DRC).
- The **High Court will hear appeals against the DRC's orders**.
- Cases committed to the DRC cannot be heard by civil courts.
- Arbitration or other dispute resolution procedures outside of the DRC may be covered by the agreements or authorisations granted by the State Maritime Boards.

- **Tariffs:**

- The tariff for a **major port** will be fixed by the:
 - (i) Either the Board of Directors of a port that is a firm or
 - (ii) the Board of Major Port Authority.
- The State Maritime Board or a concessionaire licensed by it will set the tariff for **non-major ports**.

- **Officers at ports:**

- According to the Act, the state government appoints the **conservator as a port officer for each port or group of ports**.
- The Bill maintains the conservator's authority under the Act to give instructions to any vessel on berthing, anchoring, moving within port boundaries, clearing obstructions, and collecting fees and charges.

- **Safety and conservation:**

- Activities that jeopardise safety, like damaging buoys, firing guns, and boiling flammable items on board, are punishable under the Act.

- To safeguard the environment, the Act **forbids the discharge of ballast or trash at ports.**
- The Bill requires adherence to the Ballast Water Management Convention and MARPOL (International Convention for the Prevention of Pollution from Ships).
- **Penalties and offences:**
 - **The 1908 Act lists the following offences:**
 - (i) Not following the conservator's or the port's legal instructions,
 - (ii) Refusing to let the conservator or authorised individuals board a vessel,
 - (iii) Obstructing traffic or damaging port property,
 - (iv) Moving a vessel without permission and
 - (v) Avoiding port fees.
 - Under the Act, violations can result in jail time, a fine, or both.
 - It decriminalises some offences and substitutes monetary penalties for them.

Key Issues

- There is **no appeal procedure** against the conservator's penalty levy in the Bill.
- The Bill gives the federal government the authority to designate a port as a **"mega port."** But the Bill contains no additional provisions pertaining to mega ports. It's unclear why a port is designated as a "mega port" in addition to being a major or non-major port.
- **Centralisation of power:** The Centre has the authority to direct State maritime policies through the **Maritime State Development Council**. Critics contend that federal subordination diminishes cooperative federalism by making states merely carry out central plans.
- **Clause 17 controversy:** Uses inequitable internal committees and **excludes civil courts from port-related problems.**

Indian ports

- Ports in India are divided into 2 categories **major** and **non-major** ports.
- The **federal government** is solely in charge of managing the **major ports** that are on the Union list.
- **Non-major ports** are under the **Concurrent List**, which implies that both the centre and states can make laws on them. However, they are **primarily administered by state governments.**
- India had **217 non-major ports** and **13 major ports** as of 2024.
- Of these 217 minor ports, 66 deal with goods, while the remainder are primarily used for fishing. These can be **found throughout nine states and three coastal union territories.**
- **Major ports handled 53 percent of the nation's maritime cargo traffic** in 2023–2024.

Conclusion

In sum, the reform can be transformative, but its effectiveness will depend on balancing efficiency with federalism, and modernization with inclusivity.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The Government has proposed to replace the Indian Ports Act 1908 with the Indian Ports Bill 2025 to modernise the governance framework for ports. Critically analyse how the Bill addresses the challenges related to cooperative federalism, port efficiency, and ease of doing business in India. [250 words] [15 Marks]

SUO MOTU COGNISANCE

Why in News: The Apex Court has commenced proceedings on its own motion (suo motu) in response to the increasing threat posed by stray dog attacks.

Key Details

- A bench of Justices JB Pardiwala and R Mahadevan took suo motu cognisance.
- There are reports of hundreds of dog bite incidents which have led to rabies infections.

Suo Moto Cognizance

- Suo moto cognizance refers to a court taking action on its own initiative, without the need for a formal petition to be submitted.
- It enables courts to tackle issues of public interest or concern based on information derived from media reports, letters, or other sources, even in the absence of a formal case being presented.
- Articles 124 to 147 in Part V of the Constitution pertain to the organization, independence, jurisdiction, powers, and procedures of the Supreme Court.

Rules for Feeding Stray Animals

- Rule 20 of the Animal Birth Control (ABC) Rules, 2023, mandates Resident Welfare Associations (RWAs), Apartment Owners' Associations (AOAs), or local authorities to support the feeding of community animals (previously known as stray animals).
- In particular, if a resident is providing food for community animals, these associations or authorities are obligated to identify specific feeding locations that are distanced from shared spaces such as staircases or playgrounds.
- Additionally, the regulations introduce a mechanism for resolving disputes that involves veterinary officers, law enforcement, local animal welfare organizations, and the RWA to manage any disagreements concerning feeding.

Way Forward

Timeline	Key Action
Immediate	Capture and relocate strays, provide shelter, helpline, enforce compliance
Mid-term	Expand shelter infrastructure, consult stakeholders, clarify feeder liability
Long-term	Fully implement ABC Rules, designate feeding areas, promote humane population control
Civil role	Collaborate with activists, craft evidence-based policy, foster public awareness

Conclusion

Merging humane treatment, public safety imperatives, and long-term planning can help craft a balanced, compassionate, and pragmatic response to the complex stray dog issue in India.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The rising incidents of stray dog attacks in India have compelled the Supreme Court to take suo motu cognisance of the issue. Discuss the constitutional basis of suo motu powers of the judiciary, and critically analyze the challenges of balancing public safety with animal rights in the context of the Animal Birth Control (ABC) Rules, 2023. [250 words] [15 Marks]

RESTITUTIONARY DAMAGES

Why in News: Recently, the Supreme Court gave Pollution Control Boards across the country more teeth by declaring their power to impose and collect restitutionary damages to completely restore polluted air and waterbodies back to their original, pristine selves in an ecosystem.

Key Details

- SC gave judgement that Delhi Pollution Control boards are **empowered to levy compensatory damages** in exercise of powers under **Section 33A of the Water (Prevention and Control of Pollution) Act, 1974** and **Section 31A of the Air (Prevention and Control of Pollution) Act, 1981**.
- The ruling insists on the **development of necessary rules and regulations** to incorporate the principles of natural justice before enforcing these powers.
- These statutes' provisions provided the Boards with:
 - Power to direct closure;
 - Prohibition or regulation of any industry;
 - Operation or process;
 - Stoppage or regulation of supply of electricity, water or any other service.

- The laws give the Boards a great deal of latitude in determining the type of instructions.
- Restitution damages** are a form of compensation awarded in contract law aimed at restoring the injured party to the position they were in before the contract was made by focusing on the benefits received by the breaching party.
- This kind of damage **aims to stop the party who violated the contract from being unfairly enriched** rather than to make up for lost profits or expectation interests.
- It's a remedy that ensures fairness by requiring the breaching party to return any benefits or value gained from the contract.
- In contrast to punitive damages, like the polluter pays principle, restitutionary damages concentrate on repairing environmental harm rather than punishing the offender.

EXPECTED QUESTION IN UPSC CSE

Prelims MCQ

Q. Recently, the term 'Restitutionary damages' was in news it is related to:

- Damages awarded to punish the defaulting party and deter future breaches.
- Damages awarded to restore to the claimant the benefit unjustly gained by the defaulting party from the breach.
- Nominal damages awarded when a legal right is violated without any actual loss.
- None of the above

Answer: (c)

INDIA CINE HUB PORTAL

Why in News: Recently, the Centre urged states to use the India Cine Hub portal to facilitate global film production locally.

Key Details

- The Ministry of Information and Broadcasting hosted the conference with the following goals:
 - To ensure the full-scale implementation and operation of India Cine Hub;
 - To strengthen Centre-State coordination in public communication;
 - To investigate joint venture opportunities for building film infrastructure;
 - To advance India's creative economy across regions.

Key Features of India Cine Hub Portal

- It was launched on June 28, 2024.

- The India Cine Hub (ICH) was established by the **Ministry of Information & Broadcasting**, Government of India, within the National Film Development Corporation (NFDC) to **encourage and assist international filmmakers in filming in India**.
- Indian filmmakers can also take advantage of the services offered by the India Cine Hub (ICH).
- The India Cine Hub Portal provides integrated access to filming permits, incentives, and resource mapping at the federal, state, and local levels, serving as a one-stop shop for film-related facilitation throughout India.
- Twenty-one states and six UTs had already been onboarded using a common application form, and seven states and two UTs had already finished full integration.
- The India Cine Hub portal facilitates crowdsourced content from professionals in the industry, **location mapping based on GIS**, and **distinct workflows for incentives, non-filming, and filming**.
- The India Cine Hub portal facilitates use of GIS mapping to **identify low screen density zones**, **repurposing existing public infrastructure**, simplifying licensing through **single-window systems**, and providing **tax and land policy incentives** to entice private investment in reasonably priced movie theatre infrastructure.

EXPECTED QUESTION FOR UPSC CSE**Prelims MCQ**

Q. Recently, India Cine Hub Portal was launched by:

- (a) Ministry of Communications
- (b) Ministry of Information & Broadcasting
- (c) Ministry of Culture
- (d) None of the above

(b) Answer

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INTERNATIONAL RELATIONS

INDIA & EUROPEAN FREE TRADE AGREEMENT (EFTA)

Why in News: Recently, the FTA between India and the four-nation European bloc (**Iceland, Liechtenstein, Norway and Switzerland**).

Agreement Highlights

- Two sides signed the Trade and Economic Partnership Agreement (TEPA) in March 2024.
- Under the pact, India has received an investment commitment of \$100 billion in 15 years from the grouping.
- Several products such as Swiss watches, chocolates, and cut and polished diamonds, at lower or zero duties.
- The biggest trading partner of India in the bloc is Switzerland.
- The investment would facilitate the creation of 1 million direct jobs in India.
- EFTA is offering 92.2% of its tariff lines which covers 99.6% of India's exports. The EFTA's market access offer covers 100% of non-Agri products and tariff concession on Processed Agricultural Products (PAP).
- In the pact, India is offering 82.7% of its tariff lines or product categories, which cover 95.3% of EFTA exports, of which more than 80% of imports are gold.
- Domestic customers will get access to high quality products at lower prices as India will phase out customs duties under the trade pact on these goods over 10 years.
- In the services sector, India has offered 105 sub-sectors to the EFTA, like accounting, business services, computer services, IT services, personal, cultural, sporting and recreational services, other educational services, audio-visual services, distribution and health.
- The pact would provide an opportunity for domestic exporters to integrate into the EU (European Union) markets.
- **India-EFTA two-way trade was \$24.4 billion in 2024-25.**
- TEPA has provisions for Mutual Recognition Agreements in Professional Services like nursing, chartered accountants, architects etc.
- Commitments related to Intellectual Property Rights in TEPA are at TRIPS level.
- India signals its commitment to Sustainable development, inclusive growth, social development and environmental protection

- Fosters transparency, efficiency, simplification, harmonization and consistency of trade procedures.
- TEPA will give impetus to "Make in India" and Atmanirbhar Bharat by encouraging domestic manufacturing in sectors such as Infrastructure and Connectivity, Manufacturing, Machinery, Pharmaceuticals, Chemicals, Food Processing, Transport and Logistics, Banking and Financial Services and Insurance.

Significance of EFTA for India

By easing trade and investment, the India-EFTA TEPA is likely to help diversify global value chains, majorly in the fields of industrial products and services, while also giving an impetus to India's 'Make in India' initiative.

- **Increased market access:** FTA is expected to eliminate tariffs on wide range of Indian goods, allowing them to compete more effectively in the EU market.
- **Boost to Exports:** By reducing trade barriers, the FTA is projected to increase India's exports to the EU, potentially boosting economic growth and creating jobs.
- **Attract Foreign Investment:** The FTA could encourage greater foreign direct investment (FDI) from the EU into India.
- **Strengthen Economic Ties:** The FTA is expected to solidify the strategic partnership between India and the EU.

Potential challenges

- **Negotiating Unequal Partnerships:** Some concerns exist that the FTA may favor the EU due to its greater economic power, potentially disadvantaging Indian industries and workers.
- **Impact on Sensitive Sectors:** India needs to ensure that its sensitive sectors, such as dairy, agriculture, and certain manufacturing industries, are adequately protected during negotiations.
- **Non-Tariff Barriers:** India needs to address non-tariff barriers, such as complex regulations and standards, to ensure that its exporters can fully benefit from the FTA.

Way Ahead

The India-EFTA agreement sets the stage for a high-value economic partnership, but its real value depends on:

- Effective policy follow-through,
- Continuous stakeholder engagement,
- Proactive diplomacy, and
- Strategic alignment with India's growth priorities.

EXPECTED QUESTION FOR UPSC CSE**Descriptive Question**

Q. Discuss the significance of the India–European Free Trade Association (EFTA) Trade and Economic Partnership Agreement (TEPA) in the context of India’s trade diversification and strategic diplomacy. What challenges could arise in its implementation, and how can they be addressed? [250 Words] [15 Marks]

INDIA-MALDIVES BILATERAL RELATIONS

Why in News: India welcomes the President of the Maldives for a state visit. Likely to announce bilateral talks on Free Trade Agreement (FTA).

Key Details

- India announced a \$565 million (Rs. 4,850 crore) line of credit to the island nation Maldives.
- Maldives holds an important place in both India’s ‘Neighbourhood First Policy’ and the ‘MAHASAGAR vision’ (Mutual and Holistic Advancement for Security and Growth across Regions) for the Global South.
- Peace, stability, and prosperity in the Indian Ocean region are common shared goals.
- Together, through the Colombo Security Conclave, we will strengthen regional maritime security.

Eight bilateral agreements were signed

- Reduce Maldives’ annual debt repayment on Indian government-funded loans by ~40%.

Benefits for both nations

For India	For Maldives
Strategic Influence: Reasserted leadership in the Indian Ocean region amidst regional rivalry. Regional Security & Stability: Enhanced maritime and security cooperation strengthens regional order. Strengthened Diplomacy: Restored trust enables deeper bilateral and multilateral engagement.	Financial Relief: Access to concessional credit and reduced debt burden fostering economic stability. Infrastructure & Societal Upgrade: Investment in housing, health, defense, and digital platforms boosts development. Global Integration: FTA and digital reforms diversify economy beyond tourism.

Conclusion

Despite tensions, both nations have reaffirmed their commitment to mutual respect, regional stability, and inclusive development. The renewed engagement—marked by high-level visits, economic support, and development cooperation—underscores the enduring strategic and civilizational bond between the two.

EXPECTED QUESTION FOR UPSC CSE**Prelims MCQ**

Q. Which of the following agreements were part of the India-Maldives 2025 bilateral engagements?

- Reduction of Maldives’ annual debt repayment obligations.

- Line of Credit (LoC) to Maldives.
- Enabling Unified Payments Interface (UPI) in Maldives.
- Terms of Reference (ToR) of proposed FTA.
- Cooperation in fisheries and aquaculture, meteorology, judicial training, law enforcement, sports, youth affairs, and capacity building.
- Adoption of the Indian pharmacopoeia.
- Social housing units (3300) in Hulhumale, 72 vehicles for Maldives National Defence Force and immigration authorities, and Roads and Drainage system project in Addu city.
- Two Aarogya Maitri Health Cube (BHISHM) sets.

Indian Pharmacopoeia Commission

- It is an autonomous institution of the Ministry of Health and Family Welfare which sets standards for all drugs that are manufactured, sold and consumed in India.

Other Major recent developments

- The Greater Male Connectivity Project (Thilamale Bridge) spans 6.74 km and is currently ~52% complete, with completion expected by September 2026.
- The Hankede Bridge connecting Maradhoo and Gaukendi in Addu City was completed and inaugurated on 1 February 2025.
- In 2024, India also inaugurated water and sanitation projects across 28 islands, benefiting over 28,000 people with a \$100 million climate adaptation initiative.

2. Handing over of social housing units and healthcare cubes.

3. Launch of a joint satellite mission.

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 only

(a) Answer.

INDIA-MOROCCO MUTUAL LEGAL ASSISTANCE TREATIES (MLAT)

Why in News: The MLAT is signed between India and Morocco for promoting cooperation in the Judicial and legal sphere.

Key Details

- This agreement facilitates legal assistance in civil and commercial matters in accordance with national laws.
- Assistance under the agreement applies specifically to:
 - The service of summons and other judicial documents or processes;
 - The taking of evidence by means of Letters of Request;
 - The execution of judicial judgments (in the case of the Kingdom of Morocco), decrees (in the case of the Republic of India), settlements, and arbitral awards.
- **This MoU aims to:**
 - Strengthen institutional linkages,
 - Promote the exchange of legal knowledge, experiences, and expertise,
 - Encourage collaborative activities such as training, research, and capacity-building between the two countries.

The key features of the Memorandum of Understanding (MoU) encompass:

- **Expertise Exchange:** The sharing of experiences and knowledge pertaining to the functioning of the respective Ministries and judicial systems.
- **Legislation Exchange:** The reciprocal sharing of legal publications, bulletins, and legislative materials aimed at enhancing legal understanding, cooperation and collaboration.
- **Capacity Building:** The organization of symposiums, conferences, and joint courses addressing various legal matters and applications.
- **Legal Training and Delegation Exchange:** The facilitation of visits and training opportunities for lawyers and legal professionals, including participation in each other's training initiatives.
- **Judicial Information Systems:** Collaborative efforts in the development of national legal information systems and associated technological advancements.
- **Implementation Mechanism:** The establishment of a joint coordination committee tasked with planning annual cooperation programs that are both practical and financially feasible for both parties.

Significance of the Agreement

- **Strengthens Legal Ties:** The agreement aims to strengthen legal and institutional linkages between India and Morocco.
- **Enhances Cross-Border Cooperation:** It will facilitate cross-border dispute resolution and legal assistance.

- **Promotes Capacity Building:** The agreement will contribute to the development of judiciary and legal systems in both nations.
- **Expands International Cooperation:** It aligns with India's broader goal of expanding international legal cooperation.

Conclusion

The MLAT and MoU between India and Morocco represent a significant step towards enhancing bilateral cooperation in judicial and legal matters, promoting the rule of law, and fostering stronger ties between the two nations.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Which of the following is a key objective of the India-Morocco Mutual Legal Assistance Treaty (MLAT) in criminal matters?
- Promotion of bilateral trade in defence equipment
 - Extradition of political prisoners
 - Exchange of legal evidence and information for criminal investigations and prosecutions
 - Establishment of a joint military task force

(c) Answer

INDIA-UK COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT (CETA)

Why in News: India and UK have signed CETA, a bilateral Free Trade Agreement, marking two major economies to deepen economic ties.

Key Details

- Bilateral trade has already reached USD 56 billion, with a target to double this by 2030.
 - India-UK bilateral annual trade ~USD 56 billion
 - Total merchandise-trade ~ USD 23 billion
 - Total services trade ~ USD 33 billion

Major Highlights

- **Comprehensive Tariff Elimination:** CETA provides a duty-free access to nearly 100% of India's exports to the UK.
- **Boost for services:** This includes sectors such as textiles, leather, marine products, gems and jewellery, toys, engineering goods, chemicals, and auto components.
- This will boost employment opportunities, empower artisans, women-led enterprises, and MSMEs.
- **Professional Mobility:** The agreement includes IT-enabled services, financial and professional services, business consulting, education, telecom, architecture, and engineering that will unlock job opportunities.

- **Double Contribution Convention:** A significant advancement is represented by the Double Contribution Convention, which is expected to save Indian companies and employees over INR 4,000 crore by eliminating the requirement for dual social security contributions.
- **Simplified Rules of Origin:** The agreement simplifies compliance by allowing exporters to self-certify the origin of products, reducing time and paperwork. Product Specific Rules of Origin (PSRs) align with India's current supply chains for key sectors such as textiles, machinery, pharmaceuticals, and processed food.
- **Agriculture and Allied Goods:** The agriculture sector accounts for 1,437 tariff lines, which constitute 14.8% of all product tariff lines. The UK is a high-value market for niche Indian Agri-products such as tea, mangoes, grapes, spices, marine products, etc.
- **Plantation sector:** UK already represents a significant market for India, absorbing 1.7% of coffee, 5.6% of tea, and 2.9% of spice exports – now primed for exponential growth with duty free access on these products.
- **Indian Oilseeds:** With reduced tariffs and streamlined procedures, Indian Oilseed exporters can become more competitive in the UK market, potentially leading to higher exports.
- **Marine Products:** India exported marine products like fish, shrimp, and cuttlefish among the top categories. The CETA eliminates UK tariffs, improving the price realization for Indian exporters, benefits that flow down to coastal fisherfolk through higher procurement rates.
- **Textile and clothing:** Zero Duty market access for the textiles and clothing sector accounts, down from the earlier 12 % duty.
- **Leather & Footwear Products:** India-UK CETA opens up USD 8.5 Bn leather and footwear export market for Indian exporters.
- **Engineering Goods:** UK is India's 6th largest engineering export market. Tariff elimination is signalling a strong potential for expansion.
- **Electronics and Software:** Zero-duty access expected to accelerate exports of electronic products, with smartphones, optical fiber cables, and inverters set to strengthen India's foothold in UK market.
- **Electronics and Telecom exports:** UK's duty-free access from Day 1 opens substantial export opportunities for Indian electronics, especially TV, monitors, Telecom equipment, inverters. Our major competitors are China & USA.
- **Pharmaceuticals:** The zero tariff provisions are expected to significantly enhance the competitiveness of Indian Pharmaceuticals, Generics, and medical devices in the UK market, which remains India's largest pharmaceutical export destination in Europe.
- **Chemicals:** Duty-free access opens doors to the UK's USD 28.35 Bn chemicals market for Indian exporters.
- **Plastics:** India's current position as the 13th largest plastic supplier to the UK, duty free access presents opportunity to tap into the UK's robust demand for plastics—films, sheets, pipes, packaging, tableware, and kitchenware—segments where India has proven manufacturing strength.
- **Sports Goods and Toys:** Indian sports goods and toys will benefit from eliminated UK import duties, making them more price-competitive compared to countries like China or Vietnam, which do not have similar FTAs with the UK.
- **Steel and Products of Iron and Steel:** The immediate and full tariff elimination (zero tariff) is poised to significantly benefit India's ferrous sector, particularly its large base of MSMEs.
- **Gems and Jewellery:** Tariff relaxations under the FTA are projected to double India's gems and Jewellery exports to the UK within the next 2-3 years.
- **Mutual Recognition and Professional Mobility:** Both countries have agreed to pursue Mutual Recognition Agreements (MRAs) for professional qualifications within 12 months of the agreement's entry into force, targeting fields like nursing, accountancy, and architecture.

Advantages

- **Global Capability Centres:** The agreement aligns with India's goal of becoming a global hub for high-value services.
- **Start-up Ecosystem:** India's start-up ecosystem, with over 150,000 companies, will benefit from easier market access to the UK.
- **Health and Education Services:** The agreement opens new opportunities for collaboration in health and education. Indian hospitals can work with UK counterparts to deliver better healthcare and adopt advanced medical technologies.
- **Financial Services:** The agreement encourages UK investment in India's fast-growing financial market.
- **Boost to Supply Chains and Competitiveness:** The agreement streamlines trade procedures, removes unnecessary barriers, and reduces compliance costs.
- **Green Growth and Sustainability:** It promotes sustainable production practices, collaboration on clean technologies, and investment in renewable energy.
- **Skilling and Workforce Development:** The agreement ensures predictable mobility pathways for professionals and workers. It supports skill development and capacity building through knowledge exchange.
- **Social and Economic Inclusion:** It seeks to empower women, youth, and under-represented groups by enhancing access to global value chains and facilitating participation in trade.
- **Farmers - Sow Local, Sell Global:** Indian farming communities stand to gain from easier access to the UK

market and more opportunities to sell their produce due to tariff elimination.

- **Youth - Young Minds, Global Finds:** The CETA is poised to expand high-quality employment pathways for Indian youth by easing services market access, securing mutual recognition of professional qualifications, and facilitating short-term mobility for talent in IT, healthcare, finance, and creative sectors.

Conclusion

CETA is a game-changing trade agreement offering significant market access, trade expansion, services growth, and job creation. Its success will hinge on effective implementation, balanced safeguards, and leveraging the agreement to drive inclusive and sustainable economic growth.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What is the primary objective of the India-UK Comprehensive Economic and Trade Agreement (CETA) signed in 2025?
- (a) To establish a military alliance between India and the UK.
 - (b) To promote space research collaboration.
 - (c) To boost bilateral trade by reducing tariffs and enhancing market access.
 - (d) To restrict import of goods from third countries.

Answer: (c)

INDIA-PHILIPPINES STRATEGIC PARTNERSHIP

Why in News: India and the Philippines have formally elevated their relationship to a **Strategic Partnership**, coinciding with the celebration of **75 years of diplomatic ties** since 1949. This upgrade is not just symbolic — it reflects a deeper political, economic, and security alignment between the two nations, especially in the changing dynamics of the Indo-Pacific region.

A Brief Background

India and the Philippines have long enjoyed friendly relations, shaped by shared democratic values, cultural connections, and maritime geography. Some milestones in this journey include:

- **Treaty of Friendship (1952)** – the first formal recognition of bilateral relations.
- **MoU on Policy Consultation Talks (2000)** – paving the way for regular dialogue.
- **Joint Commission on Bilateral Cooperation (2007)** – institutionalizing cooperation.

- **Framework Declaration on Bilateral Cooperation (2007)** – expanding the scope of engagement.

Highlights of the New Strategic Partnership

The partnership is guided by a **Plan of Action (2025–2029)**, which lays down a comprehensive roadmap across multiple domains:

1. Defence and Maritime Cooperation

- Setting up **Joint Defence Committees** to boost collaboration in defence technology, research, training, and logistics.
- Enhancing **maritime domain awareness (MDA)**, shipbuilding cooperation, and coastal surveillance.
- Joint work on **pollution control, search and rescue (SAR), and humanitarian assistance/disaster relief (HADR)**.
- Participation in major multilateral exercises such as **ASEAN-India Maritime Exercise** and **Milan**.

2. Security and Counter-Terrorism

- Sharing intelligence and best practices.
- Establishing a **Joint Working Group on Counter-terrorism**.
- Cooperation in UN **peacekeeping operations (PKO)** and military medicine.

3. Economic and Trade Ties

- Negotiating a **Preferential Trade Agreement (PTA)**.
- Simplifying customs procedures through a **Joint Customs Cooperation Committee**.
- Promoting trade in critical minerals, renewable energy, electric vehicles, shipbuilding, agriculture, and tourism.
- Expediting the review of the **ASEAN-India Trade in Goods Agreement (AITIGA)** to unlock greater opportunities.

4. Science, Technology, and Innovation

- Joint projects in **digital technologies, robotics, AI, biotechnology, ICT, and startups**.
- Collaboration between the **Indian Department of Science and Technology** and its Philippine counterpart (2025–28).
- Cooperation in peaceful uses of **outer space and nuclear energy**.

5. Health, Culture, and People-to-People Exchanges

- Collaboration in **healthcare, pharmaceuticals, Ayurveda, and traditional medicine**.
- Greater **tourism flows**:
 - Visa-free entry for Indian tourists in the Philippines.
 - Gratis e-tourist visas for Filipinos visiting India.
- Student and academic exchanges, fostering **closer cultural bonds**.

Challenges in the Relationship

Despite the progress, hurdles remain:

- **Limited trade volumes** compared to India's other ASEAN partners.
- **Low prioritization** of each other in foreign policy until recently.
- **Bureaucratic delays** in implementation of agreements.
- **Regional tensions** in the South China Sea and broader Indo-Pacific may complicate cooperation.

Overcoming these requires sustained diplomatic commitment, economic incentives, and building **strategic trust**.

Why It Matters for India and the Region?

- **Strategic Importance:** Strengthening ties with the Philippines — a frontline state in the South China Sea — boosts India's **Act East Policy** and presence in the Indo-Pacific.
- **Defence Cooperation:** Joint maritime and defence projects will improve regional security and balance external pressures.
- **Economic Potential:** Expanding trade, especially in pharmaceuticals, IT, and renewable energy, can create win-win opportunities.
- **Geopolitical Implications:** The partnership aligns India and the Philippines more closely with like-minded nations seeking a **free, open, and inclusive Indo-Pacific**.

Conclusion

The elevation of ties to a Strategic Partnership marks a turning point in India-Philippines relations. By combining defence cooperation, economic engagement, technological innovation, and people-to-people exchanges, both nations can shape a more stable and prosperous Indo-Pacific. The challenge now lies in ensuring that this ambitious roadmap translates into action on the ground through regular dialogue, effective implementation, and mutual trust.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q.** The elevation of India-Philippines ties to a Strategic Partnership marks a significant step in India's Act East Policy and the evolving Indo-Pacific architecture. Critically examine the strategic, economic, and geopolitical implications of this development. [250 Words] [15 Marks]

UN WORLD FOOD PROGRAMME

Why in News: India has initiated a collaborative effort, with the support of the UN World Food Programme, aimed at enhancing Rice Fortification and Supply Chain Management in Nepal.

Key Details

- This initiative is part of India-UN Global Capacity Building Initiative.
- The project in Nepal will address gaps in Nepal's:
 - Fortified rice supply chain
 - Procurement processes and data collection
 - Public Distribution System
 - Knowledge sharing and Capacity building
- The project will be implemented in three phases over a period of 12 months.
- In last fiscal year, Nepal imported 5 lakh metric tons of Basmati rice from India.

Rice Fortification

- Rice fortification involves the incorporation of micronutrients such as iron, folic acid, and **vitamin B12 into rice** to enhance its **nutritional profile**.
- This approach aims to alleviate micronutrient deficiencies, particularly in communities where rice constitutes a primary food source.
- In India, the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) initiative provides fortified rice to tackle prevalent anaemia and various other nutrient shortfalls.

Significance

- **Public health and food security:** With implementation of this project, fortification of rice with micronutrient like iron, folic acid and vitamin B12 will address public health gaps and provide health benefits to vulnerable population.
- **International relations:** It highlights the strong development partnership between India and Nepal and promotes collaboration on sustainable development goals.

Global Report on Food Crisis

- World Food Programme (WFP) releases a Global Report on Food Crisis that highlights the extent of acute hunger worldwide, providing key insights into regions and populations most in need of assistance.

UN WFP role in Global Hunger Eradication

- **Food Assistance in Emergencies:** The World Food Programme (WFP) delivers prompt food assistance during natural disasters, conflicts, and emergencies, ensuring that the most at-risk populations receive vital food supplies at their time of greatest need.
- **Building Resilience:** WFP collaborates with communities to create sustainable solutions for food security, including enhancing agricultural methods and improving access to nutritious food.
- **Nutrition Programs:** WFP advocates for nutrition-focused initiatives, such as fortified food products, to address malnutrition, particularly among children and expectant mothers.

- **Promoting Sustainable Agriculture:** The organization is dedicated to advancing sustainable farming practices and equipping local communities with the necessary tools and knowledge to cultivate their own food.

Way Forward

- WFP's work aligns with Sustainable Development Goal 2 – Zero Hunger by 2030. India has been a WFP member since 1963.
- The WFP remains a pivotal organization in the global fight against hunger and food insecurity.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. How has India supported the UN World Food Programme's efforts in Nepal?

- (a) By sending military troops to distribute food
- (b) By providing financial and food aid through WFP for vulnerable communities in Nepal
- (c) By exporting packaged foods from Nepal to India
- (d) By funding private food companies in Nepal

(b) Answer

FIRST BIMSTEC TRADITIONAL MUSIC FESTIVAL

Why in News: Recently, New Delhi witnessed a landmark cultural event—the **First BIMSTEC Traditional Music Festival**.

Key Details

- The event was hosted at the prestigious **Bharat Mandapam**.
- Organized by the **Indian Council for Cultural Relations (ICCR)** under the aegis of the **Ministry of External Affairs (MEA)**, the festival marked a historic step in strengthening regional bonds among the **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** countries.

Key Highlights of the Festival

- **Theme:** "SaptaSur: Seven Nations, One Melody"
 - Symbolized the seven musical notes and the seven BIMSTEC member states: **Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand**.
- **Participation**
 - Artists and musical troupes from all seven BIMSTEC nations performed, showcasing their **rich cultural traditions and folk music**.

Inauguration

- The festival was inaugurated by **External Affairs Minister Dr. S. Jaishankar**, who emphasized that cultural traditions are **powerful markers of identity**, capable of fostering **dialogue, respect, and unity**.

Cultural Diplomacy

- The event highlighted **India's soft power diplomacy**, focusing on people-to-people exchanges to strengthen regional cooperation.

Public Engagement

- The festival was **open to the public, free of cost**, making cultural diplomacy accessible and inclusive.

Significance

- Reinforced BIMSTEC's commitment not only to economic and strategic cooperation but also to **cultural integration and shared heritage**.

PRELIMS SPECIAL

BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)

Origins and Establishment

- **Established:** 1997 (as BISTEC: Bangladesh, India, Sri Lanka, Thailand Economic Cooperation).
- **Renamed:** BIMST-EC in 1997 with Myanmar's entry.
- **BIMSTEC (current name):** Adopted in 2004, when Bhutan and Nepal joined.
- **Headquarters:** Dhaka, Bangladesh (since 2014).
- **Membership (7 Countries)**
 - **South Asia:** Bangladesh, Bhutan, India, Nepal, Sri Lanka
 - **Southeast Asia:** Myanmar, Thailand

Key Features

- Acts as a bridge between South Asia and Southeast Asia.
- Focuses on multi-sectoral cooperation.

Institutional Mechanism

- **Summits:** Highest decision-making body (Heads of State/Government).
- **Ministerial Meetings:** Regular (Foreign, Trade, Tourism, etc.)
- **Working Groups & Technical Committees:** For specific areas.
- **Secretariat:** Established in 2014 in Dhaka.

Significance

- **Geopolitical:** Connects South Asia and ASEAN; complements India's Act East Policy.
- **Economic:** Encompasses about 22% of global population (~1.7 billion people) and a combined GDP of over US \$4 trillion (2024 est.).
- **Strategic:** Bay of Bengal is vital for maritime trade, energy routes, and security.
- **Alternative to SAARC:** More functional due to limited Pakistan factor.

Recent Developments

- First BIMSTEC Traditional Music Festival (SaptaSur) held in New Delhi, August 2025.
- BIMSTEC Charter adopted in 2022 gave the grouping a more formal structure.
- Increasing cooperation on connectivity projects, energy grid interlinkages and counter-terrorism.

Conclusion

The **First BIMSTEC Traditional Music Festival** is a reminder that diplomacy is not just about policies and summits, but also about **celebrating shared cultural legacies**. Just as BRICS emphasizes economic and geopolitical cooperation among emerging powers, BIMSTEC is evolving into a forum that blends **strategic interests with cultural bonds**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Discuss the significance of cultural diplomacy in regional groupings like BIMSTEC. How can initiatives such as the BIMSTEC Traditional Music Festival complement economic and strategic cooperation among member states? [250 Words] [15 Marks]

PURPLE NOTICE

Why in News: The Enforcement Directorate (ED) has reached a significant milestone by having a Purple Notice issued via Interpol on August 21, revealing a complex case of trade-based money laundering.

Key highlights

- The notice informs all investigative agencies within Interpol's 196 member nations to monitor shell entities involved in these activities.
- The ED discovered a structured network of both domestic and international shell companies involved in money laundering disguised as international trade.
- The operation bore hawala-like traits but was conducted through formal banking systems and forged documentation to avoid detection.
- The conspirators exploited trade and banking systems using techniques such as:
 - Under-invoicing imports
 - Claiming bogus duty-free imports, like semiconductors
 - Forging compliance documents
 - Routing circular re-exports via third countries to camouflage illicit fund flows

About Purple Notice

- A Purple Notice is one of the eight types of alerts issued by INTERPOL (the International Criminal

Police Organization) to share information between law enforcement agencies around the world.

- A Purple Notice is issued to seek or provide information on how criminals are hiding their activities, objects, devices, or concealment methods. It focuses on the techniques, tools, or modus operandi used in crimes.

8 INTERPOL Notices

Notice Type	Purpose
Red	To seek the arrest or location of a wanted person.
Blue	To locate, identify, or gather information on a person.
Green	To provide warnings or intelligence about criminal activities.
Yellow	To help locate missing persons, especially minors.
Black	To seek information on unidentified bodies.
Orange	To warn of a serious threat from an object, event, or person.
Purple	To share information on criminal methods or tools.
Light Blue	Issued for individuals subject to UN sanctions.

Why it matters

- By sharing this kind of information, INTERPOL helps countries stay ahead of criminals who are always trying new ways to commit and hide crimes. The Purple Notice acts as a warning and intelligence-sharing tool.

Strategic Impact

- This issuance underscores India's proactive stance against cross-border financial crimes and makes ED a key player in global intelligence-sharing.
- It supports international law enforcement agencies in recognizing and countering similar Trade-based Money Laundering (TBML) schemes in their jurisdictions.

Efforts by India

- India through ED is utilising platforms like Global Network and Asset Recovery Interagency Network-Asia Pacific (ARIN-AP) to influence global policies for combating money laundering.

Way Forward

The issuance of this Purple Notice not only strengthens international awareness of the risk associated with trade-based money laundering risks but also highlights India's pivotal role in fostering coordinated international responses to money laundering.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. What was the primary purpose of the Purple Notice issued to the Enforcement Directorate (ED) by INTERPOL in August 2025?

- (a) To request the arrest of a fugitive involved in money laundering.
- (b) To warn about a person posing a terrorist threat.
- (c) To share information on methods used in trade-based money laundering.
- (d) To locate a missing person linked to financial fraud.

Answer: (c)

UNHCR

Why in News: United Nations High Commissioner for Refugees (UNHCR) has temporarily suspended the process of facilitating the repatriation of Sri Lankan Tamil refugees apprehending arrest upon their arrival in Sri Lanka.

Key Details

- The arrest of voluntarily returning refugees by Sri Lankan authorities on suspicion of departing the nation without a valid passport or other travel documentation is a first such incident.
- Since 2002, 18,643 Tamil refugees from Sri Lanka have been returned to their homeland by the UNHCR.
- “The safety and dignity of the willingly returning refugees are the fundamental principles.”
- No one gets arrested unless a criminal case is still underway.

Who is a refugee?

- The **1951 Refugee Convention** states that an individual is deemed a refugee if they are unable to return to their country of origin due to a valid fear of danger due to their race, religion, membership in a social group, or political beliefs.

- Due to conflict, persecution, violence, or other human rights violations, refugees are compelled to leave their homeland.
- Even though moving abroad is the quintessential refugee experience, these foreign refugees make up a comparatively small portion of all displaced people globally.
- Other non-typical refugee categories include stateless individuals, who have no country of citizenship claimed against them, and asylum seekers, who travel in search of international protection.

UNHCR

- The United Nations High Commissioner for Refugee (UNHCR) reported that **130.8 million people were stateless or forcibly displaced worldwide in 2024**, with over 32 million of them being refugees.
- According to UNHCR data, **75% of refugees globally live in low- and middle-income nations.**
- UNHCR protects refugees all across the world and makes it easier for them to resettle or return home.
- **History:** To aid the millions of individuals who had lost their houses during World War II, the UNGA created it in 1950.
- It is an international organisation that works to save lives, defend rights, and provide a brighter future for those who have been displaced by persecution and conflict.
- In 1954 and 1981, it received Nobel Peace Prizes.
- Headquarters: Geneva, Switzerland.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. The Headquarters of the United Nations High Commissioner for Refugee (UNHCR) is located in?

- (a) Geneva
- (b) New York
- (c) Hague
- (d) None of the Above

Answer: (a)

ECONOMY & AGRICULTURE

NATIONAL COOPERATIVE POLICY

Why in News: A 48-member committee led by Suresh Prabhu has drafted the National Cooperative Policy 2025 with 20-year vision, replacing the 2022 framework.

Key Details

- The NCP 2025 is anchored with the vision of “Sahkar se Samriddhi” (Prosperity through Cooperation).
- The policy aims to modernise India’s cooperative sector, enhance accessibility and efficiency, and generate rural employment.
- To mark the United Nations-designated International Year of Cooperatives (IYC) 2025, India unveiled the NCP 2025.
- **NCP is more active and useful in the current economic scenario, which will be fruitful in achieving the goal of “Viksit Bharat 2047”.**

Cooperative & Cooperative societies

- A cooperative is an autonomous association of persons, united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically member-controlled enterprise
- **India has more than 8 lakh cooperative societies, comprising around 2 lakh credit cooperatives and 6 lakh non-credit cooperatives.**
- Non-credit cooperatives primarily operate in sectors such as housing, dairy, labour, and others, including sugar, consumer, marketing, fisheries, textiles, services, processing, hospitals, etc.

Features of NCP 2025

- It will support employment and benefit 1.4 billion people.
- Setting up cooperatives in every village across India within five years.
- Goal of establishing 2,00,000 Primary Agricultural Credit Societies (PACS) by February 2026.
- All states declare their own cooperative policies by January 31, 2026.
- **6 pillars of the new policy:**
 - Strengthening foundational systems
 - Preparing for future challenges through digitalisation and innovation

- Promoting vibrancy in existing cooperatives
- Enhancing inclusivity and outreach
- Expanding into emerging sectors
- Engaging youth and building capacity for future generations
- It NCP 2025 also aims to increase the sector’s contribution to GDP threefold by 2034.
- Cooperative will now cover non-traditional sectors such as green energy, tourism, insurance and taxi services (Sahkar Taxi).
- 4,108 Primary Agricultural Credit Societies (PACS) have been approved to open PM Jan Aushadhi Kendras.
- 393 PACS have applied to run petrol and diesel retail outlets.
- Over 100 PACS have applied for LPG distribution.
- PACS are also working on managing the “**Har Ghar Nal Se Jal**” (tap water to every home) scheme and the PM Surya Ghar Yojana.
- The foundation for the Tribhuvan Sahkari University has already been laid to provide trained manpower for all these activities.

Challenges for cooperative societies

- Limited access to capital, governance issues, and a lack of professional management.
- Political interference, socio-economic barriers, and infrastructural gaps.
- Lack of transparency and accountability, and weak leadership.

Opportunities for cooperative societies

- **Policy Enhancement:** Strengthening governance policies for cooperatives, with a particular focus on accountability and transparency.
- **Digital Advancement:** Emphasizing the importance of technology adoption at all levels of cooperative operations, which includes the computerization of primary agricultural cooperative societies and registrar offices.
- **Skill Development:** Allocating resources for training programs aimed at cooperative members and staff to improve their expertise in management, finance, and marketing.
- **Financial Adaptability:** Creating cooperative development funds that offer flexible collateral and financing options to facilitate their growth and expansion.

- **Inclusion Initiatives:** Launching outreach programs to engage marginalized and vulnerable groups in cooperative activities, thereby fostering social and economic inclusion.
- **Infrastructure Improvement:** Partnering with government entities to enhance rural infrastructure, including storage facilities, transportation systems, and communication networks, to bolster cooperative operations.
- **Awareness Initiatives:** Implementing public awareness campaigns to inform potential members about the advantages of joining and participating in cooperative societies, particularly in local languages.

Way Forward

The National Cooperative Policy 2025 has the potential to rejuvenate India's cooperative sector, making it a powerful tool for economic empowerment, rural development, and social justice. However, the success of this policy hinges on effective implementation, strong governance, and proactive collaboration between the government, private sector, and cooperative institutions.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Critically analyse the key provisions of the National Cooperative Policy 2025. How will this policy contribute to the overall socio-economic development of India, particularly in rural areas? Discuss the challenges that may arise during its implementation and suggest ways to overcome them. [250 words] [15 Marks]

FARMER PRODUCER ORGANISATIONS (FPO)

Why in News: India is experiencing the rise of FPOs as a transformative collective framework for farmers, serving as an alternative to traditional cooperatives.

Key Details

- As climate change increasingly impacts Indian agriculture, FPOs may play a crucial role in developing resilient food systems, if they adopt circular economies based on local knowledge and regenerative practices.

Circular Economy

- A circular economy refers to an economic framework designed to reduce waste and enhance resource efficiency by ensuring that products and materials remain in circulation for extended periods. This is achieved through various strategies, including reuse, repair, refurbishment, and recycling.

FPOs

- In the early 2000s, India implemented the concept

of Farmer Producer Organizations (FPOs) to assist smallholder farmers in attaining economies of scale and enhancing their bargaining power via collective action.

- Nearly 30,000 FPOs have been formed till 2024, out of which 9000 FPOs are registered under this initiative.
- This shows an urgent need for the government to adopt policies that further empower farmers and reinforce the agricultural sector.
- FPO incorporated/ registered under Part IXA of Companies Act or under Co-operative Societies Act of the concerned States.

Circular economy model and FPOs

- This method highlights production systems designed for local consumption, while also fostering ecological well-being.
- It places a strong emphasis on sustainability by minimizing dependence on external resources and markets, concentrating instead on crops that are suitable for local conditions, conserve water, enhance soil health, and demonstrate resilience to climate fluctuations.
- FPOs are focused on strengthening supply chains for traditional crops that are healthier, more sustainable and integral to local diets.

Methods to enhance resilience in crops

- **Focusing on crops that meet local demand and provide environmental advantages:** Promoting the growth of crops that are ideally adapted to local agro-climatic conditions, require minimal water, improve soil health, and are integral to the community's traditional diet.
- **Minimizing reliance on external sources:** Cultivating essential inputs such as organic fertilizers, bio-pesticides, and seeds locally, utilizing available resources.
- **Harmonizing local consumption with marketable goods:** While ensuring that the community's nutritional requirements are fulfilled through native crops, recognizing surplus amounts of sustainable produce that can be profitably marketed at both regional and national levels.
- **Enhancing value for local products:** Processing agricultural outputs locally, for example, into pulp, juice, or flour to prolong shelf life and access niche markets that emphasize sustainability and health.

Government Initiatives

- **Paramparagat Krishi Vikas Yojana (PKVY):** Initiated in 2015, aims to support and promote organic farming, thereby enhancing soil health.
- **National Mission on Natural Farming (NMNF):** Established to transform agricultural practices by implementing scientifically supported methods that focus on sustainability, climate resilience, and food safety.

Way Forward

Strengthen access to finance, markets, and infrastructure;

enhance farmer capacity through training and technology adoption; and ensure policy support with ease of regulation and cluster-based promotion.

EXPECTED QUESTION FOR UPSC CSE

Prelim MCQ

- Q. Which of the following best defines a "Farmer Producer Organization" (FPO)?
- A government-funded organization for urban farmers
 - A collective of farmers for better bargaining power and market access
 - A non-governmental organization (NGO) focused on rural education
 - A for-profit corporation owned by large agricultural firms

Answer: (b)

GREEN FUEL POLICY

Why in News: The Minister of Petroleum and Natural Gas stated that the incorporation of ethanol into petrol has enhanced India's energy security and resulted in significant environmental benefits.

Key Details

- In alignment with its green fuel policy, the government is actively promoting ethanol blending, beginning with E10 (10% ethanol) and now progressing towards E20 (20% ethanol).
- But Car makers have raised concerns about technical risks and efficiency losses, particularly with higher ethanol blends such as E20.
- Ethanol has the potential to cause corrosion in metal parts and can strip deposits from fuel systems, which may lead to clogged filters and lines.

Current and Future Targets

- India's National Policy on Biofuels, which was announced in 2018, established a target of 20 percent under its Ethanol Blended Petrol (EBP) Programme for the Ethanol Supply Year (ESY) 2025-26.
- The government is now aiming for a new objective of 30 percent blending by the year 2030.
- Additionally, India is considering incentives such as reduced GST on high-ethanol blends and promoting vehicles that are compatible with flex-fuel or E27/E30.

India's Green Fuel Policy

- Primarily the National policy of Biofuels, aims to encourage the production and use of biofuels, such as ethanol and

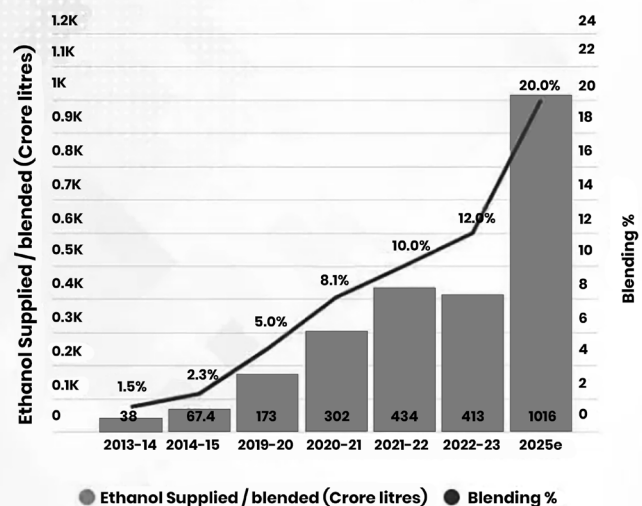
biodiesel, in order to lessen dependence on fossil fuels and foster a sustainable energy industry.

- This policy sees biofuels as an essential part of the nation's energy and transportation sectors, setting targets for mixing biofuels with fossil fuels, especially ethanol in petrol.

Ethanol as a fuel

- Ethanol, also known as ethyl alcohol, is a sustainable and biodegradable fuel produced through the fermentation of biomass, which typically includes sugarcane, corn, rice, cassava, or various other crops.
- As a fuel additive, it is mixed with petrol (gasoline) in various ratios such as E5 (5 percent), E10, E20-E25, and can go up to E85 or even E100 in engines specifically designed for it.
- This fuel helps to decrease greenhouse gas emissions and diminishes dependence on imported fossil fuels.

ETHANOL BLENDING OVER THE YEARS



Concerns against Ethanol blending

- Lower fuel efficiency:** Vehicles running on ethanol-blended petrol (especially higher blends like E20 or above) tend to give lower mileage, requiring more fuel for the same distance.
- Engine compatibility Problems:** Older vehicles and small engines not designed for ethanol blends may suffer from corrosion (as ethanol is hygroscopic, it absorbs moisture) and can corrode metal components, breakdown rubber and plastic parts, can damage fuel line, or reduce engine life.
- Food Vs. Fuel Conflict:** Using food crops for fuel can raise food prices and create shortages, particularly in countries with food security issues.

- **High water and Land use:** Large amounts of water and agricultural land are needed for crop cultivation, which can strain local ecosystems and water supplies.
- **Storage and transportation issues:** Ethanol can absorb moisture, leading to phase separation in storage tanks and pipelines, which increases the risk of contamination and engine problems.
- **Limited Environmental Benefits:** The overall reduction in greenhouse gas emissions may be marginal or even negative compared to petrol, especially if deforestation is involved in crop production.

Advantages and Benefits of Ethanol Blending in Petrol

- **Encourages Innovation in Green Technology:** Promotes development of second-generation biofuels (e.g., from waste or non-food crops). Drives investment and innovation in sustainable fuel technologies.
- **Supports National Climate Commitments:** Helps countries meet international climate goals like the Paris Agreement by lowering the carbon intensity of fuels. Contributes to net-zero or carbon-neutral strategies.
- **Biodegradable and Environmentally Safer:** Ethanol is less toxic and more biodegradable than petrol. In case of leaks or spills, it poses a lower risk to soil and water ecosystems.
- **High Octane Rating:** Ethanol has a high-octane number, which helps improve engine performance. Reduces engine knocking and can enhance combustion efficiency in petrol engines.
- **Renewable Fuel Source:** Ethanol is derived from renewable biological sources, unlike fossil fuels.
- **Boosts the Rural Economy:** Increases demand for agricultural crops, providing a new source of income for farmers. Creates rural employment in biofuel production, processing, and distribution.
- **Improves Air Quality:** Lower emissions of harmful pollutants contribute to reduced smog and better urban air quality.
- **Reduces Greenhouse Gas Emissions:** Ethanol burns cleaner than petrol, producing fewer pollutants like carbon monoxide, hydrocarbons, and particulates. Helps lower overall carbon emissions, supporting climate change mitigation.

Conclusion

India should focus on scaling up ethanol production from non-food sources like agricultural waste to avoid the food-vs-fuel conflict. Strengthening infrastructure and ensuring vehicle compatibility will support smooth nationwide implementation and help meet blending targets sustainably.

EXPECTED QUESTION FOR UPSC CSE

Prelim MCQ

Q. With reference to the Green Fuel initiatives and policies in India, consider the following statements:

1. The Green Hydrogen Mission aims to make India a global hub for production and export of green hydrogen.
2. The Ethanol Blended Petrol (EBP) programme targets 20% ethanol blending with petrol by the year 2025.
3. Under the SATAT initiative, the government promotes the use of Compressed Biogas (CBG) as a green fuel alternative for the transport sector.

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)

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL)

Why in News: NHIDCL repaired National Highway 10, which connects Sikkim with West Bengal and is dubbed as the lifeline of the NE states.

About NHIDCL

- It is a public sector enterprise under the Ministry of Road Transport and Highways (MoRTH).
- It was incorporated on July 18, 2014, with the primary goal of accelerating the construction and maintenance of national highways and strategic roads.
- It was created to promote regional connectivity and economic development in underdeveloped and challenging terrains, especially in:
 - North Eastern States
 - Himalayan regions
 - Union Territories
 - Andaman & Nicobar Islands
 - Ladakh, Jammu & Kashmir, etc.
- Improve strategic road connectivity near international borders, often in coordination with defense and security needs.

NHIDCL is particularly active in:

- **North Eastern Region (NER):** Enhancing connectivity to promote socio-economic development.
- **Border Areas:** Building roads for military logistics and faster civilian access.

- **Hilly Terrains:** Projects like tunnels and avalanche-prone road protection structures.

NHIDCL works in coordination with:

- State Governments
- Border Roads Organisation (BRO)
- NHAI (National Highways Authority of India)
- Defence and Home Ministries for strategic projects

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Critically examine the role, challenges, and future prospects of NHIDCL in India's infrastructure development, especially in the context of national security and regional development. [150 words] [10 Marks]

MARKET COUPLING IN THE DAY-AHEAD MARKET

Why in News: The Central Electricity Regulatory Commission's (CERC) proposed implementation of market coupling in the Day Ahead Market (DAM) segment of power exchanges.

Key Details

- The Central Electricity Regulatory Commission (CERC) has greenlit a phased rollout of market coupling in India's Day-Ahead Market (DAM), starting January 2026.
- The DAM coupling will rotate across exchanges in a round-robin fashion, with Grid-India serving as backup and audit operator.

PRELIMS SPECIAL

About Day-Ahead Market (DAM)

- The Day-Ahead Market (DAM) is a segment of the power exchange where electricity is traded for delivery the next day.
- It is based on double-sided closed auctions, where buyers (distribution companies, industrial consumers) and sellers (power generators, renewable energy producers) submit bids for the following day.
- The market clearing price (MCP) is determined by matching supply and demand curves.
- **The DAM ensures:**
 - Transparent price discovery
 - Efficient allocation of available power
 - Opportunities for renewable integration, as renewable producers can commit to next-day schedules

Currently, the DAM is the largest segment of India's power exchanges, dominated by the Indian Energy Exchange (IEX), with smaller participation from PXIL and HPX.

Concept of Market Coupling in DAM

- Market coupling refers to a process where bids from all power exchanges are aggregated and a uniform market clearing price is determined through a centralized mechanism.
- Instead of each exchange running its own auction, a single algorithm would decide the optimal price and volume.
- In India's model, this role will be handled by an entity (with Grid-India as the backup).

Objectives of Market Coupling

- **Efficient price discovery** across exchanges.
- **Uniform prices** for buyers and sellers regardless of exchange platform.
- **Fair competition** by reducing the advantage of dominant exchanges.
- **Improved renewable integration** by optimizing scheduling across platforms.

Pilot Studies and Findings

A shadow pilot run by Grid-India using historical data revealed:

- Marginal welfare gain: only about 0.3% improvement (₹38 crore over 29 months)
- Slight increase in cleared volumes: around 0.2%
- Minimal impact on price levels
- In the Real-Time Market (RTM), benefits were even smaller

This raised questions about whether the operational and regulatory efforts required for coupling justify such limited gains.

Challenges and Concerns

- **Marginal Benefits** – The small welfare and volume gains may not be significant enough.
- **Implementation Complexity** – Requires new infrastructure, software, and coordination across exchanges.
- **Exchange Autonomy** – Some argue market coupling is closer to "exchange coupling," reducing competition in price discovery.
- **Tight Timeline** – Scheduled for January 2026, though industry voices suggest delaying implementation.

Impact on Power Exchanges

- Indian Energy Exchange (IEX) may lose some of its dominant market position.
- PXIL and HPX could gain traction, as uniform pricing may level the playing field.
- Exchanges may now compete on transaction fees, services, and user experience rather than liquidity alone.

Way Forward

While the idea of market coupling in the DAM aims at greater efficiency and fairness, its real benefits appear limited. Policymakers may need to:

- Explore integration with Security-Constrained Economic Dispatch (SCED) for higher efficiency.
- Focus on strengthening RTM and renewable energy markets.
- Consider phased or delayed implementation, ensuring readiness of systems and stakeholders.

Conclusion

The Day-Ahead Market (DAM) is central to India's power exchange mechanism, enabling transparent and efficient next-day trading. The proposed market coupling seeks to unify price discovery and create a level playing field, but studies suggest only marginal benefits. For India's rapidly evolving power sector, the key may lie not just in coupling exchanges, but in building more robust frameworks for real-time trading, renewable integration, and grid stability.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. What is market coupling in the context of the Day-Ahead Market (DAM) in electricity trading? Discuss its significance, benefits, and the challenges associated with its implementation in India. [250 words] [15 marks]

RBI MONETARY POLICY REVIEW

Why in News: Recently, the Monetary Policy Committee (MPC) of the Reserve Bank of India kept the repo rate **unchanged at 5.5%**, maintaining a neutral stance.

Key Details

- The standing deposit facility (SDF) rate at 5.25 percent and the marginal standing facility (MSF) rate & the Bank Rate at 5.75 per cent remained unchanged.

The RBI retained its FY26 GDP growth forecast at 6.5% despite US tariffs on Indian imports.

- **Inflation** for FY26 is projected at 3.1%, lower than June's 3.7% estimate, though CPI is expected to reach 4.9% in FY27.
- With easing inflation and global uncertainties, the RBI signalled a cautious approach to support domestic demand while managing external risks.

What is the Repo Rate?

- The Repo Rate (short for Repurchase Rate) is the interest rate at which the RBI lends money to commercial banks for short periods.

- In this **process**:

- Banks sell government securities to the RBI.
- They agree to buy them back later at a fixed price.
- This system helps the RBI manage:
 - ◆ Liquidity in the economy (availability of money in the market)
 - ◆ Inflation (rise in prices)
 - ◆ Economic growth

Why Does the RBI Change the Repo Rate?

- **To Control Inflation:** If inflation is rising (prices of goods and services increasing), the RBI increases the repo rate. This makes loans costlier, reducing borrowing and money supply in the market, helping to bring down prices.
- **To Boost Growth:** When economic growth is slowing, the RBI lowers the repo rate. This makes loans cheaper, encouraging people and businesses to borrow, invest, and spend more, which boosts the economy.
- **To Manage Liquidity:** By adjusting the repo rate, the RBI ensures there's neither too much nor too little money circulating in the economy.

What is Monetary Policy?

- Monetary Policy is the process through which the RBI controls the money supply, interest rates, and liquidity in the economy.
- **Its main objectives are:**
 - Maintaining price stability
 - Ensuring economic growth
 - Keeping financial markets stable

Monetary Policy Committee (MPC)

- The Monetary Policy Committee (MPC) is a key body of the RBI responsible for **deciding the repo rate and other monetary policy measures** to manage inflation and economic growth.
- The MPC was created under **Section 45ZB of the RBI Act, 1934** (amended in 2016) and became functional in **October 2016**.

Mandate of the MPC

- To set the benchmark repo rate so that inflation stays within the target range of $4\% \pm 2\%$.
- To review monetary policy at least four times a year (usually every two months).
- To take decisions by majority vote. If there's a tie, the RBI Governor has a casting vote.

Composition of the MPC (6 Members)

- **3 Members from RBI:**
 1. RBI Governor – Chairperson (Ex-officio)
 2. Deputy Governor in charge of monetary policy
 3. One RBI officer (usually an Executive Director)

- **3 Members Nominated by the Government of India:**
 1. Eminent economists or policy experts.
 2. Appointed for four years and cannot be reappointed.
 3. Selected by a Search-cum-Selection Committee led by the Cabinet Secretary.
 4. Approved finally by the Appointments Committee of the Cabinet (ACC).

Important Monetary Policy Tools Used by RBI

The RBI uses several tools to control money supply, inflation, and ensure financial stability. These are classified into quantitative (general) and qualitative (selective) measures.

Quantitative Tools (General Tools)

- **Repo Rate:** The interest rate at which RBI lends short-term money to banks. Increase in repo rate = costlier loans, less money in the market. Decrease in repo rate = cheaper loans, more money in the market.
- **Reverse Repo Rate:** The rate at which RBI borrows money from banks. Higher rate = banks park extra money with RBI (reduces liquidity). Lower rate = banks keep money for lending (increases liquidity).
- **Cash Reserve Ratio (CRR):** Percentage of a bank's total deposits to be kept in cash with RBI. High CRR = less money for lending. Low CRR = more money for lending.
- **Statutory Liquidity Ratio (SLR):** Minimum percentage of a bank's deposits to be maintained in gold, cash, or government-approved securities. High SLR = less money for loans. Low SLR = more money for loans.
- **Open Market Operations (OMO):** RBI buys or sells government securities in the open market. Selling securities = takes out money from the market. Buying securities = injects money into the market.
- **Marginal Standing Facility (MSF):** Banks can borrow overnight funds from RBI at a higher rate than repo, during emergencies.
- **Bank Rate:** Long-term interest rate at which RBI lends to banks. Less commonly used now but still relevant.
- **Liquidity Adjustment Facility (LAF):** A framework using repo and reverse repo rates to manage daily liquidity mismatches in the banking system.
- **Market Stabilization Scheme (MSS):** Special bonds issued to absorb excess money, usually during high foreign capital inflows.

Qualitative Tools (Selective Tools)

- **Moral Suasion:** RBI requests or advises banks to behave in a certain way, like not lending too much to risky sectors, without using strict rules.
- **Credit Rationing and Direct Action:** RBI can set limits on loans to certain sectors or companies and, if necessary, take action against banks for not following guidelines.

Conclusion

The Repo Rate is one of the most important tools in RBI's monetary policy toolkit, helping to control inflation, manage liquidity, and support economic growth. The Monetary Policy Committee (MPC) plays a central role in maintaining macroeconomic stability by adjusting this rate and other monetary policy instruments.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. Monetary Policy Committee decisions play a pivotal role in balancing inflation control with growth objectives in India's economy. In light of the recent decision to keep the repo rate unchanged, critically examine the effectiveness of RBI's monetary policy tools in managing inflation and sustaining economic growth. Support your answer with recent data and trends. [250 words] [15 marks]

Prelim MCQ

- Q. With reference to the Monetary Policy framework in India, consider the following statements:
1. The primary objective of RBI's monetary policy is to maintain price stability while keeping in mind the objective of economic growth.
 2. The Monetary Policy Committee (MPC) is a statutory body constituted under the Reserve Bank of India Act, 1934.
 3. The RBI uses only the Repo Rate to manage liquidity in the economy under its monetary policy tools.

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

(a) Answer

GOLDILOCKS ECONOMY

Why in News: Recently, India's Finance Ministry declared the Indian economy to be in a "Goldilocks situation".

Key Details

- The rare alignment of moderate growth, subdued inflation and supportive monetary conditions has allowed analysts to mark this as a "mini-Goldilocks moment" for Indian Economy
- It is due to India's macroeconomic position, spurred by 7.6% GDP growth, peaking interest rates and stable corporate earnings.

PRELIMS SPECIAL

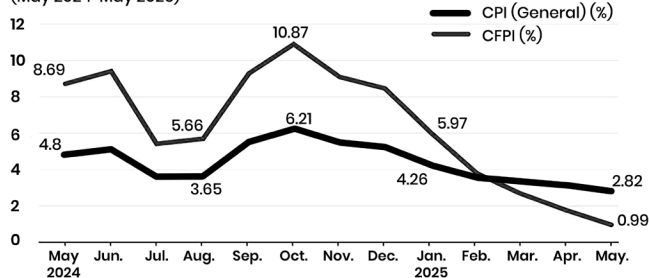
What is "Goldilocks Zone" in Economy

- The term "Goldilocks economy" originates from the tale where Goldilocks avoids porridge that's too hot or too cold, instead choosing one that's just right.

- In economic terms, it signifies a zone marked by **moderate growth, low inflation, and supportive monetary policy**—a sweet spot between overheating and stagnation.
- In the Indian context, the Finance Ministry has sometimes described the present situation as a “Goldilocks phase,” citing controlled inflation, steady GDP growth, and favorable interest rate trends.

Signs of a “Just Right” Economy

Chart:1 All-India inflation rates: CPI (General) and CFPI
(May 2024–May 2025)



Source: MoSPI

- **Growth Momentum** India’s GDP growth rate, estimated at around **7.6%**, is strong by global standards and indicates resilience.
- **Inflation Under Control** Headline CPI has moderated—from **4.8% in May 2024** to **2.82% in May 2025**, aligning with Reserve Bank of India’s comfort zone.
- **Supportive Monetary Policy** The easing of policy rates like the 100-basis points cut by the RBI has further supported the narrative of a balanced macroeconomic environment.

The Mirage Beneath the Surface

1. Inflation: Headline Figures vs. Reality

- While overall inflation is low, **food inflation (CFPI)** often remains high and volatile. For example, in **October 2024**, CFPI spiked at **10.87%** compared to CPI’s **6.21%**.
- Since food comprises nearly **50% of spending for lower-income households**, such volatility directly affects affordability and household budgets.

2. Real Wage Stagnation

- Nominal wage growth is often significantly higher than real wage growth. In **2023**, nominal wages rose by **9.2%**, but real wages grew barely **2.5%**; in **2020**, they even fell by **0.4%**.
- With inflation eroding purchasing power, families feel little benefit from nominal increases.

3. Uneven Growth: The K-Shaped Recovery

- While GDP rebounds, recovery is uneven. Formal sectors and urban elites benefit more, whereas the **informal workforce**—formally estimated at **80%** of the labor market—remains excluded.
- Taxable-income-based **Gini coefficients**, showing improvement from **0.489 (AY13)** to **0.402 (AY23)**, fail to capture this inequality in the informal sector.

4. Fiscal Constraints

- Though the fiscal deficit is narrowing, it remains high—projected to reduce from **6.4% (2022–23)** to **4.4% (2025–26)**.
- Public debt stands at nearly **81% of GDP**, well above the **FRBM target of 60%**. This limits government spending on critical areas like health, education, and infrastructure.

A Deeper Reality Check: Goldilocks Could Be a Mirage

Claim	Surface Reality	Underlying Issues
Growth	Strong at ~7.6%	Uneven distribution, informal sector gaps
Inflation	CPI is low	Volatile food inflation still burdens poor
Wages	Nominal growth observed	Real wages stagnate—purchasing power eroded
Fiscal Health	Deficit narrowing	Debt still high, limiting developmental spending

Way Forward

For India to sustain a genuine Goldilocks phase, it must go beyond headlines and address core structural flaws:

- **Food Price Stability:** Strengthening supply chains and agricultural resilience to reduce volatility.
- **Real Wage Growth:** Ensuring that wage increases match or exceed inflation.
- **Inclusive Growth:** Extending prosperity to informal sectors through job creation, skilling, and social support.
- **Fiscal Prudence & Targeted Investment:** Managing debt while funding essential public services and infrastructure.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. In the context of India's present economy, which of the following situations challenges the idea of a perfect Goldilocks Zone?

1. Food inflation often remains high and volatile despite low headline CPI.
2. Real wage growth lags behind nominal wage growth, eroding purchasing power.
3. The informal sector, comprising nearly 80% of the workforce, shows uneven recovery.
4. Public debt remains much below the FRBM target, giving enough fiscal space.

Select the correct answer using the code below:

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

Answer: (a)

Descriptive Question

Q. The Finance Ministry recently claimed that the Indian economy is in a "Goldilocks situation", marked by stable growth and controlled inflation. However, critics argue that this narrative masks structural weaknesses such as high food inflation, stagnant real wages, rising inequality, and fiscal stress. Critically examine. [250 Words] [15 Marks]

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NEW RULES FOR CONTAMINATED SITE MANAGEMENT, 2025

Why in News: The Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the **Environment Protection (Management of Contaminated Sites) Rules, 2025** under the Environment (Protection) Act, 1986. These rules establish India's **first dedicated legal framework** for the identification, remediation, and monitoring of contaminated sites that threaten human health and ecosystems.

Aim and Objectives

- **Aim:** To address soil, sediment, and water contamination arising from industrial discharges, hazardous waste disposal, and past environmental neglect.
- **Objectives:**
 - Prevent further environmental degradation.
 - Ensure the **"polluter pays principle"** by making polluters financially and legally accountable.
 - Introduce a structured process of **scientific investigation, risk assessment, and mandatory clean-up**.

Key Provisions of the Rules

1. Identification and Classification of Sites

- Sites will be categorized as **suspected, potentially contaminated, or confirmed** based on industrial activity, historical waste records, or community complaints.

2. Centralised Tracking Mechanism

- A **CPCB-led online portal** will maintain real-time data on contaminated sites, ensuring transparency and public access to information.

3. Public Participation

- State Pollution Control Boards must seek stakeholder comments within **60 days** of site listing.
- Final lists will be published in **regional newspapers** for wider awareness.

4. Responsibility and Accountability

- A **"responsible person" mechanism** assigns liability to individuals, companies, or entities causing contamination.
- Such parties must:
 - Bear the **entire remediation cost**.
 - Repay costs within **3 months** if the polluter is identified.

- Seek prior approval before changing land use or ownership during/after clean-up.

5. Orphan Sites

- Where no polluter can be identified, i.e., **orphan sites**, remediation will be funded through:
 - Environment Relief Fund.
 - Penalties from environmental violations.
 - Central and state budgetary allocations.

6. Voluntary Clean-Ups

- Private entities may undertake clean-up if they show **technical capacity, financial strength, and landowner consent**.

7. Monitoring Mechanisms

- **State- and Central-level committees**, comprising experts and regulators, will:
 - Supervise implementation.
 - Recommend additional measures.
 - Submit annual compliance reports to the Union Government.

8. Funding Pattern

- **Himalayan & North-Eastern states:** 90% Union Government + 10% State.
- **Other states:** 60% Union Government + 40% State.
- **Union Territories:** 100% funded by the Union Government.

9. Exemptions

- **The Rules do not apply to:**
 - Radioactive waste (regulated under the Atomic Energy Act).
 - Mining-related pollution.
 - Marine oil pollution.
 - Municipal solid waste dump sites (covered separately).
- **Significance**
 - Strengthens **environmental governance** by filling a major policy gap.
 - Implements the principle of **extended producer responsibility and polluter accountability**.
 - Enhances **public participation and transparency** through accessible data.

- Supports climate-resilient and sustainable development goals.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Discuss the significance of the Environment Protection (Management of Contaminated Sites) Rules, 2025 in strengthening India's environmental governance framework. [150 words] [10 Marks]

KRASHENINNIKOV VOLCANO

Why in News: Recently, the Krasheninnikov Volcano on Russia's Kamchatka Peninsula erupted for the first time in recorded history, its first in 600 years.

Key Details

- An **orange aviation alert** has been issued for the volcano because of the danger it poses to aeroplanes.
- The eruption might have been **caused by a strong 8.7-magnitude earthquake** that struck the area earlier this week and sent out frequent aftershocks, which also prompted tsunami warnings.
- There is no threat to any populated areas, as the **ash plume has moved eastward towards the Pacific Ocean**.
- **Strength of eruption:** The cloud of ash **soared six kilometres into the sky**, and 2.7 kilometres of lava split from the volcano's southwest side.

Krasheninnikov Volcano



- **Location:** The **eastern volcanic region of Russia**, which is part of the Ring of Fire, is home to the Krasheninnikov Volcano. Of the approximately 300 volcanoes in this region, **29 are still active**, according to NASA's Earth Observatory.
- **Last known eruption:** Around **1463**, Krasheninnikov last erupted.

- **Type:** At 1,886 metres, Krasheninnikov is a **stratovolcano**.
- **Characteristics:** The volcano is **inside a collapsed caldera** that was created 39,600 years ago by a massive eruption that produced 50 cubic kilometres of dacitic pumice. It is composed of a **9 km wide caldera** with two eruptive cones. A **crater 800 metres wide and 140 metres deep** is located near the southern cone of Krasheninnikov.

What is a stratovolcano?

- **Structure:** The towering, steep, cone-shaped volcanoes known as stratovolcanoes are distinguished by their **layered structure**. The "strata", or layers, are usually made up of a mixture of pyroclastic material (gases, rock fragments, and volcanic ash) and lava flows.
- **Eruption Characteristics:** Because of the buildup of viscous lavas like andesite and dacite, which trap gases and create high pressure, stratovolcanoes frequently have **explosive eruptions**.
- **Location:** They are frequently found at **subduction zones**, such as those along the Pacific Ring of Fire, when one tectonic plate is thrust beneath another.
- **Global Presence:** **About 60%** of all volcanoes on Earth are stratovolcanoes, which frequently include a tiny crater at the summit that may hold water or ice or a volcanic dome.

Krasheninnikov Volcano's impact

1. Tectonic Significance

- The **Pacific Ring of Fire** accounts for **~75% of active volcanoes** and **~90% of global earthquakes** (USGS data).
- Demonstrates the link between **subduction zones, earthquakes, and volcanic eruptions**.

2. Environmental & Climatic Impact

- Volcanic ash can impact **climate** by reducing solar radiation (temporary cooling).
- Large eruptions (e.g., Mount Pinatubo, 1991) have shown **global temperature dips** of ~0.5 C.

3. Socio-Economic Relevance

- Kamchatka region is sparsely populated, reducing human risk.
- **Aviation & trade disruption** remain global concerns.
- Lessons for **disaster preparedness, monitoring systems, and early warning mechanisms**.

Conclusion

The **Krasheninnikov Volcano eruption** highlights the **dynamic tectonic nature of the Pacific Ring of Fire** and underlines the need for **global cooperation in volcanic monitoring, aviation safety, and disaster preparedness**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The recent eruption of the Krasheninnikov Volcano in Russia's Kamchatka Peninsula highlights the tectonic volatility of the Pacific Ring of Fire. Examine the physical characteristics of stratovolcanoes and analyse their impact on environment, climate, and human activities. [250 words] [15 Marks]

EARTHQUAKE IN KAMCHATKA PENINSULA

Why in News: Widespread tsunami warnings were issued around the Pacific after a strong 8.8 magnitude earthquake recently occurred off the coast of Russia's Kamchatka Peninsula.

Key Details

- The earthquake was first recorded at 8.0 but was later upgraded to **8.8 magnitude**. Later on, it was followed by a 6.9 magnitude EQ.
- The Kamchatka earthquake was the most **powerful earthquake since the 2011, 9.1 magnitude earthquake** in Japan.
- This area is **situated along the "Ring of Fire"**, also referred to as the Circum-Pacific seismic belt.
- More than 80% of the biggest earthquakes in the globe are caused by the Ring of Fire.

What is an Earthquake?

- Earthquake:** An earthquake is a phenomenon that occurs without warning and involves **violent shaking of the ground** and everything over it. It results from the release of accumulated **stress of the moving lithospheric or crustal plates**.
- The earth's crust is divided into **seven major plates**, that are **about 50 miles thick**, which move slowly and continuously over the earth's interior and several minor plates.
- Earthquakes are **tectonic in origin**; that is the moving plates are responsible for the occurrence of violent shakes. The occurrence of an earthquake in a populated area may cause numerous casualties and injuries as well as extensive damage to property.

Understanding Earthquake Magnitude and Measurement

- Magnitude** measures the total energy released by an earthquake at its source, while **intensity** describes the effects and severity of shaking at a specific location on the Earth's surface.
- A **seismograph**, which measures the relative motion between the Earth's surface and a suspended mass to

ascertain seismic activity, is used to record earthquake movements.

What to Do After an Earthquake?

- Ensure Safety and Stay Informed:** Keep calm, listen to radio/TV instructions, and prepare for aftershocks.
- Prevent Fire and Gas Hazards:** Switch off electricity, gas, and water; avoid smoking, matches, or lighters; use a torch if needed.
- Respond to Emergencies:** Extinguish small fires, if possible, call fire services for larger ones, and assist injured persons without moving them unless absolutely necessary.
- Handle Dangerous Materials Carefully:** Clean up spilled inflammable products and avoid loose electric wires or metal objects in contact with them.
- Protect Health and Resources:** Drink only safe, filtered water; collect food, clean water, and essential medicines if relocation is required.
- Follow Safety Precautions Outdoors:** Stay away from beaches, riverbanks, damaged buildings, or unstable structures, and promptly inform rescue teams about trapped persons.

Kamchatka: A High-Risk Seismic Zone

- In the Far East of Russia, the Kamchatka Peninsula is one of the most seismically active areas on Earth.
- Numerous strong earthquakes, including those in **2020, 2006, 1959, 1952, and 1923**, have struck this region, many of which resulted in tsunamis.
- The Pacific Plate subducting beneath the **Okhotsk microplate** is the cause of the region's significant seismic activity.
- Stress is created at plate boundaries by the geological process of subduction, in which a **denser tectonic plate moves beneath a lighter one**.
- At depths of about 10 km, the **Kuril-Kamchatka Trench** is the result of this tectonic interaction.

Kamchatka and the Pacific Ring of Fire

- The Ring of Fire, a horseshoe-shaped ring of strong volcanic and seismic activity that **encircles the Pacific Plate**, includes the Kamchatka Peninsula.
- One of the most geologically active areas on Earth, this zone spans more than 40,000 km and **delineates the borders of several tectonic plates, including the Eurasian, North American, Indian, Australian, and others**.
- Because of ongoing tectonic changes, the **more than 15 nations** that make up the Ring of Fire—including the US, Chile, Indonesia, Japan, Russia, and the Philippines—**frequently experience earthquakes, volcanic eruptions, and tsunamis**.

The Most Powerful Quakes Are in the Ring of Fire

Most powerful earthquakes measured worldwide since 1900, according to the Moment Magnitude scale (Mw)



Source: United States Geological Survey (USGS)

Global Earthquake Zones and Their Impact

- Approximately **80% of significant earthquakes occur in the Circum-Pacific Belt**, often known as the Ring of Fire, making it the most seismically active region on Earth.
- The **Alpide Belt**, which stretches from Indonesia to the Himalayas to Turkey, is the second most active and accounts for **15–17% of earthquakes**.
- The **mid-Atlantic ridge**, the third major zone, is located deep beneath the surface and produces moderate, less powerful earthquakes.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about the Pacific Ring of Fire:

- It accounts for more than 80% of the world's largest earthquakes.
- It spans more than 40,000 km in length.
- It is associated only with earthquakes, not with volcanic activity.

Which of the above given statements are correct?

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

(a) Answer::

RHISOTOPE PROJECT

Why in News: The Rhisotope Project, a creative rhino anti-poaching programme employing radioactive isotopes (radioisotopes), was recently started by a South African university in partnership with the International Atomic Energy Agency (IAEA).

Key Details

- In the **Waterberg Biosphere Reserve**, five rhinos received injections of radioactive isotopes.
- The researchers claim that while the **horn is rendered "useless" and "poisonous" to humans**, the process has shown **no harm to the rhinos themselves**.
- Radiation portal monitors (RPMs)**, which are currently in place at borders, ports and airports across the world to detect unauthorised nuclear items, may **quickly detect rhino horns that have been tagged with tiny amounts of radioactive isotopes** which will eventually help custom officers to identify trafficked horns
- Radioactive identifiers deter poaching by making horns less lucrative in the illicit trade and harmful to smugglers.

How the isotope tagging works

- The IAEA defines radioactive isotopes, also known as radioisotopes, as **unstable forms of elements that emit radiation** in order to change into more stable forms.
- They can be created **artificially** in reactors or accelerators (e.g., Cobalt-60, Iodine-131) or **naturally** (e.g., Uranium-238, Carbon-14).
- The radiation may be tracked and usually alters the material it strikes.

Waterberg Biosphere Reserve

- The **South African** province of Limpopo's Bushveld section is home to the Waterberg Biosphere Reserve.
- It consists of scant soils with little economic activity, escarpments and low mountain ranges.

The Poaching Crisis

- Due in large part to widespread poaching motivated by the demand for rhino horns in Asian traditional medicine and as status symbols, the number of rhinos worldwide has drastically decreased **from 500,000 in the early 20th century to just 27,000 today**.
- With 103 poaching incidents recorded in early 2025 alone, South Africa, which has the greatest rhino population, has **lost almost 10,000 rhinos in the last ten years**.
- In contrast to dehorning, which, while helpful in reducing poaching, has a negative impact on rhino socialisation and territory ranges, the Rhisotope Project is not a perfect answer, but researchers think it could be a powerful deterrent without changing rhino behaviour.

PRELIMS SPECIAL

The Rhisotope Project

- **Launched:** 2021
- **Led by:** University of the Witwatersrand (Wits University), Johannesburg, South Africa
- **Objective:** To curb **rhino poaching** by making horns detectable and less valuable in the illegal market.



Core Mechanism

- **Method:** Safe insertion of **radioactive isotopes** into rhino horns (made of keratin, like human nails).
- **Safety:** Harmless to rhinos and humans.
- **Detection:** Horns become traceable through **radiation monitoring systems** at airports, ports, and borders.
- **Infrastructure:** Uses existing **global nuclear security network**.

Why Important?

- **South Africa:** Home to ~80% of world's rhino population
 - ~16,000 white rhinos
 - ~2,000 black rhinos
- **Poaching crisis:** Despite strict laws, **450+ rhinos killed in 2023** in South Africa.
- **Driver:** High demand in **East Asia** (traditional medicine, ornaments, luxury goods).

Significance

- **First-of-its-kind** project linking **nuclear science with wildlife conservation**.
- Supports **UN SDG 15 – Life on Land**.
- Potential to replicate for other trafficked species (e.g., elephants for ivory).
- Demonstrates **innovative conservation** beyond traditional methods like dehorning, armed patrols, and fencing.

Conclusion

The project's success might open the door for such tactics to save other threatened species, such as pangolins and elephants.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Recently, the Waterberg Biosphere Reserve was in the news, it is located in?

- | | |
|------------------|------------|
| (a) South Africa | (b) Brazil |
| (c) Ireland | (d) Italy |

Answer: (a)

RIGHT TO REPAIR

Why in News: Recently, India accepted a proposal for a Repairability Index and revised e-waste regulations with the goals of preserving informal repair knowledge, integrating repair into sustainability and digital policy frameworks, and making repair a consumer right.

Key Details

- The policy environment for digital and artificial intelligence (AI) in India is changing quickly.
- Initiatives that prioritise innovation, data-driven governance, and economic efficiency, such as the National Strategy on Artificial Intelligence (NSAI) and Digital Public Infrastructure (DPI), are gaining traction.
- However, in digital and policy contexts, the systems that subtly support daily life particularly the informal repair and maintenance economy remain essentially unseen.

Informal repair economy

- **Muscle memory, silent observation, and years of practical improvisation** account for a large portion of India's repair expertise.
- Instead of needing manuals to fix gadgets, they use sensory clues to identify problems, reuse parts, and come up with **innovative ways to work** within limitations.
- **Informal repairers are increasingly excluded from markets**, skill-building initiatives, and legislative attention as product designs become less repairable and consumer behaviours change towards disposability.
- This knowledge is usually transmitted by repetition, observation, and mentoring rather than through official training or certification in India's repair industry.
- Recently, the **European Union enacted regulations mandating that manufacturers make maintenance manuals and replacement parts accessible**.
- The Right to Repair framework was introduced by the Department of Consumer Affairs in India in 2022.
- Repair is encouraged as a component of **responsible consumerism** by the United Nations **Sustainable Development Goal 12**.

Government initiatives & drawbacks

- **E-Waste (Management) Rules of 2022:** The E-Waste (Management) Rules of 2022 established the **Extended Producer Responsibility (EPR) principle**, which holds producers accountable for the management of products after they are used. Though they promote recycling, these regulations **hardly mention repair as a preventative measure**.
- **Training:** **Short-term certificates** for formal industrial employment are the main emphasis of national skilling programmes like the **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**. **Repair labour**, which calls for

creativity, diagnostic ability, and improvisation, **does not readily fit into this paradigm.**

- **New Education Policy (NEP), 2020:** While acknowledging Indian knowledge traditions and experiential learning, the National Education Policy (NEP) 2020 provides **limited direction on how to encourage or transfer practical repair skills.**
- **Mission LiFE:** The Repair and reuse activities are encouraged by LiFE (LiFEStyle For Environment); however, in order to support the workers who enable these sustainable practices, supplementary efforts are required.

Other Challenges

- **Product design: Complex, non-repairable product designs and shifting consumer behaviour** have led to the marginalisation of informal repairers. The disposable culture and AI-driven systems are erasing their unwritten, implicit knowledge.
- **Lack of Institutional Recognition:** Informal repairers are still not covered by social security or the official labour force. Reuse and learning are limited by the difficulty of disassembling digital objects.

Way Forward

- **Designing for unmaking:** Repairability must be incorporated into procurement rules and design standards. Public policy must take into account how things are made, utilised, broken down, repaired, and repurposed in order to make technology truly sustainable.
- **Formal recognition:** Informal repairers can be legitimately recognised by platforms like e-Shram, which is run by the Ministry of Labour and Employment, and linked to social assistance and skill-building programmes.
- **Training programmes:** The tacit, diagnostic nature of repair work, which deviates from standardised industrial templates, should be taken into consideration by the Ministry of Skill Development and Entrepreneurship through training programmes.
- **Leveraging AI for Repair Equity:** Without sacrificing local context, use large language models (LLMs) to encode and convert implicit repair knowledge into structured training datasets. Create models that don't make decisions in order to facilitate real-time repair diagnostics.
- **Policy Alignment with Ground Reality:** Incorporate repairability standards into product design and procurement guidelines. Promote reuse and "designing for unmaking" right away.

Conclusion

Thus, Right to Repair empowers customers, maintains indigenous skills, and improves sustainability. Technology-driven growth that is inclusive, circular, and equitable is ensured by coordinating policy, product design, and training programs.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. Analyse how India's circular economy and sustainability could benefit from the Right to Repair framework. Provide suggestions on how to incorporate the informal repair economy into the frameworks of current policy. [250 Words] [15 Marks]

ELECTRICBLUEBIRD“GRANDALA”

Why in News: The Grandala, a bright electric-blue bird was spotted in Sainj Valley, Himachal Pradesh.

About Grandala

- The grandala (Grandala coelicolor) is a species of bird in the thrush family Turdidae.
- It is the only species placed in the genus Grandala.
- It is an arboreal insectivore.
- It ranges across the northeastern Indian Subcontinent and some adjoining regions, existing primarily in the low-to-mid altitudes of the Himalayas.
- It is found in Bhutan, India, Myanmar, and Nepal, as well as Tibet and other areas of China.
- Grandala is a social bird; they feed on insects, fruits, berries.
- Though grandala is a common bird in (Himachal Pradesh, Uttarakhand through Nepal, Sikkim, and east to Arunachal Pradesh), no scientific studies have been conducted.
- It lives in alpine and subalpine regions at 3,000 to 5,000 meters altitude.
- It is classified as '**Least Concern**' under the IUCN Red List.



NEW WOLF SPIDER SPECIES

Why in News: Zoological Survey of India (ZSI) researchers have announced the first discovery of the genus Piratula acuminata in India, a group of wolf spiders, on Sagar Island in the Sundarbans.

About Piratula Acuminata

- The newly identified species belongs to the family Lycosidae, commonly known as wolf spiders.
- Piratula acuminata is ground-dwelling and has a robust body.
- It generally prefers moist environments, **including:**



- Wet meadows
- Marshes
- Edges of freshwater bodies like ponds or streams
- It is small to medium-sized compared to other wolf spiders.
- The species name “acuminata” refers to something pointed or tapered, likely referencing body shape or a specific morphological feature.
- It has eight eyes arranged in typical Lycosid fashion—three rows with good forward vision.
- It is an active hunter, does not spin webs to catch prey.
- Solitary and fast-moving, often seen running along the ground.
- Females carry their egg sacs attached to their spinnerets and may also carry their spiderlings on their back after they hatch.
- Acts as a natural pest controller by preying on insects.
- Part of the food chain in moist terrestrial ecosystems, both as predator and prey.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. What is significant about the newly discovered wolf spider species *Piratula acuminata*?

- (a) It is the largest known spider in the world.
- (b) It was discovered in a desert habitat and is completely blind.
- (c) It is a new species of wolf spider identified by its distinct reproductive structures and habitat preferences.
- (d) It is known to spin large orb-shaped webs to catch flying insects.

(c) Answer

SUNFLOWER SEA STAR

Why in News: Bacterium “Densovirus”, culprit behind the death of more than 5 billion starfish.

About Sea Star or Starfish

- *Pycnopodia helianthoides*, commonly known as the sunflower sea star, is a large sea star found in the northeastern Pacific Ocean.
- The only species of its genus, it is among the largest sea stars in the world.
- Adult sunflower sea stars usually have 16 to 24 limbs. They vary in color.



- Sunflower sea stars are predatory and carnivorous, feeding mostly on sea urchins, clams, sea snails, and other small invertebrates.
- The sunflower sea star is classified as Critically Endangered on the IUCN Red List.
- Their color ranges from bright orange, yellow-red to brown, and sometimes purple, with soft, velvet-textured bodies and 5–24 arms with powerful suckers.
- Sunflower sea stars were once common in the northeast Pacific from Alaska to southern California, and were dominant in Puget Sound, British Columbia, northern California, and southern Alaska.

Densovirus and its role in the death of the sunflower sea star

- **Densovirus is a type of parvovirus:** It belongs to the Parvoviridae family and is known to infect invertebrates, including echinoderms like sea stars.
- **Linked to Sea Star Wasting Disease (SSWD):** The Sea Star-associated Densovirus (SSaDV) has been strongly associated with Sea Star Wasting Disease, a condition causing mass mortality in various sea star species.
- **Massive die-offs of sunflower sea stars:** The sunflower sea star (*Pycnopodia helianthoides*) experienced catastrophic population declines along the Pacific coast of North America starting around 2013, largely attributed to SSaDV.
- **Causes tissue decay and disintegration:** Infected Sea stars exhibit symptoms such as lesions, limb curling, body disintegration, and eventual death—hallmarks of SSWD.
- **Highly contagious in aquatic environments:** The virus spreads easily in seawater, making it difficult to contain, especially in dense sea star populations.
- **Temperature stress may worsen outbreaks:** Warmer Ocean temperatures, likely due to climate change, are believed to exacerbate the spread and severity of densovirus infections.
- **Threat to marine ecosystems:** The loss of sunflower sea stars, a major predator of sea urchins, has led to urchin population booms and the degradation of kelp forests, altering entire marine ecosystems.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which of the following statements about the Sunflower Sea Star (*Pycnopodia helianthoides*) is TRUE?

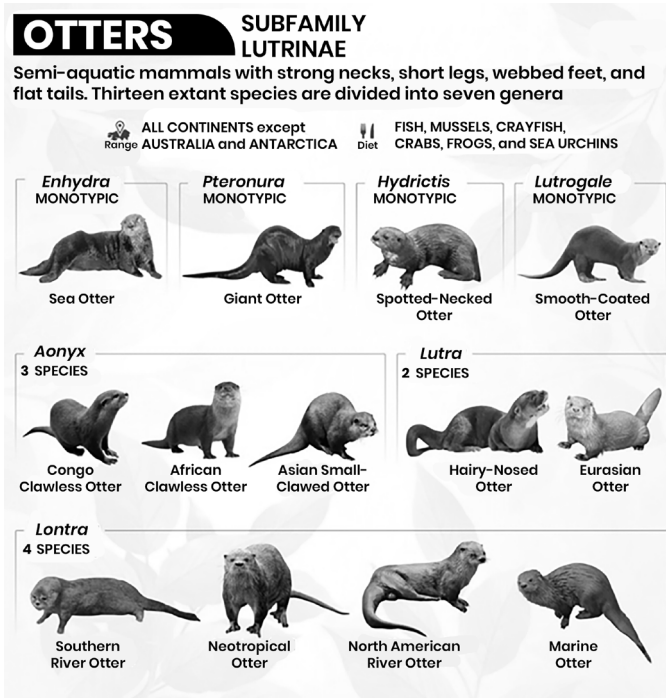
- (a) It is a freshwater species found in lakes across North America.
- (b) It is unaffected by Sea Star Wasting Disease.
- (c) It is one of the largest and fastest sea stars, playing a key role in controlling sea urchin populations.
- (d) It primarily feeds on plankton by filter feeding.

(c) Answer

OTTERS AND STAR TORTOISES

Why in News: Two smooth-coated otters and ten star-tortoises have been brought to the National Zoological Park (NZP) in Delhi from Surat, Gujarat.

About Otters



- Otters are semi-aquatic mammals belonging to the family Mustelidae.
- They are known for their playful behavior, intelligence, and strong swimming abilities.
- There are 13 species of otters worldwide, and in India, the most commonly found species are:
 - Smooth-coated otter (*Lutrogale perspicillata*)
 - Asian small-clawed otter (*Aonyx cinereus*)
 - Eurasian otter (*Lutra lutra*)
- **Habitat and Distribution:**
 - Otters are usually found near freshwater rivers, lakes, wetlands, and sometimes along coastal shorelines.
 - In India, they are found in the Western Ghats, the Himalayan foothills, and parts of Northeast India.
- **Conservation status:**
 - The smooth-coated otter is listed as Vulnerable on the IUCN Red List due to habitat loss, pollution, and illegal wildlife trade.
 - Otters are protected under Schedule I of the Indian Wildlife (Protection) Act, 1972.

About the Indian Star Tortoise

- **Scientific Name:** *Geochelone elegans*
- The Indian star tortoise is small to medium in size and is one of the most beautiful tortoise species.

- It has star-like radiating patterns on its domed shell.
- It is mainly found in India (especially in Gujarat, Tamil Nadu and Andhra Pradesh), Sri Lanka, and in parts of Pakistan.
- They inhabit dry areas, grasslands, and scrub forests.
- **Conservation Status:**
 - Listed as Vulnerable on the IUCN Red List.
 - Included under Appendix I of CITES, meaning international trade is prohibited.
 - Protected under Schedule IV of the Indian Wildlife (Protection) Act, 1972.
- **Threats:**
 - Illegal pet trade
 - Habitat destruction
 - Smuggling for religious or ornamental purposes
- **Role in Ecosystem:**
 - They help in seed dispersal and soil aeration, contributing to the health of their native dry habitats.

Significance of Transfer to the National Zoological Park

- It signifies ongoing efforts in:
 - Wildlife rescue and rehabilitation
 - Inter-state cooperation for conservation
 - Public education and awareness
 - Scientific research and species management
- This move may also help in breeding programs and in sensitizing visitors about lesser-known but ecologically vital species.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Which of the following statements correctly distinguishes between the otter and the Indian star tortoise in terms of habitat and conservation status?
- Otters are desert-dwelling reptiles, while Indian star tortoises are aquatic mammals; both are listed as Least Concern.
 - Otters are aquatic mammals found in freshwater habitats and are listed as Vulnerable, while Indian star tortoises are land-dwelling reptiles also classified as Vulnerable.
 - Both otters and Indian star tortoises are amphibians commonly found in rainforests and are listed under Schedule II of the Wildlife Protection Act, 1972.
 - Otters and Indian star tortoises are both marine species and are not threatened according to IUCN.

(b) Answer

INDRI LEMUR GUT BACTERIA

Why in News: For the first time, researchers have analyzed the intestinal microbiome of the indri lemur, a critically endangered species that hails from Madagascar.



Need for study of Microbiome

- This rigorous methodology not only helps catalog unique gut microbial species tied to Indri survival but also provides insight into:
 - How diet and social structure shape the microbiome,
 - Potential implications for nutritional health and dietary specialization,
 - The role of microbial inheritance in species resilience—crucial for conservation strategies.

Methodology

- Sample Collection:** Fecal (and soil) sampling in situ from multiple social groups
- Sample Preservation:** OMNIGene.GUT buffer, ethanol, overnight freezing, then -80 °C storage
- DNA Extraction:** QIAGEN kits (e.g., DNeasy PowerSoil)
- Sequencing Methods:** 16S rRNA amplicon (MiSeq) and shotgun metagenomics (HiSeq or equivalent)
- Bioinformatics Analyses:** OTU clustering (QIIME), genome assembly, taxonomic and functional profiling
- Ecological Analysis:** Diversity metrics, microbial transmission assessment, comparison of social vs environment effects

Key Findings

- The study found 48 different bacterial species in the indri microbiome.
- Of these, 47 were previously unidentified and specific to indris.
- Only *Escherichia coli* was recognized, mainly present in groups close to human settlements.
- This indicates that indris have their own exclusive microbial communities.
- If indris were to go extinct, it would also lead to the disappearance of these unique bacteria.

About Indri Lemur

- IUCN Status:** Critically Endangered
- Population:** <10,000 and declining
- Key Threats:** Habitat loss, fragmentation, illegal hunting
- Protections:** IUCN Red List status, CITES Appendix I, protected areas
- Conservation Actions:** Community rangers, habitat restoration, protected area expansion
- Appearance & Behavior:** Black-and-white coat; stays

upright while climbing or clinging in the canopy; Lives in small, monogamous family groups and exhibits complex vocal communication

- Habitat & Lifestyle:** Forest-dwelling folivores, primarily consuming leaves, fruits, seeds, and flowers; perhaps spend most of their lives in trees

Conclusion

The microbiome research on Indri lemurs offers valuable insights into species survival, ecological adaptation, and the role of microbial inheritance. As habitat loss and climate change threaten biodiversity, such studies can inform targeted conservation efforts, ensuring the protection of both endangered animals and their essential microbial partners.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. What type of sample is primarily used to study the gut bacteria of Indri lemurs?

- (a) Blood sample (b) Hair sample
(c) Fecal sample (d) Skin swab

(c) :Answer

SEABUCKTHORN AND HIMALAYAN BUCKWHEAT

Why in News: Seeds of seabuckthorn and Himalayan Buckwheat grown in the cold desert of Ladakh are part of the experiments on board the International Space Station flown by NASA's Crew-11 mission.

Objectives

- Space Agriculture Readiness:** Assess if these hardy crops can adapt to space environments and be cultivated in extraterrestrial settings like the Moon or Mars.
- Understanding Pre-Germination Changes:** Observe how gene expression and metabolism are altered in microgravity, even before the seeds begin to sprout.
- Crop Improvement for Earth:** Use findings to develop climate-resilient, nutrient-rich crops suited to extreme or degraded conditions on Earth (especially in arid, cold regions like Ladakh).
- Promote Indigenous Superfoods Globally:** Showcase Ladakh's unique crops like seabuckthorn and tartary buckwheat as models for sustainable, high-nutrition food sources.
- Encourage International Collaboration & Private Participation:** Foster space research through public-private collaboration, involving Indian start-ups like Protoplanet and global firms like Jaguar Space.

Return & Prospects

- The seeds spent roughly one week in microgravity before being returned to Earth with Crew-10, and are now destined for analysis by Indian researchers.

• **Expected insights include:**

- Identification of genetic or structural changes induced by space conditions.
- Insights into adaptations that could inform future space farming, as well as development of stress-tolerant crops on Earth.

Significance of the study

- **Science & Technology – Agriculture:** Demonstrates futuristic experiments in space agriculture and the quest for food security for long-duration missions.
- **International Collaboration & Start-up Ecosystem:** Highlights India's participation through the Bengaluru-based start-up Protoplanet, showcasing private-sector synergy in global space research.
- **Environment & Climate Resilience:** Emphasizes high-altitude crops with inherent resilience, aligning with terrestrial climate adaptation strategies.

Way Forward

The findings from this space-based seed experiment should be integrated into national research on climate-resilient agriculture. Collaboration between space agencies, Agriscientists, and startups can help develop stress-tolerant, high-nutrition crops for both Earth and future space missions. Scaling such studies will also promote India's role in astrobiology and space farming innovation.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What was the primary objective of sending Seabuckthorn and Himalayan buckwheat seeds from Ladakh to the International Space Station (ISS)?
- (a) To test their ability to grow in Martian soil.
 - (b) To study changes in genetic and metabolic behavior under microgravity before germination.
 - (c) To create genetically modified versions of the crops.
 - (d) To compare Indian and American seed varieties for export purposes.

(b) Answer

BIRD MORTALITY AT WIND FARMS

Why in News: Recently, a study by the Wildlife Institute of India (WII), has estimated rising bird mortality rates at wind farms in the Thar Desert.

Key Details

- The study, **published in Nature Scientific Reports**, was conducted across **3,000 sq. km of desert landscape** in Jaisalmer, Rajasthan, which hosts about 900 wind turbines and over 270 bird species.
- Within a 150-meter radius of 90 randomly chosen

turbines, researchers identified 124 bird carcasses over seven multi-season surveys.

- After taking into consideration difficulties in detecting carcasses, such as scavenging and terrain obstructions, the projected yearly bird mortality was an astounding **4,464 birds per 1,000 square kilometres**.
- In contrast, there were no bird deaths at control locations, which were 500–2,000 metres from turbines, indicating that turbines were the main cause.
- Interestingly, compared to earlier data from Kutch and Davangere, which showed 0.47 deaths per turbine annually, the study's mortality estimate of 1.24 bird deaths per turbine each month is far higher.
- The **Thar Desert** is a well-known wintering destination and a **component of the Central Asian Flyway, a significant bird migration route throughout Eurasia**.
- Since **raptors** are long-lived and **lay fewer eggs**, any **excess death may have an effect on the population as a whole**.

Way Forward

- **Painting wind turbines:** Painting one of the blades to improve visibility thus helping raptors to detect and manoeuvre
- **Customised turning off of wind farms:** Turning off turbines at specific hours of the day or season (migratory season) will help to reduce direct contact.
- **Location of wind farm:** Choosing a wind farm location wisely is the most important mitigation measure.
- **AVISTEP:** Birdlife International created the open-source Avian Sensitivity Tool for Energy Planning (AVISTEP) platform **to assist developers in locating and avoiding areas where birds may be impacted by renewable energy**. Developers can use it to determine whether areas are "low", "moderate", "high", or "very high" **sensitivity to bird species**.
- The entire country of India, including its offshore regions, has been categorised into "low", "moderate", "high" and "very high" avian sensitivity levels
- Although **AVISTEP** can be used as a guide, ground-level studies are essential prior to wind farm installation.

Species at Risk and Regional Vulnerability

- The Thar Desert is an ecologically important area since it is a vital part of the Central Asian Flyway, a significant bird migration path across Eurasia.
- Additionally, the region is a well-known wintering site, which increases the possibility of bird deaths brought on by wind power infrastructure.
- Because of the Raptor's high altitude and soaring flight patterns, they are particularly vulnerable to accidents with wind turbine blades.
- These mortalities can lead to population-level impacts, particularly for endangered species.

COMPREHENSIVE NATIONAL SPACE LAW

Why in News: The Indian space programs are experiencing rapid growth marked by significant missions; however, in addition to technological advancements, the country is also prioritizing the establishment of a strong legal framework for space operations or activities.

Space Law

The United Nations office for outer space affairs (UNOOSA) states that space law includes a variety of international agreements, treaties, conventions, and United Nations General Assembly resolutions, as well as rules and regulations developed by international organizations.

Key Elements of Space Law (as per UNOOSA):

- Use of outer space for peaceful purposes
- Non-appropriation of outer space and celestial bodies by any one nation
- Freedom of exploration and use of outer space by all countries
- State responsibility and liability for national space activities (governmental or non-governmental)
- Avoidance of harmful contamination of space and celestial bodies

Key highlights

- **Gap between Treaties and Law:** India has ratified key UN space treaties like the Outer Space Treaty, Liability Convention, and Registration Convention. Yet, these international obligations require domestic legislation to be enforceable.
- **Limitations of Existing Regulatory Framework:** Current policies—like the Indian Space Policy 2023, IN-SPACE Norms & Procedures (NPG), and the Catalogue of Standards—offer guidance but lack enforceable legal status. IN-SPACe, which plays a regulatory role, operates without statutory authority.
- **Regulatory Ambiguity and Fragmentation:** Multiple ministries—Department of Space (DoS), Defence, Telecom, Commerce—are involved in space approvals, leading to overlaps, delays, and investor confusion.

Need for regulation amid growing commercial participation:

- **Licensing & Regulatory Authority (who can launch, with what timeline, under which criteria):** IN-SPACe, the nodal body for private space activity approvals,

currently functions without legal backing, making its decisions open to judicial challenge.

- **Liability & Insurance (defining clauses and financial responsibility):** India is internationally liable for damage caused by its space objects—even if launched by private firms. Without legal norms, determining compensation and securing affordable insurance remains uncertain.
- **FDI Norms** (potentially allowing 100% automatic route in satellite segments)
- **Intellectual Property Rights (to protect innovation):** Unclear ownership rights and opaque FDI norms hinder innovation and discourage investment.
- **Space Debris Mitigation & Safety Protocols (technical and legal measures, cleanliness norms):** Issues like debris mitigation, end-of-life disposal, and space traffic management remain unregulated.

National Space Law would:

- Operationalize international commitments
- Build investor confidence and attract capital
- Enhance startup growth and curb brain drain
- Provide responsibility clarity in case of accidents or orbital incidents
- Support sustainable and secure development in line with global norms

Consequences of Legal Inadequacy

- **Investor Hesitancy:** Lack of legal certainty and insurance mechanisms deter both domestic and foreign investment, potentially leading startups to relocate.
- **Geopolitical Vulnerability:** Increasing space militarization, especially by other nations, underlines the need for legal clarity in India's strategic domain.
- **Compliance Risks:** A weak legal framework could lead to non-compliance with international obligations, exposing India to global legal repercussions.

Recommendations by experts & institutional analysts

- **Enact a National Space Activities Law:** A statutory act to enshrine licensing procedures, liability norms, insurance mandates, IP protections, and debris regulation.
- **Statutory Empowerment for IN-SPACe:** Grant independent legal authority to function as the single-window regulator with clear timelines and enforcement power.

- **Affordable Insurance Frameworks:** Establish reinsurance pools or government-backed schemes to lower the cost of insurance for private players.
- **Liberal FDI Norms:** Allow automatic routes for 100% FDI in satellite components, while maintaining strategic safeguards.
- **Strengthen IP & Innovation Ecosystem:** Ensure patent protections and collaborations between academia, industry, and government to prevent talent drift.
- **Enforce Debris & Safety Standards:** Integrate UN/IADC norms into national law for responsible space operations.

Indian Space Policy 2023

- **Private Sector Empowerment:** Opens the entire space ecosystem to private players for building satellites, rockets, ground stations, and offering commercial services.
- **Role Clarity:**
 - ISRO: Focus on R&D and advanced missions.
 - NSIL: Handles commercialization.
 - IN-SPACe: Acts as regulator and facilitator for private entities.
- **Regulatory Framework:** IN-SPACe will issue guidelines, authorize activities, and ensure compliance with international treaties.
- **Data Access:** Remote sensing data with resolution 5m is freely accessible; finer data is available with authorization.
- **Strategic Aim:** Seeks to increase India's share in the global space economy and promote Aatmanirbhar Bharat in space technology.

National Space Day

- India celebrates National Space Day on 23rd August every year to commemorate the successful landing of Chandrayaan-3's Vikram lander on the Moon's south pole in 2023 — a historic first for any country.
- India became the first country to land a spacecraft near the lunar south pole.
- It also made India the fourth nation (after the US, Russia, and China) to soft-land on the Moon.

Conclusion

India stands at a critical juncture in its space journey—matched by private enterprise, rising ambitions, and global competition. However, technology without legal structure is fragile. A comprehensive national space law is not just desirable but imperative to uphold India's treaty obligations, foster a vibrant space economy, and ensure safe, sustainable, and responsible participation in outer space.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. "India's space programme is advancing rapidly, yet its legal architecture lags behind. Critically examine the need for comprehensive national space legislation in the context of global treaties & industry growth." [250 words] [15 Marks]

LEAP-1 SATELLITE MISSION

Why in News: Dhruva Space's LEAP-1 satellite was successfully launched aboard a SpaceX Falcon 9 rocket, as part of an Indo-Australian-American collaborative mission.

Key Details

- The mission demonstrated advanced AI and hyperspectral Earth observation payloads.
- This mission marks a milestone for Dhruva Space, showcasing the capabilities of its P-30 satellite bus and transitioning the company from technology demonstrations to customer-driven deployments for hosting payloads in orbit.

Mission Details

- **Mission Name:** Launching Expeditions for Aspiring Payloads (LEAP-1) – 1.
- **Launch Vehicle:** SpaceX Falcon 9
- **Launch site:** Vandenberg Space Force Base, California, USA
- **Primary Payload:** Dhruva Space's P-30 satellite bus.
- **Hosted Payloads:**
 - **Nexus-01:** An advanced Artificial Intelligence (AI) module developed by Akula Tech, designed for real-time processing.
 - **Espresso:** A hyperspectral imaging payload developed by Esper Satellites for OTR-2, aimed at detailed Earth observation.
- **Integrated Services:** Dhruva Space also offered Ground Station-as-a-Service (GSaaS) and its Integrated Space Operations & Command Suite (ISOCs) for mission management and data downlinking.
- **Payload capacity:** Mass up to 15kg; Volume up to 12U; Power up to 50W
- **Satellite Bus:** P-30 – compact, modular, designed for Low Earth Orbit (LEO)

Mission Objectives

- To demonstrate In-Orbit Validation (IOV) and In-Orbit Demonstration (IOD) capabilities.
- To promote multi-payload hosting on small satellite platforms.
- To foster commercial and technological collaboration in space.

Significance of the collaboration

- **India:** Dhruva Space, a Hyderabad-based spacetech startup, is making strides in the global space industry. The LEAP-1 mission represents its first commercial endeavor, transitioning from technology demonstrations to customer-driven satellite deployments.
- **Australia:** The mission highlights Australia's growing presence in the space sector, with Akula Tech and Esper Satellites contributing advanced technologies.

- **United States:** The launch vehicle, SpaceX's Falcon 9, and the launch site at Vandenberg Space Force Base exemplify the U.S.'s pivotal role in facilitating international space missions.

Strategic Importance

- Demonstrates growing role of private startups in India's space ecosystem.
- Enhances technological capabilities in hyperspectral imaging and AI-based satellite payloads.
- Contributes to global space diplomacy and strategic partnerships among India, Australia, and the US.
- Shows reliance on commercial launch services like SpaceX's Falcon 9.

Way Forward

The LEAP-1 mission marks an important step for India's private space sector and international collaboration. The way forward involves deepening these collaborations, boosting innovation, and aligning space activities with national and global development priorities.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about the LEAP-1 satellite mission:

1. It is a collaborative space mission between India, Australia, and the United States.
2. The mission was launched aboard ISRO's PSLV rocket.
3. Dhruva Space provided the satellite bus platform for this mission.
4. The mission aims primarily at lunar exploration.

Which of the statements given above is/are correct?

- (a) 1 and 3 only (b) 2 and 4 only
(c) 1, 2 and 3 only (d) All of the above

(a) : Answer

AI-BASED PERSONALISED AGRICULTURAL ADVISORY SERVICES

Why in News: The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), in collaboration with the Indian Council of Agricultural Research (ICAR) and other partners, has initiated personalized and real-time climate advisory services, utilizing Artificial Intelligence (AI) and Machine Learning (ML).

Key Highlights

- The initiative aims to furnish farmers with prompt and practical guidance for essential decisions, including sowing, irrigation, and pest control.

- These recommendations will be communicated via accessible digital platforms, such as an AI-driven WhatsApp bot, guaranteeing straightforward access even in isolated agricultural areas.
- The initiative will initially be executed in Maharashtra, utilizing ICAR's Agro-Meteorological Field Units (AMFUs) to engage smallholder farmers.

About Project

- The initiative, known as **AI-powered Context-Specific Agromet Advisory Services for Climate-Resilient Agriculture** at Scale, receives backing from the Government of India's **Monsoon Mission III**.
- Its objective is to provide smallholder farmers with precise, localized weather and climate information, empowering them to make well-informed choices in the face of growing climate variability.
- The Central Research Institute for Dryland Agriculture (CRIDA-ICAR), the International Livestock Research Institute (ILRI), the Indian Institute of Tropical Meteorology (IITM), and Indian Meteorological Department (IMD) also joined the initiative.
- The Intelligent Systems Advisory Tool (iSAT), a digital platform created and tested by ICRISAT and its partners during Monsoon Mission II, was originally intended to convert complex climate and agronomic data into personalised, science-driven advisories. iSAT is currently undergoing enhancements to become a fully operational AI-powered tool as part of this new initiative.
- These are tech-driven platforms that use AI to:
 - Analyze data (soil health, weather, crop type, satellite imagery, market trends)
 - Provide tailored recommendations to individual farmers on:
 - ◆ Crop selection
 - ◆ Fertilizer use
 - ◆ Irrigation
 - ◆ Pest and disease management
 - ◆ Harvest timing and market prices

Importance for India

- Small and Marginal Farmers (~86% of Indian farmers):
 - Personalized support without needing expensive agronomists
 - Bridging the knowledge gap in remote areas
- Climate-Resilient Agriculture:
 - AI tools help in forecasting droughts, floods, and pest outbreaks
- Enhancing Productivity and Income:
 - Optimised input use → reduced cost + improved yield
- Supports Doubling Farmers' Income Goal:
 - Promotes informed decision-making and market connectivity

Some other Examples

Platform/ Organisation	Description
Kisan e-Mitra	AI chatbot offering multilingual farm advice
Microsoft & ICRISAT	AI sowing App for Andhra Pradesh farmers
IBM Watson Decision Platform for Agriculture	Used for crop planning & pest prediction
Cropln	AI-based farm monitoring & advisory
NITI Aayog + Google AI	Partnership for precision agriculture
Fasal	AI-IoT farm analytics for weather-based irrigation/ pest alerts

Challenges

- **Digital Divide:** Limited access to smartphones/internet in rural areas
- **Language & Literacy Barriers:** AI models may not support local dialects
- **Data Privacy & Ownership:** Concerns over misuse of farmers' data
- **Scalability:** Models need fine-tuning for agro-climatic zones
- **Trust Deficit:** Farmers may distrust technology-based advice initially

Suggestions & Way forward

- **Digital Infrastructure Development:** Expand rural internet and mobile access
- **Localization of AI Tools:** Support regional languages and farming contexts
- **Public-Private Partnerships:** Leverage tech companies' expertise with government scale
- **Farmer Training & Extension:** Build awareness and trust in AI systems
- **Open Data Policies:** Ensure fair access and privacy protection
- **Incentivize Startups:** Support Agri-tech innovation via funding and incubation

Conclusion

AI-based personalised agricultural advisory services hold immense potential to revolutionise Indian agriculture by empowering farmers with data-driven, timely, and localised decisions. With proper digital infrastructure, policy support, and farmer training, these technologies can ensure sustainable farming, enhance productivity, and contribute significantly to rural income and food security.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. Discuss the role of artificial intelligence in transforming Indian agriculture. What are the opportunities and challenges in implementing AI-based personalised advisory services for farmers? [150 Words] [10 Marks]

ELECTRIC VEHICLE OPPORTUNITY

Why in News: NITI Aayog unveiled a landmark report – “Unlocking a \$200 Billion Opportunity: Electric Vehicles in India”.

Key Details

- The report estimates that India's EV sector could generate **up to \$200 billion by 2035**, creating jobs, enhancing manufacturing, reducing oil dependence, and lowering emissions.
- **EV sales** have grown exponentially: from about **50,000 units in 2016** to **over 2 million in 2024**.
- Globally, EV adoption has risen 20-fold in a decade, and India's adoption level has moved from one-fifth of the global average in 2020 to two-fifths in 2024.
- The government has set the **EV30@30 target**—to achieve **30% of total vehicle sales as electric by 2030**.

PRELIMS SPECIAL

India Electric Mobility Index (IEMI)

The IEMI provides a benchmarking tool to assess state-level performance in EV adoption and readiness.

- **Indicators:** 16 indicators grouped under three themes:
 - *Transport Electrification Progress* (50% weightage)
 - *Charging Infrastructure Readiness* (30%)
 - *Research & Innovation Status* (20%)
- **Top Performers:** Delhi, Maharashtra, and Chandigarh emerged as frontrunners.
- **Performers:** Karnataka, Tamil Nadu, Haryana showed significant progress.
- **Aspirants:** States like Odisha, Rajasthan, Uttar Pradesh, Ladakh, and Andhra Pradesh need to accelerate their policies.
- Importantly, **29 states/UTs now have EV-specific policies**, reflecting widespread commitment.

Challenges in EV Adoption

1. **High upfront costs** of EVs compared to internal combustion engine (ICE) vehicles.
2. **Charging infrastructure gaps**, particularly in tier-2 and tier-3 cities.
3. **Battery supply chain and localization issues**, with heavy reliance on imports.

4. **Financing barriers**, especially for electric buses and trucks.
5. **Technology & R&D gaps**, where India lags behind global leaders.

Way Forward

For India to fully realize the \$200 billion EV opportunity, a strategic and multi-dimensional approach is essential:

- **Shift from Incentives to Mandates:** Move beyond subsidies and adopt regulatory measures such as EV purchase mandates, stricter emission norms, and disincentives for ICE vehicles.
- **Innovative Financing Models:** Encourage **battery leasing, pay-per-use models, and dedicated EV financing lines** for buses, trucks, and fleets.
- **Strengthen Charging Ecosystem:** Establish city-level EV hubs and ensure nationwide charging coverage with both fast and slow chargers.
- **Boost Domestic Manufacturing:** Invest in local production of batteries, motors, and components to reduce import dependence and generate jobs.
- **R&D and Innovation:** Promote indigenous technology development in areas like solid-state batteries, recycling, and smart charging solutions.
- **Public Transport Electrification:** Prioritize e-buses and e-rickshaws to maximize impact on emissions and urban mobility.
- **State-Centric Implementation:** Use IEMI rankings to encourage healthy competition among states, offering incentives for frontrunners and support for laggards.

Conclusion

- The unveiling of the NITI Aayog report and the India Electric Mobility Index marks a milestone in India's green mobility journey. The EV transition is no longer just about climate action. It is an economic opportunity, a jobs generator, and a path to energy security.
- With a mix of strong policy mandates, financing innovation, infrastructure expansion, and technological leadership, India can position itself as a global leader in sustainable mobility.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. With reference to NITI Aayog's report "Unlocking a \$200 Billion Opportunity: Electric Vehicles in India" and the India Electric Mobility Index (IEMI), consider the following statements:
1. The report estimates that India's EV sector could unlock an economic opportunity of \$200 billion by 2035.
 2. The India Electric Mobility Index evaluates states on indicators such as transport electrification, charging infrastructure, and research & innovation.

3. As per the IEMI, Odisha, Rajasthan, and Uttar Pradesh have been ranked among the top three frontrunners in EV adoption.

4. India aims for 30% of all vehicle sales to be electric by 2030 under its EV30@30 vision.

Which of the above statements are correct?

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

(a) Answer

BIO STIMULANT

Why in News: The Agriculture Ministry has recently notified "Specifications of Biostimulants" for several crops, including tomato, chilli, paddy and onion.

What are biostimulants?

- It is defined as "a substance or microorganism or a combination of both whose primary function when applied to plants, seeds or rhizosphere is to **stimulate physiological processes in plants** and to enhance its nutrient uptake, growth, yield, nutrition efficiency, crop quality and tolerance to stress... but does not include pesticides or plant growth regulators which are regulated under the Insecticide Act, 1968"
- They are occasionally made using seaweed extracts and waste products from plants.

How big is India's biostimulant market?

- The size of the Indian biostimulants market was estimated at **USD 355.53 million in 2024** by market research firm Fortune Business Insights.
- The market is anticipated to expand at a compound annual growth rate (**CAGR**) of **15.64%** from USD 410.78 million in 2025 to USD 1,135.96 million by 2032.

Fertilizer Control Order, 1985 (FCO) on biostimulants

- **Classification:** The FCO divided the biostimulants listed in Schedule VI into **eight groups**, which included vitamins, antioxidants, biochemicals, plant extracts, and seaweed extracts.
- **Pesticide content:** According to the FCO, no biostimulant may include more pesticide than the **0.01 ppm allowable maximum**.
- **Trials:** "Bio-efficacy trials shall be conducted at **three Agro-ecological locations** at a minimum of three different doses for one season."
- **The Central Biostimulant Committee:** It will advise the Centre on (i) adding a new biostimulant; (ii) defining the specifications of different biostimulants; (iii) sample collection and analysis techniques; (iv) minimum laboratory requirements; (v) biostimulant testing techniques; and (vi) any other issue that the central government refers to it.

Concerns Regarding Biostimulants

- **Forced Tagging:** Many fertilizer vendors are “Forced Tagging” bio-stimulants with regular fertilizers.
- **Inadequate benefits:** Farmers have complained about the **ineffectiveness of biostimulants** and the **forced purchase** of subsidised fertilisers such as urea and diammonium phosphate (DAP).
- **Regulation:** Prior to recent regulatory checks, there were about 30,000 unregulated biostimulant products on the market which were marketed without government approval.

Way Forward

- **Strengthen Regulatory Oversight:** Ensure strict enforcement of the Fertilizer Control Order (FCO, 1985) provisions by cracking down on spurious and unregulated products, ensuring only quality-verified biostimulants are sold.
- **Promote Scientific Validation:** Make bio-efficacy trials more rigorous and transparent, with results published in the public domain.
- **Farmer-Centric Approach:** Ensure voluntary adoption by farmers, avoiding “forced tagging” of biostimulants with subsidised fertilizers and instead provide demonstration projects and field schools to showcase benefits on crop yield, soil health, and stress tolerance.
- **Market Development with Safeguards:** Support domestic R&D and startups in biostimulant innovation, particularly using indigenous resources like seaweed, crop residues, and microbial solutions.
- **Economic & Policy Measures:** Provide targeted subsidies or tax incentives for verified biostimulants to make them affordable and introduce price regulation frameworks to prevent exploitation of farmers.

Conclusion

Biostimulants, if backed by strict regulation, scientific validation, and farmer awareness, can reduce chemical dependence and enhance sustainable crop productivity. Their success lies in integrating innovation with farmer trust and policy support.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Biostimulants in India:

1. Biostimulants are regulated under the Insecticides Act, 1968.
2. The Fertilizer Control Order (1985) classifies biostimulants into groups such as vitamins, antioxidants, plant extracts, and seaweed extracts.

3. As per FCO, no biostimulant may include more than 0.01 ppm pesticide content.

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: (b) 2 and 3 only

NISAR

Why in News: Recently, the **NASA-ISRO Synthetic Aperture Radar (NISAR)**, the first joint satellite of the Indian and U.S. space agencies, was launched by ISRO with the help of the Geosynchronous Satellite Launch Vehicle (GSLV) from the Satish Dhawan Space Centre in Sriharikota.

Key features of the NISAR Satellite Mission

- It is a global microwave imaging mission operating in the **L and S bands** that may gather fully **polarimetric and interferometric data**.
- **S-band radar system:** S-band frequencies are in the 2 to 4 GHz range and are used for **radar, weather forecasting, and some communication satellites**.
- **L-band radar system:** L-band frequencies range from 1 to 2 GHz and are used for **satellite navigation (GPS), mobile satellite phones, and satellite radio**.
- Additionally, **NASA supplies the orbit manoeuvre plan and RADAR operations plan**, while **ISRO handles satellite commands and operations**.
- The ground station support provided by NASA and ISRO will assist the NISAR mission by enabling the download of the acquired images, which will then be distributed to the user community after undergoing the necessary processing.
- **Mainframe Bus:** I3K Structure, 3-axis stabilised spacecraft.
- **Resolution:** 5-100 m with a visible swath of about 240 km
- **Orbit:** Polar, sun-synchronous
- **Launcher vehicle:** GSLV Mk-II
- **Orbit altitude:** 747 km
- **Mission life:** 5 years
- The data gathered using S-band and L-band SAR from a single platform will help scientists better understand the changes taking place on Earth.

Watching from above

NISAR, which has a mission life of five years, will observe Earth with a swathe of 242 km and high spatial resolution



Key applications include: Shoreline monitoring, storm characterisation, mapping of surface water resources, and disaster response

- 1** It is the major earth-observing satellite with radars of two frequencies
- 2** The radars will allow NISAR to monitor both surface and subsurface changes through clouds, smoke, vegetation
- Its scan-on-receive method will give a spatial resolution of **3-10** metres and centimetre-scale vertical mapping



Giant leap: ISRO's GSLV-F16 carrying the NISAR satellite lifts off from Sriharikota on Wednesday. AP

Key applications feature of the NISAR Satellite Mission

- Every twelve days, NISAR will take **pictures of the world's land and ice-covered surfaces, including islands, sea ice, and a few oceans.**
- The main goals of the NISAR mission are to **investigate land and ice deformation, land ecosystems, and oceanic regions in fields** that are of shared interest to the scientific communities of the United States and India.
- The NISAR mission will also help **measure woody biomass and its fluctuations.**
- Track changes in the extent of active crops and recognise the shifts in the size of the wetlands map.
- The ice sheets of Greenland and Antarctica, the dynamics of sea ice, and mountain glaciers are examples of the land surface deformation brought on by seismicity, volcanism, landslides, and subsidence and uplift connected to changes in subsurface aquifers, hydrocarbon reservoirs, etc.

Conclusion

NISAR is a prime example of the scientific collaboration and space diplomacy between the United States and India. It will be essential for mapping natural resources, managing disasters, and monitoring climate change since it offers high-resolution, all-weather, day-and-night imaging.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQs

Q. With reference to the NASA-ISRO Synthetic Aperture Radar (NISAR) satellite, consider the following statements:

1. It is the first dual-band radar imaging satellite (L & S bands) developed jointly by NASA and ISRO.

2. NISAR is launched into a geostationary orbit to provide real-time communication.
3. The mission aims to study land deformation, biomass, polar ice dynamics, and ocean surface changes.

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

(c) Answer

DEMENTIA

Why in News: Recently, the study published by Lancet Planetary Health found that long-term exposure to air pollution is linked to an increased risk of developing dementia.

Key Details

- 'Dementia' is a term for several diseases that **affect memory, thinking, and the ability to perform daily activities.** The illness gets worse over time and mainly affects older people.
- Scientists have put out a number of theories over the years to explain how dementia can be brought on by air pollution.
- The start and course of dementia are known to be **influenced by oxidative stress and inflammation**, both of which are believed to be triggered by air pollution either directly entering the brain or through the same pathways that underlie lung and cardiovascular disorders.
- According to WHO data, **99% of people worldwide breathe air that has high levels of pollutants and exceeds WHO guideline limits;** exposures are higher in low- and middle-income nations.

Dementia and three prevalent air contaminants

- **PM2.5:** Particulate Matter (PM2.5) is mostly produced by **thermal power plants and automobile emissions.** The study discovered that an individual's relative risk of dementia would rise by 17% from the baseline for every 10 microgrammes per cubic meter ($\mu\text{g}/\text{m}^3$) of long-term exposure to PM2.5.
- **NO₂:** The main source of nitrogen dioxide is the **burning of fossil fuels in automobiles, thermal power plants, and other industrial operations.** The study discovered that the relative risk of dementia rose by 3% for every 10 $\mu\text{g}/\text{m}^3$ of prolonged exposure to nitrogen dioxide.
- **Soot:** Black carbon or soot PM2.5 is produced by **burning wood** and automobile exhaust pollutants, among other sources. According to the study, the risk of dementia

increased by 13% for every 1 $\mu\text{g}/\text{m}^3$ of prolonged soot exposure.

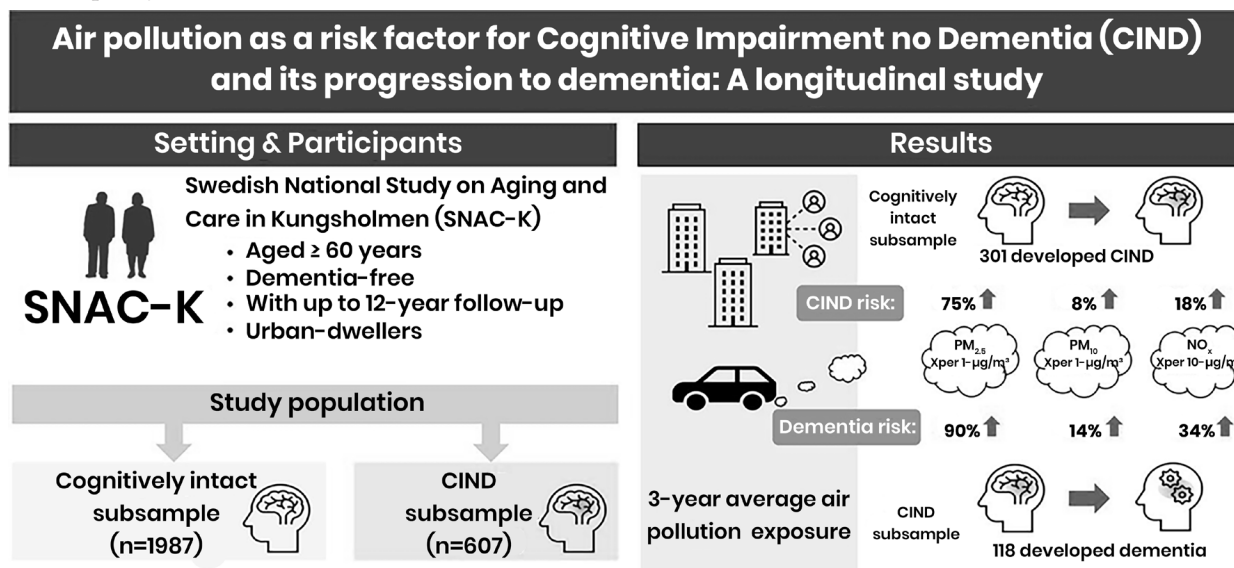
Signs and symptoms

- Memory loss, cognitive difficulties, visual perception, self-control, linguistic or problem-solving difficulties, and the capacity for concentration and focus.

- Alterations in personality, such as mood swings, anxiety, paranoia, and despair.

Therapy

- Although several novel treatments are being researched at various stages of clinical trials, **there is presently no cure for dementia.**



Conclusion

Long-term exposure to ambient air pollutants was associated to increased risk of CIND. Air pollution also was a risk factor for the progression from CIND to dementia.

Global scenario

- One of the main causes of disability and dependency among older people globally, dementia is currently the **seventh most common cause of death among all disorders.**
- Dementia affects nearly 55 million individuals, including 5.4% of men and 8.1% of women over 65.
- By 2030, this figure is predicted to increase to 78 million, and by 2050, it will reach 139 million.

Indian initiatives

- The Indian Society for Alzheimer's and Related Disorders:** It focuses on utilization of funds from health ministry and oversee the implementation of government's dementia plan or policy in every state
- National Health Mission:** It aims to provide everyone with equitable, reasonably priced, and high-quality health care services that are responsive to their needs and accountable.

malformations; Epidermal nevi and Spinal/skeletal anomalies/Scoliosis', is a very rare genetic disorder.

- Cancers of the breast, lung, ovary, stomach, brain, colon, and rectum are among the many cancer types that have been linked to mutations in the PIK3CA gene.
- PIK3CA-related overgrowth spectrum**, or PROS, is a broader set of illnesses that includes CLOVES Syndrome, an overgrowth disorder.
- It is **not inherited** and **cannot be transmitted.**

Symptoms of cloves

- Fatty, soft lumps on their trunk or torso (typically on the tummy, flank, or back).
- Malformations of the vascular (blood vessel) system, usually a lymphatic malformation, swollen veins, or a combination of these.
- Abnormalities of the limbs (usually, huge or additional fingers or toes and wide feet or toes)
- Spinal issues (tethered spinal cord or scoliosis in several cases).
- Skin anomalies (usually elevated, wart-like pimples known as epidermal nevi).
- Symptoms that are less frequent include issues with the hip or knee joints and unusual tiny or irregularly sized kidneys.

Diagnosis

- Examination of a detailed medical and family history
- Performing a thorough physical exam

CLOVES SYNDROME

Why in News: Researchers believe that CLOVES disease is caused by mutations in the PIK3CA gene.

Key Details

- CLOVES Syndrome**, in which the letters stand for: **C**ongenital; **L**ipomatous; **O**vergrowth; **V**ascular

- Order imaging studies such as magnetic resonance imaging (MRI), computed tomography (CT) scans, ultrasound, and X-rays

How is CLOVES syndrome treated?

- **Sclerotherapy:** This non-surgical technique can lessen the size and potential discomfort of the vascular abnormalities linked to CLOVES.
- **Embolisation:** Arteriovenous malformations and other vascular abnormalities linked to CLOVES syndrome can be made smaller using this minimally invasive technique.
- **Debulking surgery:** To remove some of the enlarged tissue and blood arteries brought on by CLOVES syndrome, some kids require debulking surgery. Debulking is a significant, invasive procedure, but for kids with severely enlarged veins or limb anomalies that limit their mobility, it can change their lives.
- **IVC filter:** In children with CLOVES, a device known as an inferior vena cava (IVC) filter can help avoid pulmonary embolisms, which are potentially fatal clots that can form and pass through the bloodstream and enter the lungs.

Conclusion

An uncommon, non-inherited condition called CLOVES Syndrome is brought on by PIK3CA mutations. Despite the complexity, prompt diagnosis and a mix of medication, surgery, and minimally invasive procedures can greatly enhance patients' quality of life.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. CLOVES Syndrome is caused by which gene mutation?

- (a) FGFR2 (b) BRCA1
(c) PIK3CA (d) The TP53

Answer: (c)

BIO FERTILIZED POTATOES

Why in News: Peru-based International Potato center will soon introduce Bio Fertilized Potatoes, with added iron content in India.

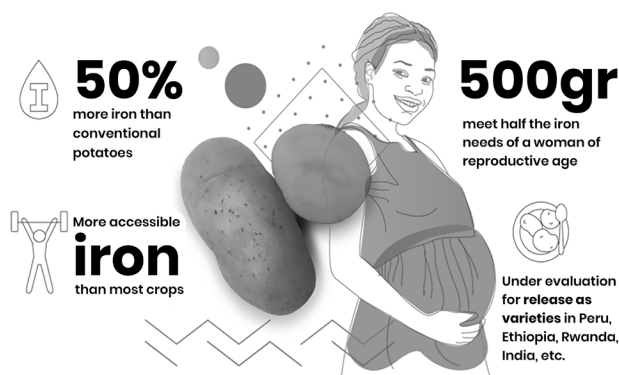
Key Details

- Iron-fortified potato varieties are currently the focus, and the **ICAR-Central Potato Research Institute (CPRI), Shimla**, has been given access to the germplasm for the purpose of multiplying the seeds and distributing them to farmers.
- This potato variety has already been made **available in Peru** and is presently being assessed and modified for the agroclimatic conditions of India.

- In recognition of the Indo-Gangetic plains as the world's greatest potato-producing region, **CIP is creating a South Asia regional centre in Agra, Uttar Pradesh**. This centre will improve seed access and regional R&D.

Bio-fortified Potatoes

- Compared to ordinary potatoes, bio-fortified potatoes are specially developed potatoes that have **increased concentrations of micronutrients (iron, zinc, and vitamin C)**.
- A new type of potato called bio-fortified potatoes has been developed with a higher iron content to combat hidden hunger and iron deficiency.
- These are created without compromising yield or flavour by the use of biotechnology and traditional breeding.
- The International Potato Centre (CIP) is in charge of the project and is situated in The CIP, a world leader in tuber crop research, which is actively promoting nutritionally enhanced potatoes in India.



Biofortification

- The method of **boosting food crops' nutrient density** while maintaining consumer-preferred qualities using traditional breeding, agronomic techniques, or contemporary biotechnology is known as biofortification.
- It contributes to the **elevation of vitamin and mineral content in staple crops**.
- **Iron-enriched crops:** Rice, beans, sweet potatoes, cassava, and legumes.
- **Zinc-enriched crops:** Includes maize, sweet potatoes, rice, beans, and wheat.
- **Provitamin A crops:** Include cassava, sweet potatoes, and maize.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. The Central Potato Research Institute (CPRI), which frequently makes headlines, is located in:

- (a) Kanpur (b) Shimla
(c) Dharwad (d) Jalandhar

Answer: (b)

ECTOPIC PREGNANCY

Why in News: Recently, the rare case of ectopic pregnancy where the fetus was growing in the liver was detected in Uttar Pradesh.

Key Details

- An ectopic pregnancy happens when the **fertilised egg implants outside of the uterus**, usually in the fallopian tube, rather than inside.
- On rare occasions, the fertilised egg may adhere to the cervix, abdominal cavity, or ovary.
- Pregnancies like these cannot develop normally because only the uterus is designed to carry a developing embryo.

Risk factors for ectopic pregnancy.

- **Age:** The risk of an ectopic pregnancy is highest for women between the ages of 35 and 44.
- **Abnormalities of the Fallopian tubes:** Any alteration to the Fallopian tubes' typical structure may increase the likelihood of an ectopic pregnancy elsewhere or a tubal pregnancy.
- **Past gynaecological surgeries:** Prior Fallopian tube surgeries, such as reconstructive or tubal sterilisation, might cause scarring, alter the tubes' natural structure, and raise the chance of an ectopic pregnancy.
- **Infections:** Another risk factor for ectopic pregnancy is pelvic infection, often known as pelvic inflammatory disease. Sexually transmitted organisms like Chlamydia or N. gonorrhoeae, are typically responsible for pelvic infections.
- **Gynaecological disorders:** Similar to pelvic infections, endometriosis, fibroid tumours, or pelvic scar tissue (pelvic adhesions) can cause the Fallopian tubes to constrict and interfere with the movement of eggs, which raises the risk of an ectopic pregnancy.
- **Cigarette smoking:** An increased risk of an ectopic pregnancy has also been linked to cigarette smoking around the time of conception. This risk was found to be dose-dependent, meaning that it depends on the habits of the individual woman and rises as she smokes more cigarettes.

Impact of ectopic pregnancy

- **Some women** have no visible side effects and spontaneously **absorb the fetus from the ectopic pregnancy**. In these cases, the woman is observable without medical intervention.
- **Bleeding:** Rupture, the most dreaded consequence of an ectopic pregnancy, can result in internal bleeding, abdominal and pelvic agony, shock, and even death. As a result, bleeding in an ectopic pregnancy can necessitate surgery right away.
- **Future pregnancies:** The creation of scar tissue from the pelvic blood may make it more difficult to conceive in the

future. Additionally, the scar tissue may raise the chance of ectopic pregnancies in the future.

How is an ectopic pregnancy managed and treated?

- While some ectopic pregnancies will end on their own without any help, others will require immediate surgery because of the potentially fatal bleeding.
- **Methotrexate:** The anti-cancer medication methotrexate (Rheumatrex, Trexall) is used in the medical treatment approach. This medication causes the ectopic pregnancy to miscarry by destroying the placenta's developing cells.
- **Laparoscopic (keyhole) surgery:** Laparoscopic surgery is the gold standard for ectopic pregnancy. Depending on the case, doctors either remove the pregnancy tissue while keeping the fallopian tube or remove the fallopian tube.

Conclusion

Ectopic pregnancy, though uncommon, poses serious risks of rupture and maternal death if undetected. Timely diagnosis, preventive care, and laparoscopic management are vital for saving lives and preserving fertility.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Ectopic Pregnancy:

1. It occurs when the fertilised egg implants outside the uterus, most commonly in the fallopian tubes.
2. Methotrexate is sometimes used in its treatment as it halts the growth of pregnancy tissue.
3. Laparoscopic surgery is considered the gold standard for managing ectopic pregnancy.
4. A fetus in ectopic pregnancy can normally develop if it implants in the abdominal cavity.

Which of the above statements is/are correct?

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

(b) :Answer

TRACER- TWIN SATELLITES

Why in News: Recently, NASA's TRACERS (Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites) mission was deployed into orbit after launching on a SpaceX Falcon 9 rocket at Space Launch Complex in California.

Key Details

- The TRACERS mission will **study magnetic reconnection** and its **effects in Earth's atmosphere**.
- In order to investigate magnetic reconnection and its impacts on Earth's atmosphere, it will **fly in low Earth orbit** over the polar cusps, which are funnel-shaped holes in the magnetic field.
- The purpose of this twin satellite system is to investigate how the Earth's magnetic shield, or magnetosphere, interacts with the continuous passage of solar wind and charged particles from the Sun.
- To assist scientists in tracking how quickly reconnection changes and evolves, the TRACERS satellites will **record magnetic reconnection 3,000 times annually**.
- By doing so, scientists hope to better understand and prepare for the effects of solar activity, such as disruptions to Earth's electrical grids, GPS systems, and communications satellites.
- To learn more about how the Sun impacts the Earth's magnetosphere and atmosphere, scientists will integrate data from TRACERS with information from other recently launched NASA missions to study the Sun.

What is Magnetic Reconnection?

- Earth's magnetic field can undergo magnetic reconnection when the **solar wind strikes it**, releasing a significant amount of energy in the process leading to **violent launch of surrounding particles at great speeds**.
- In addition to producing stunning light displays like **auroras**, these reconnection events can **interfere with GPS systems, satellites, and astronauts**.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. The recently launched TRACERS mission is a project of which space agency?

- | | |
|----------|----------|
| (a) ISRO | (b) JAXA |
| (c) NASA | (d) ESA |

Answer: (c)



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DEFENCE & SECURITY

DEFENCE PRODUCTION IN INDIA

Why in News: The annual defence output in the Financial Year (FY) 2024–2025 reached a record high of Rs 1,50,590 crore. The achievement marks a strong 18% increase over the Rs 1.27 lakh crore output from the previous fiscal year.

Key Details

- The **private sector** supplied **23%** of overall production, with the remaining **77%** coming from **Defence Public Sector Undertakings (DPSUs)** and other PSUs.
- The private sector's expanding participation in the nation's defence ecosystem is reflected in its share, which rose from 21% in FY 2023–2024 to 23% in FY 2024–2025.
- Due to **extensive regulatory reforms**, improved **ease of doing business**, and a **deliberate emphasis on indigenisation** over the past 10 years, the industry's public and private sectors have shown steady year-on-year development.

Significance of Defence Indigenisation

- **Strategic Autonomy:** By lowering reliance on foreign weapons, India is better equipped to act quickly in times of need without being held captive by outside vendors or changes in the geopolitical landscape.
- **Modernisation:** In a hazardous neighbourhood, modernisation also keeps the military technologically advanced and combat-ready.
- **Economic Growth and Industrial Capability:** By fostering a strong industrial base and supporting regional manufacturers, MSMEs, and start-ups, defence indigenisation stimulates economic growth. It **creates jobs, develops skills, and encourages innovation** in a variety of industries, all of which have significant multiplier impacts.
- **Export Potential:** India's defence exports are becoming a vital component of its strategic influence, enhancing bilateral defence cooperation and soft power.
- **Technological Innovation:** By promoting a domestic defence R&D ecosystem, indigenisation helps India transition from a passive consumer to a manufacturer of cutting-edge technology.

Challenges in Defence Production

- **Defence Budget:** India is the fourth-largest military spender in the world, with a defence budget of ₹5.94 lakh crore for FY 2023–2024. However, the budget is below 2% of GDP, which raises concerns.

- **Lack of Infrastructure and Capacity:** The domestic defence sector still lacks adequate infrastructure and capacity, even with the encouraging developments in defence indigenisation.
- **Limited Private Sector Participation:** Despite efforts to engage the private sector, Defence Public Sector Undertakings (DPSUs) continue to control a sizable amount of defence output.
- **Technological Deficits:** India is still dependent on foreign suppliers for vital subsystems due to severe deficiencies in the development of core technologies like engines, semiconductors, and precision electronics.
- **Complicated procurement processes:** Modernisation initiatives are frequently derailed or delayed by onerous acquisition procedures, several approval levels, and a lack of time-bound decision-making.

Way Forward

- **Boost Private Sector Contribution:** Make sure that private defence enterprises account for at least 50% of all defence output.
- **Defence Modernisation Fund:** As suggested in the budget for 2023–2024, the creation of a non-lapsable Defence Modernisation Fund would aid in closing the gap between anticipated needs and available funds.
- **Strengthen Defence R&D:** By providing incentives for collaborative research amongst DRDO, commercial companies, academic institutions, and start-ups, India may significantly increase investment in defence R&D.
- **Quicken Reforms in Defence Acquisition:** Under the Defence Acquisition Procedure (DAP), procurement times must be significantly shortened by using digital monitoring tools and integrated project teams.

Conclusion

In conclusion, India's record defence output in FY 2024–2025 shows a clear move in defence towards Atmanirbharta, or self-reliance. India may become a worldwide centre for defence manufacture and achieve strategic autonomy with the support of longer-term reforms, improved R&D, and quicker acquisition procedures.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Technological dependence and procurement bottlenecks still exist, despite India's increasing defence production as a step towards strategic autonomy. Critically examine. [250 Words] [15 Marks]

PRALAY MISSILE

Why in News: Recently, the Defence Research & Development Organisation (DRDO) conducted two consecutive successful flight tests of the Pralay missile from Dr APJ Abdul Kalam Island off the coast of Odisha.

Key Details

- **Indigenous Technology:** Pralay is a **solid propellant quasi-ballistic missile** that was developed domestically. It uses **cutting-edge guidance and navigation** to guarantee extreme precision.
- **Collaboration:** Research Centre Imarat (Hyderabad) of DRDO, working together with other DRDO labs and industry partners (BDL, BEL, etc.), the developed it.
- **Range:** The missile has a range of **150-500 kilometres** and can be launched from a **mobile launcher**.

PRALAY: Surface-to-Surface Missile

Pralay is a canisterised tactical, surface-to-surface, and short-range ballistic missile for battlefield use developed by the Defence Research and Development Organisation of India

ENGINE: Two stage rocket motor with third stage MaRV

SPEED: Mach 1 to 1.6

RANGE: 150-500 km

TRAJECTORY: low

GUIDANCE SYSTEM: Inertial navigation system

LAUNCH PLATFORM: 8x8 BEML-Tatra transporter erector launcher

MASS: 5 tonnes (4.9 long tons; 5.5 short tons)

OPERATIONAL RANGE: 150-500 km (93-311 mi)

Can change its path after covering certain range mid-air and is difficult to be tracked

It is capable of being launched from a mobile launcher and has latest navigation system and integrated avionics



It has the capability to defeat interceptor missiles

- **Warhead capacity:** Pralay can launch a variety of warheads at a range of targets. It has a versatile deterrent capability because of its **conventional payload (350-1,000 kg)**, which permits high-explosive fragmentation or penetrative warheads.
- **Speed and Agility:** **Mach 5-6 terminal speeds** are attained, and **MaRV** (Manoeuvrable Re-entry Vehicle) technology is used to alter course in midair and avoid interception.
- **Launchpad:** **Road-mobile canister launchers** (Ashok Leyland 12 12) are used to deploy the launch platform, which allows for quick relocation and shoot-and-scoot capabilities.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Pralay Missile:

1. Pralay is a solid propellant quasi-ballistic missile.
2. The missile has a range of 150-500 kilometres and can be launched from a mobile launcher.
3. Pralay missile can attain Mach 5-6 terminal speeds.

How many of the above given statements are correct:

- (a) Only one (b) Only two
(c) All three (d) None

Answer: (c)

RS-28 SARMAT

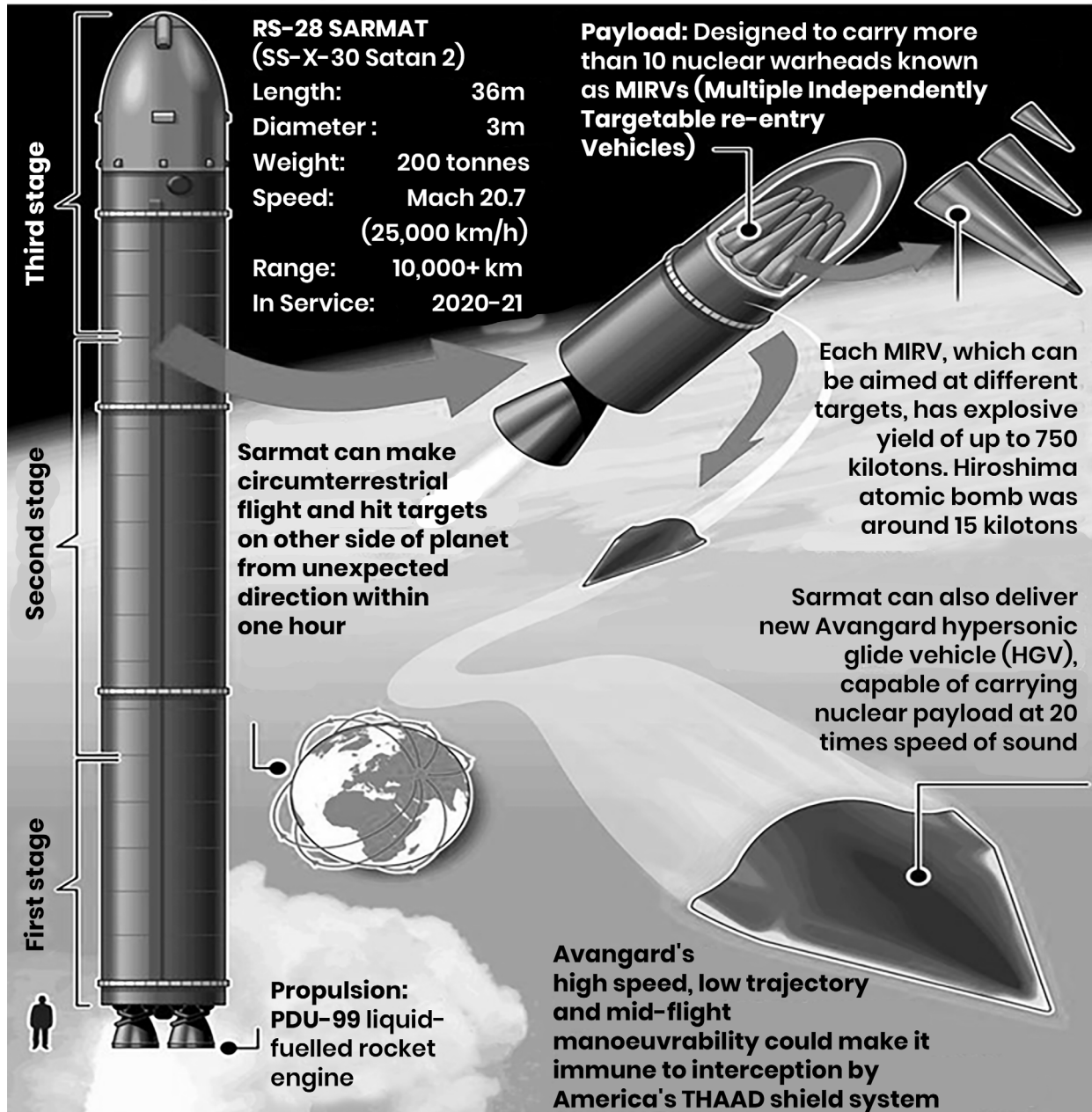
Why in News: Russia is currently developing a liquid-fuelled intercontinental ballistic missile called the RS-28 Sarmat, which NATO has dubbed Satan 2.

Key Details

- The Sarmat is a **three-stage, 18,000-kilometre-range, liquid-fuelled missile**.
- **Measurements:** The missile's length and diameter are 35.3 and 3 metres, respectively.
- **Payload capability:** The Sarmat can load a wide range of warhead options and carry a payload of up to **10 tonnes**.
- **Speed:** 25,500 kph is the top speed (roughly Mach 20).
- **Weight at launch:** 208.1 tonnes.
- According to reports, the Sarmat can deliver several targetable re-entry vehicles all over the world.
- The missile can fly from the North to the South Pole and through any territory.

Russia to test Sarmat ICBM

Russia's new intercontinental-range ballistic missile (ICBM), the super-heavy thermonuclear-armed RS-28 Sarmat, will replace the SS-18, the biggest and deadliest Soviet missile of the Cold War

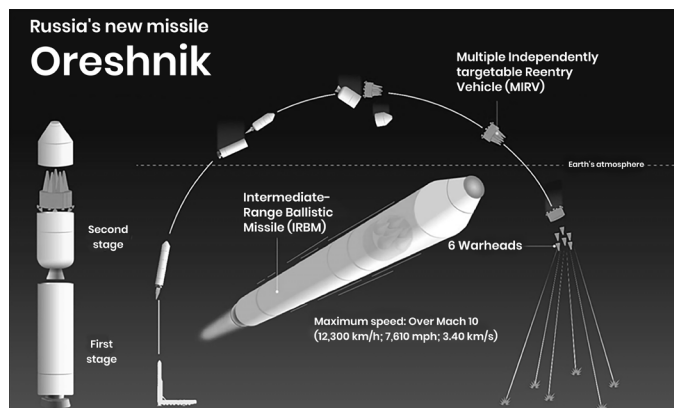


ORSHENIK MISSILE

Why in News: Russian President Vladimir Putin recently announced that Russia has begun production of its latest hypersonic missile, the Oreshnik.

About the Oreshnik Missile

- **Range:** It is a Russian Hypersonic Medium-Range Ballistic Missile.
- **Speed:** It is a hypersonic missile capable of reaching a speed of Mach 10.
- **Range:** Approximately 5,500 km.
- **Targeting and Evasion:** Designed with manoeuvrability to evade air defence systems.
- **MIRV Technology:** Multiple independently targetable re-entry vehicles (MIRVs), allowing a single missile to strike several distinct targets simultaneously with either conventional or nuclear warheads.
- **Payload capacity:** Can carry six to eight warheads.



EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. The Oreshnik Missile, recently in the news, is developed by which of the following countries?

- (a) United States of America (b) China
(c) Russia (d) North Korea

Answer: (c)

BLUEBIRD BLOCK 2 SATELLITE

Why in News: ISRO chairman V Narayanan announced the next collaborative mission with NASA, the launch of the Blue Bird Block2 communication satellite.

About Bluebird Satellite

- Manufacturer:** The U.S.-based company AST SpaceMobile created this cutting-edge American communications satellite.

- Satellite-To-Smartphone:** Direct satellite-to-smartphone connections will be possible because of the satellite's novel 64-square-metre antenna, which weighs about 6,000 kilograms and will operate in Low Earth Orbit.
- Data transmission:** Peak data transmission speeds of up to 120 Mbps are made possible by the BlueBird satellites' beams, which are built to support a capacity of up to 40 MHz.
- LVM-3 (Launch Vehicle Mark-3):** The AST SpaceMobile Block 2 BlueBird satellite, which weighs roughly six tonnes, will be launched by the LVM3 rocket in Low Earth Orbit.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the Bluebird Block 2 satellite, recently in news, consider the following statements:

1. It is manufactured by ISRO in collaboration with NASA.
2. It enables direct satellite-to-smartphone communication through a large antenna operating in Low Earth Orbit.
3. It will be launched using India's LVM-3 (Launch Vehicle Mark-3).

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) 2 & 3 only

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THE HINDU

RIGHT TO PRIVACY OF ADOLESCENTS

Why in News: The Supreme Court's ruling in the *suo moto* case in the "Right to Privacy of Adolescents" case 2025 highlights the changing legal framework surrounding **adolescent sexuality** and the application/ enforcement of the POCSO Act.

Judgement highlights

- The case emphasizes the necessity of balancing the protection of minors with the acknowledgement of their increasing autonomy and the intricate nature of adolescent relationships.
- The case signifies a **transformation in judicial thinking or perspectives**, leading to a reassessment of the applicability of laws such as **POCSO apply to adolescent relationships**.
- A crucial aspect of the Supreme Court's ruling is its emphasis on the individual's experience, particularly from the girl's viewpoint, which is essential for understanding the judgment's broader implications.

Article 142

- Article 142 of the Constitution of India empowers the Supreme Court with the **unique and extraordinary power to issue any decree or order** required to achieve and secure "**complete justice**" in any ongoing case or matter before it.
- This discretionary power enables the Court to go beyond technicalities to address legislative gaps, **protect and uphold constitutional values and principles**, and promote social welfare, even if it means interpreting or temporarily overriding existing laws.
- The provision was deliberately assigned to the highest court to serve as a guardian of the Constitution and intervene when legislative or executive action is lacking.

Key details related to Judgment

- **POCSO Act and Adolescent Sexuality:** This case highlights the difficulties in enforcing the POCSO Act concerning consensual relationships between adolescents.
- **Obligations of a Welfare State:** The court's focus on the state's responsibility as a "welfare state" to support those individuals involved in the case is crucial.
- **Need for Comprehensive Education and Reform:** The ruling underscores the necessity for comprehensive

sex education and systemic reforms to address the complexities of adolescent sexuality.

- **Fundamental Rights:** The case reaffirms that the right to privacy is a fundamental right under Article 21 of the Constitution, even for adolescents, though subject to reasonable restrictions.
- **Digital Privacy:** The court's directives to both government and private entities regarding the collection of adolescent data and accountability of online platforms are pertinent in today's digital landscape.
- **International Human Rights Law:** The judgment also addresses the disparity between international human rights law, which recognizes consensual adolescent sexual activity, and Indian legal perspectives.

Adolescent

- In India, an **adolescent** is defined as an individual aged between **10 and 19 years**, experiencing the transition from childhood to adulthood, which is highlighted by physical, emotional, and social development.
- This definition aligns with the **National Adolescent Health Programme (Rashtriya Kishor Swasthya Karyakram)** and international standards such as those set by the WHO.

Right to Privacy

- The Right to Privacy in India is a **fundamental right** that safeguards an individual's personal information, choices, and bodily autonomy from unauthorized intrusion by the state, organizations, or individuals.
- It was unanimously recognized as part of the **Right to Life and Personal Liberty under Article 21** of the Indian Constitution by the Supreme Court in the landmark **Justice K.S. Puttaswamy vs. Union of India (2017)** judgment.
- This right ensures dignity, freedom of expression, and protection against arbitrary surveillance or disclosure of personal data.

About case

- The case involved a 14-year-old girl from West Bengal and a 25-year-old man, who later got married and had a child in 2021, when she was 17.
- The man was arrested and tried for kidnapping, rape, aggravated penetrative sexual assault, and child marriage.
- POCSO Special Court sentenced the accused to 20 years of imprisonment.
- The Calcutta High Court later overturned this conviction **on humanitarian ground**. It noted the socio-economic

background of the couple who did not understand that their relationship constituted an offence.

- The Supreme Court restored the conviction and ordered the establishment of an expert committee to evaluate the girl's well-being and available options.
- The committee's findings highlighted the emotional and financial strain that the legal proceedings had on the girl and her family.
- Ultimately, the Supreme Court decided not to impose a sentence on the man, acknowledging the potential harm to the girl if he were imprisoned.

About "Right to Privacy of Adolescents"

- The Right to Privacy of Adolescents is the protection of an adolescent's personal space, choices, and information from unnecessary interference by others, including parents, the state, or institutions.
- It includes privacy in matters of health, body, relationships, and digital life. Recognized under **Article 21** of the Indian Constitution, it respects their growing autonomy and emotional maturity.
- Courts have affirmed that adolescents must be treated as individuals with evolving rights, especially in sensitive areas like sexual autonomy and consent.

About POSCO Act

- It stands for the Protection of Children from Sexual Offences Act, 2012.
- It is a comprehensive law enacted by the Indian government to protect children (any person below 18 years) from sexual abuse, sexual harassment, and pornography. It covers both boys and girls.

Concerns & Judicial Interpretation

- Courts have recently emphasized the need to distinguish between exploitative abuse and consensual adolescent relationships, to avoid criminalizing normal teenage behaviour.
- In some cases, the Supreme Court has shown leniency by recognizing the Right to Privacy and Autonomy of adolescents involved in consensual relationships.

Why reforming the Age of Consent under POCSO is considered

- Courts are flooded with cases where both partners are minors, or one is just slightly above 18.
- Adolescents in consensual relationships are often treated as offenders or victims, causing trauma, criminal records, and social stigma.
- The law is sometimes misused to target inter-caste, inter-religious, or non-approved relationships, especially when girls elope.
- Neuroscience and psychology show that adolescents around 16 years can make informed choices about relationships and sexual activity.

- International standards, including UN guidelines, emphasize evolving capacities of adolescents.
- Several High Courts and the Supreme Court of India have recommended reconsidering the law's rigidity.
- In 2023, the Parliamentary Standing Committee on Home Affairs also suggested revisiting the age of consent under POCSO.

Proposed Reforms

- **Close-in-Age Exemption (Romeo-Juliet Clause):** Allow consensual relationships if the age gap between the partners is small (e.g., 2–3 years), and the younger partner is at least 16.
- Many countries, including the UK and Canada, have set the age of consent at 16. Lowering the age of consent to 16 would align Indian law with global best practices and adolescent rights.

Way forward

There is a need to strike a balance between protecting children from abuse and respecting their autonomy and emotional maturity. The Supreme Court has laid the foundation—now, lawmakers, educators, and institutions must build on it with empathy, reform, and awareness.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. In the context of the recent Supreme Court judgment relating to the Right to Privacy of Adolescents, which of the following statements is/are correct?

1. The Court acknowledged that adolescents possess evolving capacities and should be granted a zone of privacy in matters of personal relationships.
2. The judgment amended the POCSO Act to include a close-in-age exemption.
3. The Court invoked Article 142 to deliver complete justice by protecting the adolescent victim's privacy and autonomy.

Select the correct answer using the code below:

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

(b) :Answer

Descriptive Question

Q. The recent Supreme Court judgment recognizing the Right to Privacy of Adolescents in consensual relationships under POCSO marks a shift toward balancing protection with autonomy. Discuss the implications of this judgment on juvenile justice and legal reforms in India. Suggest measures to make the legal system more adolescent-friendly. [250 Words] [15 marks]

NO ROOM FOR GENDER JUSTICE

Why in News: The Supreme Court of India, in the case of Shivangi Bansal vs. Sahib Bansal, has approved the suspension of arrest or coercive measures under Section 498-A of the Indian Penal Code (Section 85 of the new Bharatiya Nyaya Sanhita), which addresses anti-cruelty towards women. This ruling is viewed as concerning regarding criminal justice and gender equality.

Section 498-A of IPC OR Section 85 of BNS

- Introduced in 1983 to curb dowry-related cruelty and protect married women from domestic abuse.
- Applicable to: Husband or his relatives
- Nature of Offence: Cognizable and non-bailable
- Punishment: Imprisonment up to 3 years and fine
- Triable by: Magistrate of the first class

Cruelty (as per law)

- Any willful conduct which is likely to:
 - Dowry harassment and drive the woman to commit suicide, or
 - Cause grave injury (physical or mental) to her life, limb, or health.
- Harassment of the woman with a view to coercing her or her relatives to meet any unlawful demand for dowry.

Background

- **Allahabad High Court directions in an individual matrimonial dispute:**
 - No arrest or coercive measures for a period of two months (cool-off period) following the complaint.
 - Establishment of Family Welfare Committees at district level to review cases prior to any action.
- **Impact of Judgement**
 - Even with substantial evidence, law enforcement (police) is prohibited from arresting for two months.
 - Potential risk to the complainant's safety.
 - Promotes police inaction in case of domestic violence.
 - Sets a precedent that undermines the legislative intent in criminal law.
 - Discouraging them from seeking justice.
- **Criticism of Judgement**
 - **Delay in justice:** Delaying arrests may compromise the safety of bona fide complainants.
 - **Weakening Deterrence:** It may embolden fraudulent claims, undermining the law's effectiveness.
 - **Judicial Overreach:** Injunctions impose procedural changes better suited to legislative scrutiny.

Data and Stats

- According to the NCRB's Crime in India 2022 report:
 - **Conviction Rate:** Only 12.91% of Section 498A cases registered in the year resulted in convictions.

- **Pendency:** A staggering 92.45% of cases remained pending trial by the year-end.
- **Case Disposal Breakdown:** Of cases processed in 2022:
 - ◆ Approximately 28.7% were disposed of without trial—most via settlements (compromise, plea bargaining, or quashing).
 - ◆ Of the remaining cases that went to trial, 76.6% ended in acquittal, while only 17.7% were convictions.

Legal & Constitutional concerns

- **Erosion of Victims' Rights (Article 21- Right to Life & Dignity):** Cooling-off period may endanger complainants by postponing intervention. This delay challenges the Constitution's guarantee of timely protection and dignified redress.
- **Violation of Equality and Uniform Application (Article 14- Right to Equality):** Creating a special procedural barrier exclusive to Section 498A cases constitutes inequitable treatment when compared to other criminal provisions that do not benefit from similar safeguards. This deviation raises concerns over legal consistency and equality before law.
- **Judicial Overreach & Separation of Powers:** The Supreme Court's directive to impose procedural innovations—like mandated Family Welfare Committees and cooling periods—not grounded in statutory law is seen as judicial policymaking, encroaching on legislative authority. Legal scholars argue such sweeping changes should be left to Parliament, not the judiciary.
- **Weak empirical basis to justify the 'misuse' narrative:** The judgment relies heavily on the perception of widespread misuse, yet fails to reference robust empirical data supporting this view. Such unsubstantiated generalizations may undermine the integrity of both jurisprudence and legislative intent.

Social and Gender Justice dimensions

- **Balancing Women's Rights with Social Fairness:** The Court reiterated that while Section 498A remains a crucial safeguard for women against domestic cruelty, protective laws must not become tools for personal vendetta. Striking this balance is essential to preserve both the dignity of complainants and the reputations of the accused.
- **Avoiding Weaponization in Matrimonial Disputes:** Social concerns around misuse were central to the judgment. The Court acknowledged instances where provisions were strategically invoked to harass or coerce the opposite family. By introducing procedural safeguards like the two-month cooling-off period and mandatory mediation, it aimed to protect families from unnecessary trauma while ensuring justice.
- **Emphasizing Restorative over Punitive Justice:** Through directives such as public apologies, dissolution of litigation and marriage under Article 142, and a

structured mediation framework via Family Welfare Committees, the judgment promoted a justice model that encourages reconciliation and healing, rather than escalating conflict. This restorative approach carries profound social and emotional implications for both families and communities.

- **Safeguarding Against Gender-Neutral Misuse:** While recognizing the continued prevalence of patriarchy and dowry-related abuse, the Court emphasized that the law must not discriminate or be misapplied. It sought to maintain the legitimacy of Section 498A as a protective tool for women, while ensuring mechanisms to prevent its misuse and preserve broader principles of fairness and societal harmony.

Better Solution

- Enhance the quality of investigation.
- Raise awareness among police and the Judiciary.
- Accelerate the processing of legitimate cases.
- Impose penalties for verified false complaints while ensuring that victim protections remain intact.

Way Forward

- **Statutory Reforms:** Parliament should consider codifying balanced procedural safeguards—like preliminary inquiry—into law, instead of relying solely on judicial directions.
- **Strengthen Investigative Mechanisms:** Build specialised units within police to handle domestic violence complaints sensitively, ensuring swift but fair action.
- **Empower Mediation, But with Oversight:** Alternative dispute resolution (ADR) tools like Family Welfare Committees must be regulated with clear timelines and accountability.
- **Support for Victims:** Increase legal aid, psychosocial support, and shelter homes to help genuine victims of domestic violence.
- **Sensitisation and Training:** Conduct regular gender-sensitisation programs for police, judiciary, and legal officers to handle such cases with empathy and neutrality.

Conclusion

The judgment attempts to balance protection for women with safeguards against misuse of law. However, the right to gender justice must not be diluted in the name of procedural caution. A holistic approach combining legal reforms, institutional sensitivity, and societal awareness—is essential to uphold the spirit of Article 14 (equality) and Article 21 (right to life and dignity) for all parties involved.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Judicial interpretations of gender-related laws must balance concerns of misuse with the imperative of protecting vulnerable groups." In the context of

recent Supreme Court rulings on Section 498-A IPC and gender justice, critically examine the challenges in ensuring justice for women within India's legal framework. Suggest reforms to strengthen gender-sensitive adjudication. [250 Words] [15 Marks]

REVIVING CIVIC ENGAGEMENT IN HEALTH GOVERNANCE

Why in News: The 'Makkalai Thedi Maruthuvam (Medicine at people's doorstep)' scheme of Tamil Nadu, and the **Gruha Arogya scheme** of Karnataka are expended to all districts, aiming to deliver health care at doorsteps for persons with non-communicable diseases.

Health Governance

- It refers to the structures, processes, and policies that shape a country's or region's healthcare system, ensuring its effectiveness, equity, and accessibility.
- It involves setting strategic objectives, regulating health service delivery, managing various stakeholders (like government agencies, providers, and civil society), and fostering accountability and transparency.

Makkalai Thedi Maruthuvam

- It is a Tamil Nadu government scheme launched in 2021 to deliver doorstep healthcare services, especially for non-communicable diseases, elderly care, and physiotherapy. It aims to reduce hospital visits by providing screening, treatment, and medicines at home, enhancing access for vulnerable populations.

Gruha Arogya

- It is a Karnataka government scheme launched in 2024 to provide **doorstep healthcare services**, especially for non-communicable diseases (NCDs), elderly care, and palliative support. It deploys mobile health teams to screen, monitor, and deliver medicines to vulnerable populations, aiming to improve access and reduce hospital dependency.

Non-Communicable Diseases (NCDs)

- Non-Communicable Diseases are chronic, non-infectious conditions that typically progress slowly and are not passed from person to person. Eg. Cardiovascular Diseases (stroke, heart attack), Cancers, Chronic respiratory diseases (asthma, COPD), Diabetes etc.

Other details

- The healthcare sector in India has experienced significant decentralisation and expansion, with state-level initiatives providing doorstep healthcare services and enhancing last-mile service delivery.
- A true measure of a healthy democracy is how well citizens can actively participate in health governance.
- When the public gets involved, it strengthens democratic principles and values, improves accountability, and makes sure that policies align with what the community actually needs.

Key Highlights

- **Evolving Health Governance Landscape:** Health governance in India now includes diverse stakeholders: civil society, professional associations, trade unions alongside formal institutions
- **Significance of Civic Engagement:** It reinforces citizen dignity, counters epistemic injustice, enhances accountability by challenging elite dominance, and promotes improved health outcomes through trust and collaborative action.
- **Institutional Mechanisms Exist but Often Dysfunctional:** Platforms like Village Health Sanitation and Nutrition Committees (VHSNCs), Rogi Kalyan Samitis, and Mahila Arogya Samitis are meant to facilitate engagement. Yet, they suffer from ambiguous roles, irregular meetings, underutilized funds, poor coordination, and entrenched social hierarchies.

Village Health Sanitation and Nutrition Committees (VHSNCs)

- Formed under the National Health Mission, VHSNCs are community-level bodies responsible for preparing village health plans, monitoring health services, promoting awareness, and ensuring inclusion of marginalized groups. They receive untied funds and play a key role in local health accountability.

Rogi Kalyan Samitis (RKSs)

- Also known as Hospital Management Committees, RKSs are

registered societies that manage public health facilities like PHCs and CHCs. They ensure accountability, efficient fund use, and improved service delivery. Members include medical officers, elected representatives, and community leaders.

Mahila Arogya Samitis (MASs)

- MASs are women-led community groups in urban areas under the National Urban Health Mission (NUHM). They focus on health awareness, sanitation, nutrition, and social mobilization. MASs bridge the gap between urban poor communities and health systems, ensuring women's participation in health decisions.

Barriers to civic engagement

- **Mindset:** Citizens are seen as beneficiaries, not partners.
- **Metric-driven focus:** Success measured by numbers, not quality or agency.
- **Medical dominance:** Governance by biomedical professionals with little public health background.
- **Resistance:** Fear of accountability, regulatory capture, and workload aversion

Consequences of Weak Civic Engagement

- Citizens resort to protests, media campaigns, and legal recourse.
- Systemic inequities persist due to institutional distrust and alienation.

Public Health Governance Indices in India

Index Name	Focus Area	Key Features
NITI Aayog's State Health Index	Health outcomes, governance, inputs/processes	Annual ranking of states/UTs to incentivize improvement
SHRESTH: State Health Regulatory Excellence Index	Regulatory quality and governance in health services	Assesses licensing, enforcement, grievance redressal, transparency
Good Governance Index	Overall governance, includes public health sector	Multi-sectoral governance ranking including health metrics
National Public Health & Nutrition Security Index (NPHNSI)	Public health & nutrition security	A holistic, cross-sector index focusing on nutrition, preparedness, health

Way Forward

- Shift governance mindsets from instrumentalism to partnership.
- Empower communities via health rights education, civic awareness, and inclusive outreach.
- Sensitize health actors, especially toward marginalized groups.
- Ensure functioning and well-resourced community platforms.
- Establish such engagement as normative practice, not peripheral add-on.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Which of the following best explains the significance of civic engagement in health governance, as discussed in the context of India's public health system?
- It ensures that only medical professionals make health policy decisions.
 - It increases healthcare privatization and reduces the need for public funding.
 - It enhances accountability, inclusiveness, and trust between communities and health systems.
 - It replaces formal health institutions with community-based self-care systems.

Answer: (c)

NATIONAL ORGAN & TISSUE TRANSPLANT ORGANISATION (NOTTO) ADVISORY

Why in News: NOTTO has issued a 10-point advisory to address **gender imbalance** among organ transplant recipients and encourage donations.

Key highlights

- Women patients and relatives of deceased donors will receive priority in organ allocation.
- As per data released by NOTTO:
 - **Women donate the most and receive the least.**
 - 63.8% of all living organ donors from 2019 to 2023 were women.
 - **Men received the most donated organs**, accounting for 69.8% of the recipients.
 - In the past five years women made 36,038 of the 56,509 living organ donations in India.
 - Only 17,041 were transplanted into women, while 39,447 went to men.

Organ allocation criteria

The criteria for allocation prioritize based on the duration of the disease, period on waiting list, severity of illness, children, living donor now requiring transplant, and matching factors such as blood group, age, size etc. to ensure better and improved outcomes.

- **Geographical proximity:** Organs are initially offered to recipients waiting within the same city or state where the organ was retrieved, to reduce “cold ischemia time” (the duration the organ remains without its blood supply).
- **Wait Time:** Recipients are ranked based on how long they have been on the transplant waiting list.
- **Medical Urgency:** The seriousness of the patient’s condition plays a vital role in establishing priority.
- **Matching Parameters:** The compatibility between the donor and recipient is essential, which includes:
 - **Blood Group:** Allocation adheres to specific guidelines based on compatible blood types.
 - **Age & Special Circumstances:** Organs from pediatric donors are prioritized for pediatric recipients, while living donors may provide a living kidney to a relative.
- **National Distribution:** If no suitable recipient is identified locally or within the state, the organ is made available to other areas through the ROTOs (Regional Organ and Tissue Transplant Organizations).
- **Governing Body:** The National Organ and Tissue Transplant Organisation (NOTTO), operating under the Ministry of Health and Family Welfare, establishes the guidelines for organ allocation in India.

Changes to the allocation system

- **No Upper Age Limit:** The previous upper age limit of 65 years for deceased donor organ registration has been removed, allowing people of all ages to register.
- **No Domicile Requirement:** Patients can now register for deceased donor organs regardless of their state of domicile, promoting greater access and fairness.

New Priority Criteria (10-point advisory)

- **Women patients:** Award additional allocation points to address existing gender disparity in access.
- **Near relatives of deceased donors:** Provide priority access to donor’s close family members
- **Donor funeral and recognition:** Ensure dignified funerals and public felicitation of donor families.
- **Infrastructure expansion:** Develop organ retrieval facilities in trauma centres and medical colleges.
- **Training & awareness:** Equip first responders with donor identification training; appoint ambassadors.
- **Data transparency & enforcement:** Mandate national registry reporting; enforce via Transplantation of Human Organs and Tissues Act (THOTA).
- **Dedicated coordination:** Establish permanent transplant coordinator roles in hospitals

Organ donation trend & data in India

- National organ transplants reached a historic high in 2024 (~18,911), up from ~18,378 in 2023.
- Living donors dominate, with only a small fraction from deceased donors.
- Cadaveric donations crossed 1,000 in 2023 for the first time.
- Significant regional disparities persist—Tamil Nadu, Telangana, and Karnataka lead, while many states lag behind.
- Demand far outpaces supply, with patients waiting in the tens of thousands.
- Donation rate remains critically low by global standards. India remains well below global benchmarks, with an organ donation rate of less than 1 per million population (PMP), compared to countries like Spain at 48 PMP.
- India ranks third globally in total organ transplants, and first in living donor transplants.

Steps to improve organ donation in India

- **Improve Brain Death Certification:** Many potential deceased donors go unutilized due to under-reporting or delay in brain-death certification.
- **Strengthen Hospital Infrastructure:** Expand the number of Organ Retrieval and Storage Centres (ORBOs) and certified transplant hospitals.
- **Create State Organ Networks:** Many states still lack robust State Organ and Tissue Transplant Organisation (SOTTO) infrastructure. States must develop real-time

registries, retrieval networks, and organ transport systems.

- **Incentives & Recognition for Donor Families:** Offer non-monetary incentives: health insurance, educational scholarships, housing support, etc.
- **Leverage Technology:** Use AI, blockchain, and GPS systems for tracking organ availability and transport.

Government Initiatives

- **National Organ Transplant Programme (NOTP):** Launched to support capacity building, awareness, and infrastructure at state levels, Funds creation of ICUs, retrieval centers, and transplant coordinators.
- **Green Corridors:** Supported by traffic police and aviation ministries, these allow rapid transport of organs across states with minimal delay.
- **Organ Pledging Portals:** Co-WIN portal now also allows organ pledge registration.
- **Inclusion in Ayushman Bharat Digital Health Mission (ABDM):** Organ donation pledges and transplant history are being integrated into the digital health ecosystem.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the National Organ and Tissue Transplant Organisation (NOTTO), consider the following statements:

1. NOTTO functions under the Ministry of Health and Family Welfare.
2. It is responsible for maintaining a national registry of organ donors and recipients.
3. In its recent advisory, NOTTO allowed hospitals to reserve organs for foreign nationals to promote medical tourism.
4. The NOTTO advisory aims to promote transparency and equitable access to organ transplants.

Which of the statements given above is/are correct?

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

Answer: b (1, 2 and 4 only)

INDIA'S MENTAL HEALTH CRISIS

Why in News: Mental distress is one of the reasons why, in India, one student dies by suicide every hour.

Key Details

- According to a 2017 report by the World Health Organization (WHO), 56 million Indians live with

depression, and another 38 million live with anxiety disorders.

- According to the National Mental Health Survey (2015-16), nearly 1 in 7 Indians suffer from mental health issues, but only 10% of them receive treatment.
- Nearly 80% of people with mental illness in India do not receive any treatment.
- Studies show that 60% of individuals with mental health conditions in India prefer to keep their diagnosis private due to fear of social discrimination.

Definition of Mental Health

- WHO defines mental health as “a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.”
- A person's mental health is shaped by a wide range of influences—harsh parenting, genetic vulnerability, economic hardship, and the broader conditions of life.

Role of Therapy and Counselling

- Therapy, including psychotherapy and counselling, plays a crucial role in managing and treating mental health disorders.
- Western models of therapy, such as cognitive-behavioural therapy (CBT), are gaining popularity, there is still a significant gap in mental health professionals across the country.
- India has a very low therapist-to-population ratio, with just 0.75 psychologists per 100,000 people, compared to the global average of 3 per 100,000.

Pharmaceuticals Drugs

- Pharmaceutical drugs are frequently prescribed to manage mental health conditions like depression, anxiety, and schizophrenia.
- The World Health Organization (WHO) reports that the use of psychiatric drugs in India has increased by 40% over the last decade.
- Experts warn that while medication can be effective, it is often over-prescribed, especially in rural areas where there is limited access to counselling or therapy.

Grief and Mental Health

- Grief is a natural human response to loss, but in India, the expression of grief is often complicated by cultural expectations and a lack of emotional support. For many, grief may manifest as a mental health condition such as depression or anxiety.
- In Indian society, the grieving process is heavily influenced by traditional customs and religious practices, which often prioritize the needs of the family over the emotional well-being of the individual.
- Research indicates that unaddressed grief can lead to long-term mental health issues, including depression, substance abuse, and post-traumatic stress disorder (PTSD).

Government Initiatives

- **Mental Healthcare Act, 2017:** The act mandates that mental healthcare be made accessible to all citizens, recognizing the right to access mental health services as a fundamental human right.
 - Decriminalizes suicide under Section 115.
 - Recognizes Right to Mental Health Care as a legal right.
 - Mandates community-based care and integration into primary healthcare.
 - Allows for Advance Directives and appointment of nominated representatives.
 - Establishes Mental Health Review Boards at state level.
- **National Mental Health Program (NMHP):** Launched in 1982, the program aims to provide mental health services at the primary, secondary, and tertiary levels. It focuses on prevention, treatment, rehabilitation, and promotion of mental health. However, funding and resources remain insufficient.
- **District Mental Health Program (DMHP):** Initiated in 1996 by the Ministry of Health and Family Welfare with the aim to provide mental health services at the district level, ensuring that mental health care is accessible to all, particularly in underserved areas.
 - Introduced as part of NMHP.
 - Includes awareness, early detection, treatment, and referral mechanisms.
- **National Policy for Persons with Disabilities, 2006:** It recognizes mental illness as a disability and includes provisions for the rehabilitation and empowerment of persons with mental health conditions.
 - Provides for equal access to health, education and employment.
 - Aims to reduce discrimination and increase inclusion.
- **Pradhan Mantri Jan Arogya Yojana (PMJAY):** Ayushman Bharat, launched in 2018, aims to provide comprehensive health coverage to the poorest sections of the population. While it focuses primarily on physical health, it also includes mental health under its umbrella of services.
- **National Institute of Mental Health and Neuro-Sciences (NIMHANS):** NIMHANS, located in Bangalore, is the apex institute for mental health and neuro-sciences in India. It is both a teaching and research institute and plays a critical role in shaping mental health policy and practice.
- **National Suicide Prevention Strategy:** In 2020, India announced its **National Suicide Prevention Strategy**, aimed at reducing suicides across the country, which have been a growing public health issue.
 - Aims to reduce suicide mortality by 10% by 2030.

Challenges and Solutions

- **Increased Funding for Mental Health Care:** Public and private investment in mental health services is essential for improving access.
- **Education and Awareness:** Raising awareness through campaigns can help break down the stigma and encourage people to seek help.
- **Community-Based Care:** Moving mental health care beyond urban centers and integrating it into primary healthcare settings can make services more accessible.

Key Recommendations

- Improved Mental Health Education in schools and workplaces.
- More Training for Healthcare Providers to recognize mental health conditions.
- Integration of Mental Health Services into Primary Health Care: This could help reduce the burden on mental health institutions.

Conclusion

Mental health in India is at a crossroads. While progress has been made in reducing stigma and expanding access to care, significant challenges remain. The journey toward comprehensive mental health care will require sustained efforts from the government, healthcare providers, and the public. Only through collective action can India ensure that mental health is no longer a neglected issue but a central part of its public health agenda.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. Discuss the key government initiatives related to mental health in India. How have these reforms contributed to addressing the mental health crisis in the country? Highlight the challenges that remain in implementing these initiatives and propose solutions to improve mental health care accessibility in both urban and rural areas. [250 Words] [15 Marks]

STREET DOG MENACE

Why in News: The Supreme Court directions (August 2025) have modified earlier orders concerning free-ranging/stray dogs, especially in Delhi-NCR.

Key Details

- **Earlier order (August 11, 2025)**
 - A bench had directed that stray dogs in Delhi, Noida, Gurugram, Ghaziabad etc. be captured, sterilised, vaccinated, and permanently housed in shelters, without release back to the streets.
 - It also raised concerns about rising dog bites and rabies cases, emphasizing public safety.

• Pushback/Outcry

- Animal welfare groups, activists, legal experts criticized the order for being unscientific, inhumane, impractical, violating the Animal Birth Control (ABC) Rules which mandate sterilisation & release, among other issues.
- Concerns included: inadequate shelter capacity; crowding; welfare of dogs; ability of system to support the orders; definition of “aggressive” dogs; practical logistics.

• Modified Order (August 22, 2025)

- The Court scaled back the earlier directive. Now it permits non-aggressive, sterilised, vaccinated, dewormed dogs to be returned to their original localities. Only those that are rabid, suspected to be, or showing aggression are to be kept in shelters or pounds.
- Feeding of street dogs in public places is banned; authorities must designate feeding zones in each municipal ward.
- The order is being extended beyond NCR -- all States and Union Territories are now parties to the case; related High Court petitions are being transferred to the Supreme Court.

• Legal framework / ABC Rules

- The Animal Birth Control Rules (ABC Rules), especially the 2023 update, require that sterilised and vaccinated dogs are released back into the same locality. Permanent removal/sheltering goes against these rules except under certain exceptional circumstances.
- The Court seems to have recognized that the “no release” clause was harsh and practically unfeasible given the large stray dog population.

Key Issues

- **Enforcement & Infrastructure capacity:** Shelters, manpower, veterinary facilities, funding, monitoring etc. Many believe the capacity is far too low to support the large number of stray dogs in NCR and other cities.
- **Concerns over Animal Welfare & Rights:** Permanent confinement of free-living animals was considered cruel and unethical by animal welfare groups. Dogs are territorial and adapt to street life; confining non-aggressive, healthy dogs would cause severe stress, trauma, or death.
- **Ambiguity in Defining “Aggressive” Dogs:** The earlier order lacked a clear standard for what qualifies as an “aggressive” dog. Barking? Chasing? Biting? Without a scientific or legal definition, authorities could mislabel or wrongfully confine dogs, leading to arbitrary actions and legal challenges.

Social/Ethical view

- The role of activists, NGOs, public sentiment: many

citizens oppose harsh removal orders, see street dogs as part of the urban fabric.

- The constitutional or basic rights angle: Right to life (as applied to animals), cruelty, due process. Whether laws that require release back into territory are being overridden.
- The ecological / environmental / urban management dimensions: stray dogs often survive off garbage, open drains, loose food waste; so management isn't just about catching dogs, but about waste management, public hygiene, shelter etc.

Urban Governance and Implementation Challenges

- **Municipal Responsibilities:** Local authorities are tasked with implementing policies related to street dog management, which requires adequate resources and infrastructure.
- **Feeding Zones and Public Engagement:** The establishment of designated feeding zones aims to regulate human-animal interactions and mitigate conflicts.

Scientific and Behavioral Insights

- **Canine Behavior:** Understanding the behavior of street dogs is crucial in formulating effective policies. Factors such as aggression and territoriality play significant roles in human-dog interactions.
- **Breed-Specific Legislation:** The classification of certain dog breeds as “ferocious” and the implications of such designations on public safety and animal rights.

Way Forward

Effective management requires collaborative efforts among governments, animal welfare groups, and communities. Strengthening shelter infrastructure, clear guidelines on aggression, promoting responsible feeding through designated zones, and public awareness campaigns will ensure humane treatment of dogs while safeguarding public health.

Conclusion

Balancing human safety and animal welfare is complex but essential. The Supreme Court's revised order reflects a pragmatic approach aligned with legal norms and scientific understanding, aiming to protect both citizens and street dogs through humane, sustainable policies.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

- Q. Examine the Supreme Court's recent interventions on the issue of stray dogs in India. Discuss the challenges in implementing policies related to street dog management and suggest measures to ensure a humane and effective solution. [150 Words] [10 Marks]

AGE OF CONSENT

Why in News: The “age of consent” debate has re-emerged in the Nipun Saxena and Anr vs Union of India PIL pending in the Supreme Court.

Supreme Court’s view

- The Court will examine if the current age limit of 18 years for “consensual” sexual relationships should be lowered, in accordance with the Protection of Children from Sexual Offences (POCSO) Act, 2012.
- According to the POCSO Act, engaging in any sexual activity with a minor constitutes a criminal offense.
- Cases referred to as “consensual” under POCSO rarely involve sexual exploration among adolescents; rather, they reveal a more troubling and complex social reality.

Other key details

- Most victims (females as low as 12 years of age) are from marginalized communities and trying to escape violent homes, sexual abuse by family members, discrimination, and/or threats of forced marriage.
- According to data from the NCRB, mandatory reporting under the POCSO Act indicated that incidents of child sexual abuse increased from 8,541 in 2012 to 53,874 in 2021.

- A report by the Praja Foundation revealed that in 54% of these cases, the accused were romantic partners, friends, or individuals who had made marriage promises and subsequently abandoned the victim.
- Additionally, 26% were household employees, 12% were neighbors, and 8% were family members or guardians.
- In the meantime, India recorded 1.6 million child marriages in 2022, with only about 900 cases registered according to the India Child Protection report.
- Child rights activists are pushing for the age of consent to be lowered to 16 years, except in cases involving coercion or sexual relationships with individuals in positions of authority.

About “Consent”

- In the recent West Bengal case, the victim was 14 years old, and some ground work reveals victims are sometimes as young as 12 or below.
- There is a question in front of Apex court that, who is going to establish “consent” and who will decide it.
- Consent can be enthusiastic, reluctant, vitiated by fear, or extracted by manipulation. It can be revoked, misunderstood, or miscommunicated. “Consent” is the most invoked defence in rape trials.

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HISTORY & CULTURE

JODIDARA TRADITION

Why in News: Two brothers from Himachal's Hatti tribe married the same woman in a polyandrous ceremony, also known as Jodidara.

About Jodidara

- Jodidara is a form of fraternal polyandry, also known as Jajda or Ujala Paksha. It is a centuries-old tribal custom among the Hatti community in the Trans-Giri region of Himachal Pradesh (and parts of Uttarakhand).
- In this tradition, one woman marries two or more brothers.

Living Arrangement & Children

- The wife resides alternately with each husband based on an agreed-upon schedule—daily, weekly, or otherwise.
- Children are raised collectively, with the eldest brother legally recognized as the father, though all brothers share parenting responsibilities.

Legal status in India

- Although polyandry generally isn't permitted under the Hindu Marriage Act, Himachal Pradesh has made an exception by recognizing Jodidara under local revenue laws and what's known as "**Jodidar Law**" for tribal communities like the Hattis.
- The Hatti community also received Scheduled Tribe (ST) status in 2023, granting further legitimacy to their cultural traditions.

Purpose & Cultural Significance

- **The practice evolved to:**
 - Preserve ancestral land by avoiding its fragmentation across multiple heirs
 - Strengthen family unity and ensure economic stability in remote, mountainous terrains
 - Promote cooperation and joint responsibility within the household

Negative Impacts

- **Violation of Modern Legal & Gender Norms:**
 - The practice challenges modern legal frameworks and is not recognized under standard Hindu marriage laws.
 - Raises concerns around women's autonomy, consent, and gender equality, as the woman may not have equal power in such relationships.

- **Emotional and Social Strain:**

- Shared marriage can create jealousy, rivalry, and emotional challenges among brothers.
- Women may face mental health issues or lack of personal space, privacy, or choice in family dynamics.

- **Limited Marital Opportunities for Women:**

- In communities with widespread polyandry, fewer men marry, but it also leads to fewer women being married independently, sometimes due to a gender imbalance or limited mobility.

- **Resistance to Modernization:**

- Some view these customs as barriers to social progress, education, and women's empowerment.
- Youth often leave the villages to avoid such traditional obligations, leading to urban migration and cultural dilution.

Conclusion

The Jodidara tradition reflects the adaptive wisdom of tribal societies, balancing economic needs and familial unity. However, it also raises questions about gender rights and individual freedom in today's evolving social and legal landscape.

Way Ahead

There is a need to preserve cultural identity while promoting awareness, legal clarity, and gender equality. Inclusive dialogue, tribal participation, and gradual reform can ensure both tradition and rights are respected in modern India.

EXPECTED QUESTION FOR UPSC CSE**Descriptive Question**

Q. The Jodidara tradition reflects a unique socio-economic adaptation to geographic constraints. Critically examine the relevance of such practices in contemporary Indian society. [150 Words] [10 Marks]

PAIKA REBELLION

Why in News: Former Odisha CM expressed concern over the omission of the Paika Rebellion from history NCERT book a "huge dishonour".

Key Details

- The NCERT has clarified that the 1817 rebellion will be included in the second volume of the textbook, set to be released in September-October.

Paikas of Odisha

- Paikas were a traditional warrior class in Odisha, particularly known for their role in the Paika Rebellion of 1817, which is considered one of the earliest armed uprisings against British colonial rule in India.
- Paikas were militia or peasant-soldiers in the ancient and medieval Odisha region (formerly Kalinga).
- They served as land-owning militia under the Gajapati rulers and later under the kings of the Khurdha kingdom.
- In return for their military service, they were granted land or rent-free landholdings (Jagirs).

Role and Lifestyle

- Apart from being warriors, they were often farmers or landowners.
- They had a martial tradition, trained in physical combat, and practiced martial arts like Paika Akhada, which combined sword fighting, wrestling, and stick fighting.

Timeline of the Paika Rebellion (1817)

Year	Event
1803	British East India Company occupied Odisha (Cuttack and surrounding areas) during the Second Anglo-Maratha War (about 1803).
1804-1817	British impose high land taxes, abolish rent-free land grants, and disrupt the socio-economic fabric.
1817 (March)	Discontented Paikas, under Bakshi Jagabandhu, rise in rebellion starting from Khurdha.
1817 (April)	Paikas attack British symbols of authority: police stations, revenue offices, and treasuries.
1817 (May-July)	It spread across much of Odisha notably Puri, Pipili, Khurda and Cuttack and affected other districts.
1817 August	British suppress the rebellion with force. Many rebels are captured or killed.
1825	Bakshi Jagabandhu is arrested and later dies in captivity in 1829.

Bakshi Jagabandhu Bidyadhar

- He was the hero of the rebellion.
- Title:** "Bakshi" was the title for the commander of the army under the Khurda king.

- They played a vital role in defending the kingdom from external invasions and maintaining internal law and order.

Paika Rebellion of 1817

- Led by:** Bakshi Jagabandhu Bidyadhar, the commander of the forces of the King of Khurdha.
- Reason:** Discontent over British land revenue policies, abolition of rent-free land, and suppression of traditional rights and privileges.
- The rebellion started in Khurdha and spread to other parts of Odisha.
- Though it was ultimately suppressed, it marked a significant early resistance to British rule, decades before the 1857 Revolt.

Legacy

- The Indian government has recognized the Paika Rebellion as an important chapter in the freedom movement.
- There have been ongoing efforts to recognize the Paika Rebellion as the first war of Indian independence, though officially 1857 holds that position.
- Paika Akhada martial arts are still practiced in Odisha and are promoted as part of Odisha's cultural heritage.

Notable places connected to the Paikas

Place	Significance
Khurdha	Centre of the rebellion, capital of the Khurda kingdom.
Barunei Hills	Hideout for rebels; symbolic site of resistance.
Puri	Sacred city where rebels received spiritual support.
Banapur	Major center of Paika strength.
Jagatsinghpur & Ganjam	Other regions where the rebellion spread.

Conclusion

The Paika Rebellion of 1817 was a bold expression of India's early resistance to British rule. Led by Bakshi Jagabandhu, the Paikas fought to protect their land, rights, and traditions. Though suppressed, their legacy endures as a proud symbol of Odisha's valor and a significant precursor to India's freedom movement.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the Paika Rebellion of 1817, consider the following statements:

1. It was led by Bakshi Jagabandhu against the British East India Company.
2. The rebellion was primarily a response to the abolition of rent-free land tenures and oppressive revenue policies.
3. The Paikas were a tribal group engaged in shifting agriculture.

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

(a) :Answer

DEVADASI SYSTEM

Why in News: The State Human Right Commission of Karnataka, directed the government to complete the door-to-door survey of the Devadasi System without fixing any age limit.

Key Details

- In previously held surveys in 1993-1994 and 2007-2008, 22,873 and 46,660 Devadasis, respectively, were identified.
- In the previous two surveys, the age limit has been observed as 45 and above to qualify to register.
- The centuries-old practice of Devadasis has been banned in the State since 1982 when the Karnataka Devadasis (Prohibition of Dedication) Act was enacted.
- The Bengaluru-based National Law School of India University (NLSIU) is spearheading efforts to bring a new legislation for Devadasis against any age limit.

About the Devadasi system

- A devadasi is a woman artist, usually young girls and before puberty, committed to the worship and service of a deity or temple for her entire life. This dedication occurs during a ceremony that resembles a marriage ceremony.

Need for Survey

- **Outdated and Incomplete data:** The last comprehensive survey was conducted in 2007-08, which excluded many younger women, especially those under 18 at the time,

due to age restrictions. As a result, current data is neither accurate nor reflective of the real scope of the issue today.

- **Persistent Practice despite legal ban:** Despite Legal ban in Karnataka since 1982, some young Dalit girls are still being dedicated as Devadasis, often under social and economic pressures.
- **Welfare and Rehabilitation:** Many Devadasis are still excluded from government assistance such as pensions, housing, skill training, and health benefits- due to lack of recognition or documentation.
- **Legal and Human Rights Compliance:** India is a signatory to international conventions on women's rights (e.g., CEDAW). Conducting a robust survey helps fulfill obligations to identify and assist vulnerable groups.

About Karnataka Devadasi (Prevention, Prohibition, Relief and Rehabilitation) Bill, 2025

- The bill replaces older laws (1982, 2009) with a comprehensive, rights-based model.
- It criminalizes any involvement in Devadasi dedication, with penalties ranging from 2 to 5 years imprisonment and fines starting at ₹1 lakh; repeat offenders face up to 7 years and ₹2 lakh fines, and offences on temple grounds are non-bailable.
- Children of Devadasis gain rights to recognize and establish paternal identity, claim inheritance, and receive maintenance. They are considered legitimate children under the law.
- Guarantees healthcare, housing, pensions, education, and livelihood opportunities, via relief charters and institutional mechanisms at taluk, district, and state levels.

Advocacy & Community Engagement

- Sitavva Joddatti, a former Devadasi turned activist and Padma Shri awardee, leads the NGO MASS, which has helped rehabilitate over 4,000 women, and established around 300 self-help groups (SHGs) offering financial literacy, healthcare workshops, legal counselling, and more.
- Shobha Gasti, another prominent activist, founded MASS in 1997 and helped secure pensions for former Devadasis aged over 45. She was honoured with the Nari Shakti Puraskar.

Challenges & Calls for Inclusion

- Activists and scholars warn that imposing age limits (e.g., 41 years and above) on the survey excludes many younger survivors, perpetuating invisibility and denial of benefits.
- The 2025 Bill's participatory drafting process driven by consultations with over 15,000 Devadasi women marks a shift from top-down policymaking to a more inclusive, community-led approach.

Conclusion

Karnataka's Devadasi rehabilitation program combines strong legal frameworks, targeted welfare services, modern outreach tools, and ground-level activism. However, to be truly effective and just, the resurvey must be fully inclusive and enable all former Devadasis—especially younger victims—to participate and benefit.

KUDAVOLI SYSTEM OF CHOLAS

Why in News: In an address at Gangaikonda Cholapuram, PM Modi said, the Chola empire carried forward India's ancient democratic traditions.

Key highlights

- He also praised the thousand-year-old stone temple built by Rajendra Chola-I.
- He highlighted that Chola Empire's democratic method existed centuries before the British Magna Carta.
- **Gangaikonda Cholapuram is a Shiva temple**, a UNESCO World Heritage Site situated in Ariyalur, Tamil Nadu, built by Rajendra Chola I as his capital.

Chola Empire

- The Chola Empire, **9th to 13th centuries CE**, was one of the longest-ruling dynasties in South India, with its heartland in present-day Tamil Nadu.
- Under rulers like **Raja Raja Chola I** and **Rajendra Chola I**, the empire expanded across South India, Sri Lanka, and even parts of Southeast Asia.
- The Cholas had a strong navy, enabling **maritime trade** and **overseas conquests**.
- They also made major contributions to **art, architecture** (e.g., **Brihadeeswarar Temple**), **Tamil literature**, and administration.
- The Cholas developed a well-organized bureaucracy and **local self-governance system** through village assemblies (sabhas), which became a model for later Indian kingdoms.
- It was built on two core village-level institutions i.e. Sabha and Ur.
 - **Sabha:** A council of learned Brahmins in Brahmadeya (land gifted to Brahmins) villages, responsible for administration, land management, and justice.
 - **Ur:** A general village assembly in non-Brahmin settlements, where all residents participated in local governance, resource distribution, and community decisions.
- The '**Uttaramerur Inscription**' issued by **Prantaka Chola** offers detailed information about the world's earliest surviving evidence of a formal electoral system called **Kudavolai System**.

Kudavoli System: Ballot Pot Election System

- Under this method, villages were divided into wards.
- The names of eligible candidates were inscribed on **palm leaves tickets (Volai)** and placed inside a **pot (Kuda)**.
- A young boy, typically chosen for his impartiality, would draw the lot in full public view.
- The name on the leaf would be declared Winner of the election.
- Elected members formed the village sabha/ committee (called **Variyam** or **Kudumbu**).
 - Committees such as Garden Committee, Tank (irrigation) committee, Justice committee, Gold committee (financial matters).
- This randomised draw was not a game of chance but a civic ritual rooted in transparency, fairness, and collective consent.
- **Disqualifications & Eligibility criteria:**
 - Candidates were required to own land that pays taxes.
 - Be aged between 35 and 70 years.
 - Have good knowledge of Vedic texts or administrative skills.
 - Have a clean record with no history of crime or domestic violence.
 - Individuals who defaulted on debts, struggled with alcoholism, or were closely related to sitting members were not eligible or disqualified.

Significance of the Kudavolai System:

- Demonstrates grassroots democracy over 1,000 years ago.
- Ensured fairness, transparency, and inclusiveness in local governance.
- Was codified in inscriptions like the famous Uttaramerur inscription (c. 920 CE) during Parantaka Chola I's reign.
- Inspired by community participation rather than hereditary power.

Legacy

The Kudavolai system shows how **local self-governance** and **elected representation** were highly developed in ancient India. It is often cited by historians as a **precursor to modern democratic processes**, especially in rural administration.

Conclusion

The Kudavolai System reflects the Chola Empire's advanced understanding of democratic principles and grassroots governance. Its transparent, participatory election method highlights the value placed on accountability, fairness, and civic involvement in ancient Indian administration.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The Kudavolai system of the Chola Empire reflects early democratic practices in ancient India. Critically examine its features, significance, and relevance to modern local self-governance." [250 Words] [15 Marks]

MAHABODHI TEMPLE

Why in News: The Supreme Court agreed to examine a plea for repealing the Bodh Gaya Temple Act, 1949 and replacing it with a central law for the proper control, management and administration of Mahabodhi temple in Bihar.

Key Details

- The plea came up for hearing before bench of Justice M.M.Sundresh and N.Kotiswar singh.
- The bench issued notice to the Centre and others seeking their responses on the petition.
- The plea has sought to declare the 1949 Act as unconstitutional alleging it was "inconsistent" with Article 13 of the Constitution.
- Article 13 relates to laws inconsistent with or in derogation of the fundamental rights.
- The petition sought a direction to the authorities concerned to remove encroachments made in the premises of the Bodh Gaya temple for the exclusive worship of Buddhists around the world in order to manage, control and administer the religious, faith, belief and worship in the interest of justice.

About Mahabodhi Temple

- The Mahabodhi Temple Complex, a UNESCO World Heritage site, is one of the four holy areas related to the life of Gautam Buddha.
- Bodh Gaya is a place where Buddha is believed to have attained enlightenment.
- The Mahabodhi Temple Complex features a magnificent 50-metre tall temple known as the Vajrasana, along with the revered Bodhi tree and six additional sacred sites related to Buddha's enlightenment.
- This area is encircled by many ancient votive stupas, all of which are well-preserved and safeguarded by inner, middle, and outer circular boundaries.
- To the south, outside the enclosure, lies a seventh sacred site called the Lotus Pond.
- Both the temple area and the Lotus Pond are bordered by circulating walkways at two or three different levels, and the entire complex is situated 5 metres below the surrounding land level.

Controversy over the Bodh Gaya Temple Act, 1949 (BGTA)

Historical Background:

- Prior to 1949, the Mahabodhi Temple the site of Buddha's enlightenment—was managed by a Hindu mahanth, leading to long-standing disputes over custodianship.
- The state of Bihar enacted the BGTA to regulate temple administration through a formal structure.
- The Act established the Bodh Gaya Temple Management Committee (BTMC), comprising four Buddhists and four Hindus, with the Gaya District Magistrate (DM) as ex-officio chairperson. Until a 2013 amendment, the DM had to be Hindu.

Religious autonomy vs. shared governance:

- Buddhist groups argue that a sacred Buddhist shrine shouldn't be governed by non-Buddhists.
- They seek exclusive control to preserve sanctity and religious character, noting that other religions manage their own places of worship.
- Despite equal representation, the DM often tipped the balance in favor of non-Buddhists.
- Critics say Hindu rituals such as installing a Shiva lingam or treating Buddha as an incarnation are inconsistent with Buddhist doctrine and dilute the site's symbolism.

Present status and demands

- Buddhist groups argue that Mahabodhi Temple, should be managed solely by Buddhists, not a joint Hindu-Buddhist committee.
- The temple was under Hindu Mahant control before independence. Though the BGTA attempted reform, Buddhists feel it continues colonial-era inequities and allows non-Buddhist rituals at a purely Buddhist site.
- Buddhist monks and organizations have staged hunger strikes and demonstrations demanding the Act's repeal.

Legal Complications and Ongoing Protests

The legal complications surrounding the Bodh Gaya Temple Act, 1949 (BGTA) involve constitutional, religious, and administrative challenges.

Violation of Religious Freedom (Article 25 & 26):

- **Article 25** guarantees the freedom of conscience and the right to freely profess, practice, and propagate religion.
- **Article 26** allows religious denominations to manage their own religious affairs.
- **Buddhist groups argue that the BGTA** violates these rights by allowing non-Buddhists (Hindus and state officials) to participate in the management of a Buddhist religious site.

Denial of Religious Autonomy:

- Unlike Hindu temples, mosques, churches, or

gurdwaras, where followers exclusively manage affairs, the shared governance model at Bodh Gaya is seen as an exceptional interference in Buddhist autonomy.

- This raises concerns of discrimination and unequal treatment under Article 14 (Right to Equality).
- **State Control over a Religious Institution:**
 - The presence of the District Magistrate (a government officer) as the ex-officio chairperson of the temple committee raises questions about state interference in religious institutions.
 - This blurs the line between state and religion, potentially violating the principle of secularism under the Constitution's basic structure doctrine.
- **Nature of the Temple and Mixed Ownership History:**
 - Legally, Mahabodhi Temple is unique due to its pre-1949 control by Hindu Mahants and the shared rituals that historically occurred.
 - This makes the title and ownership a complex legal issue, affecting claims for exclusive Buddhist control.

Way Forward

- Modify the BGTA to guarantee that Buddhists hold a clear majority in the temple management committee.
- Ensure that the chairperson is a practicing Buddhist, especially since the temple is exclusively sacred to Buddhism.
- Replace the District Magistrate's ex-officio role with an independent Buddhist religious head or a neutral civil administrator, to uphold secularism and prevent state overreach.
- Create a statutory Buddhist Heritage Board under the Ministry of Culture or Minority Affairs to oversee major Buddhist sites, ensuring community representation, protection, and funding.
- The Supreme Court should undertake a comprehensive review of the BGTA's constitutionality especially under **Articles 25, 26 and 14** and provide clear guidelines on religious autonomy and state involvement.
- Encourage Buddhist-Hindu dialogue to resolve historical grievances peacefully and avoid politicization.

Conclusion

A reformed legal framework must respect Buddhist religious rights, align with constitutional principles, and ensure inclusive, non-political management of one of the world's most sacred Buddhist sites. This will strengthen India's pluralism and global image as the land of Buddha.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which of the following statements about the Mahabodhi Temple in Bodh Gaya is/are correct?

1. It is the site where Gautama Buddha attained enlightenment.
2. The Mahabodhi Temple is a UNESCO World Heritage Site.
3. The temple is exclusively managed by the Buddhist community under the Bodh Gaya Temple Act, 1949.
4. Emperor Ashoka is credited with constructing the original structure at the site.

Select the correct answer using the code below:

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

(b) Answer

LALIT KALA AKADEMI

Why in News: The Lalit Kala Akademi (LKA) Inaugurates the 64th National Exhibition of Art with a historic push towards artist Empowerment.

A platform for Artistic Excellence

- LKA is India's premier institution for contemporary visual arts (including painting, sculpture, printmaking, photography, installation, and mixed media), showcasing a diverse range of contemporary artworks by leading and emerging Indian artists.
- Established in 1954, LKA is an autonomous body under the Ministry of Culture.
- The 64th edition received thousands of entries, out of which 300+ artworks were selected by an eminent jury.
- A total of 15 artists received the National Akademi Award, each carrying a cash prize of ₹1 lakh and a citation.

Diverse themes and voices

- This year's exhibition reflects India's rich cultural diversity, exploring themes like:
 - Climate change and sustainability
 - Gender identity and social justice
 - Urbanization and migration
 - Folk traditions and spiritual symbolism

Key initiatives by Lalit Kala Akademi

- **National Exhibition of Art:** An annual event showcasing contemporary Indian artworks from across the country.
- **Workshops, Camps, and Artist Residencies:** Organizes

state-level and national-level art camps, workshops, and artist-in-residence programs to promote creativity and collaboration.

- **Art Scholarships and Fellowships:** Offers scholarships and research grants to young artists and art students to pursue their work independently.
- **International Cultural Exchange Programs:** Facilitates cultural exchanges with foreign art institutions, allowing Indian artists to exhibit and collaborate globally.
- **Publication and Documentation:** Publishes art journals, monographs, and exhibition catalogues to document Indian art practices and promote awareness.
- **Regional Centres and Galleries:** Operates regional centers in cities like Chennai, Kolkata, Bhubaneswar, and Lucknow to decentralize access to art.
- **Preservation and Promotion of Traditional Arts:** Conducts initiatives to support folk, tribal, and traditional Indian art forms, integrating them with modern artistic practices.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which of the following is/are key initiatives undertaken by the Lalit Kala Akademi?

1. Organizing the National Exhibition of Art
2. Awarding the National Akademi Awards to visual artists

3. Conducting artist residencies, workshops, and art camps
4. Implementing schemes for performing arts like dance and music

Select the correct answer using the code below:

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

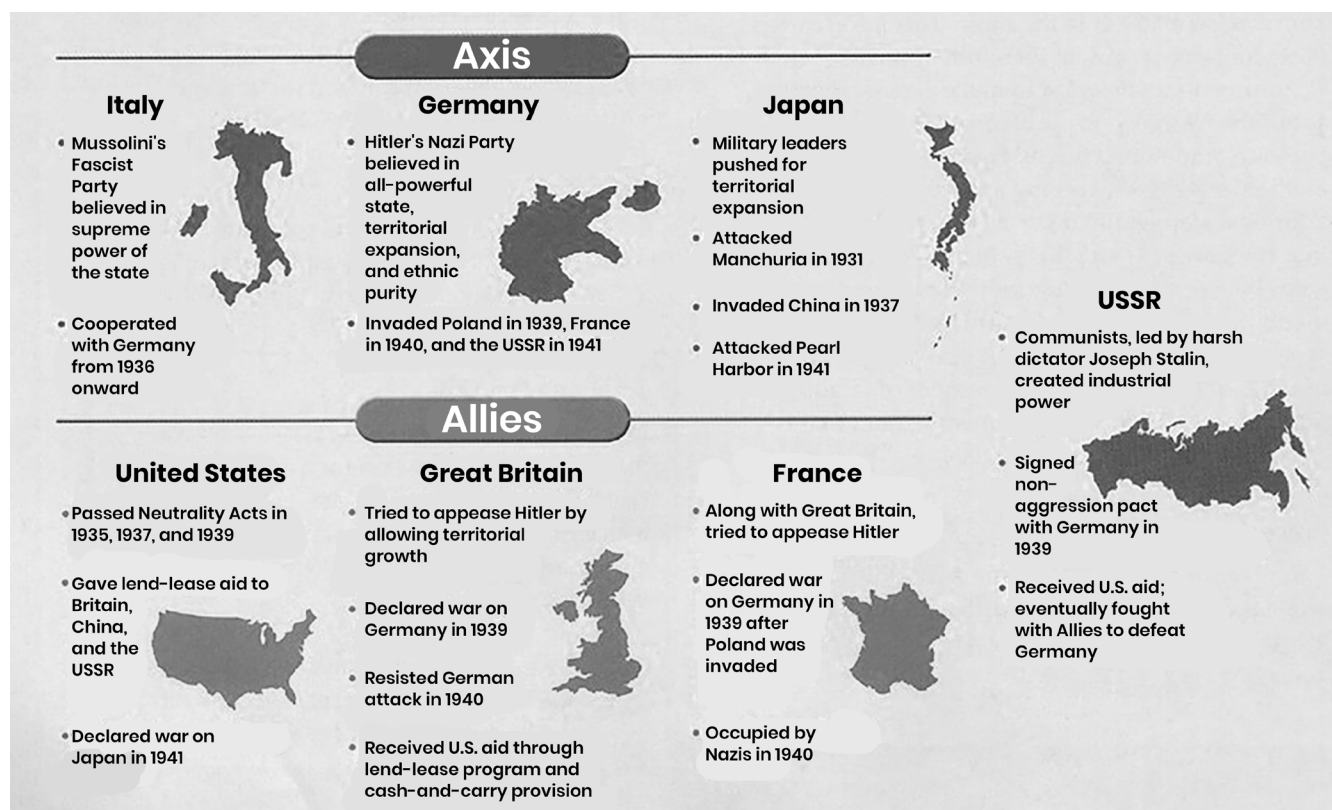
(a) Answer

WW-II RESHAPED THE GLOBAL ORDER

Why in News: The United Kingdom and Germany just signed their first bilateral treaty since World War II, promising to provide “mutual assistance” if either country is attacked.

Background

- World War II (1939–1945) was a global conflict involving major powers divided into Allies and Axis.
- Triggered by Nazi Germany’s invasion of Poland, it led to massive destruction, the Holocaust, and atomic bombings in Japan.
- It reshaped global politics, leading to the Cold War and the United Nations.
- During World War II, the UK played a significant role as an Allied power, whereas Germany was aligned with the Axis Powers (opposite to each other).



How World War I led to World War II

World War I set the stage for World War II due to a mix of political, economic, and social fallout:

- **Treaty of Versailles (1919)**
 - It imposed severe penalties on Germany, including huge reparations, loss of territory, and military limitations.
 - This left Germany feeling humiliated and resentful, which sparked nationalist and revanchist feelings.
- **Economic Turmoil**
 - The war wrecked European economies.
 - The Great Depression of 1929 made global instability and unemployment even worse, leading to more support for extremist ideologies like fascism and Nazism.
- **Rise of Totalitarian Regimes**
 - The economic and political chaos allowed authoritarian leaders (like Hitler in Germany and Mussolini in Italy) to rise to power, as they promised revival and revenge.
- **Failure of the League of Nations**
 - Although it was created to prevent future wars, it didn't have the power to enforce its decisions and failed to stop aggression from Axis powers in the 1930s.
- **Unresolved Nationalist Tensions**
 - The borders redrawn after WWI overlooked ethnic and national identities, particularly in Eastern Europe and the Balkans, leading to ongoing conflict.

Course of World War II

- **Outbreak of War (1939)**
 - September 1, 1939: Germany invades Poland.
 - September 3, 1939: Britain and France declare war on Germany.
 - Soviet Union invades eastern Poland under Molotov–Ribbentrop Pact.
 - Poland is divided between Germany and the USSR.
- **Early Axis Victories (1939–1941)**
 - Blitzkrieg (“Lightning War”) tactics lead to rapid German victories.
 - **1940:**
 - ◆ Germany invades Denmark and Norway.
 - ◆ May–June 1940: Fall of France.
 - ◆ Battle of Britain begins: UK resists German air attacks.
 - **1941:**
 - ◆ April: Germany invades Yugoslavia and Greece.
 - ◆ June 22, 1941: Operation Barbarossa – Germany invades Soviet Union.

- ◆ December 7, 1941: Japan attacks Pearl Harbor.
- ◆ December 8–11: USA enters war; Germany and Italy declare war on USA.

Turning Points (1942–1943)

- **1942:**
 - Battle of Midway (June): Major U.S. victory against Japan in the Pacific.
 - El Alamein (October): British victory in North Africa.
- **1943:**
 - ◆ Battle of Stalingrad ends (Feb): Major Soviet victory, turning tide on Eastern Front.
 - ◆ Allied invasion of Italy begins (July).
 - ◆ Italy surrenders (September), but Germany continues fighting in Italy.
- **Allied Offensives (1944)**
 - June 6, 1944 – D-Day: Allied forces land in Normandy, France.
 - August 1944: Paris liberated.
 - Soviets advance westward, pushing back German forces in Eastern Europe.
 - Axis powers retreat across all fronts.
- **Defeat of Axis Powers (1945)**
 - April 1945:
 - ◆ Soviets enter Berlin.
 - ◆ April 30: Hitler commits suicide.
 - May 7–8, 1945: Germany surrenders – V-E Day (Victory in Europe).
 - August 6 and 9, 1945: U.S. drops atomic bombs on Hiroshima and Nagasaki.
 - August 15, 1945: Japan surrenders – V-J Day (Victory over Japan).

How WWII Reshaped the Global Order

- **Rise of the Superpowers (USA & USSR)**
 - **Before WWII:** Europe dominated global politics.
 - **After WWII:**
 - ◆ USA and Soviet Union emerged as superpowers—militarily and ideologically dominant.
 - ◆ Bipolar world order replaced the old multipolar system.
 - ◆ Led to the Cold War (1947–1991): Capitalism vs. Communism.
- **Collapse of European Colonial Empires**
 - European powers (Britain, France, etc.) were economically weakened.
 - Colonized nations demanded independence, inspired by anti-fascist rhetoric and wartime sacrifices.
 - Triggered decolonization movements across:
 - ◆ Africa (e.g., Ghana, Kenya)
 - ◆ Asia (e.g., India, Indonesia, Vietnam)

- By the 1960s, most colonies had gained independence.
- **Creation of the United Nations (1945)**
 - UN established to prevent another global war.
 - Aimed to promote peace, security, and cooperation.
 - Replaced the League of Nations, which had failed to prevent WWII.
 - Headquarters in New York; now nearly every country is a member.
- **Division of Europe & Iron Curtain**
 - **Post-war Europe was divided:**
 - ◆ Western Europe: Democratic, capitalist (backed by USA).
 - ◆ Eastern Europe: Communist, under Soviet control.
 - Led to the creation of NATO (1949) and the Warsaw Pact (1955).
 - Germany was split: West Germany (Federal Republic) and East Germany (Communist).
- **Economic Rebuilding and Global Institutions**
 - **Marshall Plan (1948):** U.S. funded massive rebuilding of Europe.
 - **Created global economic institutions:**
 - ◆ International Monetary Fund (IMF)
 - ◆ World Bank
 - ◆ GATT (later became WTO)
 - Set the foundation for global capitalism and free trade.
- **Formation of Israel and Middle Eastern Tensions**
 - **1948:** Israel established as a homeland for Jews, following the Holocaust.
 - Led to long-term Arab-Israeli conflicts.
 - Reshaped the geopolitics of the Middle East.
- **Nuclear Age Begins**
 - Use of atomic bombs in Hiroshima and Nagasaki introduced nuclear weapons as a central issue in global politics.
 - Nuclear arms race became a defining feature of the Cold War.
 - Ongoing global concerns about nuclear proliferation.
- **Human Rights and War Crimes**
 - The Nuremberg Trials prosecuted Nazi leaders for war crimes and genocide.
 - Led to the development of international human rights law.
 - Universal Declaration of Human Rights adopted in 1948.

Anticipated Impact of the UK- Germany treaty

Area	Impact
European Security	Strengthened deterrence via shared defense posture; less reliance on the U.S.; investing in European autonomy.
Defense Industry	Boosted defense industrial base, shared logistics, enhanced exports, and economies of scale in procurement.
Migration & Social Cohesion	Potential reduction in Channel smuggling; improved integration leveraging civic and language programs; social stability gains.
Technological Leadership	Joint innovation could position both nations as global leaders in high-tech domains.
Geopolitical Realignment	UK re-engages robustly with Europe post-Brexit; E3 alliance shapes a more cohesive European foreign policy.
Risks & Challenges	Domestic political volatility could hamper long-term commitments; implementation and IP disputes may delay key projects.

Future Direction

- **Joint Capabilities Development:** Projects include co-development of long-range precision strike systems (2,000 km+), drones, armored vehicles like the Boxer, and bolstered patrols—such as German aircraft operating from Scotland.
- **Enhanced Industrial Cooperation:** Shared arms exports, new manufacturing facilities (e.g., a Rheinmetall factory in the UK), and interoperability in defense industry strategies.
- **E3 Coordination (UK–Germany–France):** The treaty strengthens trilateral collaboration, deepening common strategy on migration, defense, and foreign policy.
- **Energy and Technology Ties:** Full-spectrum cooperation spans renewable energy (notably North Sea projects), digital innovation, climate action, education, and scientific research.
- **Legal Reforms Against Smuggling:** Germany will criminalize facilitation of unauthorized migration to the UK, targeting smugglers and logistical hubs—even in the absence of migrants.
- **Increased Defense Spending:** Commitment to ramp up defense budgets—3.5 % of GDP—and boosting industrial investments.
- **Industrial Growth:** Job-creating investments, such as

drone manufacturing in Swindon and UK-based artillery production using British.

- **Innovation Funding:** Joint R&D and tech investments in AI, quantum computing, and semiconductor resilience are expected; e.g., a €2.5 billion innovation fund with projected GDP boosts of 0.6 % (UK) and 0.8 % (Germany) by 2030.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The UK–Germany Friendship and Bilateral Cooperation Treaty mark a significant step toward redefining European strategic autonomy and post-Brexit realignment." Critically examine the significance of this treaty in the context of evolving global power dynamics, European security, and implications for India. [250 words] [15 marks]

NAVAL PROWESS OF KING RAJENDRA CHOLA I

Why in News: Under the dynamic leadership of Rajendra Chola I, the Naval supremacy reached the zenith of its power.

Key Details

- The entire southern peninsula of India under their dominion, the Cholas commanded an unobstructed access to the seas.
- The naval campaigns launched during this period led to the annexation of Sri Lanka and an audacious expedition across the Bay of Bengal to the distant shores of the Malay Peninsula.
- The defeat of Malay Peninsula earned Rajendra the title Kadaram Kondan (the Conqueror of Kadaram).

Rajendra Chola I (1014-1044 CE)

- Son of the legendary Rajaraja Chola I, Rajendra ascended the throne around 1014 CE.
- He inherited a powerful and well-organized Chola Empire, which he expanded further to unprecedented heights.
- Known as the "Napoleon of South India" due to his military genius and ambitious conquests.

His Naval Prowess

- Rajendra Chola I (r. c. 1014–1044 CE) was the first Indian emperor to undertake large-scale naval expeditions beyond the Indian subcontinent.
- **He transformed the Chola navy into a powerful blue-water force to:**
 - Control vital maritime trade routes in the Bay of Bengal and the Indian Ocean.
 - Project power across Southeast Asia.

- Secure and expand economic influence via ports and merchant networks.

Major Naval Campaigns

- **Conquest of Sri Lanka**
 - Continued and completed the conquest initiated by his father, Rajaraja Chola I.
 - Subjugated the entire island, leading to its full incorporation into the Chola Empire.
- **Maldives Campaign**
 - The Chola navy extended operations deep into the Indian Ocean, asserting control over the Maldives.
 - This served both as a military outpost and a trade checkpoint.
- **Southeast Asian Expedition (c. 1025 CE) – The Srivijaya Campaign**
 - The most famous and far-reaching naval expedition.
 - Rajendra sent a massive naval fleet to attack the Srivijaya Empire, which controlled key maritime choke points like:
 - ◆ The Straits of Malacca
 - ◆ Coastal areas of Sumatra, Java, and the Malay Peninsula

Significance of His Naval Achievements

- **Expansion of Indian Influence**
 - Extended Chola political and cultural influence across the Bay of Bengal.
 - Strengthened Indian maritime and trade networks with Southeast Asia.
- **Military and Logistical Excellence**
 - Demonstrated organized, long-range naval logistics—rare for the time.
 - Efficient troop movement, shipbuilding, and supply chains across seas.
- **Precursor to Indian Ocean Geopolitics**
 - Pre-dated colonial European naval empires by centuries.
 - Showcased India's early blue-water naval capability.

Conclusion

Rajendra Chola I's naval prowess established India as a dominant maritime power, expanding influence across Southeast Asia and securing vital trade routes. His strategic vision combined military strength with diplomacy, leaving a lasting legacy that continues to inspire India's maritime ambitions today.

In the 21st century, as India aspires to become a leading maritime power in the Indo-Pacific, reviving the legacy of Rajendra Chola I offers both inspiration and direction. Key steps include:

- **Strengthening Indigenous Naval Capabilities** – Invest in blue-water naval assets and shipbuilding under Atmanirbhar Bharat.
- **Enhancing Maritime Diplomacy** – Deepen naval cooperation with Southeast Asian nations, reflecting ancient cultural ties established during the Chola period.
- **Promoting Maritime Heritage** – Develop historical ports like Nagapattinam and Gangaikonda Cholapuram into heritage and educational hubs to honor India's naval legacy.
- **Leveraging Soft Power** – Use shared history to enhance cultural diplomacy, especially with nations like Indonesia, Malaysia, and Sri Lanka.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Which of the following statements about Rajendra Chola I's naval expeditions is/are correct?

1. He launched naval campaigns against the Srivijaya Empire in Southeast Asia.
2. His naval expeditions extended Indian influence to the Maldives and Sri Lanka.
3. Rajendra Chola I's naval power was limited only to the Indian subcontinent.

Which of the statements given above are correct?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) All of the above

(a) Answer



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GOVERNMENT SCHEMES

PM DHAN-DHAANYA KRISHI YOJANA

Why in News: The Union Cabinet approved the Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY), to develop 100 agricultural districts through the convergence of 36 schemes of 11 ministries.

Key Details

- The scheme will be implemented for six years beginning with the current financial year, 2025-26.
- The programme will cover 100 districts with low productivity, moderate crop intensity and below-average credit parameters.
- The NITI Aayog will also provide “overall guidance and capacity building” support to PMDDKY.

Cropping intensity

- Cropping intensity is a measure of how efficiently land is used.
- It is defined as the percentage of gross cropped area to the net area sown.
- Simply put, cropping intensity means the number of crops grown on a piece of land in an agricultural year (July-June).
- At the all-India level, cropping intensity was recorded at 155 per cent in 2021-22, but there were variations across states.

About scheme

- A master plan will be drawn up for every district for the implementation of PMDDKY, including agriculture and allied activities.
- This District Agriculture and Allied Activities Plan will be prepared by the District Dhan Dhaanya Samiti headed by the Collector, and will have progressive farmers as members.
- The plans will be based on extensive consultations and understanding cropping patterns and allied activities as per agro-climatic conditions.
- Committees will be set up at the district, state, and national levels for their effective implementation.
- Central Nodal Officers (CNOs) will be appointed for field visits, review and monitoring.
- The progress of the scheme in each Dhan-Dhaanya district will be monitored on a monthly basis on 117 Key Performance Indicators.

- Every district will have central and state agriculture universities as technical knowledge partners.
- A digital dashboard, farmer app, and district ranking system will ensure transparency, access, and accountability.

Objective of the Scheme

- **The program has five objectives:**
 - Enhancing agricultural productivity.
 - Adopting crop diversification and sustainable agriculture practices.
 - Augmenting post-harvest storage at the panchayat and block level.
 - Improving irrigation facilities.
 - Facilitating availability of long-term and short-term credit.

Implementation Structure for**Pradhan Dhan-Dhaanya Krishi Yojana****National-Level Oversight Bodies**

- 2 teams will be formed: 1 under Union Ministers, and 1 under Secretaries and Department Officers.
- Central Nodal Officers will also be appointed for each district.

State-Level Steering Groups

- Similar to the teams at the district level
- Will ensure effective convergence of schemes in districts.

District-Level Committees

- District Dhan-Dhaanya Krishi Yojana (DDKY) Samiti, chaired by the District Collector or Gram Panchayat, will be established
- Samiti will also include progressive farmers and departmental officers.
- Tasked to prepare a District Agriculture & Allied Activities Plan.
- Progress will be tracked using 117 Key Performance Indicators (KPIs) on a central dashboard.

Source: PIB

Expected Outcomes

- This scheme will also focus on fruits, fisheries, beekeeping, animal husbandry, and agroforestry, not just crop agriculture.
- By leveraging scale, technology, and institutional strength, the scheme is poised to be a game changer in rural transformation. The scheme will result in:

- Higher productivity
- Value addition in agriculture and allied sector
- Local livelihood creation
- Increase in domestic production
- Achieving self-reliance (Atmanirbhar Bharat)

Potential Impacts of the scheme on farmers and agricultural sector

- **Enhanced Post-Harvest Infrastructure:** The scheme focuses on building modern warehouses, cold storages, and supply chain systems, which can reduce post-harvest losses and improve price realization for farmers.
- **Improved Access to Credit:** By supporting infrastructure like aggregation centers and marketing platforms, farmers—especially small and marginal—can have better access to institutional credit and government procurement mechanisms.
- **Boost to Agricultural Exports:** With better quality control, processing, and storage infrastructure, Indian agricultural produce becomes more competitive in international markets, enhancing export potential.
- **Promotion of Crop Diversification:** Improved facilities for storage and value addition can encourage farmers to shift from traditional cereals to high-value crops like fruits, vegetables, and pulses, enhancing income security.
- **Support for Agri-Tech and Innovation:** The scheme opens up space for startups and private sector investment in agriculture-related technology (like precision farming, digital platforms, etc.), fostering innovation and modernizing the sector.

Conclusion

The Dhan-Dhaanya Krishi Yojana, initiated by the Prime Minister, harnesses the strengths of convergence, decentralized planning, and real-time monitoring to address some of the enduring structural issues in Indian agriculture.

With strong financial backing and assistance from NITI Aayog, agricultural universities, and 11 ministries, this initiative seeks to enhance the livelihoods of 100 districts characterized by low productivity, moderate crop density, and subpar credit metrics, thereby fostering resilient rural communities and fulfilling the commitment of “Sabka Saath, Sabka Vikas” in the agricultural sector.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The PM Dhan-Dhaanya Krishi Yojana aims to ensure comprehensive agricultural development and food security in India. Critically examine the objectives, key features, and potential impact of the scheme on farmers and the agricultural sector. What challenges might hinder its effective implementation? [250 Words] [15 Marks]

SASCI SCHEME

Why in News: The Ministry of Tourism issued operational guidelines along with detailed project report template under ‘Special Assistance to the States for Capital Investment (SASCI)- Development of Iconic Tourist Centres to Global Scale’.

Aim & Objective

- The aim of this scheme is to infuse long term interest free loans for a period of 50 years to States for comprehensively develop iconic tourist centers in the country, branding, and marketing them at global scale. The scheme envisages the local economy growth and create employment opportunities through sustainable tourism projects.

Salient features of the scheme

- The scheme aims to develop end to end tourist experience that creates intended value and achieve scheme objectives while adopting the responsible tourism practices.
- The Scheme shall encourage harnessing of best-in-class expertise for design and development of tourist experiences at par with international standards.
- The State government to provide land for the project, free from all encumbrances at free of cost.
- The projects under the scheme shall be developed and completed within maximum of two year’s period. The Government of India will release the funds under this scheme up to 31.03.2026 however the States will be allowed to use the funds released beyond 31.03.2026.
- The Operations and Maintenance of the project shall be the sole responsibility of the respective State Government and may be discharged through Public Private Partnership (PPP) mode.

Advantages

- **Diversifies Tourist Flow:** Encourages development of lesser-known sites (e.g., Bateshwar in UP, Gandikota in AP, Ponda in Goa), relieving pressure on saturated destinations and redistributing tourist traffic.
- **Economic Uplift & Job Creation:** Local economies benefit through tourism-linked job generation, infrastructure investment, and boost in ancillary services.
- **Sustainable & Community-Centric:** Emphasis on sustainability, carrying capacity, community involvement, and preservation of cultural heritage ensures long-term viability.
- **Leverages Expertise and Tech:** Promotes participation of experts in design, environment, heritage management, and integrates advanced technologies for better tourist management.
- **Strengthens Cooperative Federalism:** Encourages intergovernmental collaboration—central funding, state-led execution—with flexibility for innovation.

Challenges/Disadvantages

- **State Capacity Limitations:** States may lack requisite technical expertise or governance bandwidth to deliver ambitious, timely execution.
- **Sustainability Concerns:** Without rigorous oversight, infrastructure development risks ecological degradation or unsustainable tourist carrying capacity.
- **Execution & Maintenance Risks:** Infrastructure often demands long-term upkeep. States must commit resources to sustain facilities beyond initial setup.

Future benefits & outcomes

Category	Insight
Balanced Tourism Spread	Encourages tourism in new regions, potentially easing stress on popular locales.
Economic Multiplier	Infrastructure and marketing investments expected to yield higher tourism revenue and GDP growth.
Local Empowerment	Communities stand to benefit via jobs, craft markets, and service interfaces.
Global Image Enhancement	Development of global-standard tourist centres elevates India's international attractiveness.
Scalability and Replicability	Effective models may be adopted for future schemes beyond March 2026 timeline.
Convergence with National Vision	Aligns with initiatives like Swarnim Bharat 2047, Make in India, and Swadesh Darshan etc.

Way Forward

To ensure long-term success of the SASCI scheme, focus should be on capacity building, sustainable planning, community engagement, and timely execution. Integrating digital tools and ensuring convergence with other tourism initiatives will further enhance impact and accountability.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. The SASCI Scheme of the Ministry of Tourism primarily aims to:
- Promote international trade
 - Develop iconic tourist destinations with capital investment support
 - Provide subsidies for hotel construction
 - Fund private tour operators directly

Answer: b

AMRIT BHARAT STATION SCHEME

Why in News: The Tamil Nadu government is redeveloping 77 stations in Tamil Nadu under the "Amrit Bharat Station Scheme (ABBS)".

Other Details

- Tamil Nadu is a major center of the modernisation of railway infrastructure.

Positive Impacts

- **Cultural Projects Underway:** "PM Ekta Mall" (Unity Mall) in Aizawl under SASCI Part 6—demonstrates boosting local products and cultural representation.
- **Boost to Spiritual & Eco-Tourism:** A fund under SASCI allocated to the Akhanda Godavari project in Andhra Pradesh to transform Rajahmundry into a cultural-spiritual tourism hub.
- **Balanced Tourism Development:** Aims to alleviate congestion at mainstream attractions and catalyze tourist growth in underexplored locales.

- According to PM, the country's railway infrastructure has entered a new era of modernisation.
- It was launched to make railway stations cleaner, more comfortable and future-ready.

About Scheme

- Launched in 2022, the Amrit Bharat Station Scheme (ABSS) aims at development and upgradation of stations over the Indian Railways network.
- The ABSS has a long-term vision that involves creating master plans, promoting multimodal connectivity, better station accessibility for passengers, etc.
- Under the ABSS, over 1,300 stations have been identified for development.
- Focuses on non-major stations (Tier 2 & Tier 3 cities), unlike earlier schemes focused on big junctions.
- 103 redeveloped railway stations, situated in 86 districts across 18 states and Union Territories has been inaugurated.

Key Features

- **Modernization of station buildings,** waiting areas, toilets, and ticketing zones.
- **Integration with local heritage and culture** in design.
- **Improved passenger amenities** like lifts, escalators, signage, digital boards, and executive lounges.
- **Better multimodal connectivity** (bus, metro, etc.).
- **Green initiatives** like solar panels, waste management, and water conservation.

- **Divyang-friendly infrastructure** for accessibility.

Long-term Vision

- Create world-class station infrastructure.
- Boost regional connectivity and ease of travel.
- Spur economic growth and local development through better rail-based mobility.

Conclusion

The Amrit Bharat Station Scheme marks a significant step toward transforming India's railway infrastructure into a modern, inclusive, and passenger-centric system. By focusing on holistic development beyond metros and major junctions, it bridges regional gaps and enhances the overall travel experience.

Way Forward

To ensure long-term success, the scheme must focus on timely execution, maintenance of upgraded facilities, and integration with smart city and urban mobility plans. Involving local stakeholders and adopting sustainable technologies will further strengthen its impact and ensure inclusive development.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What is the primary objective of the Amrit Bharat Station Scheme launched by the Indian Railways?
- (a) To privatize railway stations for better management
 - (b) To modernize major metro railway stations only
 - (c) To develop railway stations with modern amenities and improved passenger experience
 - (d) To introduce bullet train services at all major stations

Answer: c

AYURGYAN SCHEME

Why in News: The Ministry of Ayush is taking steps for widening and deepening research in Ayush medicines.

AyurGyan Scheme

- The Ministry of Ayush is implementing the Central Sector Scheme namely AYURGYAN Scheme.
- The Scheme has 03 components:
 - Capacity Building & Continuing Medical Education (CME) in Ayush
 - Research & Innovation in Ayush
 - Ayurveda Biology Integrated Health Research added under the scheme
- Under the Research & Innovation in Ayush component, financial assistance is provided to the eligible Organizations/Institutions across the country to support

clinical, fundamental, pharmaceutical, literary and medicinal plant research in Extra Mural mode.

- Ministry has established the following organisations for undertaking, coordinating, formulating, developing and promoting research in Ayush system on scientific lines:
 - Central Council for Research in Ayurvedic Sciences (CCRAS)
 - Central Council for Research in Unani Medicine (CCRUM)
 - Central Council for Research in Homoeopathy (CCRH)
 - Central Council for Research in Siddha (CCRS)
 - Central Council for Research in Yoga & Naturopathy (CCRYN)
- **Core research activities comprise of:**
 - Medicinal Plant Research (Medico-Ethno Botanical Survey)
 - Pharmacognosy and in-vitro propagation techniques
 - Drug Standardization
 - Pharmacological Research
 - Clinical Research
 - Literary Research and Documentation
 - Tribal Health Care Research Programme

Key takeaways of the AYURGYAN scheme

- **Unified Framework:** The AYURGYAN Scheme consolidates two earlier initiatives—Capacity Building & Continuing Medical Education (CME) and Research & Innovation in AYUSH—into a single comprehensive program.
- **Capacity Building & CME:** Aims to update the skills of AYUSH professionals—including teachers, doctors, and paramedical staff—through structured training, use of IT-enabled education, and dissemination of latest clinical and teaching practices.
- **Research & Innovation:** Encourages R&D in priority AYUSH areas aligned with national health needs, focusing on elements like drug standardization, validation, and development of new therapies—previously under the Extra-Mural Research Scheme.
- **Implementation Mechanism:** Proposals for CME and research projects are appraised by a Project Appraisal Committee (PAC) and sanctioned by a Project Sanctioning Committee (PSC) within the Ministry.
- **Impact & Reach:** AYURGYAN has empowered over 3,330 trainees, including both AYUSH practitioners and non-AYUSH scientists, fostering interdisciplinary capacity building across India.
- **Strategic Vision:** The scheme promotes the scientific validation of AYUSH systems, increased global acceptance, integration into mainstream healthcare, and evidence-based practice through high-quality research and educational outreach.

AYURSWASTHYA Yojana

- This initiative comprises two main components:
 - **AYUSH and Public Health:** Aimed at enhancing AYUSH interventions for community health care.
 - **Improvement of facilities to establish a Centre of Excellence:** To facilitate the creation of advanced or specialized AYUSH medical health units within esteemed AYUSH and Allopathic institutions in both the Government and Non-Government sectors.
- Under the Centre of Excellence aspect of the AYURSWASTHYA Yojana, financial support is extended to qualifying individual organizations or institutes for the purpose of establishing and upgrading their operations and facilities, as well as for research and development endeavors in the field of AYUSH.

Ministry of Ayush has taken the following steps towards

Positive impact of the AYURGYAN scheme

Impact Area	Description
Healthcare Integration	Bridges AYUSH with allopathic systems; promotes integrative health models.
Quality of Education	Upgrades teaching standards in AYUSH institutions nationwide.
Employment & Innovation	Opens research jobs, supports startups in AYUSH product development.
Global Recognition	Enhances India's global image in traditional healthcare through research output.
Policy Development	Provides data for evidence-based policy making in AYUSH and public health.

Conclusion

The AYURGYAN Scheme is a timely initiative that strengthens India's traditional health systems by integrating capacity building, scientific research, and interdisciplinary collaboration. It empowers AYUSH professionals and researchers, paving the way for a more credible, evidence-based, and globally respected AYUSH ecosystem.

Way Forward

To maximize its impact, the scheme should focus on expanding outreach to rural practitioners, enhancing research infrastructure, and promoting international collaboration. Regular outcome evaluations and integration with mainstream health programs will ensure sustainability and greater public trust in AYUSH systems.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What is the primary objective of the AYURGYAN Scheme launched by the Ministry of AYUSH?
- To promote only traditional Ayurvedic therapies in rural areas
 - To provide subsidies for AYUSH drug manufacturing units
 - To strengthen capacity building and promote research & innovation in AYUSH systems

international promotion, development and recognition for Ayush systems of medicine:

- Signed 25 Country to Country MoUs for Co-operation in field of Traditional Medicine and Homoeopathy with foreign nations.
- Signed 15 MoUs with International Institutes for setting up of Ayush Academic Chairs in foreign nations.
- 51 Institute to Institute level MoUs with foreign institutes for undertaking Collaborative Research/Academic collaboration.
- Supported the establishment of 43 Ayush Information Cells in 39 foreign nations.
- Offering scholarships to foreign nationals for studying Ayush courses in recognized Ayush institutions in India under International Fellowship/Scholarship Programs.

(d) To regulate private AYUSH clinics across India

Answer: c

SANCHAR MITRA SCHEME

Why in News: Department of Telecommunication launched Sanchar Mitra Scheme nationwide to empower youth as 'Digital Ambassadors'.

Aim & key details of the scheme

- The Sanchar Mitra Scheme, aiming to harness the potential of student volunteers as "Digital Ambassadors" to promote telecom awareness and digital literacy.
- The aim of the system was to build a bridge between DoT initiatives, telecom services, and various citizen-centric efforts. It's about ensuring that our users, customers, and the public function better.
- Volunteers will also be trained to spread awareness on digital safety, cyber fraud prevention, EMF radiation, and responsible mobile usage. They will also get exposure to emerging telecom technologies like 6G, AI and cybersecurity.
- Students selected as **Sanchar Mitras** will undergo structured training by experts from the National Communications Academy-Technology (NCA-T) and DoT's Media Wing.

- Top performers will be rewarded with internships, national project participation, and opportunities at platforms such as India Mobile Congress.
- This youth-centric initiative underscores India's commitment to building a digitally empowered society, aligning with the country's leadership in Democracy, Demography, Digitisation, and Delivery.

Key pillars of the Scheme

The Sanchar Mitra scheme is structured around three key pillars:

- **Connect:** This pillar focuses on bridging the gap between citizens and the telecom ecosystem—ensuring that people are aware of, understand how to access, and benefit from telecom services and related government initiatives.
- **Educate:** Sanchar Mitras raise public awareness on critical digital and telecom-related issues, including cyber fraud prevention, safe mobile usage, and understanding EMF radiation risks, thereby fostering responsible usage of digital services.
- **Innovate:** This pillar encourages youth engagement in telecom research and innovation—motivating them to work with emerging technologies like 5G, 6G, AI, and cybersecurity, and to contribute to real-world telecom solutions.

Government's vision

- **Digital Empowerment of Citizens:** To build a digitally aware and responsible society by empowering youth to act as agents of telecom literacy at the grassroots level.
- **Bridging the Digital Divide:** Ensuring rural and under-served communities are included in India's digital journey by improving telecom awareness and access.
- **Citizen-Centric Telecom Ecosystem:** Promoting safer and more informed use of telecom services, including mobile security, fraud prevention, and grievance redressal mechanisms.
- **Youth Engagement & Nation Building:** Creating a network of trained youth (Sanchar Mitras) who contribute to national development through education, outreach, and innovation in the digital space.
- **Supporting "Digital India" & "Viksit Bharat 2047":** Aligning with the broader goals of inclusive digital growth, technological self-reliance, and equitable access to telecom services.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. With reference to the Sanchar Mitra Scheme, consider the following statements:

1. It is a government initiative to create a network of trained youth volunteers to promote telecom literacy.

2. One of its key objectives is to raise awareness about digital safety and cyber frauds among citizens.
3. It is implemented by the Ministry of Education to promote telecom-based vocational training.

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

(a) Answer

LIC BIMA SAKHI YOJANA

Why in News: Union Minister for Rural Development and Agriculture & Farmers' Welfare, launched the 'Bima Sakhi Yojana'.

Key Details

- Bima Sakhi Yojana launched to empower rural women and advance 'Insurance for All by 2047' mission
- It is also a step towards economic security in rural and semi-urban India.

About scheme

- The LIC Bima Sakhi Yojana is a women-centric scheme launched by the Life Insurance Corporation of India.
- It aims to empower rural and semi-urban women by engaging them as insurance agents while enhancing financial literacy across communities.
- Selected participants undergo training and receive stipends over a three-year period, with opportunities for commission-based earnings and career advancement.

Eligibility Criteria

- **Gender & Age:** Women aged 18–70 years.
- **Educational Qualification:** Minimum of Class 10 (10th pass).
- **Ineligible:** Relatives of existing LIC agents or employees, retired LIC employees, ex-lic agents, and current LIC agents.
- **SHG Membership (in some implementations):** Women under DAY-NRLM SHGs with basic literacy and local residency may be preferred.

Benefits & positive impact

- For Women (Bima Sakhis)
 - **Financial Independence:** Monthly stipends combined with commissions open avenues for stable and flexible income.
 - **Skill Development:** Training enhances entrepreneurial, communication, and financial literacy skills.
 - **Career Opportunities:** Graduates may qualify for roles like Development Officers (DOs) in LIC.

- **Social Recognition:** Women become respected community figures and change agents.
- **For Rural Communities**
 - **Enhanced Insurance Access:** Direct reach into underserved areas for schemes like PMJJBY and PMSBY.
 - **Financial Awareness:** Improves understanding of risk coverage, claims, and financial planning.
- **For Government & LIC**
 - **Increased Penetration:** Helps boost insurance coverage and financial inclusion in rural markets.
 - **Gender-Inclusive Development:** Promotes women's participation in economic activity and governance roles.

Limitations and Challenges

Challenge	Details
Performance Pressure	Timely policy retention (65%) is required for stipend continuation—may be difficult in low-demand areas.
Limited Benefits	Participants receive stipends, not full salaried benefits like permanent LIC employees.
Access & Awareness	Clients in remote regions may lack understanding or trust in insurance schemes.
Sustainability	Continued success depends on robust monitoring, support, and motivation for retention.

Way Forward

To ensure long-term success, the Bima Sakhi Yojana must focus on continuous skill development, performance-based incentives, and digital support tools to ease operations. Strengthening community trust in insurance, expanding partnerships with SHGs, and offering career progression pathways will enhance both impact and sustainability.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Which of the following statements about the LIC Bima Sakhi Yojana is/are correct?
1. It aims to empower rural women as insurance agents through training and stipend support.
 2. The scheme provides a fixed salary without any performance-based incentives.
 3. Women below 18 years of age are eligible to participate in the scheme.

Select the correct answer using the code below:

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

(a) :awmsvY

NYAYA BANDHU LEGAL AID PROGRAMME

Why in News: To enhance the reach and effectiveness of the Nyaya Bandhu (meaning friend of justice) program in remote areas, Pro Bono Clubs (PBCs) in Law schools are engaged in providing community care legal assistance and legal awareness to the beneficiaries in the villages.

Key Details

- It is a flagship initiative of the Department of Justice, Ministry of Law and Justice, Government of India.
- It is launched to ensure access to justice for all, particularly for the marginalized and poor who cannot afford legal representation.
- It is part of the "Access to Justice for Marginalised" project and aligns with Article 39A of the Indian Constitution, which directs the State to promote equal justice and free legal aid.

About Programme

- The Nyaya Bandhu (Pro Bono Legal Service) is one of the programmes under the scheme of "Designing Innovative Solutions for Holistic Access to Justice" (DISHA) which is being implemented by Department of Justice.
- The Nyaya Bandhu program registers interested Pro Bono Advocates and connects them with the beneficiaries (who are entitled for free legal aid under Section 12 of the Legal Services Authorities Act, 1987) through the Nyaya Bandhu Application.
- At present, there are 9261 advocates who have volunteered and registered on Nyaya Bandhu platform.
- A panel of Pro Bono Advocates has also been constituted in 23 High Courts to strengthen institutional mechanism for delivering pro bono legal services to the beneficiary.
- Further, to instill the spirit of pro bono work among law students and nurture a long-term commitment to legal service, Pro Bono Clubs have been constituted across 109 law colleges in the country.

Objectives

- To institutionalize pro bono culture in India by engaging practicing advocates.
- To create a platform where citizens in need of legal aid can connect with volunteer lawyers.
- To complement the efforts of the National Legal Services Authority (NALSA).

Target Beneficiaries

- Economically weaker sections (EWS)
- SC/ST communities
- Women and children in distress
- Victims of trafficking
- Persons with disabilities
- Minorities and other vulnerable groups

Benefits

- **To Citizens:** Free, easy, and timely access to legal advice and services.
- **To Lawyers:** Opportunity to contribute to nation-building, gain recognition, and earn pro bono credits.
- **To Judiciary:** Reduces burden through early resolution and outreach.

Challenges

- Limited awareness among rural and marginalized populations.
- Need for wider participation from legal professionals.
- Infrastructure and digital access issues in remote regions.
- Ensuring quality and accountability in pro bono services.

Way Forward

- Expand digital outreach and mobile app accessibility in local languages.
- Strengthen partnerships with NGOs, Panchayats, and civil society for awareness.
- Recognize and incentivize pro bono work through bar councils and law associations.
- Integrate with legal education to instill pro bono culture early.

Conclusion

Nyaya Bandhu is a visionary step toward inclusive justice. By bridging the gap between legal service providers and the underserved, it brings India closer to realizing the constitutional ideal of equal justice for all. With sustained support and awareness, it can become a transformative tool for grassroots legal empowerment.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Access to justice is a fundamental right and a cornerstone of democracy. In this context, critically examine the role of the Nyaya Bandhu (Pro Bono Legal Services) Programme in promoting legal empowerment of the marginalized in India. What are the challenges faced by the scheme, and how can it be strengthened? [250 Words] [15 Marks]

PRADHAN MANTRI MATRU VANDANA YOJANA

Why in News: Recently, The Ministry of Women and Child Development has extended the special registration drive for the Pradhan Mantri Matru Vandana Yojana (PMMVY) till the 15th of this month.

Key Features

- **Administrative Ministry:** Ministry of Women and Child Development
- **Beneficiary:** Supports pregnant & lactating women, especially from disadvantaged backgrounds.
- **Financial Support:** ₹5,000 for the first child; ₹6,000 for the second girl child (PMMVY 2.0).
- **Aim:** Encourages healthy eating, medical care, and constructive behaviour modification for girls.
- Under the National Food Security Act of 2013, it offers pregnant and nursing moms financial assistance to enhance their nutrition and health and make up for lost wages.
- **Achievement:** Over 4.05 crore beneficiaries have received maternity benefits (at least one instalment) totalling 19,028 crore rupees through direct benefit transfers into their bank or post office accounts since the scheme's commencement.



Pradhan Mantri Matru Vandana Yojana

Empowering mothers, shaping generations



The Government's **maternity benefit scheme**, part of Mission Shakti, supports pregnant and lactating women from disadvantaged backgrounds



₹5,000 for first child; ₹6,000 for second girl child (PMMVY 2.0)



Linked to **Janani Suraksha Yojana** benefits for institutional delivery (~₹6,000 total)



Promotes healthcare, nutrition, and positive behaviour change towards **girl child**

1/3



Conclusion

The programme empowers women to take charge of their lives and advances the objective of women-led development by encouraging health examinations, a healthy diet, and financial literacy.

GYAN BHARATAM MISSION

Why in News: The government has launched the Gyan Bharatam Mission as a major initiative under the Ministry of Culture. Its objectives are to survey, document, conserve, digitise, and make available over one crore manuscripts that are housed in libraries, museums, academic institutions, and private collections throughout India.

Key Details

Vision: To revitalise India's civilisational knowledge traditions for future generations by conserving, digitising, and sharing its extensive manuscript legacy

Objectives

- In addition to conducting the survey, documentation, and conservation of India's manuscript history held in academic institutions, museums, libraries, and private collections, the government plans to **cover over one crore manuscripts over the course of the next five years.**
- **Digitisation:** Large-scale digitisation of manuscripts to create a National Digital Repository for wider accessibility.

Strategic Pillars and Implementation Plan

- **Scholarly Leadership & Institutional Strengthening:** Led by domain experts in Indology, philology, and conservation science.
- **Technological Integration:** AI-assisted transcription platform for digitising manuscripts, **Use of blockchain** for provenance tracking and cloud infrastructure for preservation, **APIs** for integration with national and international manuscript archives.
- **Conservation & Capacity Building:** Establishment of new conservation labs for palm leaf, birch bark, and paper manuscripts. Launch of **"Pandulipi Mitras"**: a network of trained grassroots volunteers across approximately 100 districts.
- **Public Engagement:** Development of **educational modules** for schools and universities. **Immersive VR/AR** experiences showcasing manuscript heritage. Hosting of Manuscript Melas and nationwide social media campaigns.

Mission Components:

- **Survey & Documentation:** Nationwide identification and cataloguing of manuscripts.
- **Conservation & Restoration:** Safeguard fragile texts through scientific and traditional methods.
- **Digitisation & Repository:** AI-assisted digitisation and creation of a National Digital Repository.
- **Technology & AI Innovation:** Tools like Handwritten Text Recognition and the Gyan-Setu AI Challenge.

What are manuscripts?

- A manuscript is a handwritten composition on paper, bark, palm leaf, etc., dating back at least 75 years that has significant scientific, historical or aesthetic value.

- E.g., the Bakhshali manuscript (third or fourth century BCE), an ancient Indian mathematical text written on birch bark.

MATRI VAN INITIATIVE

Why in News: Recently, the Government of India launched the 'Matri Van Initiative' – a theme-based urban forest dedicated to nurturing generations through mother-nature-inspired green efforts in the Aravalli Hill Area.

Key Details

- The **750-acre Matri Van** would be built along the Gurugram-Faridabad Road in the **Aravalli Hill region.**
- It is intended to be a distinctive ecological and cultural area that will **support urban sustainability, biodiversity, and public well-being.**
- CSR partners, Resident Welfare Associations (RWAs), NGOs, multinational corporations (MNCs), schoolchildren, and government agencies would all work together to realise this goal.
- Delhi NCR as a whole will benefit greatly from the "Matri van" green cover.
- In order to restore the native ecosystem in the Aravallis, the "Matri Van" would primarily consist of **removing existing shrubs like Kabuli Kikar (*Prosopis juliflora*)** and **planting Dhak/Amaltash trees** along the Gurugram-Faridabad Road.
- **Aravalli species**, including Dhauk, Salar, Kullu, and Khairi, as well as shrubs like Goya Khair, Gangeran, and Marod falli, will be planted with long-rotation trees like Bargad, Peepal, Gullar, Bael Patra, Imli, Pilkhan, Neem, Dhak, Semal, Khirni, Desi Kadam, Amaltash, and Bamboo.
- **Theme-based plantation groves:**
 - **Bamboosetum:** A group of bamboo species; Aravalli Species Arboretum
 - **Pushp Vatika:** A group of flowering tree species
 - **Sugandh Vatika:** A group of fragrance species
 - **Medicinal plants Vatika**
 - **Nakshtra Vatika Rashi Vatika**
 - **Cactus garden**
 - **Butterfly garden**
 - **Bodhi Vatika:** Grove of Bargad, Peepak, Gullar, and Pilkhan
- In addition, the Matri Van would have a **bike track, nature paths, yoga spots, gazebos, resting areas, and public facilities.**

STATE ENERGY EFFICIENCY INDEX

Why in News: The Bureau of Energy Efficiency (BEE) released the 6th edition of the State Energy Efficiency Index (SEEI) 2024, developed by BEE in association with the Alliance for an Energy Efficient Economy (AEEE).

Key details about Index:

- The index assesses the energy efficiency performance of 36 States and Union Territories (UTs) for FY 2023-24.
- States are categorised into four performance categories:
 - Front Runners (>60%)
 - Achievers (50-60%)
 - Contenders (30-50%)
 - Aspirants (<30%)
- The index evaluates energy efficiency to accelerate India's target of net-zero by 2070.
- Index uses 66 indicators to cover seven major key areas:
 - Buildings
 - Industry
 - Transport
 - Electricity distribution companies (DISCOMs)
 - Agriculture
 - Municipal services
 - Cross-sector initiatives
- The SEEI in 2024 editions specifically add indicators for:
 - Electric vehicle (EV) policies
 - Star-rated (ECBC) buildings
 - Demand side Management (DSM)
 - ESCO models
 - MSME cluster profiling
 - PAT scheme expansion
 - Energy audits, retrofits, and capacity-building initiatives
- 36 states and UTs are divided into four categories based on their Total Final Energy Consumption (TFEC)
 - **Group 1:** >15 Million Tonnes of Oil Equivalent (MToE)
 - **Group 2:** 5-15 MToE
 - **Group 3:** 1-5 MToE
 - **Group 4:** <1 MToE

		Sectors												
Catagories														
Policy		Cross sector	Buildings	Industry	Municipal Services			Transport	Agriculture	DISCOMS	Total			
Finance														
Institutional Capacity														
Adoption of EE Measures														
Energy Savings														
Sector weights		Programme-specific Indicators												
		Common Indicators												
		15	22	17	11	16	8	11	100					
Indicator Weights	Common	15	9	6	2	7	3	6	48					
	Programme		13	11	9	9	5	5	52					

Top Performer

States/ UTs	Energy Consumption Group
Maharashtra	Group 1
Andhra Pradesh	Group 2
Assam	Group 3
Tripura	Group 4

Objectives of the State Energy Efficiency Index

- Enables data-based monitoring and tracking of state-level progress.
- Promotes healthy competition by highlighting best practices across states and UTs
- Institutionalizes state-level energy efficiency monitoring, especially via State Designated Agencies (SDAs)
- Supports alignment with India's broader climate goals, including Net-Zero by 2070 and emission intensity targets.

Bureau of Energy Efficiency

- BEE was created in March 2002 under the provisions of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity in the economy.
- The government proposed to make it mandatory for certain appliances (like air conditioners, refrigerators, and LED bulbs) in India to have **Star ratings** by the BEE from January 2010 onwards.
- It also sets minimum energy efficiency standards for buildings under the **Energy Conservation Building Code (ECBC)**.

Alliance for an Energy Efficient Economy

- It is a not-for-profit policy advocacy and energy efficiency market enabler.
- It's a key think-tank focused on positioning energy efficiency as the "first fuel"—the cheapest, cleanest, and most rapid resource for decarbonization.
- AEEE brings together government, industry, civil society, and professionals to drive impactful, data-informed energy efficiency policies and initiatives.
- Its major initiatives include Call for Action (CFA), Forum on Energy Efficiency & Decarbonisation (FEED), Cooling programs, and data frameworks.

Way Forward

Strengthen State Designated Agencies (SDAs), integrate real-time monitoring, incentivize top performers, expand sectoral coverage, and promote digital innovation to accelerate state-level energy efficiency outcomes.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. The State Energy Efficiency Index (SEEI) 2024 is developed by:
- (a) NITI Aayog
 - (b) Ministry of Environment, Forest and Climate Change
 - (c) Bureau of Energy Efficiency (BEE) and AEEE
 - (d) Central Electricity Regulatory Commission (CERC)

(c) Answer

NARI-2025 REPORT

Why in News: The National Annual Report and Index on Women's Safety (NARI) 2025, published by the National Commission for Women, provides new insights into the actual safety of Indian cities for women.

Key highlights from the report

- **Overall safety perception:** The national safety score is 65%, based on input from 12,770 women across 31 Indian cities. While 6 out of 10 women feel safe in their cities, 40% still feel "not so safe" or unsafe.
- **Harassment:** In 2024, 7% of women reported experiencing harassment in public spaces; this figure rises to 14% among women under 24. Harassment hotspots include neighbourhoods (38%) and public transport (29%).
- **Under-reporting:** Reporting rates are very low, only **one in three** women report harassment, while **two-thirds go unreported**, meaning official crime data (e.g., NCRB) misses the majority of incidents.
- **Lack of confidence in Authorities:** Just 25% of women trust that authorities will act effectively, while 75% lack confidence. Even when harassment is reported, only about 16% receive action, and only 22% of reported incidents are formally registered.
- **Safety in daylight:** Educational institutions are approximately 86% safe during daytime, while at Workplaces, 91% of women feel safe, though nearly half are unsure about POSH policy implementation. At night, perceived safety drops sharply, especially in public transport and recreational areas.

Safest Vs. Least safe cities

- **Safest cities (Top-ranked):** Kohima, Visakhapatnam, Bhubaneswar, Aizawl, Gangtok, Itanagar, and Mumbai consistently emerge as the safest for women, credited to better gender equity, infrastructure, civic participation, and responsive policing.
- **Least safe (Lowest-ranked) cities:** Cities performing poorly include Patna, Jaipur, Faridabad, Delhi, Kolkata, Srinagar, and Ranchi, plagued by weak infrastructure, patriarchal social norms, and ineffective institutional response.

Rank	City	State	Distinguishing Factors
1	Kohima	Nagaland	Strong gender equity, Civil engagement
2	Visakhapatnam	Andhra Pradesh	Robust infrastructure, active policing
3	Bhubaneswar	Odisha	Effective institutions, Urban planning
4	Aizawl	Mizoram	High social trust, Safe urban culture
5	Gangtok	Sikkim	Community support, responsive policing
6	Itanagar	Arunachal Pradesh	Inclusive local governance
7	Mumbai	Maharashtra	Vigilant policing, civic participation

Key takeaways

- The report reveals a **stark gap between policy intentions and real-world safety experiences**, especially after dark.
- Multiple cities, including major metros, remain unsafe for a significant portion of women, highlighting systemic failures in planning, enforcement, or civic engagement.
- Underreporting is prevalent due to lack of trust in authorities, and many incidents remain invisible in crime data.
- The report underscores the need for holistic solutions—beyond policing—to include infrastructure improvements, public awareness, legal redressal, and social change.

Way Forward

Enhancing women's safety requires inclusive urban planning, improved law enforcement accountability, accessible grievance systems, public awareness, and community engagement, ensuring real-time responsiveness and fostering a culture of dignity and equality.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Despite progressive legal frameworks, the lived experiences of women in Indian cities reveal significant safety challenges. In light of the NARI 2025 report, critically examine the gaps in urban governance and suggest measures to make Indian cities safer and more inclusive for women. [250 words] [15 Marks]

INVESTOR EDUCATION AND PROTECTION FUND AUTHORITY (IEPFA)

Why in News: The Investor Education and Protection Fund Authority (IEPFA), under the Ministry of Corporate Affairs, is in the final stage of testing its Integrated Portal.

Key Details

- The portal is aimed at providing a unified digital platform to:
 - Streamline claim processes for investors regarding unclaimed dividends, shares, etc.

- Enhance ease of access for both investors and companies.

- It will simplify the interface, reduce procedural delays, and improve transparency in handling investor claims.
- The portal is set to bring together essential stakeholders—such as depositories and the Public Financial Management System (PFMS)—to ensure a smooth and effective experience.
- To make sure the data companies submit is accurate and to help with smooth claim processing, public notices according to Rule 1(A) have been posted on the official IEPFA website.

Significance

- Strengthens investor protection mechanisms.
- Promotes financial inclusion and digital governance.
- Supports the government's goal of "Ease of Doing Business" and efficient regulatory frameworks.

IEPFA

- Established in 2016 under Section 125 of the Companies Act, 2013.
- Functions under the Ministry of Corporate Affairs (MCA).
- Set up to administer the Investor Education and Protection Fund (IEPF).

Key functions of IEPFA

- **Refunds to Investors:** Online process claims for recovery of unclaimed dividends, shares, debentures, etc., which facilitates faster and transparent processing.
- **Investor Awareness and Education:** Conducts campaigns, workshops, and financial literacy programs. Uses digital platforms, school outreach, and collaborations with NGOs.
- **Grievance Redressal:** Helps investors resolve company-related financial grievances.
- **Policy Advisory:** Advises the MCA on measures to improve investor protection frameworks.

IEPF

- A fund created to promote awareness among investors and protect their interests.
- Consists of unclaimed dividends, matured deposits,

debentures, and shares transferred by companies after 7 years of inactivity.

- Companies are mandated to transfer these unclaimed funds to the IEPF.

Conclusion

The IEPFA Integrated Portal is a big step forward for transparent, efficient, and investor-friendly governance. It makes the claim process easier and boosts accessibility, giving investors more power and building trust in financial markets, which fits perfectly with India's wider goals for digital and financial inclusion.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about the Investor Education and Protection Fund Authority (IEPFA):

- It was established under the Companies Act, 1956.
- It functions under the Ministry of Corporate Affairs.
- It is responsible for refunding unclaimed dividends and shares to investors.
- It accepts foreign direct investment (FDI) in the investor protection sector.

Which of the statements given above is/are correct?

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

(b) :Answer

DRAFT NATIONAL TELECOM POLICY 2025 (NTP-25)

Why in News: The Department of Telecommunication has released the draft for National Telecom Policy 2025 (for public consultation) after seven years to reshape telecom for 2030.

Background

- The last major policy in this domain was the National Digital Communications Policy, 2018, which envisaged targets such as:
 - Universal broadband
 - Increased job creation
 - Greater R&D, etc.
- Rapid changes in telecommunications technology — 5G, emerging 6G research, Internet of Things (IoT), quantum communications, satellite networks — plus challenges of digital divide, infrastructure, and global supply chains have made a fresh policy imperative.

Key features & Targets

Key Area	Targets (by 2030 unless otherwise stated)
Investment & Economic Growth	- Annual investment in telecom infrastructure to increase to ₹1 trillion. - Doubling of telecom sector's contribution to GDP. - Exports of telecom products and services to double.
Jobs & Skilling	- Creation of 1 million new jobs in telecom sector. - Reskilling or upskilling another 1 million to meet future demands.
Connectivity & Infrastructure	- Increase "tower fiberisation" from ~46% at present to 80%. - Achieve 90% of population covered by 5G, and 100% coverage for 4G networks. - Provide fixed-line broadband to 100 million households. - Deploy 1 million public Wi-Fi hotspots; schemes to extend connectivity in rural and remote areas via "Digital Bharat Nidhi".
Regulation, Innovation, Domestic Manufacturing	- Promote "Bharat – A Telecom Product Nation": increase output of telecom manufacturing by 150%, achieve import substitution by 50%. - Support 500 tech startups/MSMEs in telecom/emerging tech. - Establish ~30 advanced research labs (in top academia) to drive R&D.
Security & Cyber Resilience	- Preparedness for "quantum-resistant cryptography". - Enhance endpoint security; frameworks using AI/ML for incident reporting and cyber threat detection.

Sustainability & Ease of Doing Business

- Reduce carbon footprint of telecom sector by 30%.
- Simplify regulatory processes, ease permissions (e.g. Right of Way), support for smaller ISPs in last-mile connectivity.

Strengths & Opportunities

- **Holistic Vision:** The draft doesn't just focus on connectivity, but spans manufacturing, R&D, sustainability, skill development, security. This integrated approach is essential for India's digital leap.
- **Push for Self-Reliance:** Greater incentives for domestic manufacturing and import substitution could reduce dependency (especially in hardware & network equipment) and boost jobs.
- **Bridging the Digital Divide:** With targets for rural broadband, public WiFi, stronger last-mile connectivity, the policy aims to bring "meaningful connectivity" closer to marginalized areas.
- **Regulatory Clarity & Preparedness:** Emphasis on cyber security, legal framework for emerging technologies, regulation of equipment & standards. As telecom infrastructure becomes critical, resilience is key.
- **Green Agenda:** Carbon reduction target is relevant. Telecom has a large energy footprint (cell towers, data centres); moving towards renewable energy and energy-efficient technologies is important.

Challenges in implementing draft NTP 2025

- **Implementation Gaps:** Previous policy targets (like rural broadband, tower fibre) remain partially unmet. Execution issues due to delays in permissions, coordination, and funding.
- **Funding & Investment Risks:** Achieving ₹1 trillion/year investment needs strong financial support, incentives (e.g. PLI), and private sector confidence.
- **Regulatory Hurdles:** Bottlenecks like Right of Way (RoW), spectrum allocation, and inter-state coordination could slow down infrastructure rollout.
- **Digital Divide:** Affordability, digital literacy, and device

access remain barriers—especially for rural, remote, and economically weaker sections.

- **Security vs Privacy Concerns:** Balancing national security (e.g. surveillance, quantum cryptography) with privacy, data protection, and civil liberties is critical.
- **Sustainability & Infrastructure:** Deploying telecom in difficult terrains, ensuring energy supply, and managing the sector's carbon footprint are significant environmental and logistical challenges.

Digital Bharat Nidhi

- Digital Bharat Nidhi (DBN) is a proposed fund mentioned in the Draft National Telecom Policy 2025, aimed at promoting inclusive and equitable digital connectivity across India.
- It will support telecom infrastructure and services in rural, remote, underserved, and unserved areas.
- It is proposed to replace or rebrand the existing Universal Service Obligation Fund (USOF).

Objectives

- Bridge the Digital Divide by ensuring last-mile connectivity.
- Promote meaningful broadband access to every citizen, especially in rural and tribal regions.
- Enable funding for new-age technologies (5G, optical fibre, satellite internet) in low-revenue areas.
- Encourage participation from small Internet Service Providers (ISPs) and community networks.

Significance

- Supports the Digital India initiative and the government's goal of universal 4G and 5G coverage.
- Encourages inclusive growth, socio-economic development, and digital empowerment.
- Ensures public funds are better targeted and efficiently utilised compared to older schemes.

Other Key dimensions

Federalism & Centre-State Coordination

- **Why it matters:** Telecom is a Central subject, but implementation (e.g. tower installation, Right of Way, land use) depends heavily on State Governments and local bodies.
- **Issues:** Delays in approvals, inconsistent policies, lack of local digital capacity.
- **Way to expand:** Discuss need for Centre-State coordination platforms, digital decentralisation.

Telecom and Gender Inclusion

- **Why it matters:** Digital gender divide remains significant — fewer women have access to mobile internet and digital literacy.
- **Policy gap:** The draft policy doesn't directly address gender-specific digital access or skill training.
- **Way to expand:** Talk about including gender-responsive telecom policies, community training programs for women, etc.

- **Urban–Rural Divide in Quality of Services**

- **Why it matters:** Urban areas have high-speed 5G and fiber; rural areas often face poor bandwidth and low reliability.
- **Policy implication:** Focus shouldn't just be on "coverage" but also on quality, affordability, and reliability.

- **Telecom in Disaster Management & Climate Resilience**

- **Why it matters:** Telecom infrastructure is critical during disasters — both for early warning systems and response.
- **Opportunity:** The policy can promote resilient, disaster-proof networks and telecom-linked climate monitoring.

- **Telecom and Public Service Delivery**

- **Why it matters:** Digital governance (e-gov, DBT, telemedicine, e-education) relies on telecom.
- **Scope:** Telecom is not just infrastructure but a critical enabler of governance, so policies must ensure interoperability, inclusion, and digital literacy.

- **Telecom and Digital Sovereignty**

- **Why it matters:** As India expands telecom infrastructure, questions of data localization, control over network equipment, and foreign influence become critical.
- **Angle:** Policy should align with national cyber sovereignty, possibly through a digital foreign policy framework.

Way Forward

- To ensure effective implementation, the policy must be backed by clear timelines, strong inter-ministerial coordination, and adequate funding.
- Strengthening public-private partnerships, streamlining regulatory approvals, and empowering local governance will be crucial.
- Regular monitoring, stakeholder feedback, and adaptive reforms should guide progress towards inclusive and future-ready telecom infrastructure.

Conclusion

The Draft Telecom Policy 2025 presents a timely and ambitious roadmap. Its success will depend on grounded execution, inclusive access, and balancing innovation with regulation. A digitally connected India can unlock transformative socio-economic growth if challenges are addressed with sustained political and administrative will.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the Draft National Telecom Policy 2025, consider the following statements:

1. It proposes to rename the Universal Service Obligation Fund (USOF) as Digital Bharat Nidhi.
2. The policy aims to cover 100% of India's population with 5G services by 2030.
3. It targets doubling the telecom sector's contribution to India's GDP.
4. The policy proposes reducing the sector's carbon footprint by 30%.

Which of the above statements is/are correct?

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

Answer: (b)

WHO-UNODC REPORT ON CONTAMINATED MEDICINES

Why in News: A joint WHO-UNODC "Contaminated Medicines and Integrity of the Pharmaceutical Excipients Supply Chain" report reveals that over the past 90 years, at least 25 documented incidents of excipient contamination in medicines have caused more than 1,300 deaths, many of them children.

Key points

- These incidents often involve industrial chemicals such as diethylene glycol (DEG) and ethylene glycol (EG)—typically used as solvents or antifreeze—that are illegally substituted for pharmaceutical-grade excipients like glycerine, sorbitol or propylene glycol.
- Even small amounts of these toxic chemicals prove fatal, particularly in inexpensive liquid oral medicines (like cough syrups and paracetamol syrups), often administered to children.
- Countries most affected are low- and middle-income nations (LMICs), where regulatory oversight, supply-chain traceability and post-market surveillance are weak. Recent alerts have been issued for fatal contamination cases in the Gambia, Indonesia, Uzbekistan among others.

Key Issues

- **Regulatory Gaps:** Many jurisdictions lack strict oversight of excipient manufacturers and distributors. There is weak monitoring of raw material sourcing, misleading labelling or falsified documentation, and inadequate customs/enforcement mechanisms.
- **Supply chain Vulnerability:** Excipient supply chains are complex, involving many intermediaries. Industrial-grade chemicals masquerading as pharmaceutical-grade enter the chain, often exploiting market volatility.
- **Children's Health:** Liquid oral medicines (syrops) used by children are major vectors for exposure. Children are especially vulnerable to toxic effects of Diethylene glycol (DEG) and ethylene glycol (EG).
- **Criminal Element:** Intentional falsification, substitution, and sometimes outright fraud (to reduce costs) are involved. Online platforms and informal markets amplify the problem.
- **Inequality in Impact:** Low-and Middle-Income Countries (LMICs) bear the brunt; weak regulatory authorities, under-resourced health systems, informal markets, lesser access to quality assurance.

Implications

- **Public Health:** Beyond mortality, contaminated medicines can cause chronic health issues, organ damage, and loss of trust in healthcare systems.
- **Regulatory Credibility:** Repeated incidents undermine confidence in pharmaceuticals, affect compliance, and risk spillover—e.g., limiting export/import credibility.
- **Economic Costs:** Costs of treating poisoned patients, recall of medicines, litigation, and strengthening regulatory systems are high.
- **Ethics & Equity:** The most vulnerable—poor, rural, children—are disproportionately affected. Raises moral questions on global pharmaceutical trade, ethics of profit vs safety.
- **Global Governance:** Since excipient supply chains and trade are cross-border, these issues require international cooperation, legal frameworks, information sharing.

Way Forward

- Strengthen regulatory oversight specifically for excipients, which includes mandatory testing of raw materials and enforceable certification.
- Improve post-market surveillance and real-time alert systems, especially for paediatric formulations.
- Enhance coordination among customs, law enforcement, health ministries, and regulatory authorities across borders.
- Pursue legal reforms to ensure that intentional contamination is regarded as a criminal offence, with penalties that effectively deter malpractice.

- Facilitate transparency and traceability within supply chains (e.g. tracking batch origins, labelling, packaging), potentially utilizing technology such as blockchain and digital audits.
- Support Low-and middle-income countries (LMICs) through capacity building in technical, regulatory, and laboratory infrastructure, as well as providing resources to enforce good manufacturing practice (GMP).

Conclusion

The WHO-UNODC report reveals a preventable global health crisis: thousands of lives have been lost, many others have been harmed, and children have become victims, all due to inadequate regulation, fragile supply chains, and the infiltration of criminal activity into the safety of medicine. To protect health, particularly for those who are vulnerable, establishing global standards, ensuring strict enforcement and fostering cross-border cooperation are not merely optional—they are urgent necessities.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. In the context of the WHO-UNODC report on contaminated medicines, Diethylene Glycol (DEG) is:

- A therapeutic compound used in anti-cancer drugs
- An industrial solvent illegally used in place of pharmaceutical excipients
- A preservative added to increase the shelf-life of syrups
- A vaccine stabilizer approved by WHO

Answer: (b)

NATIONAL CRISIS MANAGEMENT COMMITTEE

Why in News: Recently, the government constituted the National Crisis Management Committee (NCMC) under the recently amended Disaster Management Act to address situations involving major disasters with national ramifications.

Key Details

- The **National Crisis Management Committee**, which had existed even before the 2005 Act was passed, was given **statutory stature** by the Disaster Management Act (Amendment) Act, 2025.
- The Disaster Management National Crisis Management Committee (Procedure) Rules, 2025, were announced by the **Ministry of Home Affairs**.

- **Chairman:** The committee was established under Cabinet Secretary TV Somanathan.
- **Members:** Its members include the head of department and member of the National Disaster Management Authority, the home secretary, the defence secretary, and the secretary (coordination) at the Cabinet Secretariat.
- **Functions:** NCMC is the apex body for dealing with the situation arising out of a major disaster, which has national ramifications.
- During a threatening disaster situation, an emerging disaster situation, or a disaster, the chairperson of the NCMC may co-opt any expert or any officer from the central government, the state government, or any organisation, depending on the nature of the crisis
- Additionally, NCMC also assesses readiness to respond to any looming or imminent crisis scenario and, if required, provide guidance for improving preparedness.

Disaster Management (Amendment) Act, 2025

- Clarity and coordination between the various national and state disaster management committees and authorities are the goals of the Disaster Management (Amendment) Act, 2025.
- Important pre-existing organisations like the NCMC and the High Level Committee are granted statutory standing by the Act.
- It gives NDMAs and SDMA's the authority to directly draft national and state catastrophe plans.
- In order to address growing urban catastrophe vulnerabilities, the Act permits states to establish their own State Disaster Response Forces (SDRFs) and calls for the establishment of Urban Disaster Management

Authorities (UDMA's) in state capitals and major metropolitan cities.

Conclusion

By guaranteeing improved coordination, readiness, and reaction to crises of national importance, the Disaster Management (Amendment) Act, 2025's formal recognition of NCMC enhances India's disaster governance.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

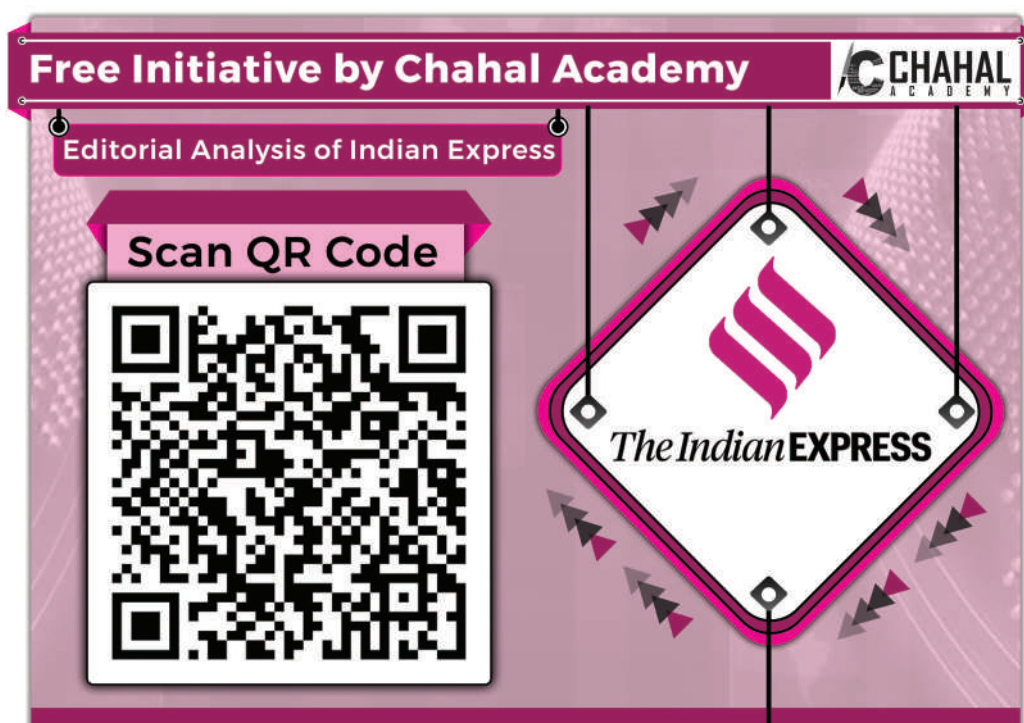
Q. Consider the following statements regarding the Disaster Management (Amendment) Act, 2025?

1. It provides Statutory support for the High-Level Committee and NCMC
2. The authority for NDMAs and SDMA's to directly create state and national disaster plans is provided under the act.
3. It authorises creation of Urban Disaster Management Authorities (UDMA's) in every district of India
4. The act permits states to establish their own State Disaster Response Forces (SDRFs).

Which of the statements given above is/are correct?

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

Answer: (b)



PERSONALITIES IN NEWS

SRI AUROBINDO

Why in News: The country honoured the philosopher and freedom fighter Sri Aurobindo on the occasion of his 153rd birth anniversary by premiering a 15-minute animated film 'Sri Aurobindo-A call to New India' on 15th August 2025.

About Sri Aurobindo



- Sri Aurobindo was born on August 15, 1872 in Calcutta, educated in England from the age of 7 to 21.
- He was a prominent leader in the early Indian nationalist movement, especially between 1905 and 1910 that advocating **complete independence (Purna Swaraj)** from British rule well before the mainstream Congress did.
- He inspired young revolutionaries and supported secret societies like **Anushilan Samiti** that aimed at armed resistance.
- In 1908, Aurobindo was arrested and jailed for a year during the Alipore Bomb Case, a major political trial. His time in jail became a turning point in his spiritual life.
- While in jail, he had a series of profound spiritual experiences that led him to embrace a life of yoga and inner realization.
- In 1910, he withdrew from active politics and moved to Pondicherry, then a French colony, to focus entirely on spiritual practice and writing.
- Sri Aurobindo developed a unique system of spirituality called Integral Yoga, which aims at the transformation of human life into a divine life.
- He worked closely with Mirra Alfassa, a French spiritual collaborator known as "The Mother", who played a key role in building the Sri Aurobindo Ashram and carrying forward his vision.
- His most famous philosophical work is "The Life Divine", which outlines his vision of spiritual evolution. Other important works include "Savitri", "The Synthesis of Yoga", and "Essays on the Gita".
- He used journalism as a tool for awakening political consciousness. He edited powerful nationalist newspapers like **Bande Mataram** and **Karmayogin**, which sharply criticized British rule and stirred patriotic fervor.
- He envisioned a spiritual democracy and inspired many leaders. On India's independence in 1947, his birthday was the same day August 15 and he called it a "**significant coincidence.**"

- Sri Aurobindo passed away on December 5, 1950. His teachings continue through the Sri Aurobindo Ashram and the Auroville international township near Pondicherry.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. With reference to Sri Aurobindo Ghosh, consider the following statements:

1. He was the first to demand complete independence (Purna Swaraj) from British rule.
2. He edited nationalist publications like **Bande Mataram** and **Karmayogin**.
3. He was arrested in connection with the Alipore Bomb Case.
4. He served as the President of the Indian National Congress in 1920.

Which of the above statements are correct?

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

(a) : Answer

Descriptive Question

Q. Sri Aurobindo Ghosh was not only a revolutionary nationalist but also a visionary spiritual leader whose ideas went beyond political freedom. Critically examine his contributions to India's freedom struggle. [250 words] [15 Marks]

CHANDRA SHEKHAR AZAD

Why in News: On his 119th birth anniversary (23rd July), the nation remembers Chandrashekhar Azad, the fearless freedom fighter who chose martyrdom over capture to uphold India's freedom struggle.

Life of Chandra Shekhar Azad



- **Birth Name:** Chandra Shekhar Tiwari
- **Born:** He was born on 23rd July 1906, in **Bhavra**, a village in present-day Madhya Pradesh.
- **Family:** He was born into a humble Brahmin family. His father, Sitaram Tiwari, was poor but deeply principled.

- **Education:** Chandra Shekhar was sent to Banaras (Varanasi) for education. There, he was exposed to nationalist ideas and became involved in revolutionary activities at an early age.
- **Name Change:** After being arrested at age 15 for participating in the **Non-Cooperation Movement (1921)**, he gave his name to the **British magistrate** as **"Azad" (Free)**, father's name as **"Swatantrata" (Freedom)**, and **residence** as **"Jail"**. Since then, he came to be known as Chandra Shekhar Azad.
- **Death:** He died on 27th February 1931, at Alfred Park (now Azad Park), Allahabad (now Prayagraj)
- True to his pledge that he would never be captured alive, he shot himself with his last bullet to avoid arrest.

His contribution to the Freedom Struggle

- **Hindustan Socialist Republican Association (HSRA):** He became a key leader of HSRA, which aimed at overthrowing British rule through revolutionary activities.
- **Kakori Conspiracy Case (1925):** Azad was one of the masterminds behind the Kakori train robbery, aimed at seizing government funds to finance revolutionary activities. Several of his comrades, including Ram Prasad Bismil and Ashfaqulla Khan, were arrested and hanged. Azad evaded capture and continued underground activities.
- **Support to Bhagat Singh and Others:** Azad mentored younger revolutionaries like Bhagat Singh, Sukhdev, Rajguru, and others. He supported and co-planned the Central Assembly Bombing (1929), which was meant to "make the deaf hear" without causing casualties.
- **Guerilla Warfare and Underground Movement:** Azad continued to lead underground revolutionary activities and arms training, operating from secret hideouts across Uttar Pradesh and Central India. He was known for his ability to evade arrest and for his sharp shooting and guerrilla tactics.

Significance of his contribution

- **Symbol of Defiance:** Azad represented the uncompromising spirit of freedom. His fearless stance against British rule inspired countless youth.
- **Bridge Between Generations:** He connected earlier revolutionaries like Bismil with the younger lot like Bhagat Singh.
- **Shift Toward Socialism:** Under his leadership, the HSRA moved toward a socialist vision for post-independence India.
- **Alternative to Non-Violence:** His path showed that the freedom struggle was not monolithic there were multiple approaches, all contributing to the end goal.

Learnings for Today's India

- **Patriotism with Purpose:** Azad's patriotism wasn't

just emotional; it was backed by vision, planning, and sacrifice. Today, patriotism can mean contributing to society, protecting democratic values, and serving the nation through action.

- **Courage Against Injustice:** His refusal to surrender and final act of defiance teach us to stand up against oppression, be it political, social, or economic.
- **Youth Engagement:** He was only in his twenties when he made the ultimate sacrifice. His life is a call to youth today to get involved in nation-building, innovation, and social causes.
- **Unity Across Religious Lines:** Azad's camaraderie with Ashfaqulla Khan and others reflects a secular spirit a much-needed lesson in today's often polarized environment.
- **Moral Integrity:** Despite being a revolutionary, Azad had strong moral codes. He never used violence indiscriminately and never harmed innocents emphasizing the importance of ethics in resistance.

Conclusion

Chandra Shekhar Azad's life is a **beacon of bravery and idealism**. In a time when freedom and democracy can be taken for granted, remembering his life reminds us of the **price of liberty** and the **power of fearless conviction**. His ideals are still relevant and necessary for shaping a just, inclusive, and resilient India.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Chandrashekhar Azad was a member of which revolutionary organization?

- (a) Indian National Army
- (b) Anushilan Samiti
- (c) Hindustan Socialist Republican Association (HSRA)
- (d) Ghadar Party

Answer: (c)

LOKMANYA BAL GANGADHAR TILAK

Why in News: PM pays tribute to freedom fighter Lokmanya Bal Gangadhar Tilak on his birth anniversary (23rd July), praising his unparalleled valour and immense contributions to India's independence movement.



Life of Bal Gangadhar Tilak

- **Full Name:** Keshav Gangadhar Tilak
- **Born:** 23 July 1856, in Ratnagiri, Maharashtra (then Bombay Presidency)

- **Family Background:** Born into a Chitpavan Brahmin family, known for scholarship and tradition.
- **Education:**
 - Graduated in Mathematics from Deccan College, Pune.
 - Later earned a LLB (Law Degree) from Government Law College, Bombay.
- **Personality in Youth:**
 - Known for his sharp intellect, strong moral sense, and deep-rooted patriotism.
 - Was deeply influenced by ancient Indian scriptures and history.
- **Death:** On 1st August 1920, in Mumbai, at the age of 64.
- **Cause:** Deteriorating health due to years of stress, imprisonment, and intense activism.
- Lokmanya Bal Gangadhar Tilak is also known as “**The Father of Indian Unrest**” by the British, and “**Lokmanya**” (Beloved of the People) by Indians.

Role in Education and Social Reform

- Before entering active politics, Tilak believed that education was the foundation of national awakening.
- **Fergusson College:** Co-founded the **Deccan Education Society (1884)** and later Fergusson College, to provide quality, nationalist education.
- Advocated for **vernacular education**, so Indians could learn in their own languages and take pride in their culture.
- Promoted **Sanskrit, Indian history, and heritage**, as a response to the British-dominated education system.

Contribution to the Freedom Struggle

- **Journalism:** Tilak used the power of the press to awaken public consciousness: **Kesari** (in Marathi) and **The Mahratta** (in English): Newspapers started by him to criticize British policies and instill patriotism.
- He famously declared: “**Swaraj is my birthright and I shall have it!**”
- **Political Leadership and the Extremist Wing:** In the early 1900s, the Congress split into: Moderates (like Gopal Krishna Gokhale) believed in gradual reform through petitions; Extremists (like Tilak, Bipin Chandra Pal, Lala Lajpat Rai) believed in direct action and self-reliance. Tilak believed that self-rule (Swaraj) was not a favour from the British, but a fundamental right.
- **Cultural Nationalism:** Revived Ganesh Chaturthi and Shivaji Jayanti as public festivals to foster unity and national pride among Indians.
- **Imprisonment and Writings:** Arrested multiple times for “sedition” due to his writings and speeches.
 - **1908:** Sentenced to 6 years’ imprisonment in Mandalay Jail, Burma.

- During this time, he wrote the “**Gita Rahasya**”, an interpretation of the Bhagavad Gita, focusing on Karma Yoga emphasizing action over inaction.
- **Books written by Tilak:** *Gita Rahasya* interpretation of Bhagavad Gita from the perspective of action and duty.

Significance of His Contribution

- **First Mass Leader of India:** Tilak was among the first leaders to involve the masses in the freedom struggle, breaking the elite dominance.
- **Cultural Awakening:** Reinvigorated pride in Indian history, religion, and philosophy. Gave Indians a sense of identity and confidence.
- **Foundation for Future Movements:** Set the stage for mass movements by leaders like Gandhi. Many strategies and ideologies evolved from Tilak’s early methods.
- **Shift in Political Thought:** He introduced assertiveness in politics, challenging the British rather than pleading with them.
- **Promotion of Swadeshi (Self-Reliance):** Advocated for Indian-made goods and self-reliance long before it became a national policy.

Learnings from Tilak in today’s India

- **Empowerment through Education:** His focus on indigenous, relevant education reminds us to decolonize our minds and value our own knowledge systems.
- **Voice Against Injustice:** He believed in speaking up fearlessly, even if it meant jail or persecution—an important lesson for safeguarding democracy.
- **Cultural Unity:** His revival of festivals for unity shows how culture can be a unifying and political force when used inclusively.
- **Media as a Force for Change:** Used newspapers for nation-building a reminder of the power and responsibility of journalism today.
- **Spiritual Strength for Political Action:** Gita Rahasya emphasized that spirituality and activism can coexist. We must act for justice with moral strength.
- **Self-Reliance and Swadeshi:** Tilak’s promotion of Swadeshi is echoed today in movements like “Make in India” and vocal for local.

Conclusion

Bal Gangadhar Tilak was a visionary, nationalist, scholar, and mass mobilizer. His life laid the intellectual and emotional groundwork for India’s freedom movement. In today’s world, his ideals of self-rule, education, cultural pride, and civic courage remain deeply relevant.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

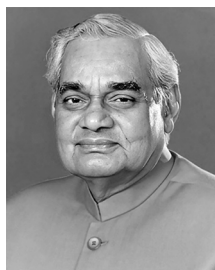
Q. Which newspaper was started by Bal Gangadhar Tilak in Marathi?

- (a) The Hindu (b) Kesari
(c) The Times of India (d) Prabuddha Bharat

Answer: (b)

ATAL BIHARI VAJPAYEE

Why in News: On 16th August, India marks the seventh death anniversary of Atal Bihari Vajpayee, the 10th Prime Minister of India, celebrated for his unifying leadership and democratic values.



Life & Education

- **Born:** December 25, 1924, in Gwalior, Madhya Pradesh, in a Kanyakubja Brahmin family. His father, Krishna Bihari Vajpayee, was a school teacher.
- **Schooling:** Attended Saraswati Shishu Mandir and Gorkhi School in Gwalior, then completed his BA in Hindi, English, and Sanskrit from Victoria College (now Maharani Laxmi Bai College), Gwalior. He earned an MA in Political Science from DAV College, Kanpur, with the support of a scholarship from the Scindia dynasty.

Political Beginnings & Career

- **Early activism:** Participated in the 1942 Quit India Movement.
- **Rajya Sabha & Lok Sabha:** Elected to the Lok Sabha nine times and Rajya Sabha twice reflecting a parliamentary career spanning more than four decades.
- **Political journey:** Began as a journalist then joined the Bharatiya Jana Sangh in 1951, which later evolved into the Bharatiya Janata Party (BJP).

As Prime Minister & Political Leadership

Terms in Office:

- **1996:** First served briefly as PM for 13 days.
- **1998–1999:** Returned as PM leading a coalition government.
- **1999–2004:** Led the National Democratic Alliance (NDA) to complete a full five-year term becoming the first non-Congress PM to do so.

Coalition Builder:

- Forged alliances across diverse regional parties, steering the BJP from isolation to political prominence.

Economic & Governance Reforms

- **Privatisation & Disinvestment:** Created the Disinvestment Ministry; major PSUs like BALCO, Hindustan Zinc, VSNL were divested.
- Enacted the Fiscal Responsibility and Budget Management (FRBM) Act (2003) to instill fiscal discipline and reduce the deficit.
- Passed Prevention of Money Laundering Act (2002), creating the Financial Intelligence Unit.
- **Infrastructure initiatives:**
 - Golden Quadrilateral network
 - Pradhan Mantri Gram Sadak Yojana (PMGSY)
- **Telecom Reforms:** National Telecom Policy 1999 ended government monopoly, reduced tariffs, and expanded connectivity.
- Introduced Asset Reconstruction Companies (ARCs) for resolving non-performing assets.

Economic Impact

- Achieved strong GDP growth (~6–8%), low inflation (~4–5%), and improved foreign exchange reserves despite challenges like natural disasters and geopolitical conflicts.

Diplomacy & National Security

- **Nuclear Tests (Pokhran-II, 1998):** Asserted India's strategic autonomy; USSR led to sanctions but ultimately strengthened India's global standing.
- **Kargil War (1999):** Led India with balanced military and diplomatic strategy, avoiding escalation across borders.
- **Diplomacy with Pakistan:** Introduced the Delhi–Lahore Bus Service and participated in Agra Summit to foster peace.
- **Global Engagement:** Secured US President Bill Clinton's visit in 2000 the first since 1978 enhancing Indo-US ties. Strengthened ties with ASEAN through the "Look East" policy.
- As Foreign Minister, he was the first to deliver a speech in Hindi at the UN General Assembly and addressed it multiple times.

A Man of Words, Vision, and Values

- Celebrated poet and orator, known for his eloquent speeches in Hindi, often infused with poetic depth.
- Known for democratic values, civility, and integrity, respected across party lines.
- Focused on inclusive development women's empowerment, social equality, rural upliftment.

Later Years & Legacy

- **Awards:**
 - Padma Vibhushan (1992)
 - Best Parliamentarian (1994)
 - Bharat Ratna (2014)
- **Death:** Passed away on August 16, 2018, at age 93 at

AIIMS, New Delhi. State funeral was held on August 17, followed by cremation at Rashtriya Smriti Sthal; ashes immersed at Haridwar. Memorial "Sadaiv Atal" established at Raj Ghat.

- **Remembrance:** Continually celebrated as a visionary leader, symbol of good governance and dignity in politics. August 16 sees tributes nationwide. Birthday (December 25) observed as Good Governance Day.
- **Ongoing Honor:** A new book by Uttar Pradesh Deputy CM Brajesh Pathak, Atulniya Atalji (Vyaktitva, Vichar aur Virasat), compiles his essays, speeches, and poems—aimed at inspiring younger generations about his vision and legacy.

Conclusion

Atal Bihari Vajpayee was more than a politician, he was a visionary led by ideals, words, and action. His legacy

transcends politics. He was a statesman whose ideals of integrity, unity, and development continue to inspire generations across India and beyond.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which of the following statements about Atal Bihari Vajpayee is correct?

- He was the first Indian Prime Minister to serve a full term from a non-Congress party.
- He never held any position in the Parliament.
- He was awarded the Bharat Ratna in 1998.
- He served as President of India before becoming Prime Minister.

Answer: (a)

Free Initiative by Chahal Academy

What to Read in The Hindu

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THE
HINDU

ARTICLES FROM YOJANA (AUGUST 2025)

FREEDOM TO INNOVATE

I. Human Journey of Innovation



- Innovation as a defining trait of Homo sapiens
 - Early humans made stone tools and mastered fire.
 - Nomadic groups formed settled agrarian societies.
- **Agricultural revolutions**
 - Built irrigation systems.
 - Practised crop rotation.
 - Used selective domestication.
 - These steps raised productivity and supported urbanisation and trade.
- **Industrial and technological revolutions**
 - Introduced machines, steam power, and mass production.
 - Led to the digital age, service economies, automation, AI, and space exploration.
- **Global contributions**
 - Different societies added unique ideas and capabilities to human progress.

II. India's Civilisational Ethos of Innovation

- **Scholars and knowledge leaders**
 - Pingala, Brahmagupta, Aryabhata, and Bhaskara advanced mathematics, geometry, and astronomy.

- **Centres of learning**
 - Nalanda, Vikramashila, Valabhi, and Pushpagiri were interdisciplinary hubs.
 - They nurtured architecture, metallurgy, medicine, Ayurveda, and linguistics.
- **Resilience of the knowledge tradition**
 - Despite invasions, colonial domination, and global disruptions, India's innovation spirit endured.
 - This shows depth and resilience in the civilisational foundation.

III. Freedom to Innovate and Constitutional Ethos

- **Viksit Bharat 2047 and a new meaning of freedom**
 - Freedom now includes the capacity to create, solve problems, and participate in shaping society.
- **Freedom to innovate** = the opportunity, ability, and right to build solutions, imagine alternatives, and create relevance.
- **Expressions of this freedom**
 - Converting indigenous wisdom into "glocal (global+local)" solutions.
 - Atal Tinkering Labs, startups, incubation centres.
 - Farm fields practising sustainable agriculture.
- **Decentralisation and substantive freedom**
 - Innovation is spreading from metro cities to rural hinterlands.
 - It extends from startup unicorns to self-help groups.
 - This fosters **development as substantive freedom**.
- **Constitutional linkage**
 - Article 14: Right to Equality.
 - Article 21: Right to Life and Dignity.
 - Article 21A: Right to Education.
 - Article 51A: Duty to develop scientific temper and reform.

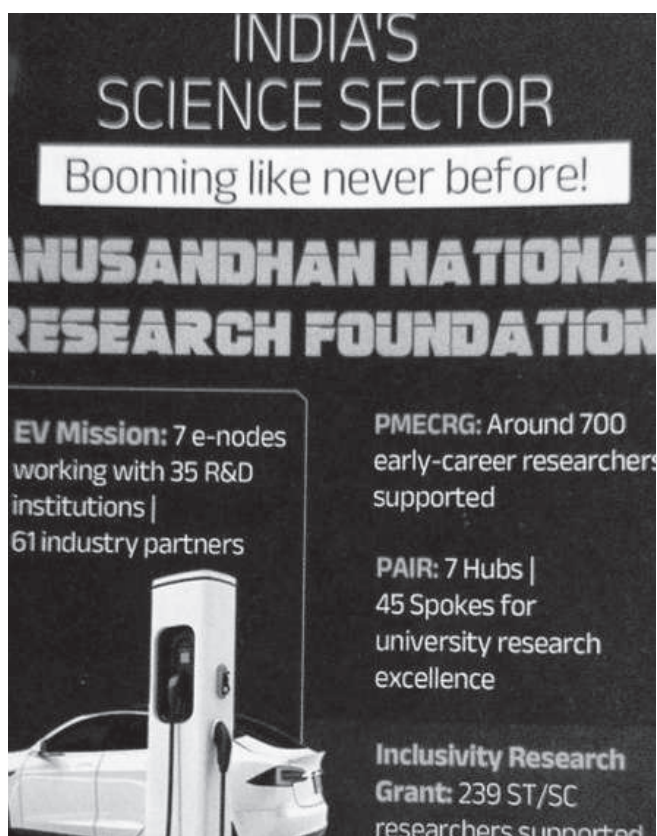
IV. Broadening the Horizon of Innovation

(i) Strategic Policy Framework and Budgetary Push

- **Union Budget 2025–26: R&D focus**
 - ₹20,000 crore for R&D in strategic and emerging tech: AI, quantum computing, biotechnology, semiconductors, clean energy.
 - This is not a generic science budget. It backs **freedom to experiment, to fail, and to commercialise**.

- **Deep-tech financing**
 - Complements the ₹10,000 crore **Deep-tech Fund of Funds (FoF)** under SIDBI.
 - Deep-tech needs long gestation and bears higher risks.
- The government steps in as an early-stage backer to **democratise innovation finance**.
- **Talent pipeline**
 - **10,000 PM Research Fellowships** with ₹70,000–₹80,000 monthly stipends.
 - **Goal:** attract the brightest minds into science and engineering R&D.
 - **Message:** innovation is a **national imperative**, not a privilege.

(ii) Creation of ANRF and Regulatory Ease



- **ANRF establishment (Parliament, 2023)**
 - **Anusandhan National Research Foundation (ANRF)** replaces SERB with a wider mandate.
- **Funding architecture (2023–28)**
 - Target ₹50,000 crore via: **ANRF Fund, Innovation Fund, Science and Engineering Research Fund, Special Purpose Fund**.
 - ₹14,000 crore already provisioned by the Central Government.
 - Remaining from PSUs, private sector, philanthropies, foundations, and international bodies.

- **Regulatory agility**
 - Institutes have **procurement autonomy** for scientific equipment and consumables up to a higher threshold.
 - This improves agility and reduces procedural delays.
 - Shift to **trust-based, inclusive innovation governance**.
- **RDI Scheme (01 July 2025)**
 - The Union Cabinet approved **Research Development and Innovation (RDI) Scheme** with ₹1 lakh crore corpus.
 - Offers **long-term financing or refinancing**, with **long tenors at low or nil interest rates**.
 - **Purpose:** overcome private-sector funding barriers; provide **growth & risk capital** for **sunrise and strategic sectors**.
 - **Goals:** facilitate innovation, promote technology adoption, and enhance competitiveness.
 - **ANRF** will give **overarching strategic direction** to the RDI Scheme.

(iii) Strengthening Grassroots Innovation

- **Traditional and regional knowledge systems**
 - India's informal sector practises local agricultural techniques, farmers' varieties, plant protection, human and animal health technologies, local engineering, and textile technologies.
 - Innovations often emerge from individuals and communities in remote regions.
 - **National Innovation Foundation-India (NIF)**
 - Autonomous institute under **DST**; scouts and nurtures grassroots innovations from **~600 districts**.
 - Provides a **complete cycle of support** through collaborations with industry, research institutions, NGOs, and government bodies.
 - Outcomes: **1,400+ patents filed, 120+ technology transfers**.
Several NIF-supported innovators have received the **Padma Shri**.
 - This is **freedom from invisibility**, contrasting countries where innovation is limited to corporates, elite labs, and top universities.
 - **Unnat Bharat Abhiyan (Ministry of Education)**
 - Connects academic institutions with rural India.
 - Institutes **adopt clusters of villages**, do needs assessments, and design **contextual interventions**.
- (iv) **Digital Public Infrastructure as Platforms of Innovation Freedom**
- **DPI building blocks : Aadhaar, UPI, DigiLocker, ONDC** enable entrepreneurs and developers.

- **ONDC outcomes (as of March 2025)**
 - 7+ lakh sellers and service providers onboarded; majority are MSMEs.
 - 20.4 crore cumulative transactions.
 - A level playing field versus large platforms.
- **Digital economy trajectory**
 - **State of India's Digital Economy Report 2024:** India ranks **third** globally in digitalisation.
 - By **2030**, the digital economy is projected to be **nearly one-fifth** of the overall economy, outpacing traditional sectors.
- **India Energy Stack (IES)**
 - Unified, secure, interoperable digital infrastructure for the energy sector, like UPI for energy.
 - Integrates renewable energy and enhances **DISCOM** efficiency.
 - Delivers **transparent, reliable, future-ready** power services.
 - Example: a farmer with solar panels feeds extra power to the grid and gets **direct bank payments**.
 - DISCOMs can **track demand**, prevent **theft**, and send **timely alerts**.
 - Improves **reliability and inclusion**, supports **clean energy** and **Net Zero** goals.

(v) Sectoral Deepening: Health, Agriculture, AI, Quantum

- **Healthcare (digital-first shift)**
 - **Ayushman Bharat Digital Mission (ABDM):**
 - ◆ 20 crore ABHA accounts.
 - ◆ 3.49 lakh facilities on the **Health Facility Registry (HFR)**.
 - ◆ 5.23 lakh professionals on the **Healthcare Professional Registry (HPR)**.
 - Enables **interoperability**, reduces **redundancy**, and eases access to **telemedicine**, **e-pharmacies**, and **AI-supported diagnostics**.
 - **Pharmaceutical Research Incentive Program (PRIP):** ₹5,000 crore to make India a global R&D hub in **pharma and MedTech**.
 - **DHR-ICMR Action Plan 2024–29:**
 - ◆ Promote **indigenous and affordable** health technologies.
 - ◆ Provide solutions for **resistant health problems**.
 - ◆ Advance **digital health solutions**.
 - ◆ Ensure **research-led translation** into action.
 - ◆ Enhance **technology-driven surveillance**.
 - ◆ Accelerate **medical countermeasures**.

Elevate India's **global standing** in medical research.

- **Agriculture (Agriculture 4.0)**
 - Employs ~42% of the workforce; contributes ~18% to GDP.
 - Uses **drones, remote sensing, AI** for **pest detection**, and **IoT-based soil and water management**.
 - **Programmes:** **Drone Didi**, **Akashdoot**, **Agri-India Hackathon**, **ARYA**, **RKVY-RAFTAAR**, and **Agri-Tech Innovation Hubs**.
- Startup solutions include **AI irrigation advisory**, **mobile soil-testing labs**, and **bio-inputs** as substitutes for chemical fertilisers.
- **Incubation and deep-tech missions**
 - **Atal Incubation Centres (AICs)** and **Community Innovation Centres (CICs)** in Tier-II and Tier-III areas.
 - **Atal Tinkering Labs (ATLs/ATLS)** provides **3D printers, robotics kits**, and **science equipment** to thousands of schools.
 - These efforts align with **NM-ICPS** (National Mission on Interdisciplinary Cyber-Physical Systems) and the **National Quantum Mission (NQM)**.
 - **Aim:** ensure **freedom to innovate in frontier technologies** and build **domestic capacity** for sovereignty and sustainability.

V. Measurable Global Impact

- **Innovation and IP standings**
 - **Global Innovation Index 2024:** India ranked **39th**, top among prominent economies.
 - **WIPO World IP Filings Report 2023:** India ranked **6th** globally in **patent filings**—among leaders like the US, China, Japan, and South Korea.
- **Digital readiness**
 - **Network Readiness Index (NRI):** improved from **89th (2015)** to **49th (2024)**.
- **Startup ecosystem**
 - **1.57 lakh** DPIIT-recognised startups.
 - **100+** unicorns.
 - ~51% startup participation from **Tier-II and Tier-III cities**.
 - Progress supported by **stronger patent enforcement** and **reduced regulatory uncertainty**.

VI. Civilisational Awakening and National Vision

- **Atmashakti (inner strength)**
 - Expansion of innovation reflects a deeper **national awakening**.
 - Ordinary citizens innovate with **confidence and courage**.
- **Gandhian oceanic circles**
 - Innovation spreads in **self-reinforcing concentric ripples** from labs, classrooms, farm fields, and tribal hamlets.

- Individuals and communities are the **nucleus of creative energy**.
- **State–society partnership**
 - The government enables **Srijan (creative expression)** through **Jan Bhagidari (people’s participation)**, **grassroots ingenuity**, and **community-driven solutions**.
 - This is a **Swaraj of creativity** where **rural-tribal innovators** and **ISRO scientists** contribute together.
- **Viksit Bharat@2047 and Aatmanirbharta**
 - Spreading opportunities across all layers of society **fosters innovation**.
 - It marks a civilisational shift toward **Aatmanirbharta (self-reliance)** and the vision of **Viksit Bharat@2047**.

PEOPLE’S PADMA

I. Shri Pandi Ram Mandavi – Tribal Instrument Maker & Wood Carver

(i) Introduction

- **Full Name:** Shri Pandi Ram Mandavi
- **Place:** Narayanpur, Chhattisgarh (Bastar region)
- **Art Specialization:** Gond wood crafts, **Muria wood art**, and bamboo musical instruments
- **Major Recognition:** Awarded **Padma Shri** for contribution to tribal arts and craft promotion
- **Iconic Creation:** Bamboo wind whistle known as ‘**Sulur**’ or ‘**Bastar flute**’

(ii) Early Life

- Born **12 February 1957**, in **Garhbengal** village.
- Grew up in a family of skilled woodworkers.
- Father was a renowned woodcarver who passed down the art to him.
- From childhood, began learning woodcraft through making **wooden combs** and **bamboo flutes**.

(iii) Artistic Skills and Creations

- **Expanded his repertoire over the years to include:**
 - Wooden swords
 - Battle axes
 - Bows and arrows
 - Walking sticks
 - Whistling bamboo flutes
- Each creation is more than an object—represents a **story** of the **Muria tribe’s** struggles, joy, and traditions.

(iv) Contribution to Cultural Preservation

- Advocated for **Muria wood art** at **regional and national cultural centres**.
- Formed a **community of artisans**, sharing skills and knowledge.

- Organized **workshops and exhibitions** to educate people about tribal narratives embedded in craftwork.
- Acted as a **mentor** for young artisans to preserve **intangible heritage**.

(v) Recognition and Legacy

- Received **multiple prestigious awards** apart from the **Padma Shri**.
- Seen as a **guardian of tribal cultural heritage**.
- Inspires future generations to value traditional skills.
- His life underscores that preserving intangible heritage is essential not only to honour the past but to **build the cultural foundation for the future**.

II. Dr. Venkappa Ambaji Sugatekar – Gondhal Folk Singer

(i) Introduction

- **Full Name:** Dr. Venkappa Ambaji Sugatekar
- **Place:** Bagalkot, Karnataka
- **Specialization:** Gondhal folk music tradition of Karnataka
- **Major Recognition:** Awarded **Padma Shri** for preserving and promoting Gondhal folk music.

(ii) Early Life and Musical Journey

- Born **1 May 1943**.
- Began folk music training at **age 10**.
- Possessed exceptional memory and deep passion for cultural heritage.
- Mastered thousands of folk compositions including:
 - Dasar Pada
 - Santha Shishunalar Pada
 - Vachan Sahitya
 - Devi Pada

(iii) Artistic Mastery

- Knows over **1,000 songs** and **150 long-form mythological stories** entirely by memory.
- Performs Gondhal folk music with **storytelling elements**.
- Blends devotional songs, mythological narratives, and cultural commentary in performances.

(iv) Training and Mentorship

- Trained over **1,000 students free of cost**.
- Dedicated to ensuring **inter-generational transfer** of Gondhal traditions.
- Encourages youth participation in folk music to keep the art alive.

(v) Performances and Cultural Impact

- Performed widely across Karnataka.
- Raises awareness about Gondhal traditions and inspires emerging artists.

- Recognized as a **living legend** of Karnataka's folk music.
- At age 82, remains an **active cultural ambassador**.

(vi) **Recognition and Legacy**

- Recipient of **more than 30 awards** for cultural contributions.
- Praised by the **Prime Minister of India** as a “**Cultural Torch Bearer**”.
- His dedication shows the **power of cultural preservation** in modern society.

- His work ensures that Gondhal folk music remains **vibrant, relevant, and respected**.

III. Significance of the 'People's Padma' Recognition

- Celebrates **grassroots cultural icons** whose work often goes unnoticed in mainstream media.
- Highlights the importance of **preserving intangible cultural heritage**—from music to crafts.
- Demonstrates that dedication to **community-based traditional arts** has national and global cultural value.

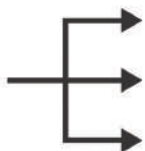
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ARTICLES FROM KURUKSHETRA (AUGUST 2025)

TOPIC 1: AGRICULTURE 4.0 – TOWARDS AGRI-TECH REVOLUTION

I. Importance of Agriculture in India

- **Employment:** Employs 42.3% of India's workforce.
- **Contribution to GDP:** Around 18.2% of national GDP.
- **Challenges faced:**
 - Low productivity and yield gaps (20–60% lower than global averages).
 - Heavy dependence on monsoon (52% farming rainfall dependent).
 - Fragmented small landholdings (89.4% farmers own <2 ha).
 - High post-harvest losses (0.92% – 15.88% across crops).
 - Volatile farm incomes.
 - Livestock sector issues: lack of fodder, animal healthcare gaps, weak supply chains.

II. Need for Transformation

- Rising demand for food security with a growing population.
- Technology adoption can increase farmer incomes, ensure sustainability, and enhance efficiency.
- **Digital Agriculture:** Use of AI, IoT, blockchain, robotics, big data for precision farming, reducing waste, climate resilience, and market linkages.

III. Concept of Digital Agriculture

- **Two complementary paradigms:** Together, they form the foundation for Agriculture 4.0 – empowering farmers while upgrading institutional frameworks.

(i) Smart Farm Digitisation (farm-level):

- IoT-based soil/crop sensors.
- Drones for spraying/imaging.
- Automated irrigation.
- Mobile-based farm management platforms.
- **Goal:** Transform farms into responsive, precision-driven production units.

(ii) Smart Agri-Sphere Digitisation (ecosystem-level):

- Satellite-based crop monitoring.

- Weather forecasting.
- Blockchain-enabled supply chains.
- Digital platforms for market access, credit, subsidies, and insurance.
- **Goal:** Strengthen governance, transparency, and systemic support.



CABINET DECISIONS
July 16, 2025

Cabinet Approves Prime Minister Dhan-Dhaanya Krishi Yojana

Time period: 6 years
(beginning 2025-26)

To cover 100 districts

Districts to be identified based on three key indicators:

- Low productivity
- Low cropping intensity
- Less credit disbursement





CABINET DECISIONS
July 16, 2025

Cabinet Approves Prime Minister Dhan-Dhaanya Krishi Yojana

Objectives:

- Enhance **agricultural productivity**
- Augment **post-harvest storage** at **panchayat** and **block levels**
- Improve **irrigation facilities**
- Facilitate availability of **long-term** and **short-term credit**





CABINET DECISIONS
July 16, 2025

Cabinet Approves Prime Minister Dhan-Dhaanya Krishi Yojana

- To be implemented through **convergence of 36 existing schemes** across **11 Departments**
- Progress of Scheme in each **Dhan-Dhaanya district** will be monitored on **117 key Performance Indicators**



IV. Smart Farm Digitisation – Key Aspects

- **Adoption Gap:** Low adoption in India compared to Japan, South Korea, China.
- **Challenges addressed:**
 - **Pest Control:** 30–35% crop losses due to pests; climate change worsens attacks (10–25% yield loss per +1 C rise).
 - **Water Management:**
 - ◆ 70–80% farmers depend on groundwater irrigation.
 - ◆ 17% groundwater blocks overexploited, 5% critically depleted.
 - ◆ IoT sensors can cut water use by ~50%.
 - **Nutrient Management:** Optical sensors apply precise fertilisers, reducing overuse.
 - **Weed Management:** Drone + GPS = weed mapping + targeted spraying.
- **Smartphone as a multipurpose tool:**
 - **Camera:** leaf index, soil images.
 - **GPS:** identify problem zones.
 - **Accelerometer/gyroscope:** monitor movement, alarms.
 - **QR codes:** seed traceability.
- **Automation benefits:**
 - Alleviates labour shortages (90% farmers cite this).
 - Reduces disguised unemployment.
 - Increases efficiency with robotics and AI tools.
- **Digital readiness:**
 - 85.5% households have smartphones.
 - 86.3% have internet access at home.
 - 95.5% of youth (15–29) in rural areas own smartphones.
 - **Potential:** Every farm is a SmartFarm.

V. Smart Agri-Sphere Digitisation – Systemic Level

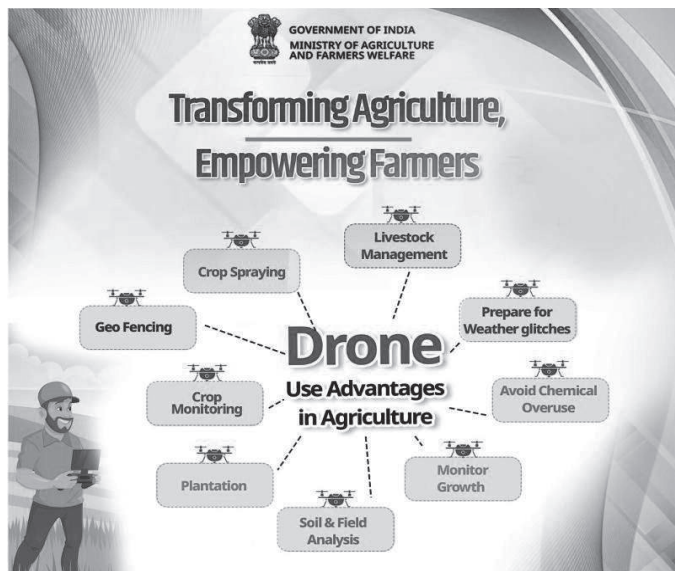
- **Supply Chain:** Blockchain for traceability “farm to fork”; QR codes for authenticity, boosting exports.
- **Market Access:** Digital marketplaces reduce middlemen, improve price realisation.
- **Weather & Advisory:** AI-based, hyperlocal advisories on pest risk, weather, and crop practices.
- **Geo-tagging:** Asset tracking for farm planning and disaster management.
- **Remote Sensing:** Soil moisture, crop health, pest outbreaks monitored via satellite imagery.
- **Livestock Sector:** Health monitoring, feed tracking, early disease detection.
- **Dairy:** Automation for quality and loss reduction.
- **Fisheries:**
 - Weather updates, market info, digital commerce.

- Mapping water bodies, tracking ecosystems.
- Advisories for sustainable fishing.
- **Warehousing:** Sensors for temperature/humidity monitoring to reduce losses (still nascent in India).

VI. Agri Stack India – Comprehensive Agriculture Management System (CAMS)

- **Purpose:** Policy planning, monitoring, and real-time decision-making.
- **Components:**
 - **Farmer Database:** Aadhaar-linked ID, SHG/FPO membership, landless workers info.
 - **Land & Asset Records:** Geo-tagged parcels, soil health, water resources, ownership status.
 - **Crop/Input Data:** Patterns, yields, fertiliser/seed use, organic/natural farming status.
 - **Real-time Data:** Satellite images, weather alerts, pest/flood/drought warnings.
 - **Infrastructure Records:** Seeds, fertilisers, cold storage, transport, warehouses.
 - **Market Linkages:** MSP, mandi prices, buyers, food processing units.
 - **Credit & Insurance:** Kisan Credit Cards, loan history, PMFBY coverage.
 - **Government Schemes:** PM-KISAN, RKVY, PKVY, SMAM linked for eligibility and grievance redressal.
 - **Advisories:** Personalised SMS alerts on weather, crops, sustainable farming.
- **Safeguards:** Data protection, consent-based access, dashboards for transparency.





VII. Way Forward – Strengthening Agriculture 4.0

- **Infrastructure:**
 - Improve high-speed internet in rural areas.
 - Renewable energy for reliable power.
- **Affordability & Inclusiveness:**
 - Make technologies affordable for all farmers.
 - Inclusive adoption by women farmers, tribal groups, and landless workers.
- **Capacity Building:**
 - Strengthen extension services with training programs.
 - Skill development for farmers and agri-labour in digital tools.
- **Regulation:** Clear policies on drones, AI, cybersecurity.
- **Government Initiatives:**
 - PM-KISAN, Digital India, Soil Health Cards, PMFBY, Kisan Credit Card schemes.
 - Digital India brought broadband to 2.5 lakh villages.
- **Institutions as Enablers:**
 - ICAR institutes (113), Agricultural Universities (74), KVKs (731).
 - FPOs (8,875), PACS (1,01,524).
- **Global Opportunities:** UN's 2025 International Year of Cooperatives – India can leverage cooperatives for Agri-Tech.

VIII. Conclusion

- Agriculture 4.0 is not just about technology—it's about resilient, sustainable, inclusive farming systems.
- With digital adoption, India can:
 - Boost farmer incomes.
 - Strengthen food security.
 - Ensure climate-smart practices.
 - Build a globally competitive agri-economy.

- Transition requires vision, coordination, inclusivity, and farmer-centric focus to make India a global leader in agricultural innovation.

TOPIC 2: CONSERVATION AGRICULTURE PRACTICES AND PERSPECTIVES

I. Background

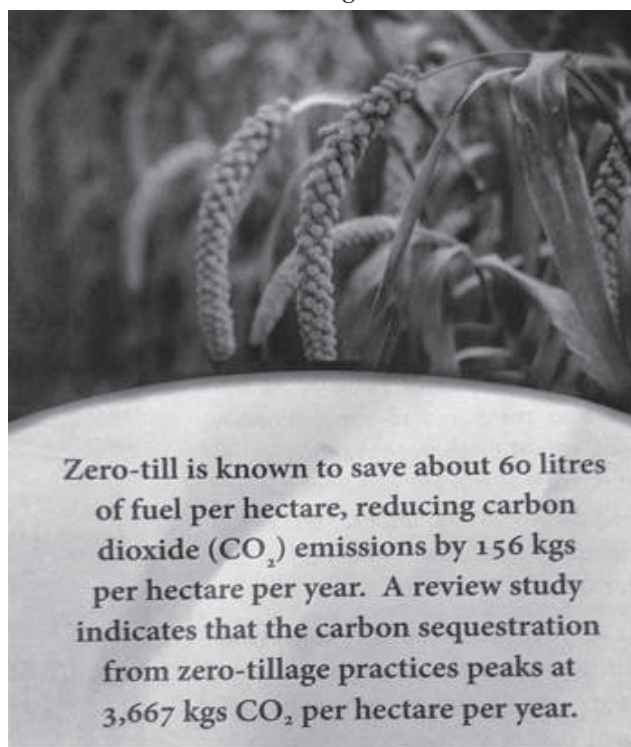
- **Green Revolution (1960s):**
 - Shift from *animal-based subsistence farming* → *energy-intensive, chemical-based farming*.
 - Achieved food self-sufficiency and later, surplus.
- **Negative consequences:**
 - Soil health degradation.
 - Water stress and contamination.
 - Deterioration of air quality.
- **Alarm raised (late 1980s):**
 - Reports of resource degradation and stagnating productivity.
 - Led to the search for *sustainable, eco-friendly, profitable* practices.
- **Emergence of Conservation Agriculture (CA):**
 - The term popularized in the 1990s.
 - Built upon both scientific innovations and traditional farmer practices.

II. Core Principles of Conservation Agriculture (CA)

- **FAO Definition:** A system to ensure food security, profitability, and natural resource protection.
- **Three Key Principles:**
 - **Minimum soil disturbance**
 - ◆ Use of **Zero Tillage (ZT)** and **direct seeding**.
 - ◆ Prevents erosion, preserves organic matter.
 - **Permanent soil cover**
 - ◆ Organic mulch/residue shields soil from sun and rain.
 - ◆ Conserves moisture, avoids compaction, boosts biodiversity.
 - **Crop diversification**
 - ◆ Crop rotation, varied sequences, and intercropping.
 - ◆ Improves soil structure, pest/disease resistance, and fertility.
- **Holistic Approach:**
 - All three actions applied simultaneously across farming systems.
 - Improves productivity and soil health together.

III. Key Practices in CA (Conservation Agriculture)

- **Zero Tillage (ZT):**
 - Eliminates traditional ploughing.
 - Seeds sown directly into unploughed fields with stubble intact.
 - *Zero-Till Seed-cum-Fertilizer Drill* places seeds and fertilizer efficiently.
 - Crop residues act as mulch—conserve water, control weeds, moderate temperature.
 - Crucial for the rice-wheat **system** (Punjab & Haryana) to reduce residue burning.



- **Crop Residue Management:**
 - Retained as mulch instead of burning.
 - Improves soil microbial activity and organic carbon.
 - Reduces air pollution and health risks.
- **Crop Rotations:**
 - Legumes in rotation fix nitrogen, improving soil fertility.
 - Residues reduce evaporation → 1–2 less irrigations needed.
 - Maintains soil in wetter condition for longer periods.

IV. Research, Support & Adoption

- **ICAR Initiatives:**
 - NICRA, NATP, NAIP, Consortium Research Platform on CA.
 - Works across 11 national locations.
- **Collaborations with International Institutes:**
 - CSISA, BISA, CIMMYT, IRRI, Rice-Wheat Consortium.
 - Participatory research and field trials.

- **Government Support:**
 - No dedicated CA policy, but support via schemes:
 - ◆ *Sub-Mission on Agricultural Mechanisation* (machines like Happy Seeder, Laser Land Leveler).
 - ◆ Subsidies for crop residue management machinery.
 - ◆ Climate-change mitigation schemes support CA indirectly.
- **Adoption Scale:**
 - Currently **25–30 million hectares** under CA.
 - **7+ lakh farmers** practicing CA.
 - Concentrated in Punjab, Haryana (rice-wheat belt).
 - Expanding to Bihar, West Bengal, Eastern UP, Odisha, Central India, Andhra Pradesh, NEH & Konkan.
 - **Crops:** Wheat, rice, maize, sorghum, mustard, chickpea.

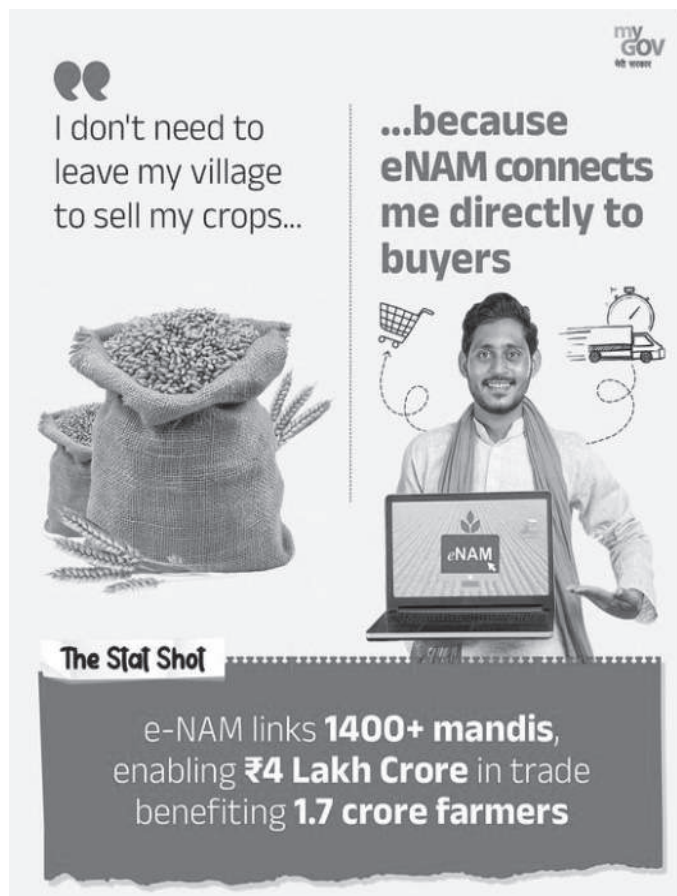
V. Success Story – Rajapur Village (Bihar)

- 100% adoption of Zero-Tillage in wheat.
 - Supported by CSISA & ICAR-KVKs since 2010.
 - Farmers sow wheat by mid-November → higher yields, lower cost.
 - **Example: Rahul Rai**, progressive farmer:
 - ◆ Shifted from conventional → ZT wheat & direct-seeded rice.
 - ◆ Wheat yield increased from 3.5–4 t/ha (2014) → 5.5 t/ha (2023).
 - ◆ Became a champion farmer promoting CA in neighbouring villages.

VI. Benefits of CA

- **Yield:**
 - Initial years may show minor decline due to nutrient immobility.
 - Over time, improved soil health and moisture increase yields.
 - **Indo-Gangetic Plains:** ZT gave 10–17% higher rice & wheat yields.
 - **Wheat yield improvement:** 200–500 kg/ha more than conventional.
- **Cost Reduction:**
 - Savings on fertilisers, herbicides, labour, water, and fuel.
 - **Cost reduction:** 15–16% per hectare.
 - Indo-Gangetic Plains: Avg. savings of ₹5,760 per hectare.
- **Climate & Environment:**
 - **Carbon sequestration:** 3,667 kg CO₂/ha/year.
 - Saves ~60 litres of fuel/ha (reducing CO₂ by 156 kg/ha/year).

- 67% lower fuel use compared to conventional farming.
- **Water saving:** 25–35%.
- Reduces residue burning lowers air pollution.
- **Human & Social Benefits:**
 - Reduces groundwater contamination.
 - Cuts drudgery for women farmers (less nursery/tillage work).
 - Improves public health through cleaner air and safer water.



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VII. Challenges in Adoption

- **Technical & Financial:**
 - High cost and limited access to ZT machinery.
 - Smallholder farmers struggle with affordability.
- **Knowledge Gaps:**
 - Lack of awareness and training among farmers.
 - Requires participatory research, demonstrations, and capacity-building.
- **Field Issues:**
 - Small and fragmented landholdings.
 - Competing use of residues (e.g., fodder).
- **Social & Cultural Resistance:** Practices differ sharply from traditional farming beliefs.




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VIII. Way Forward

- **Policy & Support:**
 - Establish *CA mechanisation hubs* in potential villages.
 - Develop sustainable business models for CA adoption.
 - Strengthen subsidy and support schemes.
- **Research & Innovation:**
 - Focus on problem-solving research in CA.
 - Scale up trials and demonstrations for farmer confidence.
- **Knowledge & Awareness:**
 - Learning platforms for CA practitioners.
 - More farmer training, participatory extension models.
- **Expansion Potential:**
 - Bring barren/fallow lands under CA.
 - Promote profitable cropping systems.
- **Future Priority:**
 - Conservation Agriculture must be central in India's agricultural policy.
 - Aims for sustainability, profitability, and intergenerational benefits.

ARTICLES FROM DOWN TO EARTH (AUGUST 2025)

PLASTIC HEALTH CRISIS

Context: Plastics are everywhere but so are their hidden and often neglected health costs. A recent report from the Lancet Countdown on Health and Plastics report (August 2025) reveals what often goes unnoticed: how plastic-derived chemicals and micro-/nano-plastics are affecting human health across their entire life cycle, from production to disposal.

Key Findings

- **Huge Economic Burden from Toxic Chemicals**
 - Three commonly used plastic-additive chemicals — PBDE (flame retardant), BPA (for clarity and strength), and DEHP (for flexibility) — have led to estimated health expenses of US\$ 1.5 trillion across 38 countries, representing about one-third of the world's population.
 - For perspective: that amount of money could have funded vaccinations for every newborn around the globe for the next 200 years.
- **Exposure Ubiquity & Early Life Vulnerability**
 - Numerous plastic chemicals act as endocrine disruptors, with exposure associated with infertility, cancers, cardiovascular disease, neurodevelopmental disorders. Even fetuses and newborns are impacted.
 - Microplastics and nanoplastics (MNPs) have been found in human blood, lungs, liver, kidneys, even the initial stool of newborns.
- **Manufacture & Lifecycle Emissions, Environmental Harm**
 - The production of plastic result in more than 2 gigatonnes of CO₂-equivalent emissions annually, adding to climate change.
 - Communities located near petrochemical or plastic manufacturing facilities face significant health challenges, including respiratory issue, neurological problems, and birth defects.
- **Waste, Microplastics & Pathogen Risk**
 - Approximately 10% of all plastic ever produced is recycled. The remainder accumulates, degrading slowly into micro and nano particles.
 - Individuals who collect waste informally and those residing close to landfills face significant risks. Additionally, plastic waste promotes mosquito-borne diseases and contributes to antimicrobial resistance

as plastics act as surfaces “plastisphere” where pathogens and bacteria thrive, share resistance genes, etc.

Regulatory Gaps

- Approximately 16,000 chemicals used in plastics, nearly 75% have never been tested for toxicity.
- In the discussions surrounding the Global Plastics Treaty (which was initiated through UN-Environment resolutions), there is considerable disagreement regarding a health-focused Article (Article 19): no consensus has been reached, with some nations wishing to eliminate it while others prefer to postpone it.

Proposed Solutions

The Lancet report and associated studies propose:

- Global bans or phase-outs of the most harmful and avoidable plastic products and chemicals.
- Harmonised design standards for plastics so they are safer, and more circular (reuse, recyclability etc.).
- Mobilisation of financial flows: more funds towards safer plastics, better waste management, health systems affected. Just transition, particularly for vulnerable communities.
- Adaptive treaty mechanisms so that as science advances, the treaty can respond.
- Applying the “One Health” framework recognizing interconnectedness of human, animal, environmental health.

Key Implications

- **Public health crisis:** What was once perceived largely an environmental issue (marine plastics, litter) has serious, quantifiable health consequences — chronic disease burdens, neurological and developmental impacts.
- **Economic burden and externalities:** The cost is not borne by manufacturers or consumers at point of purchase but by healthcare systems, populations, long-term productivity losses.
- **Climate linkages:** High greenhouse gas emissions from plastics tie into climate change; co-benefits of reducing plastic production include emissions reductions.
- **Inequity & Environmental Justice:** Low-income communities, countries with weak regulation or poor waste infrastructure, informal sectors are disproportionately affected.

- **Regulatory lag:** Science has advanced; policy has not kept pace. Many chemicals untested; microplastics/nano plastics are newly detected in human organs, yet regulation is only now catching up.

Challenges and Gaps

- **Scientific uncertainties:** While many endpoints (cancer, endocrine disruption etc.) are established, for micro-/nano-plastics, long-term effects, dose thresholds, interactions are still being researched.
- **Regulation vs economic interests:** Plastics are cheap, versatile; industry pushback because of cost, infrastructure challenges, vested fossil fuel interests.
- **International negotiation complexity:** At the Global Plastics Treaty, there is division among nations on how strongly to embed health provisions; concerns about trade, cost, sovereignty etc.
- **Implementation, especially in low/middle income countries:** Weak regulation, informal sector, weak waste management, lack of monitoring and enforcement.
- **Designing circular economy at scale:** Recycling technologies, infrastructure, product design, supply chain adjustments are nontrivial.

What Needs to Be Done

Especially relevant for India, but applicable globally:

- **Strengthen regulatory frameworks**
 - Mandate testing & safety assessment for all plastic chemicals in use, especially endocrine disruptors.
 - Legislate bans/phase-outs of high-risk chemicals.
 - Set standards for packaging, design to ensure minimal leaching and maximal recyclability.
- **Embed health in treaties / international law**
 - In the Global Plastics Treaty negotiations, insist on strong, explicit health articles; avoid treating health as an optional or side issue.
 - Use adaptive treaty clauses so that as science catches up (e.g. about microplastics), treaty can adjust.
- **Fiscal policy & incentives**
 - Remove subsidies for fossil fuel feedstocks used in plastic production; redirect subsidies/tax relief towards safer alternatives.
 - Financial support for waste collection infrastructure, circular economy, R&D in safer materials.
- **Monitoring, data and research**
 - Invest in data on exposure, especially in vulnerable populations (pregnant women, children).
 - Longitudinal epidemiological studies to understand long-term effects.
 - Monitoring for microplastics etc in food, water, air.
- **Public awareness and behaviour change**
 - Educate about risk of plastic leachates, microplastics.

- Promote alternatives (biodegradable, reusable) in consumer goods.
- **Just transition & environmental justice**
 - Support for communities affected by plastic production / waste (e.g. near plants or dumpsites). Health screening, remediation.
 - Ensure informal waste sector is formalised with safe working conditions, proper pay.
- **Integrated “One Health” approach**
 - Recognize linkages among environmental pollution, animal health (wildlife, livestock), human health.
 - Cross-sectoral coordination: environment, health, industry, agriculture.

India-Specific Context

- India faces high plastic consumption and enormous plastic waste; many cities have inadequate waste collection and informal sectors taking brunt.
- Regulatory steps already in place (plastic bans on single-use plastics, rules for recycling, Extended Producer Responsibility etc.) but enforcement is patchy and design standards / chemical safety are less addressed.
- Potential to leverage India’s manufacturing scale, research capacity (e.g. in IITs, CSIR, Indian research institutions) to develop safer materials, recycling technologies.
- India can play leadership in global forums (UNEP, INC on Plastic Pollution) to push for stronger health clauses and adaptive treaty frameworks.

Conclusion

Plastics have long been understood as an environmental menace; increasing, serious health burden — disease, disability, economic loss. The report makes clear that unless policy, industry, and public awareness shifts dramatically, the invisible cost will continue mounting.

For India, and globally, the negotiation of the Global Plastics Treaty represents a crucial moment. Embedding strong health articles, adaptive frameworks, safety standards, and ensuring justice and finance to support transition will be essential.

PRELIMS SPECIAL

- PBDE (flame retardant), BPA (for clarity/strength), DEHP (for flexibility) are used widely in plastics.
- Global Plastics Treaty was passed in 2022 by UN Environment Assembly to create legally binding agreement addressing plastic pollution across the full lifecycle.
- Governments heavily subsidize petrochemicals (raw material for plastics). In 2024, US fossil-fuel subsidies reached US\$ 43 billion, expected to rise to US\$ 78 billion by 2050.
- Discarded plastics containers/tyres become mosquito breeding grounds (dengue, chikungunya).
- Plastics contribute to antimicrobial resistance (AMR) via “plastisphere” where bacteria form biofilms, share resistance genes, residues of antibiotics/pesticides accumulate.

- Lancet has launched a “countdown on health and plastics”, an indicator-based global monitoring system.

REIMAGINING GLOBAL HEALTH IN THE WAKE OF US AID CUTS

Context: The global health sector has greatly profited from significant leadership and financial support from the US over the years. Initiatives such as **PEPFAR (the President’s Emergency Plan for AIDS Relief)** and extensive USAID programs have played a crucial role in funding major disease-response efforts, particularly in Africa.

However, recent reductions in US aid have disrupted this established framework, presenting both challenges and new possibilities. The decrease in US funding brings about uncertainty, it simultaneously provides an opportunity to develop a more resilient, equitable, and sustainable global health system.

Why US Aid Cuts Matter

- **Significant Historical Reliance on Disease-Specific Initiatives:** Numerous health systems in Africa have been constructed around funding dedicated to specific diseases (such as HIV/AIDS, tuberculosis, and malaria), primarily bolstered by US bilateral initiatives. Although these programs are effective within their specific areas, they frequently result in isolated systems that lack robust integration with wider health frameworks.
- **Susceptibility to Geopolitical Changes:** As the priorities of US foreign policy evolve (the “America First” approach), global health funding becomes susceptible to shifts in domestic political landscapes. Reductions in aid are not merely financial—they signify ideological shifts and changing priorities.
- **Interruption of Continuity and Services:** When significant funding sources reduce their contributions, ongoing initiatives may lose their momentum, resulting in diminished access to vital health services, weakened surveillance systems, and a decline in the progress achieved in public health.

Opportunity to Build Back Better

- **From Disease-Specific to Integrated Health Systems**
 - Move beyond fighting HIV/AIDS, TB, malaria in silos. Instead build systems centered on primary care, health promotion, and long-term care that serve people over their life course—early childhood, adulthood, old age.
 - Especially important in light of changing demographics—ageing populations, rising non-communicable diseases, comorbidities. Fragmented programmes may lead to conflicting services or gaps.

Shared Investment and Domestic Resource Mobilisation

- Low-income countries need to increase health spending as a percentage of GDP. This involves improving revenue generation (tax systems), reducing corruption, better allocation, and prioritizing health in public budgets.
- High-income nations still have a role—but more as partners than as primary drivers. Aid should be aligned with local priorities and systems, not just donor agendas.

Key Challenges

- **Fiscal Constraints in Low-Income Countries:** Many of these nations already have limited fiscal space, high debt burdens, weak tax bases, and competing priorities (infrastructure, education, security etc.). Mobilizing large domestic resources will not be easy.
- **Governance, Corruption, Accountability:** Effective use of whatever funds are available depends on transparent, efficient institutions. Without good governance, even well-planned reforms may flounder.
- **Infrastructure & Human Resources:** Transitioning from vertical disease-focused programmes to integrated health systems requires skilled workforce, supply chains, primary care infrastructure, etc., which may be weak.
- **Donor Exit Risks and Transition Planning:** Abrupt cuts can leave health systems vulnerable. Proper planning is necessary to prevent gaps in service provision.
- **Political Will & Public Engagement:** Both in recipient and donor countries, political priorities may not align with long-term health system reform. Ensuring health remains a priority amid many pressing issues is a challenge.

Recommendations

- **Strengthen Primary Health Care (PHC)**
 - Expand coverage of basic health services.
 - Emphasize preventive and promotive health (vaccination, nutrition, public health measures).
 - Build capacity at the community level—local clinics, community health workers.
- **Health Financing Reforms**
 - Improve domestic resource mobilisation: progressive taxation, closing leakage, reducing inefficiencies.
 - Consider earmarked health funds or social health insurance models where feasible.
 - Encourage pooling of resources (local/regional/donor coordination) to avoid fragmentation.
- **Flexible, Context-Sensitive Aid Partnerships**
 - Aid that is aligned with local health priorities, co-designed with recipient countries, respecting local systems.
 - Emphasis on capacity building, technology transfer, health system strengthening rather than just disease outcomes.

- **Multilateralism and Regional Cooperation**
 - Strengthen regional institutions (e.g., Africa Centres for Disease Control, inter-country disease surveillance networks).
 - Share best practices, pooled procurement of medicines and vaccines, shared knowledge platforms.
- **Resilience and Preparedness**
 - Invest in systems capable of responding to shocks: pandemics, climate impacts, supply chain disruptions.
 - Strengthen surveillance and early-warning systems.
- **Advocacy, Communication & Citizen Engagement**
 - Ensure citizens know value of strong health systems—not only in disease contexts but in ageing, chronic disease, mental health.
 - Build coalitions including civil society, community leaders to hold governments accountable.

Conclusion

The reduction of US aid presents a dual challenge: it may cause immediate difficulties, yet it also provides a rare opportunity to reform global health institutions to enhance resilience, equity, and self-sufficiency. Transitioning from reliance on external donors to establishing locally rooted, cohesive health systems centered on primary care and informed by community needs will help safeguard global health from the influences of geopolitics and economic fluctuations.

In order to rebuild more effectively, the global health community must proceed with foresight, humility, and a collective sense of duty. If executed properly, the health systems of the future can not only withstand reductions in aid but can also emerge more robust as a result.

PRELIMS SPECIAL

- PEPFAR (President's Emergency Plan for AIDS Relief) is a US-funded global HIV/AIDS initiative.
- US is the largest bilateral donor to global health programmes, especially in Africa.
- Disease-specific vertical programmes (like HIV, TB, malaria) often create fragmented health systems.
- US aid cuts post-2020s have affected global health security and system funding.
- Emphasizes need for primary healthcare and health system resilience.
- Advocates for domestic resource mobilization by low- and middle-income countries (LMICs).
- A "shared leadership" in global health is suggested, moving away from US-centric model.
- Promotes "One Health" approach and pandemic preparedness in health system design.
- Increase the role of regional cooperation and multilateral institutions in global health (e.g., Africa CDC).


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ARTICLES FROM EPW

(AUGUST 2025)

GENDERED MEDIA AND EFFECTIVENESS OF INDIA'S LEGISLATIVE RESPONSE

Context: Recently, concerns over India's disjointed legal response are raised by the media's persistent objectification of women, which has been noted since UNESCO's 1979 research and the Beijing Declaration of 1995.

Media and Gender

- During the 67th annual session of the United Nations (UN) Commission on the Status of Women 2023, the Secretary-General's Envoy on Technology recently underlined how **technological advancements have exacerbated the objectification of women** and prevented them from participating in political arenas.
- **UNESCO Studies:**
 - The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) produced studies on how women are portrayed in the media in 1979, which may be considered the first discussions on the topic.
 - According to the study, women are portrayed in mass media entertainment programmes in two ways: **first, as decorative objects, and second, as unfortunate people who rely on their family for both their emotional and financial needs** (Gallagher 1979).
- **Beijing Declaration:**
 - The adoption of the **Beijing Declaration and Platform for Action at the UN's Fourth World Conference on Women**, took place in Beijing in 1995.
 - The proclamation placed a strong focus on portraying women as respectable contributors to the modern world's developmental activities and required the government, in accordance with paragraphs 243(d) and 244(a), to refrain from portraying women as sexual objects and commodities in the media.
 - In order to address the threat of objectification of women, the declaration also recommended that states use laws and self-regulation as a tool to control advertising and the media.
 - The 67th session of the Commission on the Status of Women, subsequently reaffirmed the necessity of adhering to the Beijing Declarations as an appropriate reaction to combat objectification, over thirty years

after the passage of the Beijing Declaration (United Nations 2023).

Impacts of Unfettered Objectification on the Society

- According to a 2019 study by the American Psychology Association, **women are dehumanised as a result of the media's ongoing objectification** of them and society's unrestricted exposure to such material.
- Dehumanising them by treating them like a commodity encourages sexual violence, especially from men, fosters a culture of rape, and thus leads to a noticeable rise in crimes against women.
- In 2020, there was a **6.7% rise in crimes against women in India**, according to the National Crime Records Bureau of India (NCRB). Sexual harassment, voyeurism, and stalking were among the 87,823 crimes that involved "Assault on Women with Intent to Outrage her Modesty".
- The objectification of women can have a noticeable effect on **lowering the viability of female candidates in elections** - Media draws viewers' focus away from political contributions and focuses on looks.

Indian Laws Dealing with Portrayal by Media—Effectiveness and Lacunae

- **Cable Television Networks (Regulation) Act, 1995:** This rule regulates the content of cable television (TV) and prohibits the broadcasting of any programmes that are offensive or undesirable, violate decency or good taste, or contain any material that could instigate or encourage violence or impede the maintenance of law and order.
- **The Indian Advertising Standards Council's (ASCI) Code:** Chapter 2 of the guideline emphasises that commercials cannot portray women in an offensive manner.
- **Indecent Representation of Women (Prohibition) Act, 1986:** This law forbids the derogatory portrayal of women in publications, ads, writings, paintings, figures, and other media, and it also stipulates penalties for doing so. But the act is only applicable to print media.
- **Information Technology (Digital Media Ethics Code and Intermediary Guidelines) Regulations, 2021:** According to Rule 3(1)(b)(ii), these regulations govern digital media platforms, including social media, and forbid the publication or dissemination of content that infringes upon the privacy of another person, including bodily privacy, or that is derogatory or harassing based on gender.

Way Forward

In the Indian context, regulating excessive content may be a worthwhile consideration, especially in light of the Ministry of Information and Broadcasting's growing inclination to censor such content and a recent Delhi High Court decision mandating more stringent enforcement of the 2021 Information Technology Rules. Once it passes the legality test, these regulations could be used to successfully combat the threats of objectification and obscenity.

THE CRISIS OF HIGHER EDUCATION IN INDIA

Context: India's higher education system has, in the past, been a showcase of soft power and academic excellence. Today, it finds itself in the midst of a profound crisis. **Increased political interference, weak regulation, underfunding, and decreased autonomy** have led to deterioration in quality. As India aims to be a Viksit Bharat (developed nation) by 2047, reforming higher education is imperative.

Background

- **Role of education in development:** Education, in particular primary education, creates a platform, while higher education creates the "cutting edge" for innovation, productivity, and human capital development.
- **Global lessons:** East Asian countries invested substantially in higher education to escape the middle-income trap. If there is no similar kind of emphasis in India, India could still miss out.

Symptoms of Crisis

1. Access vs Quality

- **Enrolment has gone up across all educational institutions**, yet quality of education is variable and declining.
- **Private institutions** are predominant in providing access and quality but generally lack standards, on the other hand public universities suffer from under-resourcing.

2. Brand dilution

- **Rapid expansion of IITs, IIMs and IISERs** has led to inconsistent quality and erosion of brand equity.

3. Brain drain

- The number of **Indian students studying abroad has increased** from 50,000 (2000) to 900,000 (2023).
- Only about 20% return to India; the remaining settle down abroad.

4. Declining international prestige

- Overseas students studying in Indian universities decreased, signalling a perception of diminished quality.

5. Resource constraints

- Limited research due to funding shortages, politicized approvals, and restricted autonomy of academics.

Political Intrusion & Institutional Capture

- **Appointments:** Appointments of vice chancellors, faculty, and administrators have been, continue to be, determined by political loyalty rather than professional standards and benchmarks.
- **Regulations:** UGC has become the licenser, regulator, and funder — all resulting in excessive centralisation to the benefit of the government administration and mandate to regulate, with no checks and balances.
- **The Draft UGC Regulations, 2025:** Reduce the role of universities in the appointment of faculty and governance and increase the role of government in the appointment of faculty.
- **Examinations & Admissions:** Centralisation has occurred under NTA (NEET, JEE, CUET), which has included leakages, mismanagement, and minimising trust in examination and admissions.
- **Autonomy:** Autonomy has been curtailed, including prescribed curricula, restrictions on debates, and scrutiny and monitoring of faculty for "anti-government" activity.

Way Forward

- **Ensure autonomy with accountability**
 - Universities must have autonomy in governance, finances, and academic matters but should be held accountable through effective, transparent governance and established rankings.
- **Reform UGC**
 - The roles of regulator, funder, and evaluator should be made separate by encouraging decentralisation, diversity, and pluralism instead of the standardisation of institutions.
- **Funding**
 - Increase spending on R&D and support basic research.
- **Depoliticise appointments**
 - Create independent search committees composed of domain experts to hire faculties based on merit.
- **Globalise Indian universities**
 - Attract foreign students by improving quality standards, investing in quality institutions, and altering regulations.

QUICK REVISION

IMPORTANT DAYS IN AUGUST 2025

Date	Day	Significance/Remark/Details
1st August	World Lung Cancer Day	Theme: Stronger Together: United for Lung Cancer Awareness. - Emphasis on united action: awareness, early detection, research, fighting stigma; pushing for equal access to care.
1st August	World Wide Web Day	Theme 2025: "Empowering the Future: Building an Inclusive, Safe, and Open Web". - Focus on bridging digital divide, ensuring privacy & safety, and keeping the web open and inclusive.
6th August	Hiroshima Day	- Hiroshima Day (6 Aug, 1945): Marks first atomic bombing; symbol of peace and anti-nuclear movement. Theme 2025: "Toward a World Without Nuclear Weapons"; links to NPT, CTBT, India's NFU policy.
7th August	11th National Handloom Day	Theme: "Handlooms: Empowering Women, Empowering the Nation." - It was celebrated at the national level in New Delhi. - It commemorates the beginning of the Swadeshi Movement in 1905, which promoted the handloom industry and the use of indigenous products.
7th August	Sustainable Agriculture Day	- The Maharashtra government will commemorate the centenary of Dr. M. S. Swaminathan's birth, who was the driving force behind India's Green Revolution. - For his services to Indian agriculture, Dr. M.S. Swaminathan received the 2024 Bharat Ratna. - The United Nations Environment Programme has hailed him as the "Father of Economic Ecology."
9th August	International Day of the World's Indigenous People's	Theme: Indigenous Peoples and AI: Defending Rights, Shaping Futures. - It is also known as World Tribal Day.

12th August	International Youth Day	• Theme: Local Youth Actions for the SDGs and Beyond. • Nairobi, Kenya hosted an official celebration in partnership with UN-Habitat.
23rd August	2nd National Space Day	• Theme: Aryabhata to Gaganyaan: Ancient Wisdom to Infinite Possibilities • It commemorates the successful soft landing of Chandrayaan-3's Vikram Lander at 'Shiv Shakti' point (Statio Shiv Shakti) and deployment of Pragyan Rover on the Moon on 23rd August 2023. • India became the 4th country to land on the Moon and the first to land near the Moon's South Polar Region.
29th August	National Sports Day	• Theme: Ek Ghanta, Khel ke Maidan Main. • Celebrations held by the Fit India Mission. • It marks the 120th birth anniversary of Major Dhyan Chand.

IMPORTANT EVENTS/SUMMITS/CONFERENCES IN AUGUST 2025

S. N.	Events/Summits/Conferences	Details
1.	Seminar on 'Inscription of the Bhagavad Gita and Natya Shastra in UNESCO's Memory of the World International Register'	• It was organized by Indira Gandhi National Centre for the Arts (IGNCA). • Recently, the manuscripts of the Bhagavad Gita and Natyashastra were inscribed on UNESCO's Memory of the World Register 2025. • It brings India's total inscriptions in the register to 14.
2.	President of the Philippines State Visit to India	• The visit commemorated the 75th anniversary of India and the Philippines' diplomatic ties, and a joint commemorative stamp was released to mark the occasion. • The two nations formally formed a Strategic Partnership to promote long-term collaboration in a number of areas.
3.	National Conference on "Critical minerals: exploration and exploitation"	• Venue: Jabalpur, Madhya Pradesh. • Organized as part of Geological Survey of India's (GSI) 175th Foundation Year celebrations.
4.	18th International Olympiad on Astronomy and Astrophysics, 2025	• It was hosted by the Homi Bhabha Centre for Science Education (HBCSE) under the Tata Institute of Fundamental Research (TIFR). • Venue: Mumbai; • Theme: Vasudaiva Kutumbakam.
5.	15th India-Japan Annual Summit	• Venue: Tokyo, Japan. • India-Japan Joint Vision for the Next Decade: 10-year plan for cooperation in economic partnership, economic security, mobility, sustainability, technology, health, and people-to-people engagement. • Joint Declaration on Security Cooperation. • India-Japan AI Initiative to promote trustworthy AI ecosystem.

AWARDS AND PRIZES IN AUGUST 2025

S. N.	Award	Awarded to	Details
1.	Rajbhasha Kirti Puraskar	The Department of Administrative Reforms and Public Grievances (DARPG)	- Given to Ministries/Departments with fewer than 300 employees for the finest usage of Hindi as the official language. - Awarded by: Ministry of Home Affairs, Department of Official Language. - DARPG has earned this prize for the second year in a row.
2.	SCOPE Eminence Awards	HAL (Institutional excellence in Maharatna/navratna PSEs; Goa Shipyard Ltd (Women Empowerment)	- Awarded by Standing Conference of Public Enterprises (SCOPE). - Supported by the Department of Public Enterprises (DPE), Ministry of Finance.
3.	43rd Lokmanya Tilak National Award		- Awarded to Nitin Gadkari, Union Minister of Road Transport and Highways, in recognition of his noteworthy contributions to the advancement of the country. - Awarded by Lokmanya Tilak Smarak Trust.
4.	International Architectural Award 2025 (Transport Category)		- Awarded to Lokpriya Gopinath Bordoloi International Airport, Guwahati, Assam. - Recognised for architectural excellence and thoughtful urban planning. - Awarded by: The Chicago Athenaeum: Museum of Architecture and Design.
5.	UNDP Equator Initiative Award (Equator Prize 2025)	Bibi Fatima Women's Self-Help Group	- Acknowledged for promoting millet in 30 villages, establishing community seed banks, and engaging in environmentally sustainable farming - Awarded by United Nations Development Programme (UNDP). - Also referred to as the "Nobel Prize for Biodiversity Conservation"

TERMS IN NEWS: AUGUST 2025

S. N.	Term	Meaning & Details
1.	Supply-side progressivism	By reducing regulatory barriers and investing in capacity, this political and economic approach seeks to enhance the production (supply) of critical goods and services, such as housing, healthcare, and education.
2.	Toxic political discourse	Rising levels of harshness, polarisation, and rudeness in political discourse among elites and leaders. Viewed as a danger to democratic standards, particularly in democracies in the West.

3.	Raging Twenties	A phrase used to define the current era (2020s) that is characterised by technological disruption (AI, etc.), economic uncertainty, geopolitical conflicts (wars, trade wars), and climatic catastrophes
4.	Hard to abate sectors	Decarbonisation is challenging for certain industries, such as shipping, aviation, steel, etc.
5.	Invisible Labour	Work that is necessary but frequently goes unappreciated and unpaid, such as caregiving, content control, and emotional labour. A developing theme in workplaces, social media, and technology.

OBITUARIES IN AUGUST 2025

S. N.	Person	Important Information
1.	Shibu Soren	- After suffering from kidney disease and a stroke, Shibu Soren, a senior tribal leader, founder of JMM, and former Chief Minister of Jharkhand, died on August 4, 2025, at the age of 81. - He was the founder and leader of the Jharkhand Mukti Morcha (JMM) for almost forty years. - He spearheaded the push for the creation of the independent state of Jharkhand, which was ultimately split off from Bihar in 2000. - Soren was a member of the Rajya Sabha and three times the chief minister of Jharkhand. - He was given the title of "Dishom Guru" (leader of the land) because his political career was closely linked to the goals of the tribal people of Jharkhand.
2.	Satya Pal Mallik	- After a protracted illness, former Governor of Jammu and Kashmir Satya Pal Malik died on August 5, 2025, at the age of 79. - As a seasoned politician, Malik was instrumental in one of the most significant periods in the history of Jammu and Kashmir, which included the repeal of Article 370 in 2019. - Malik was moved to Goa as governor after his time in Jammu & Kashmir, and he subsequently held the position of governor of Meghalaya till October 2022.
3.	La Ganesan	- La Ganesan, the Governor of Nagaland, passed away at the age of 80 on the night of August 15, 2025, at a private hospital in Chennai. - He was named governor of Manipur in August 2021 and served in that capacity until February 2023, when he was transferred to Nagaland Raj Bhavan as its constitutional head. During his tenure as governor, he remained dedicated to advancing peace, development, and cultural integration in the Northeast.
4.	Frank Caprio	- The "nicest judge in the world" is praised for his kindness and sense of humour during court sessions. - He was the Chief Judge of the Providence Municipal Court in the United States state of Rhode Island.
5.	Dr. Vece Paes	- Member of the Indian men's hockey team that won bronze at the 1972 Munich Olympics. - Also, part of the team that won bronze at the 1971 World Cup. - Played for Mohun Bagan and East Bengal.

AUGUST 2025 - DAILY MCQs FROM THE HINDU & INDIAN EXPRESS

DAILY MCQ PRACTICE

Q1. Consider the following with reference to the Public Interest Litigation (PIL):

1. PIL allows any individual or group to approach the court in the interest of the public, even if they are not directly affected.
2. The concept of PIL originated in India through constitutional amendments in the 1980s.
3. PILs can only be filed in the Supreme Court and not in High Courts.

How many of the above are not correct?

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

Q2. Consider the following with reference to International Civil Aviation Organization (ICAO):

1. ICAO is a specialized agency of the United Nations responsible for setting international standards for aviation safety and security.
2. India is not a permanent member of the ICAO Council.
3. ICAO is headquartered in Montreal, Canada.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q3. Consider the following statements

- I. CARTOSAT-3 is a third-generation agile advanced Earth observation satellite developed by ISRO.
- II. OCEANSAT-3 is used for mapping, disaster management, rural and urban planning, and defense applications.
- III. RISAT provide all-weather surveillance using synthetic aperture radars (SAR).

Which of the statements given above are correct?

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

Q4. Consider the following statements with reference to Cy-TB test

1. Cy-TB is a highly specific, accurate and user-friendly skin test.
2. It can detect the presence of latent infection before it progresses to an active disease state.
3. The test utilizes two specific antigens, ESAT-6 and CFP-10, secreted by Mycobacterium tuberculosis.

Which of the above statements are correct?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) All of the above

Q5. Consider the following statements:

Statement 1: Free Trade Agreements aim to reduce or eliminate tariffs, quotas, and other trade barriers between the participating countries.

Statement 2: By removing all trade regulations, FTAs ensure that there is no government intervention in economic activities.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q6. Consider the following with reference to the regarding the sessions of Parliament:

1. The President summons each House of Parliament.
2. The Speaker decides the agenda for the session.
3. There must be at least two sessions of Parliament every year.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q7. Consider the following statements with respect to Customary Law in India

- I. It refers to a body of unwritten rules and practices that have evolved over time within a particular community or society.
- II. The Indian Evidence Act, specifically through Section 13, outlines the criteria for establishing the validity of customary laws.
- III. The Hindu Succession Act (HSA) does apply to Scheduled Tribes.

Which of the statements given above are correct?

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

Q8. Consider the following statements with reference to the post of Vice President

1. The Constitution does not provide for an acting Vice-President.
2. The Deputy Chairman of Rajya Sabha can preside over the House in the absence of Vice President of India.
3. There is no such fixed deadline to fill the vacancy of the post of Vice President.

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

Q9. Consider the following with reference to the Prime Minister:

1. The Prime Minister is appointed by the President and must be a member of the Lok Sabha at the time of appointment.
2. The Prime Minister is the chairman of the NITI Aayog, the Nuclear Command Authority, and the National Integration Council.
3. The Constitution explicitly mentions the Prime Minister as the "executive head" of the country.

How many of the above is/are not correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q10. Consider the following statements:

Statement I: Buddhism has become a tool of geopolitical influence in the Himalayan region.

Statement II: China uses Buddhist institutions to extend its strategic reach and promote loyalty in border areas.

Statement III: India hosts the Dalai Lama and promotes Buddhist heritage sites to strengthen cultural ties with neighbouring countries.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
(b) Both Statement II and Statement III are correct but only one of them explains Statement I
(c) Only one of the Statements II and III is correct and that explains Statement I
(d) Neither Statement II nor Statement III is correct

Q11. Which of the following countries is not a member of SAARC?

- (a) Maldives (b) Myanmar
(c) Bhutan (d) Sri Lanka

Q12. Consider the following statements regarding the Etalin Hydroelectric Project (EHEP):

1. The Etalin project is a combination of storage-based and run-of-the-river schemes on tributaries of the Brahmaputra River.
2. The project is located in a region identified as part of one of the world's mega biodiversity hotspots within the Himalayan biogeographical zone.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q13. Consider the following with reference to the Second World War:

1. The harsh terms of the Treaty of Versailles humiliated Germany.
2. The League of Nations failed to prevent aggression by Axis powers.
3. The Great Depression had no significant impact on international tensions.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q14. Consider the following statements:

Statement 1: Operation Desert Storm was the combat phase of the Gulf War launched in 1991.

Statement 2: It began after Iraq's refusal to withdraw from Kuwait despite a UN deadline.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q15. Consider the following statements with respect to AdFaciVax Vaccine

- I. It is a vaccine for Malaria.
II. It is a chimeric recombinant vaccine.
III. It uses a protein produced during the sporozoite stage of Plasmodium to prevent the infection.

Which of the statements given above are correct?

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

Q16. Consider the following statements with reference to Impeachment of judges

- Under Article 217, a judge of High Court can be removed from his office by an order of the President.
- The President can issue the removal order after an address by the Parliament.
- The motion to remove the judge must be supported by a simple majority of each House of Parliament.

How many of the above statements is/are correct?

- (a) One only (b) Two only
(c) All three (d) None

Q17. Consider the following with reference to the President's Rule under Article 356 of the Indian Constitution:

- The President's Rule can be imposed if the Governor reports that the constitutional machinery in a state has failed.

2. President's Rule can be imposed for a maximum of five years, subject to parliamentary approval every six months.

3. During President's Rule, the President can directly make laws for the state through ordinances.

How many of the above is/are not correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q18. Consider the following with reference to the Food Safety and Standards (Labelling and Display) Regulations, 2020:

- The regulations mandate front-of-pack labelling for packaged foods high in sugar, salt, and fat to help consumers make informed choices.
- Food service establishments with central licences and more than 10 outlets must display nutritional information on menus.
- These regulations are issued by the Ministry of Consumer Affairs under the Consumer Protection Act, 2019.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q19. Consider the following statements with reference to President's Rule

Statement 1: Article 356 is not applicable to Union territories.

Statement 2: In NCT of Delhi, President's rule is applied on the basis of Article 239AB of the Constitution of India.

Statement 3: In the union territory of Puducherry, President's rule is applied on the basis of Article 51 of the Government of Union Territories Act, 1963.

Which one of the following is correct in respect of the above statements?

- (a) All three statements are correct and Statement 2 explains Statement 1
(b) All three statements are correct and Statement 2 does not explain Statement 1
(c) Statement 1 is incorrect, but Statements 2 and 3 are correct
(d) All the statements are correct and none explain each other

Q20. Consider the following statements with reference to BS-VI Emission Norms

1. It was implemented from the year 2020.
2. The Bharat Stage (BS) are emission standards instituted by the Government of India.
3. The Environment Ministry is responsible for deciding the fuel standard in the country and the Central Pollution Control Board implements these standards.

How many of the above statements is/are correct?

(a) One only (b) Two only
(c) All three (d) None

Q21. Which of the following statements are correct in respect of super cyclones:

1. Super cyclones are classified as tropical cyclones with wind speeds exceeding 220 km/h.
2. The 1999 Odisha Super Cyclone is considered one of the strongest cyclones to hit the Indian subcontinent.
3. Super cyclones generally form over land and intensify due to rising surface temperatures.

Select the answer using the code given below:

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

Q22. Consider the following with reference to M.S. Swaminathan:

1. He is widely regarded as the father of India's Green Revolution for his role in introducing high-yielding varieties of wheat.
2. He served as the first Director General of the Indian Council of Agricultural Research (ICAR).
3. He chaired the National Commission on Farmers, which recommended the Minimum Support Price (MSP) be at least 50% above the cost of production.

How many of the above is/are correct?

(a) Only one (b) Only two
(c) All three (d) None

Q23. Consider the following statements with respect to CME, or Coco-Methyl Ester

- I. It is a type of biodiesel derived from coconut oil and methanol.
- II. It is derived through a process called transesterification.

III. It is considered a renewable energy source and a potential substitute for fossil fuels.

Which of the statements given above are correct?

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

Q24. Consider the following statements with reference to Mono Lake

1. It is a saline soda lake in California.
2. The lack of an outlet causes high levels of salts to accumulate in the lake which make its water alkaline.
3. Lake Russell was the prehistoric predecessor to Mono Lake, during the Pleistocene.

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

Q25. Which of the following statements are correct in respect of the POCSO Act, 2012?

1. It criminalizes sexual offences against children below 18 years of age.
2. It provides for gender-neutral protection to victims.
3. It allows for child-friendly procedures during the judicial process.

Select the answer using the code given below:

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

Q26. The idea of the Preamble was borrowed from the Constitution of:

(a) United Kingdom (b) United States of America
(c) Canada (d) France

Q27. Consider the following statements:

Statement 1: Unlike a federation that unites countries through treaties, India is a civilisational polity where states derive their legitimacy from the Union.

Statement 2: Article 1 of the Constitution says, "India, that is Bharat, shall be a Union of States."

Statement 3: The 1956 linguistic reorganisation was intended to accommodate diversity through better administration.

Which one of the following is correct in respect of the above statements?

- (a) All three statements are correct and Statement 2 explains Statement 1
- (b) All three statements are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is incorrect, but Statements 2 and 3 are correct
- (d) All the statements are correct and none explain each other

Q28. Consider the following statements with reference to WAVES OTT platform

1. It is a digital platform developed by Prasar Bharati.
2. It offers a wide range of content, including live TV, video on demand, games, radio streaming, and e-commerce options via the ONDC network.
3. Prasar Prasar Bharati is a statutory autonomous body established in 1997.

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

Q29. Which of the following statements are correct in respect of Drugs & Cosmetics Act, 1940?

1. The Act regulates the import, manufacture, distribution, and sale of drugs and cosmetics in India.
2. The primary objective of the Act is to ensure that drugs and cosmetics sold in India are safe, effective, and conform to quality standards.
3. The Act is administered solely by the Central Government, with no role for State authorities.

Select the answer using the code given below:

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

Q30. Consider the following with reference to the Rajendra Chola I:

1. Rajendra Chola I succeeded Rajaraja Chola I and expanded the Chola Empire beyond South India, including parts of Southeast Asia.
2. He founded a new capital city called Gangaikonda Cholapuram to commemorate his victory over the Western Gangas.
3. Rajendra Chola I led a successful naval expedition to the Maldives and Sri Lanka, but never attacked the Srivijaya Empire.

How many of the above is/are not correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q31. Consider the following statements with reference to National Education Policy (NEP)

- I. The NEP aims to make pre-primary learning universal by 2030.
- II. NIPUN Bharat, launched in 2021, seeks to ensure every child can read and do basic math by the end of class 3.
- III. IIT Madras, IIT Delhi, and IIM Ahmedabad have set up international campuses in Zanzibar, Abu Dhabi, and Dubai respectively.

Which of the statements given above are correct?

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

Q32. Consider the following statements regarding the appointment of Supreme Court Judges as per Article 124:

1. Every Judge of the Supreme Court shall be appointed by the President by warrant under his hand and seal.
2. A person can be appointed as a Judge of the Supreme Court only if they have served as a Chief Justice of a High Court.
3. A person can be appointed as a Judge of the Supreme Court if, in the opinion of the President, he/she is a distinguished jurist.

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

Q33. Consider the following statements:

Statement 1: The Index of Industrial Production (IIP) is a key indicator used to measure the growth rate of sectors in the Indian economy.

Statement 2: IIP measures changes in the volume of production of goods in the mining, manufacturing, and electricity sectors over a period of time.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1

- (c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q34. Consider the following with reference to the Financial Stability Report (FSR):

1. The Financial Stability Report is released quarterly by the Ministry of Finance.
2. It is prepared by the Financial Stability and Development Council (FSDC) Sub-Committee under the chairmanship of the Governor of the Reserve Bank of India.
3. The report assesses risks to the financial system and suggests policy responses to ensure financial stability.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q35. Consider the following statements with reference to *Camellia Sinensis*

- I. It is a species of evergreen shrub or small tree in the flowering plant family Theaceae.
- II. Its leaves, leaf buds, and stems can be used to produce tea.
- III. India is the world's largest tea producer followed by China, Kenya, and Sri Lanka.

Which of the statements given above are correct?

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

Q36. Consider the following statements with reference to NISAR

1. It is the first time that ISRO and its US counterpart, NASA have jointly built a satellite.
2. It is the first satellite to be mounted with two Synthetic Aperture Radars (SARs), operating in different frequency bands.
3. It is the most expensive satellite ever.

How many of the above statements is/are correct?

- (a) One only (b) Two only
(c) All three (d) None

Q37. Which of the following statements are correct in respect of the appointment and functioning of Directors-General of Police (DGPs) in India?

1. The DGP of a state is selected by the state government from a panel of officers empanelled by the Union Public Service Commission (UPSC).

2. The Supreme Court has mandated that a DGP must have a minimum residual tenure of six months before retirement at the time of appointment.

3. The DGP is appointed solely at the discretion of the Chief Minister without any external consultation.

Select the answer using the code given below:

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

Q38. Consider the following statements:

Statement 1: Mangroves act as natural barriers against coastal erosion and storm surges.

Statement 2: Mangrove roots trap sediments, stabilize shorelines, and reduce the impact of waves and tides.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q39. Consider the following statements

Statement 1: An earthquake that leads to tsunami generally occurs due to reverse faulting.

Statement 2: In a reverse fault, the block of rock, above the fault plane, moves up relative to the block below the fault plane.

Statement 3: The Kamchatka quake was also a result of reverse faulting.

Which one of the following is correct in respect of the above statements?

- (a) All three statements are correct and Statement 2 explains Statement 1
(b) All three statements are correct and Statement 2 does not explain Statement 1
(c) Statement 1 is incorrect, but Statements 2 and 3 are correct
(d) All the statements are correct and none explain each other

Q40. Consider the following statements with reference to Electoral rolls

1. Globally, the quality of electoral rolls is judged on three counts i.e. accuracy, completeness, and equity.

2. Completeness is about not leaving anyone behind and ensuring that every person who is entitled figures on the voters' list.
3. Equity is about a fair representation of all social groups in proportion to their share of the eligible population.

How many of the above statements is/are correct?

- (a) One only (b) Two only
(c) All three (d) None

Q41. Consider the following statements:

Statement 1: The Constituent Assembly of India was established as a result of the Cabinet Mission Plan of 1946.

Statement 2: The Cabinet Mission Plan provided for a fully sovereign Constituent Assembly elected by adult suffrage.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q42. Which movement was launched by Dr. Ambedkar to assert the right of Dalits to access public water sources?

- (a) Temple Entry Movement
(b) Kalaram Temple Satyagraha
(c) Mahad Satyagraha
(d) Vaikom Satyagraha

Q43. Which of the following countries are members of the G20?

1. Spain 2. South Africa
3. Indonesia 4. Norway

Select the correct answer using the code below:

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

Q44. The Anti-Defection Law was introduced in the Indian Constitution through which of the following constitutional amendments?

- (a) 42nd Amendment Act, 1976

- (b) 44th Amendment Act, 1978
(c) 52nd Amendment Act, 1985
(d) 61st Amendment Act, 1989

Q45. Which of the following statements are correct in respect of Sundarbans?

1. The Sundarbans is the world's largest contiguous mangrove forest and a UNESCO World Heritage Site.
2. It serves as a critical buffer against cyclones and storm surges along the Bay of Bengal coast.
3. Only India has administrative control over the entire Sundarbans region.

Select the answer using the code given below:

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

Q46. Consider the following statements:

Statement I: The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) aims to promote regional economic integration and trade liberalisation among its members.

Statement II: The CPTPP eliminates nearly all tariffs among member countries and sets high standards on labour, environment, and intellectual property.

Statement III: India is a founding member of the CPTPP and plays a central role in its negotiations.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
(b) Both Statement II and Statement III are correct but only one of them explains Statement I
(c) Only one of the Statements II and III is correct and that explains Statement I
(d) Neither Statement II nor Statement III is correct

Q47. Consider the following statements

Statement 1: Under Indian law, defamation can be a civil wrong or a criminal offence.

Statement 2: Civil defamation is punishable with financial compensation.

Statement 3: The right to reputation is protected under Article 21 of the Constitution.

Which one of the following is correct in respect of the above statements?

- (a) All three statements are correct and Statement 2 explains Statement 1
- (b) All three statements are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is incorrect, but Statements 2 and 3 are correct
- (d) All the statements are correct and none explain each other

Q48. Consider the following statements with reference to Sutlej River

Statement 1: Sutlej River is the longest of the five tributaries of the Indus River.

Statement 2: It rises on the north slope of the Himalayas in Lake Rakshastal in southwestern Tibet.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct
- (b) Statement 1 is correct, but Statement 2 is incorrect
- (c) Statement 1 is incorrect, but Statement 2 is correct
- (d) Both Statement 1 and Statement 2 are incorrect

Q49. Consider the following statements:

Statement 1: Sustainable Development Goal 12 aims to ensure sustainable consumption and production patterns.

Statement 2: Promoting practices such as reducing waste, encouraging recycling, and supporting repair economies contributes to achieving SDG 12.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q50. Consider the following with reference to Information Technology Act, 2000:

1. The Act provides legal recognition to electronic records and digital signatures in India.
2. It empowers the government to block websites and content in the interest of national security or public order.

3. The Act primarily governs intellectual property rights in the digital domain.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q51. Consider the following statements with reference to Intrusion detection system (IDS)

1. IDS is based on artificial intelligence (AI).
2. It uses the fibre optic based acoustic system to sense real time presence of elephants on the track.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q52. The primary objective of MAHASAGAR is to:

- (a) Create a military alliance with Indian Ocean nations
- (b) Promote maritime tourism across coastal regions
- (c) Strengthen security, trade, and development cooperation across the Global South
- (d) Establish an exclusive economic zone for South Asia

Q53. Which of the following statements are correct in respect of Battery Waste Management Rules (BWMR), 2022:

1. The rules impose Extended Producer Responsibility (EPR) on manufacturers to collect and recycle used batteries.
2. The rules prohibit the use of recyclable materials in battery manufacturing.
3. The rules promote environmentally sound management of battery waste through a digital tracking system.

Select the answer using the code given below:

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

Q54. Consider the following statements:

Statement I: Battery Energy Storage Systems (BESS) are critical to stabilising power supply from renewable energy sources.

Statement II: BESS can store excess energy generated from solar and wind sources and release it during periods of high demand or low generation.

Statement III: BESS eliminates the need for grid infrastructure and transmission networks in renewable energy deployment.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q55. Consider the following statements

Statement 1: Radioactive isotopes are the unstable form of an element that emit radiation to transform into a more stable form.

Statement 2: The radiation can be traced, and typically causes changes in the substance it falls upon.

Statement 3: Injecting radioactive isotopes into rhino horns is harmless for the rhinos and allows customs agents to detect trafficked horns.

Which one of the following is correct in respect of the above statements?

- (a) All three statements are correct and Statement 2 explains Statement 1
- (b) All three statements are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is incorrect, but Statements 2 and 3 are correct
- (d) All the statements are correct and none explain each other

Q56. Consider the following statements with reference to Adi Shankaracharya

- 1. He propounded the Doctrine of Advaita and wrote many commentaries on the Vedic canon in Sanskrit.
- 2. Brahmasutrabhasya is one of the major commentary work of him.
- 3. He has established four Mathas in the four corners of India at Shingeri, Puri, Dwaraka and Badrinath- for propagation of Sanathana Dharma.

How many of the above statements is/are correct?

- (a) One only
- (b) Two only
- (c) All three
- (d) None

Q57. Which of the following statements are correct in respect of E-SHRAM portal?

- 1. E-SHRAM is a national database created for unorganised workers, including gig and platform workers.
- 2. It provides accidental insurance coverage of 2 lakh to registered workers under the Pradhan Mantri Suraksha Bima Yojana (PMSBY).
- 3. The E-SHRAM registration is mandatory for all organised sector employees to access EPFO benefits.

Select the answer using the code given below:

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

Q58. Consider the following statements:

Statement I: CPGRAMS was designed to ensure timely redressal of citizen complaints and strengthen trust in public institutions.

Statement II: Grievances submitted through CPGRAMS are legally binding orders that departments must comply with, failing which penalties are imposed.

Statement III: The system has led to faster disposal of complaints, but data shows many grievances are closed without substantive resolution or follow-up.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q59. With reference to Landslides, often mentioned in news, consider the following statements

- I. According to the Landslide Atlas of India, about 12.6% of India's land area is landslide-prone.
- II. Landslide Risk Mitigation Scheme aims to provide financial support for landslide mitigation in vulnerable states.
- III. Using geotechnical materials like geotextiles and geogrids to reinforce slopes can prevent landslides.

Which of the statements given above are correct?

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

Answer: d

Q60. With reference to the India-Philippines Strategic Partnership, consider the following statements:

- I. India's 'Act East' Policy is reflected in the formalization of its Strategic Partnership with the Philippines.
- II. In 2025, the Indian Navy participated for the first time in naval exercises conducted in the Philippines.
- III. India invited the Philippines to participate in the Information Fusion Centre – Indian Ocean Region (IFC-IOR) to enhance Maritime Domain Awareness.

Which of the statements given above are correct?

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

Q61. Which of the following statements are correct in respect of Dapsang Plains?

1. The Dapsang Plains are located in the northernmost part of eastern Ladakh, near the Line of Actual Control.
2. They lie close to the strategic Daulat Beg Oldie (DBO) airstrip, giving India a tactical edge.
3. India and China have fully resolved the standoff in this region through mutual withdrawal of troops.

Select the answer using the code given below:

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

Q62. Which initiative promotes ASEAN connectivity with India, Japan, and other partners?

- (a) ASEAN+3
(b) East Asia Summit (EAS)
(c) Regional Comprehensive Economic Partnership (RCEP)
(d) ASEAN Regional Forum (ARF)

Q63. With reference to tariffs recently imposed by US, consider the following statements

- I. India now faces the highest tariffs in the world, alongside fellow BRICS member Brazil.

II. India is the largest importer and consumer of oil in the world.

III. US is India's largest trading partner, while India is the US's 10th-largest trading partner.

Which of the statements given above are correct?

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

Q64. Which of the following statements is CORRECT about Ethoxysulfuron?

- (a) It is an insecticide used primarily in cotton cultivation
(b) It is a fungicide used to treat blast disease in rice
(c) It is an herbicide effective against broad-leaved weeds and sedges in rice and sugarcane
(d) It is a fertilizer used to promote tillering in paddy crops

Q65. Consider the following statements:

Statement 1: The United Nations Convention on the Law of the Sea (UNCLOS) defines the rights and responsibilities of nations in their use of the world's oceans.

Statement 2: UNCLOS establishes Exclusive Economic Zones (EEZs) extending up to 200 nautical miles from a country's baseline, within which a state has special rights over marine resources.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q66. Consider the following statements:

1. The ASEAN-India Trade in Goods Agreement (AITIGA) was signed in 2009 to liberalise and promote trade between ASEAN countries and India.
2. Under AITIGA, both India and ASEAN countries have eliminated tariffs on all goods traded between them.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q67. With reference to the Bonobos, consider the following statements

1. Bonobos are distinguished from common chimpanzees by relatively long limbs, pinker lips and longer hair on their heads.
2. Along with the common chimpanzee, the bonobo is the closest extant relative to humans.

Which of the statements given above are correct?

- (a) I only (b) II only
(c) Both I & II (d) Neither I nor II

Q68. Consider the following statements

Statement I: Topra Kalan village is considered the original site of an Ashokan pillar inscribed with the Mauryan Emperor's edicts.

Statement II: The pillar was relocated to Delhi in the 14th century by Sultan Firoz Shah Tughlaq.

Which of the following is correct?

- (a) Both Statement I and Statement II are correct
(b) Statement I is correct, but Statement II is incorrect
(c) Statement I is incorrect, but Statement II is correct
(d) Both Statement I and Statement II are incorrect

Q69. Which of the following statements are correct in respect of European Union:

1. The European Union was established primarily to promote economic integration among member countries.
2. The EU has a single currency called the Euro, used by all member states.
3. The European Parliament is directly elected by the citizens of member countries.

Select the answer using the code given below:

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

Q70. Consider the following with reference to Electronic Voting Machines (EVMs):

1. EVMs were first used in a general election in India in 2004.
2. EVMs do not use the internet or any wireless technology to transmit data.
3. Central government is responsible for the manufacture and deployment of EVMs.

How many of the above is/are correct?

- (a) Only one (b) Only Two
(c) All Three (d) None

Q71. With reference to the Jaisalmer, consider the following statements

1. Jaisalmer was founded in 1156 by Rawal Jaisal, a descendant of the Yaduvanshi clan.
2. The Jaisalmer Fort was built in 1156 AD by Raja Rawal Singh.

Which of the statements given above are correct?

- (a) I only (b) II only
(c) Both I & II (d) Neither I nor II

Q72. Consider the following statements with reference to parliamentary committees

Statement I: The concept of Parliamentary committees originated in the Irish Parliament.

Statement II: The Parliamentary committees draw their authority from the constitution from articles 105 and 118.

Which of the following is correct?

- (a) Both Statement I and Statement II are correct
(b) Statement I is correct, but Statement II is incorrect
(c) Statement I is incorrect, but Statement II is correct
(d) Both Statement I and Statement II are incorrect

Q73. Consider the following with reference to the Palestine:

1. Palestine is recognized as a full member state of the United Nations.
2. The Palestine Liberation Organization (PLO) was established to represent the Palestinian people.
3. The Oslo Accords aimed to resolve the conflict between Israel and Palestine through a two-state solution.

How many of the above is/are not correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q74. Consider the following statements:

Statement 1: The Vaikom Satyagraha was a non-violent protest aimed at securing the right for lower caste people to use the roads around the Vaikom Temple.

Statement 2: The movement was led by Mahatma Gandhi and marked one of the earliest organized efforts against untouchability in Kerala.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q75. Consider the following statements with reference to Middle East-Europe Economic Corridor (IMEC)

- I. The IMEC was announced during the G20 Summit held in New Delhi in 2023 to stimulate economic development between Asia, the Arabian Gulf, and Europe.
- II. The IMEC comprises two corridors — India-Gulf and Gulf-Europe.
- III. The western leg links India to Haifa via UAE, Saudi Arabia, and Jordan using sea and high-speed rail.

Which of the above statements is/are correct?

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

Q76. Which of the following correctly identifies the largest farm import and export items of India in 2024–25?

- (a) Import: Pulses; Export: Coffee
- (b) Import: Vegetable oils; Export: Marine products
- (c) Import: Fresh fruits; Export: Buffalo meat
- (d) Import: Cotton; Export: Non-basmati rice

Q77. Which of the following statements are correct in respect of molasses?

- 1. Molasses is a by-product of sugar production obtained after crystallization of sugar from sugarcane juice.
- 2. C-heavy molasses has a lower sugar content and is often used for ethanol production.
- 3. Molasses is directly edible for human consumption in its crude form without further processing.

Select the answer using the code given below:

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

Q78. The National Crime Records Bureau (NCRB) functions under which ministry of the Government of India?

- (a) Ministry of Home Affairs
- (b) Ministry of Law and Justice
- (c) Ministry of Statistics and Programme Implementation
- (d) Ministry of Social Justice and Empowerment

Q79. Consider the following statements with reference to System for Pension Administration Raksha (SPARSH)

- 1. It is an integrated web-based system for the automation of sanctions and disbursement of defence pensions.
- 2. This web-based system processes pension claims and credits pensions directly into the bank accounts of defence pensioners.

Which of the statements given above is/are incorrect?

- (a) I only (b) II only
- (c) Both I & II (d) Neither I nor II

Q80. Which of the following statement is INCORRECT with respect to Smooth coated otters

- (a) They are ecosystem engineers
- (b) As voracious predators, they help regulate populations of fish and crustaceans, preventing overpopulation
- (c) They exhibit a remarkable cooperative hunting strategy by swimming in an undulating, V-shaped line
- (d) Smooth-coated otters are solitary animals that do not form family groups

Q81. Consider the following with reference to 'The Amnesty International':

- 1. The organization primarily focuses on the promotion of human rights across the world.
- 2. It was established as an agency of the United Nations to investigate human rights violations.
- 3. Amnesty International conducts research, advocacy, and campaigns to prevent and end abuses of human rights.
- 4. The organization awards an annual prize for promoting peace and human rights.

How many of the above is/are correct?

- (a) Only one (b) Only two
- (c) Only three (d) All four

Q82. Consider the following with reference to National Organ and Tissue Transplant Organization (NOTTO):

1. It functions as the apex national body under the Directorate General of Health Services, Ministry of Health and Family Welfare.
2. It maintains the National Organ and Tissue Donation and Transplant Registry.
3. It is responsible for allocation of organs in case of inter-state sharing, in accordance with set priority criteria.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q83. Consider the following statements with reference to Minimum Support Price (MSP)

1. The US's Effective Reference Price (ERP) is similar to India's Minimum Support Price (MSP).
2. In the US, farmers receive direct payments from the government if market prices fall below this level, and it is called PLC or Price Loss Coverage.

Which of the statements given above is/are correct?

- (a) I only (b) II only
(c) Both I & II (d) Neither I nor II

Q84. Which Articles give special rights to members of State Legislatures?

- (a) Articles 105 and 122 (b) Articles 14 and 19
(c) Articles 194 and 212 (d) Articles 32 and 226

Q85. Which of the following statements are correct in respect of Cheque Truncation System (CTS)?

1. CTS is an image-based clearing system where the physical movement of cheques is stopped and replaced with electronic images.
2. CTS was implemented by the Reserve Bank of India to speed up cheque clearing and reduce fraud.
3. CTS-2010 standard requires certain security features like watermarks and printer-specific features to prevent tampering.

Select the answer using the code given below:

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

Q86. Consider the following with reference to Inflation in India:

1. Headline inflation measures the overall change in the price level, including food and fuel.
2. Core inflation excludes volatile items like food and fuel to reflect underlying price trends.
3. In India, Wholesale Price Index (WPI) is the official measure of headline inflation used for monetary policy decisions by the Reserve Bank of India.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q87. Which of the following INCORRECT about Limited Liability Partnerships (LLPs)?

- (a) It has a separate legal identity from its partners
(b) It is governed by the Indian Partnership Act, 1932
(c) Creditors cannot claim a partner's personal assets if the LLP fails
(d) It is suitable for professional services like accounting and law

Q88. Consider the following statements with reference to New Income Tax Bill, 2025

- I. The draft Bill required taxpayers to file returns by the due date to claim a refund, but the new version removes this condition.
- II. The new Bill proposes 10% TCS on Liberalised Remittance Scheme (LRS) remittances for education purposes financed by any financial institution.
- III. The new Bill introduces the concept of "tax year", which has been defined as the 12-month period beginning April 1.

Which of the above statements is/are correct?

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

Q89. Which of the following statements are correct in respect of Kuttanad region of Kerala?

1. Kuttanad is known as the 'Rice Bowl of Kerala' due to its extensive paddy cultivation.
2. It is one of the few regions in India where farming is done below sea level.
3. The region is part of the Western Ghats biodiversity hotspot.

Select the answer using the code given below:

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

Q90. Consider the following with reference to Secularism in India:

1. Secularism in India means complete separation of religion and state, similar to the Western model.
2. The Indian Constitution guarantees freedom of religion to all citizens and prohibits discrimination based on religion.
3. The State can provide support or regulation to religious institutions if it ensures equality and social welfare.

How many of the above is/are not correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q91. Consider the following statements with reference to the Mughal rule and Delhi

Statement I: Shah Jahan established Shahjahanabad in 1648, comprising the Red Fort and Old Delhi.

Statement II: The Mughal emperor remained a symbolic source of legitimate authority even during the decline of the dynasty.

Statement III: Shahjahanabad remained the Mughal capital until 1857.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
(b) Both Statement II and Statement III are correct but only one of them explains Statement I
(c) Only one of the Statements II and III is correct and that explains Statement I
(d) Neither Statement II nor Statement III is correct

Q92. What is SSI Mantra?

- (a) A robotic system approved for telesurgery and tele-proctoring.
(b) A new vaccine approved by CDSCO.
(c) A software for managing hospitals.
(d) A medical device for diagnosing heart diseases.

Q93. Which of the following statements are correct in respect of Archaeological Survey of India (ASI)?

1. It functions under the Ministry of Culture, Government of India.
2. It is responsible for archaeological research and the protection of cultural heritage in India.
3. It was founded in 1861 by Alexander Cunningham.

Select the answer using the code given below:

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

Q94. Consider the following with reference to John Marshall's Conservation Manual (1923):

1. It was the first comprehensive guide on the conservation of ancient monuments in India.
2. It laid down scientific principles for preservation, emphasizing minimum intervention.
3. It continues to serve as a reference for the Archaeological Survey of India (ASI) in conservation practices.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q95. Consider the following statements

Statement I: Jellyfish blooms can force emergency shutdowns at coastal nuclear plants.

Statement II: Overfishing reduces jellyfish predators.

Statement III: Warm seas accelerate jellyfish reproduction.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
(b) Both Statement II and Statement III are correct but only one of them explains Statement I
(c) Only one of the Statements II and III is correct and that explains Statement I
(d) Neither Statement II nor Statement III is correct

Q96. Which one of the following statements about the Giri River is correct?

- (a) It flows southwest and joins the Yamuna at Prayagraj

- (b) It originates in Uttarakhand and joins the Ganga
- (c) It is a tributary of the Yamuna originating in the hills of Himachal Pradesh
- (d) It is a seasonal river found only in the Thar Desert

Q97. Which of the following statements are correct in respect of National Sample Survey (NSS):

1. It was established to collect reliable data on socio-economic and demographic aspects of India.
2. It operates under the Ministry of Statistics and Programme Implementation (MoSPI).
3. Its surveys include topics like employment, consumer expenditure, and health.

Select the answer using the code given below:

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

Q98. Which countries were the founding members of the Shanghai Cooperation Organisation (SCO):

- (a) China, India, Russia, Pakistan
- (b) China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan
- (c) China, Russia, Iran, Mongolia
- (d) China, Russia, Afghanistan, Kazakhstan

Q99. Consider the following statements with reference to Brahmastra Missile

- I. It is named as Long Range Anti-Ship Missile (LRAShM).
- II. It is a supersonic glide missile.
- III. It outperforms similar missiles like China's DF-17 in terms of range and technology.

Which of the above statements is/are correct?

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

Q100. How is Compressed Biogas (CBG) different from Compressed Natural Gas (CNG)?

- (a) CBG has a higher calorific value than CNG
- (b) CNG is produced from biomass, while CBG is a by-product of petroleum
- (c) CBG is derived from biomass, while CNG is a by-product of petroleum

- (d) CBG cannot be used as a transportation fuel like CNG

Q101. Which of the following statements are correct in respect of the Kharif season in India:

1. Kharif crops are sown at the beginning of the southwest monsoon and harvested at the end of the monsoon.
2. Major Kharif crops include rice, maize, cotton, pulses, and groundnut.
3. The Kharif season generally spans from October to March across all parts of India.

Select the answer using the code given below:

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

Q102. Consider the following with reference to Carbon Credit Trading Scheme (CCTS), 2023:

1. The scheme provides a national framework for trading carbon credit certificates issued for greenhouse gas emission reductions.
2. The Bureau of Energy Efficiency (BEE) is the administrator of the scheme, while the Central Electricity Regulatory Commission (CERC) regulates trading.
3. The scheme currently allows both voluntary and compliance-based trading of carbon credits in India.

How many of the above is/are not correct?

- (a) Only one (b) Only two
- (c) All three (d) None

Q103. Consider the following statements with reference to primary amoebic meningoencephalitis (PAM)

- I. It is caused by Naegleria fowleri, a free-living amoeba.
- II. The first case of PAM in India was reported in 1971.
- III. PAM is a communicable disease.

Which of the above statements is/are correct?

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

Q104. Which of the following pathogens can cause Acute Encephalitis Syndrome (AES)?

- (a) Only viruses
- (b) Only bacteria and viruses
- (c) Only parasites and fungi
- (d) Viruses, bacteria, fungi, parasites, and toxins

For Detailed Explanation

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Answer Key

Q1.	b	Q2.	c	Q3.	c	Q4.	d	Q5.	c
Q6.	b (1 and 2 only)	Q7.	a	Q8.	d	Q9.	b (1 and 3 only)	Q10.	a
Q11.	b	Q12.	b	Q13.	b (1 and 2 only)	Q14.	a	Q15.	d
Q.16	b	Q17.	a (3 only)	Q18.	B (1 and 2 only)	Q19.	a	Q20.	c
Q21.	a	Q22.	b (1 and 3 only)	Q23.	d	Q24.	d	Q25.	d
Q26.	b	Q27.	a	Q28.	d	Q29.	a	Q30.	b (2 and 3 only)
Q31.	d	Q32.	b	Q33.	a	Q34.	b (2 and 3 only)	Q35.	a
Q36.	c	Q37.	a	Q38.	a	Q39.	a	Q40.	c
Q41.	c	Q42.	c	Q43.	b	Q44.	c	Q45.	a
Q46.	c	Q47.	b	Q48.	a	Q49.	a	Q50.	b (1 and 2 only)
Q51.	c	Q52.	c	Q53.	c	Q54.	c	Q55.	b
Q56.	c	Q57.	a	Q58.	c	Q59.	d	Q60.	d
Q61.	a	Q62.	b	Q63.	c	Q64.	c	Q65.	a
Q66.	a	Q67.	c	Q68.	a	Q69.	c	Q70.	b (1 & 3 only)
Q71.	c	Q72.	a	Q73.	a (1 only)	Q74.	c	Q75.	a
Q76.	b	Q77.	a	Q78.	a	Q79.	d	Q80.	d
Q81.	c (1, 3 and 4 only)	Q82.	c	Q83.	c	Q84.	c	Q85.	d
Q86.	b (1 and 2 only)	Q87.	b	Q88.	c	Q89.	a	Q90.	a (1 only)
Q91.	b	Q92.	a	Q93.	d	Q94.	c	Q95.	a
Q96.	c	Q97.	d	Q98.	b	Q99.	c	Q100.	b
Q101.	a	Q102.	a (3 only)	Q103.	a	Q104.	b		

DAILY MAINS ANSWER WRITING PRACTICE

- Q1. The Indian subcontinent had witnessed various foreign invasions in its history. Examine how these invasions changed the Indian culture in due course of time. (GS 1, 15 Marks, 250 Words)
- Q2. What are minor minerals, and how are they regulated in India? Discuss the legal and environmental challenges in regulating India's minor minerals. (GS 3, 15 Marks, 250 Words)
- Q3. To ensure energy security and economic stability, India needs an orderly transition from coal & fossil fuels to renewables. Analyse. (GS 3, 15 Marks, 250 words)
- Q4. The Vice President of India has resigned from the office. How is the Vice-President of India elected and how can he/she be removed from the office? Discuss the powers and functions of the Vice-President of India. (GS 2; 15 Marks; 250 Words)
- Q5. Discuss the multifaceted significance of mangroves. What are the major threats faced by mangrove forests and the steps taken for mangrove conservation in India? (GS3, 15 Marks, 250 Words)
- Q6. What is constitutional morality and how it is inherent in the Indian Constitution? Explain the Supreme Court's viewpoint on constitutional morality with relevant judicial decisions. (GS 2, 15 Marks, 250 Words)
- Q7. How did the Treaty of Versailles contribute to the outbreak of the Second World War (WWII), and in what ways did the war's outcome reshape the global order defined by the hegemony of the US? (GS 1, 15 Marks, 250 Words)
- Q8. What are the RBI's primary mechanisms for regulating monetary stability and growth? How RBI fosters India's economic resilience amidst global shifts? (GS 3, 15 Marks, 250 Words)
- Q9. What are the distinguishing architectural designs of Chola temples? In what ways did these temples serve as political statements as much as religious structures? (GS 1, 15 Marks, 250 Words)
- Q10. Sustainable growth of agriculture requires bridging the trust deficit between the farmers and the policymakers, and the integration of advanced technology. Comment. (GS 3, 10 Marks, 150 Words)
- Q11. What is a landslide? Discuss the susceptibility of India to landslides and the factors responsible for causing landslides. (GS 1, 15 Marks, 250 words)
- Q12. India is focussed on maintaining its strategic partnership with Russia and a diplomatic balancing act between the Western allies and Russia. Discuss. (GS 2, 15 Marks, 250 Words)

- Q12. Despite growth in agriculture, rural workers continue to face employment challenges. Discuss the structural issues underlying this paradox. (GS 3, 10 Marks, 150 Words)
- Q13. What are the environmental and health impacts of sulphur dioxide emissions from coal power plants? Discuss the broad approaches to reduce SO₂ emissions. (GS 3, 15 Marks, 250 Words)
- Q14. Discuss the governance issues in the urban transport sector in India. Will a dedicated All India Urban Transport Service would help address this? (GS 1 & 3, 10 Marks, 150 Words)
- Q15. Despite being a major producer of oilseeds, India remains heavily dependent on edible oil imports. Examine the reasons for this paradox and evaluate the recent policy measures taken by the government to reduce this dependence. (GS3, 15 marks, 250 words)
- Q16. Controversies and allegations regarding the Election Commission of India (ECI)'s impartiality have sparked a national debate on its institutional integrity. In this context, critically analyse the role of the ECI in safeguarding electoral democracy in India. What reforms are necessary to enhance its independence, transparency, and public trust? (GS 2, 15 Marks, 250 Words)
- Q17. Discuss how the Mughal court's literary environment encouraged the growth of Persian literature in India. How did this influence the evolution of regional literary traditions? (GS1, 10 Marks, 150 Words)
- Q18. The Finance Ministry recently described India's economy as being in a "Goldilocks situation". Critically examine this claim in the context of stagnant real wages, volatile food inflation, fiscal constraints, and income inequality. (GS3 10 Marks, 150 words)
- Q19. Fast Track Courts (FTCs) were envisaged to ensure speedy justice, yet their effectiveness remains debated. Critically examine the role, challenges and reforms needed for Fast Track Courts in India. (GS2, 10 Marks, 150 words)
- Q20. Doorstep healthcare delivery is expanding in India, but civic engagement in health governance remains weak. Critically analyse and suggest measures for inclusive public participation. (GS 2 15 Marks, 250 words)
- Q21. Critically examine how employer-centric job creation strategies can reinforce structural inequalities in the labour market, considering issues of skill mismatch, informal sector exclusion, and sectoral imbalances. (GS 3, 150 Words, 10 Marks)
- Q22. How do Farmer Producer Organizations (FPOs) address the issues faced by small and marginal farmers in India? Highlight the challenges faced by FPOs and suggest measures to improve their effectiveness. (GS2, 250 words, 15 Marks)

Q23. Discuss the health risks posed by plastics and microplastics, and evaluate the hurdles in forging a global consensus on a binding treaty to curb plastic pollution. (GS3, 150 Words, 10 Marks)

Q24. With growing trade protectionism and the weakening of dispute settlement at the WTO, discuss the challenges faced by the multilateral trading system. How can India contribute to strengthening global trade governance? (GS2, 250 words, 15 marks)

Q25. The Bodoland movement reflects the complex interplay of ethnicity, identity, and autonomy in India's North-East. Discuss the historical context and significance of the Bodoland Territorial Council (BTC). Also examine the challenges and opportunities in ensuring peace and development in the region. (GS 2, 150 words 10 marks)

For Detailed Explanation

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