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IMPORTANT INSIGHTS

India's Death Penalty Framework Faces Renewed Scrutiny Over Sentencing Safeguards, Reformation, and Risks of Wrongful Conviction

1. Recent Developments:

- Recent Supreme Court judgments have reinforced **procedural safeguards in capital punishment cases**, particularly the requirement to assess the possibility of reformation and provide meaningful opportunities to present mitigating circumstances before sentencing.
- The **World Day Against the Death Penalty**, observed annually on **10 October**, provides an occasion to examine the implementation of safeguards established by the Supreme Court in 1980.
- In **Vasanta Sampat Dupare v. Union of India (2025)**, the Supreme Court reiterated that procedural fairness in death penalty cases is integral to **Article 21** and that subsequent judicial safeguards can justify reconsideration of an otherwise finalised death sentence in exceptional circumstances.
- According to the **Death Penalty in India: Annual Statistics Report 2025**, published by the Square Circle Clinic, NALSAR University of Law, trial courts sentenced 128 individuals to death in 2025, while the Supreme Court acquitted 10 individuals in 19 death penalty cases decided during the year.

2. Constitutional and Legal Framework of the Death Penalty:

- The **death penalty (capital punishment)** is the highest form of criminal punishment in India. It remains constitutionally permissible but is subject to strict judicial scrutiny, procedural safeguards and the doctrine of the rarest of rare cases.
- The constitutional validity of capital punishment was upheld in **Bachan Singh v. State of Punjab (1980)**, subject to exceptional application and judicially prescribed safeguards.
- The constitutional framework governing capital punishment includes:
    - **Article 14:** Guarantees equality before the law and protection against arbitrary state action, requiring consistency and fairness in capital sentencing.
    - **Article 21:** Protects life and personal liberty and requires every deprivation of life to follow a procedure that is fair, just and reasonable.
    - **Article 72:** Empowers the President to grant pardons, reprieves, respites, remissions or commutations, including in death sentence cases.
    - **Article 161:** Empowers the Governor to grant pardons, reprieves, respites, remissions or commutations in matters falling within the State's executive jurisdiction. However, the Governor cannot independently pardon a death sentence.
- **Statutory safeguards under criminal procedure:**
    - **Section 393(3), Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023:** Requires courts to record special reasons when imposing a death sentence.
    - **Section 407, BNSS, 2023:** Requires a death sentence passed by a Sessions Court to be submitted to the High Court for confirmation before execution.
    - Section 354(3) of the former **Code of Criminal Procedure (CrPC), 1973**, contained the corresponding requirement of recording special reasons for imposing capital punishment.

3. Bachan Singh Judgment and the Rarest of Rare Principle:

- In **Bachan Singh v. State of Punjab (1980)**, a Constitution Bench of the Supreme Court upheld the constitutional validity of the death penalty while restricting its application through the **rarest of rare doctrine**.
- The judgment established the following principles:
    - **Life imprisonment is the rule and the death penalty is the exception**, thereby restricting capital punishment to exceptionally grave cases.
    - Courts must record **special reasons** for imposing a death sentence instead of life imprisonment.
    - Sentencing must consider both the **aggravating circumstances of the crime** and the **mitigating circumstances of the accused**.
    - Capital punishment should be imposed only when the alternative of life imprisonment is unquestionably foreclosed, even after giving maximum weight to mitigating circumstances.
- The doctrine seeks to prevent arbitrary sentencing by requiring an individualised assessment rather than relying exclusively on the brutality or gravity of the offence.

4. Individualised Sentencing and the Possibility of Reformation:

- **Individualised sentencing** requires courts to examine the personal, social, psychological and economic circumstances of the accused before determining the appropriate punishment.
- The objective is to assess the individual's degree of moral culpability, the possibility of rehabilitation and whether reformation has genuinely become impossible.
- Relevant mitigating circumstances include:
    - Age, family background, education and socio-economic conditions.
    - Mental health, psychological conditions and intellectual disabilities.
    - Previous criminal history, employment and social circumstances.
    - Behaviour during incarceration, educational achievements and evidence of rehabilitation.
- The **State bears the burden of producing relevant evidence** to establish the circumstances surrounding the accused and the possibility of reformation.
- The death penalty cannot be justified solely by the seriousness of the offence because the constitutional framework requires an independent assessment of the accused's circumstances and reformative potential.

5. Judicial Developments and the Evolution of Sentencing Safeguards:

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Machhi Singh v. State of Punjab (1983):

- The Supreme Court elaborated the rarest of rare doctrine and identified categories of cases involving exceptional brutality, magnitude and social impact.
- The judgment gave considerable importance to the circumstances and impact of the crime, creating a risk that the individual circumstances of the accused could receive insufficient attention.
- In **Sangeet v. State of Haryana (2013)**, the Supreme Court criticised the mechanical application of aggravating and mitigating circumstances and highlighted deviations from the original framework established in Bachan Singh.

Ravji v. State of Rajasthan (1995):

- A two-judge Bench held that the nature and gravity of the offence were decisive considerations in determining the appropriate punishment, thereby neglecting the individual circumstances of the accused.
- This approach contradicted the broader sentencing principles established in Bachan Singh, which require consideration of both the crime and the criminal.

- Two individuals, Ravji and Surja Ram, were executed in 1996 and 1997 respectively under the erroneous legal approach associated with Ravji.

Santosh Kumar Bariyar v. State of Maharashtra (2009):

- The Supreme Court recognised that **Ravji** had been decided in ignorance of the binding principles laid down in Bachan Singh.
- It clarified that the death penalty could not be imposed without examining whether the possibility of reformation had been genuinely eliminated.
- The judgment reinforced the principle that life imprisonment cannot be considered unquestionably foreclosed merely because an offence is exceptionally grave.

Sangeet v. State of Haryana (2013):

- The Supreme Court highlighted inconsistencies in the application of the rarest of rare doctrine and observed that the distinction between aggravating and mitigating circumstances had become blurred.
- It emphasised the need for a structured and individualised sentencing approach rather than mechanically balancing the brutality of the crime against general mitigating factors.

Manoj v. State of Madhya Pradesh (2022):

- The Supreme Court issued practical guidelines requiring trial courts and the State to collect comprehensive information about the accused before imposing capital punishment.
- The State must produce relevant material, preferably collected before the sentencing stage, including:
    - Psychiatric and psychological evaluations.
    - Probation officer reports and prison conduct records.
    - Family history, educational background and socio-economic circumstances.
    - Criminal antecedents and evidence relevant to the possibility of rehabilitation.
- The judgment sought to make sentencing hearings meaningful by ensuring that courts have sufficient information to assess the accused's reformative potential.

Vasanta Sampat Dupare v. Union of India (2025):

- The Supreme Court examined whether a previously confirmed death sentence could be reconsidered in light of subsequent procedural safeguards established in **Manoj (2022)**.
- It held that **Article 32** could be invoked in exceptional circumstances to reconsider a death sentence where subsequent developments in law or facts raised concerns about its constitutional validity.
- The Court recognised that non-compliance with the prescribed sentencing safeguards could raise fundamental concerns under Article 21.
- It also highlighted weaknesses in criminal investigations, including opaque confessions, disputed recoveries and unreliable forensic evidence.
- The judgment reinforced the principle that procedural safeguards in capital cases are essential constitutional protections rather than mere technical formalities.

6. Reformation, Sentencing Practices and Empirical Evidence:

- The **262nd Report of the Law Commission of India (2015)** examined the constitutional, legal and penological concerns surrounding capital punishment.
- The Commission recommended abolishing the death penalty for all offences except terrorism-related offences and waging war against the State, while recognising that the eventual objective should be complete abolition.

- Despite judicial safeguards, implementation at the trial-court level has remained inconsistent.
- According to the **Square Circle Clinic's Annual Statistics Report 2025**, the implementation of the Manoj guidelines remains particularly weak:
    - Between 2023 and 2025, the Clinic analysed 216 Sessions Court cases involving death sentences.
    - In 208 cases (96.29%), the sentencing proceedings failed to comply with the requirements laid down in Manoj.
    - Only eight cases (3.7%) demonstrated full compliance with the prescribed framework.
- These findings demonstrate a significant gap between constitutional safeguards and their actual implementation during capital sentencing.

7. Reliability of Criminal Investigations and Risk of Wrongful Conviction:

- The reliability of criminal investigations and prosecutions is a major concern in capital punishment cases because the death penalty is **irreversible**.
- The Square Circle Clinic's 2025 report highlights substantial differences between trial-court sentencing and appellate-court outcomes:
    - Between 2016 and 2025, Sessions Courts imposed 1,310 death sentences in 822 cases.
    - High Courts confirmed only 106 of the 1,085 death sentences they decided during the decade, representing approximately 9.77%.
    - High Courts acquitted 376 individuals and commuted the death sentences of 515 individuals during the same period.
    - In 2025, the Supreme Court acquitted individuals in 10 of the 19 death penalty cases it decided, while confirming no death sentences.
    - At the end of 2025, 574 individuals remained on death row in India.
- These findings indicate serious concerns regarding the reliability of trial-stage convictions and the quality of evidence presented during criminal proceedings.
- The **Dupare judgment (2025)** specifically highlighted systemic weaknesses, including confessions obtained without adequate transparency, questionable forensic evidence and disputed recoveries.
- The possibility of wrongful conviction becomes particularly consequential in capital cases because an erroneous execution cannot be reversed through subsequent judicial review.

8. Key Issues and Challenges:

- **Arbitrariness in sentencing:** Inconsistent application of the rarest of rare doctrine can produce unequal outcomes in similar cases.
- **Inadequate legal representation:** Deficiencies in legal-aid representation can prevent accused individuals from presenting relevant mitigating circumstances.
- **Weak investigative mechanisms:** Unreliable forensic evidence, questionable confessions and procedural irregularities can result in wrongful convictions.
- **Inadequate prison reforms:** Limited access to rehabilitation programmes makes it difficult to assess the actual reformative potential of prisoners.
- **Judicial delays:** Prolonged periods on death row can create additional concerns regarding mental health, dignity and the right to life.
- **Institutional inconsistency:** Non-compliance with Supreme Court guidelines by trial courts weakens the uniform implementation of constitutional safeguards.

9. Way Forward:

- **Strengthen sentencing procedures:** Ensure mandatory and meaningful consideration of aggravating and mitigating circumstances before imposing capital punishment.

- **Improve legal representation:** Provide competent legal-aid counsel and adequate time for defence teams to collect mitigation evidence.
- **Institutionalise mitigation investigation:** Establish specialised mitigation investigators and standardised procedures for preparing psychological, psychiatric, social-history and prison-conduct reports.
- **Strengthen criminal investigations:** Improve forensic infrastructure, scientific evidence collection, witness protection and accountability in police investigations.
- **Promote prison reforms:** Expand education, vocational training, psychological support and rehabilitation programmes to assess and facilitate reformation.
- **Ensure judicial accountability:** Monitor compliance with Supreme Court sentencing guidelines and strengthen appellate scrutiny of death sentences.
- **Re-examine the abolition debate:** Consider the Law Commission's recommendations alongside constitutional morality, human dignity, wrongful-conviction risks and the effectiveness of alternative punishments.

10. Value Addition for UPSC:

Important Constitutional and Legal Provisions:

- **Article 14:** Equality before the law and protection against arbitrariness.
- **Article 21:** Right to life and personal liberty.
- **Article 32:** Constitutional remedies before the Supreme Court.
- **Article 72:** Pardoning powers of the President.
- **Article 161:** Pardoning powers of the Governor.
- **Section 393(3), BNSS:** Requirement to record special reasons for imposing a death sentence.
- **Section 407, BNSS:** High Court confirmation of death sentences passed by Sessions Courts.

Important Judicial Judgments:

- **Bachan Singh v. State of Punjab (1980):** Constitutional validity of capital punishment and the rarest of rare doctrine.
- **Machhi Singh v. State of Punjab (1983):** Elaboration of the rarest of rare categories.
- **Ravji v. State of Rajasthan (1995):** Erroneous emphasis on the nature and gravity of the offence.
- **Santosh Kumar Bariyar v. State of Maharashtra (2009):** Reaffirmation of individualised sentencing and reformation.
- **Sangeet v. State of Haryana (2013):** Criticism of inconsistent application of aggravating and mitigating circumstances.
- **Manoj v. State of Madhya Pradesh (2022):** Comprehensive collection of mitigating circumstances before capital sentencing.
- **Vasanta Sampat Dupare v. Union of India (2025):** Constitutional significance of sentencing safeguards and reconsideration of death sentences in exceptional circumstances.

Important Reports and Institutions:

- **Law Commission of India, 262nd Report (2015):** Recommended abolition of capital punishment for offences other than terrorism-related offences and waging war against the State.
- **Square Circle Clinic, NALSAR University of Law:** Publishes empirical research on death sentences, judicial outcomes, sentencing practices and death-row populations in India.

UPSC Syllabus Linkages:

- **GS Paper II:** Constitution, fundamental rights, judicial review, Supreme Court judgments and criminal justice reforms.
- **GS Paper III:** Internal security, forensic investigation and institutional accountability.
- **GS Paper IV:** Ethics in public administration, human dignity, justice, fairness and constitutional morality.
- **Essay:** Capital punishment, human rights, criminal justice reform and the balance between retribution and rehabilitation.

Public Accounts Committees: Strengthening Legislative Oversight, Financial Accountability and Outcome-Based Public Expenditure in India

1. Recent Developments:

- On **3 November 2026**, Lok Sabha Speaker **Om Birla** called upon the Public Accounts Committees (PACs) of Parliament and State Legislatures to strengthen financial oversight, ensure time-bound resolution of pending audit observations and assess the actual outcomes of government expenditure.
- Speaking at the Conference of PAC Chairpersons in **Thiruvananthapuram**, he highlighted that audit observations remaining unresolved for 10–20 years weaken institutional accountability.
- The Speaker recommended:
  - **Infrastructure projects:** Committees should undertake site visits, wherever appropriate, to examine construction quality, timely completion and compliance with prescribed standards.
  - **Welfare schemes:** Scrutiny should assess actual benefits delivered to beneficiaries rather than merely examining expenditure.
  - **Technology-enabled oversight:** Artificial Intelligence (AI), data analytics and digital tools should be used to analyse expenditure, identify irregularities and monitor pending audit observations.
  - **Parliamentary accountability:** At least one PAC report, along with the government's action taken on it, should be discussed during every parliamentary session.
- The recommendations emphasise a shift from **expenditure-based scrutiny to outcome-oriented financial accountability**. <Cite refs={["turn279950view0"]}/>

2. Public Accounts Committee (PAC): Overview and Constitutional Position:

- The **Public Accounts Committee** is a parliamentary financial committee that examines government expenditure and ensures that public money is utilised in accordance with the authorisation granted by Parliament.
- It is one of the three **Financial Committees of Parliament**, alongside the Estimates Committee and the Committee on Public Undertakings.
- **Historical background:**
  - Established in **1921** under the Government of India Act, 1919, following the introduction of constitutional financial oversight during British rule.
  - It is a **Standing Parliamentary Committee**, meaning that it is a continuing institution reconstituted periodically rather than a temporary committee.
- **Constitutional and procedural status:**
  - The PAC is **not a constitutional body**; it derives its authority from the Rules of Procedure and Conduct of Business in Lok Sabha.
  - **Rules 308 and 309** govern its constitution and functions under the Lok Sabha rules.

- Its functioning is supported by parliamentary procedure and the constitutional audit framework.

- **Composition and appointment:**
  - The committee consists of **22 members**, comprising 15 members from Lok Sabha and 7 members from Rajya Sabha.
  - Members are elected annually through **proportional representation by means of a single transferable vote**.
  - The term of office is **one year**, and a Minister cannot become a member of the committee.
  - The Chairperson is appointed by the Speaker of Lok Sabha from among its members.
  - Since **1967**, a parliamentary convention provides for appointing a member of the Opposition as its Chairperson, strengthening bipartisan financial oversight.

3. Functions and Scope of the Public Accounts Committee:

- The PAC primarily examines whether public expenditure has been authorised, properly accounted for and utilised for the sanctioned purpose.
- Its major functions include:
  - **Examination of CAG reports:** Scrutinises audit reports of the Comptroller and Auditor General of India, particularly reports concerning appropriation accounts, government expenditure and revenue receipts.
  - **Financial propriety:** Examines whether expenditure was legally available, applied to the authorised purpose and incurred in accordance with applicable rules.
  - **Expenditure scrutiny:** Investigates irregular expenditure, unauthorised expenditure, financial excesses and deficiencies in financial administration.
  - **Government accountability:** Examines the executive's financial decisions and recommends corrective measures to strengthen legislative control over public expenditure.
  - **Follow-up action:** Reviews government responses and action taken on its recommendations through Action Taken Reports.
- The PAC can examine expenditure relating to government departments, autonomous bodies and other entities falling within its prescribed jurisdiction.
- **Limitation:** The committee generally examines the legality, regularity and propriety of expenditure rather than questioning the underlying policy decisions approved by Parliament.

4. Relationship Between PAC and Comptroller and Auditor General (CAG):

- The **Comptroller and Auditor General of India** is a constitutional authority responsible for auditing government accounts and expenditure, while the PAC is a parliamentary committee that examines audit findings and ensures executive accountability.
- **Constitutional provisions governing the CAG:**
  - **Article 148:** Provides for the office, appointment and service conditions of the CAG and protects its institutional independence.
  - **Article 149:** Defines the duties and powers of the CAG as prescribed by Parliament through legislation.
  - **Article 150:** Provides that the accounts of the Union and States shall be maintained in the form prescribed by the President on the advice of the CAG.
  - **Article 151:** Provides for submission of Union audit reports to the President and State audit reports to the Governor, who cause them to be laid before the respective legislatures.
- **Institutional relationship:**
  - The CAG provides technical assistance and audit evidence to the PAC during examination of public expenditure.
  - The PAC examines selected audit findings, questions government officials and makes recommendations for corrective action.
  - The executive submits responses and action taken reports, enabling legislative follow-up.

- Thus, the CAG functions as the **external auditor**, while the PAC provides **legislative financial oversight**.

5. Parliamentary Standing Committees: Structure and Types:

- **Parliamentary Standing Committees** are permanent parliamentary committees constituted to examine legislation, public expenditure, government policies and executive functioning.
- They generally continue throughout the year and are periodically reconstituted, unlike **Ad Hoc Committees**, which are established for specific purposes and cease to exist after completing their assigned work.
- **Major categories:**
  - **Department-Related Standing Committees (DRSCs):** Examine Demands for Grants of ministries, referred bills, policy matters and departmental functioning. The Parliamentary Standing Committee on Finance is an example.
  - **Financial Committees:** Include the Public Accounts Committee, Estimates Committee and Committee on Public Undertakings.
  - **Other Standing Committees:** Include the Business Advisory Committee, Committee on Privileges, Rules Committee and Committee on Government Assurances.
- The parliamentary committee system enables detailed examination of governance issues that cannot receive adequate attention during regular parliamentary proceedings.

6. Role of Parliamentary Committees in Financial Accountability:

- **Detailed financial scrutiny:** Examine Demands for Grants, expenditure patterns, budgetary allocations and utilisation of public resources beyond the limited time available for parliamentary debates.
- **Evidence-based oversight:** Use audit findings, expert testimony, official records and data analysis to evaluate government functioning and financial discipline.
- **Continuous executive monitoring:** Examine ministries and departments throughout the year, strengthening legislative supervision beyond parliamentary sessions.
- **Non-partisan deliberation:** Provide a platform for members across political parties to examine government functioning through discussion, evidence and consensus.
- **Policy and administrative improvement:** Recommend changes in financial procedures, implementation mechanisms and administrative practices to improve governance outcomes.

7. Challenges in Budgetary Forecasting and Utilisation:

- **Unrealistic budgetary estimates:** Ministries may overestimate financial requirements without adequately assessing implementation capacity, project readiness and administrative constraints.
- **Underutilisation of funds:** A significant gap between **Budget Estimates (BE)** and **Actual Expenditure (AE)** indicates weaknesses in planning and implementation, resulting in delayed developmental outcomes and inefficient resource allocation.
- **Input-oriented budgeting:** Annual increases in budgetary allocations without adequate assessment of previous performance weaken the relationship between public spending and measurable outcomes.
- **Excessive year-end expenditure:** Ministries may accelerate spending during the final quarter to exhaust allocations, compromising expenditure quality and potentially violating the **Quarterly Expenditure Plan (QEP)** and principles of fiscal prudence.
- **Weak outcome monitoring:** Utilisation certificates and expenditure statements may establish that funds were spent without demonstrating whether intended social and economic benefits were achieved.
- **Delayed audit compliance:** Prolonged pendency of audit observations weakens corrective action and allows financial irregularities to persist.

8. Way Forward:

- **Strengthen outcome-based budgeting:** Link financial allocations with measurable outputs, service-delivery indicators and developmental outcomes.
- **Improve budget forecasting:** Base expenditure estimates on realistic implementation capacity, previous utilisation patterns and project requirements.
- **Institutionalise audit follow-up:** Introduce time-bound action plans, periodic reviews and accountability mechanisms for resolving pending audit observations.
- **Promote technology-enabled scrutiny:** Use Artificial Intelligence, data analytics and digital expenditure dashboards to identify irregularities and monitor financial trends.
- **Enhance field-level verification:** Conduct project-site inspections and beneficiary assessments to verify the quality and actual impact of public expenditure.
- **Strengthen parliamentary deliberation:** Ensure regular discussion of PAC reports and government responses to improve legislative scrutiny and executive accountability.
- **Improve Centre-State coordination:** Strengthen cooperation between Union and State Governments in audit compliance, monitoring and financial accountability.

9. Value Addition for UPSC:

Important Facts:

- **Established:** 1921, under the Government of India Act, 1919.
- **Total membership:** 22 members, 15 from Lok Sabha and 7 from Rajya Sabha.
- **Tenure:** One year.
- **Chairperson:** Appointed by the Lok Sabha Speaker; conventionally from the Opposition since 1967.
- **Constitutional status:** Not a constitutional body; constituted under parliamentary rules.
- **Three Financial Committees:** Public Accounts Committee, Estimates Committee and Committee on Public Undertakings.

Important Conceptual Distinctions:

- **PAC:** Examines government expenditure and CAG audit findings.
- **Estimates Committee:** Examines budget estimates, administrative efficiency and possible economies in public expenditure.
- **Committee on Public Undertakings:** Examines the accounts, reports and functioning of specified public sector undertakings.
- **CAG:** Conducts independent audit of government accounts and expenditure.

UPSC Syllabus Linkages:

- **GS Paper II:** Parliament, parliamentary committees, executive accountability and constitutional institutions.
- **GS Paper III:** Government budgeting, fiscal discipline, public expenditure management and technology in governance.
- **GS Paper IV:** Transparency, accountability, probity in governance and ethical use of public resources.
- **Essay:** Parliamentary oversight, democratic accountability and the relationship between public expenditure and inclusive development.

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Transgender Rights and Women-Specific Protections: Constitutional Tensions Over Gender Identity, Equality and Affirmative Action in India

1. Recent Developments:

- A **Public Interest Litigation (PIL)** filed before the Supreme Court has raised the question of whether legal recognition of gender identity should automatically confer access to constitutional and statutory protections specifically designed for women.
- The petition, reportedly filed by **Women's Declaration International India**, challenges provisions of the **Transgender Persons (Protection of Rights) Act, 2019**, as amended in 2026, along with related rules and administrative practices.
- The petition raises concerns about the relationship between **biological sex, gender identity and women-specific affirmative action**, particularly in the context of reservations, sex-segregated spaces and legal safeguards.
- The Supreme Court has sought the Union Government's response and connected the matter with pending challenges to the 2026 amendment. **No final judicial determination has been made on these questions.**

2. Transgender Persons (Protection of Rights) Act, 2019:

Background and Constitutional Basis:

- The **Transgender Persons (Protection of Rights) Act, 2019** was enacted to prohibit discrimination against transgender persons and promote their equality, dignity, welfare and social inclusion.
- The Act followed the landmark **National Legal Services Authority (NALSA) v. Union of India (2014)** judgment, in which the Supreme Court recognised transgender persons as a distinct gender category and affirmed their right to self-identify their gender.
- The Court recognised that discrimination based on gender identity could violate **Articles 14, 15, 16, 19(1)(a) and 21** of the Constitution.
- The judgment directed governments to recognise transgender persons as socially and educationally backward classes and extend appropriate affirmative-action measures.

Key Provisions of the 2019 Act:

- **Prohibition of discrimination:** Section 3 prohibits discrimination against transgender persons in education, employment, healthcare, access to public facilities, residence and other areas.
- **Recognition of gender identity:** Original Section 4(2) expressly recognised the right of a person identified as transgender under the Act to their **self-perceived gender identity**.
- **Identity certification:** Sections 5 and 6 provided for an application to the District Magistrate and the issue of a certificate of identity recognising a person as transgender.
- **Change in gender:** Original Section 7 provided for a revised certificate recording a change in gender following gender-affirming medical intervention, subject to the prescribed medical documentation.
- **Welfare and institutional protection:** The Act places obligations on governments and establishments regarding welfare, education, healthcare, employment and social security.
- **National Council for Transgender Persons (NCTP):** The Act established the NCTP to advise the Central Government, monitor policy implementation and address issues concerning transgender persons.
- **Penal provisions:** The Act prescribes punishment for offences such as forced or bonded labour, denial of access to public places, physical or sexual abuse and other forms of exploitation.

3. Transgender Persons (Protection of Rights) Amendment Act, 2026:

Major Changes:

- **Revised statutory definition:** The amendment narrows the statutory definition of a transgender person by specifying certain socio-cultural identities, including **hijra, kinner, aravani and jogta**, as well as specified intersex variations.
- The revised definition also covers persons compelled to assume or outwardly present a transgender identity through force, inducement, deceit or undue influence, including through specified bodily or medical procedures.
- The amendment excludes persons identified solely through different sexual orientations or self-perceived sexual identities from the revised statutory definition.
- **Removal of express self-identification provision:** The amendment omits original Section 4(2), which expressly recognised the right to self-perceived gender identity under the 2019 Act.
- **Medical scrutiny:** The amended certification framework introduces examination by a designated **medical board**, headed by a Chief Medical Officer or Deputy Chief Medical Officer, in the process of issuing identity certificates.
- **Revised administrative framework:** The amendment also modifies provisions concerning the appropriate government and the authority responsible for medical assessment and certification.

Constitutional Debate:

- Supporters of the amendment may argue that clearer statutory definitions and verification procedures are necessary to prevent misuse of identity-based benefits and ensure accurate implementation.
- Critics argue that restricting recognition through prescribed identity categories and medical scrutiny undermines **individual autonomy, dignity, privacy and self-determination**.
- The central constitutional question is whether Parliament can regulate statutory recognition through medical and administrative procedures without violating the fundamental rights of transgender persons.

4. Constitutional and Legal Issues Concerning Women-Specific Protections:

Article 15(3) and Affirmative Action for Women:

- **Article 15(3)** empowers the State to make special provisions for women and children, thereby permitting gender-specific measures to address structural inequality.
- The petition raises the question of whether protections and affirmative-action measures intended for women should be determined by biological sex, gender identity or the specific purpose of the law.
- Women-specific measures may respond to distinct forms of historical discrimination, reproductive needs, gender-based violence and unequal access to opportunities.
- A uniform legal definition of women across every statute may not adequately address the different objectives of laws relating to maternity, political representation, protection from violence and access to public facilities.

Women's Reservation in Local Self-Government:

- **Articles 243D and 243T** provide for reservation of seats for women in Panchayats and Municipalities, respectively.
- These provisions seek to improve women's political participation and correct their historical under-representation in local decision-making.
- The petition raises concerns about whether transgender women should be eligible to contest seats specifically reserved for women and how such eligibility should be determined.

- In **Anjali Guru Sanjana Jaan v. State of Maharashtra (2021)**, the Bombay High Court permitted a transgender woman to contest a village Panchayat election from a seat reserved for women, relying on the then-applicable statutory recognition of self-perceived gender identity.
- The case illustrates the legal intersection between gender identity, electoral eligibility and women-specific political reservations.

Privacy and Safety in Sex-Segregated Spaces:

- The debate extends to access to **women's prisons, shelters, changing rooms and other sex-segregated facilities**.
- Concerns have been raised about the privacy, dignity and physical safety of women, particularly survivors of sexual violence and female inmates in vulnerable circumstances.
- At the same time, transgender persons face risks of harassment, violence and discrimination when they are denied safe access to public and institutional facilities.
- Policy design must therefore address the safety and dignity of all affected groups through evidence-based risk assessment, appropriate accommodation and clear institutional safeguards.

Criminal Justice and Procedural Safeguards:

- The **Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023** provides specific procedural protections for women during arrest and search.
- **Section 43(5)** generally prohibits the arrest of a woman between sunset and sunrise, except in exceptional circumstances and subject to prescribed safeguards, including prior permission from a Magistrate.
- **Section 49(2)** requires the search of a female to be conducted by another female with strict regard to decency.
- The debate concerns how these sex-specific procedural safeguards should apply where a person's legal gender identity and biological sex are treated differently for administrative purposes.
- Clear statutory rules and police protocols are necessary to prevent arbitrary decisions, protect individual dignity and ensure the safety of detainees and law-enforcement personnel.

Fairness and Inclusion in Competitive Sports:

- The participation of transgender women in female sporting categories raises questions about **equal opportunity, competitive fairness and physiological differences**.
- Some sporting authorities have considered factors such as the effects of male puberty, muscle mass, strength and other performance-related characteristics while framing eligibility rules.
- In **Anamika v. State of Kerala (2022)**, the Kerala High Court directed that a transgender woman be permitted to participate provisionally in a district-level judo competition in her chosen category because a separate transgender category was not available.
- The order was an interim direction in the particular case; it should not be treated as a universal ruling on eligibility standards for all sporting competitions.
- Sporting bodies need transparent, sport-specific eligibility policies that balance inclusion, non-discrimination and competitive fairness.

5. Important Judicial Precedents:

NALSA v. Union of India (2014):

- The Supreme Court recognised transgender persons' right to self-identify their gender and affirmed constitutional protection under fundamental rights.
- The judgment linked gender identity with **dignity, autonomy, equality and personal liberty**.

- It directed governments to take affirmative measures for the social and educational advancement of transgender persons.

Justice K.S. Puttaswamy v. Union of India (2017):

- The Supreme Court recognised **privacy as a fundamental right** under Article 21 and other freedoms guaranteed by Part III of the Constitution.
- The judgment recognised that privacy protects personal autonomy, identity, decisional freedom and intimate aspects of individual life.
- It provides an important constitutional basis for examining state regulation of gender identity and personal choices.

Supriyo v. Union of India (2023):

- The Supreme Court considered petitions seeking legal recognition of same-sex marriage under the Special Marriage Act and other legal frameworks.
- The Constitution Bench held that there is **no fundamental right to marry** and declined to judicially rewrite the statutory marriage framework.
- The judgment discussed the rights of queer and transgender persons, but it did not decide the present dispute concerning eligibility for women-specific reservations or sex-based protections.
- **NALSA and Supriyo address distinct legal questions** and must not be treated as directly conflicting judgments on women's reservations.

6. Measures to Balance Women's Rights and Transgender Rights:

Clearer Legal Definitions and Purpose-Based Interpretation:

- Parliament should clarify how **biological sex and gender identity** are to be considered in different statutory contexts, instead of assuming that one criterion must govern every legal purpose.
- Laws concerning reproductive healthcare, maternity benefits, political reservations, anti-discrimination and protection from violence may require context-specific definitions.
- Any distinction must satisfy constitutional requirements of **equality, non-arbitrariness, dignity and proportionality**.

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Targeted Affirmative Action:

- Governments should develop effective affirmative-action measures for transgender persons in education, public employment and access to welfare schemes.
- **Karnataka introduced a 1% horizontal reservation for transgender persons** in direct recruitment to State civil services, distributed across existing categories.
- Horizontal reservation can improve representation without necessarily displacing the vertical reservation structure for Scheduled Castes, Scheduled Tribes and Other Backward Classes.
- Governments should periodically assess representation, access barriers and the outcomes of such measures.

Inclusive and Safe Infrastructure:

- Governments should develop accessible and safe facilities, including gender-neutral public washrooms and appropriate accommodation in healthcare and custodial institutions.
- Prison and shelter policies should consider individual safety, privacy, vulnerability and the risk of violence rather than relying exclusively on rigid administrative classification.

- Dedicated facilities should supplement, rather than replace, the obligation to provide non-discriminatory access to public services.

Gender-Sensitive Criminal Justice:

- Police, prison authorities and shelter administrators should receive training on gender identity, privacy, dignity and the implementation of statutory safeguards.
- Clear protocols should guide searches, arrest, detention, accommodation and complaint redressal.
- Independent grievance mechanisms and accountability procedures can help address discrimination, harassment and safety violations.

Evidence-Based Sports Regulation:

- The **Sports Authority of India (SAI)** and national sporting federations should frame transparent eligibility rules in consultation with medical experts, athletes and relevant stakeholders.
- Eligibility standards should be based on sport-specific evidence and the rules of relevant international federations.
- Policies should balance fair competition with the constitutional values of equality and non-discrimination.

7. Way Forward:

- **Harmonious construction:** Courts and legislatures should interpret transgender rights and women-specific protections in a manner that gives effect to both sets of constitutional interests wherever possible.
- **Purpose-based legislation:** Eligibility criteria should reflect the specific objective of each law, including representation, reproductive healthcare, protection from violence or prevention of discrimination.
- **Constitutional scrutiny:** Any classification based on sex or gender identity must meet the requirements of Articles 14, 15 and 21 and remain proportionate to its legitimate objective.
- **Stakeholder consultation:** Policy formulation should involve transgender persons, women's organisations, legal experts, healthcare professionals, sporting bodies and institutions responsible for implementation.
- **Institutional capacity:** Governments should strengthen infrastructure, grievance redressal, data collection and training to ensure that legal protections translate into effective outcomes.

8. Value Addition for UPSC:

Constitutional Provisions:

- **Article 14:** Equality before the law and equal protection of the laws.
- **Article 15(1):** Prohibits discrimination by the State on specified grounds, including sex.
- **Article 15(3):** Permits special provisions for women and children.
- **Article 16:** Guarantees equality of opportunity in public employment.
- **Article 19(1)(a):** Protects freedom of speech and expression, relevant to the expression of gender identity.
- **Article 21:** Protects life and personal liberty, including dignity, privacy and autonomy.
- **Articles 243D and 243T:** Provide for reservation of seats for women in Panchayats and Municipalities.

Important Terms:

- **Gender identity:** A person's deeply felt internal and individual experience of gender.
- **Sex:** A classification generally associated with biological characteristics, including reproductive anatomy, chromosomes and hormonal features.

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- **Horizontal reservation:** Reservation operating across vertical categories such as General, Scheduled Castes, Scheduled Tribes and Other Backward Classes.
- **Harmonious construction:** A principle of statutory interpretation that seeks to reconcile apparently conflicting provisions and give effect to each, as far as possible.
- **Substantive equality:** An approach that recognises structural disadvantages and supports measures necessary to achieve meaningful equality rather than merely identical treatment.

UPSC Syllabus Linkages:

- **GS Paper II:** Fundamental Rights, constitutional interpretation, affirmative action, vulnerable sections, social justice and governance.
- **GS Paper I:** Women's empowerment, social empowerment, diversity and issues relating to gender.
- **GS Paper IV:** Constitutional morality, empathy, dignity, tolerance, non-discrimination and ethical governance.

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Pumped Storage Hydropower: Strengthening India's Renewable Energy Integration, Grid Flexibility and Long-Duration Energy Storage

1. Recent Developments:

- India is expanding **Pumped Storage Projects (PSPs)** to manage renewable energy variability, meet peak electricity demand and strengthen grid reliability.
- As of **September 2026**, India had **308.027 GW of installed non-fossil fuel-based electricity generation capacity**. During FY 2025–26, it added approximately **55.29 GW** of non-fossil fuel capacity.
- India aims to achieve **500 GW of non-fossil fuel-based capacity by 2030**, increasing the need for large-scale electricity storage.
- The **Central Electricity Authority (CEA)** estimates that India will require **73.93 GW of energy storage capacity by 2031–32**, comprising 26.69 GW from PSPs and 47.24 GW from Battery Energy Storage Systems (BESS).
- As of August 2026, India had **7.43 GW of operational pumped storage capacity across 10 projects**. Another 15.87 GW across 11 projects was under construction or implementation, while 10.40 GW across 8 projects had received CEA concurrence or appraisal.
- India has identified **320 potential PSP sites with a combined capacity of 345.38 GW**, indicating substantial scope for expanding long-duration energy storage.

2. Pumped Storage Hydropower: Meaning and Working Mechanism

Concept and Basic Structure:

- **Pumped Storage Hydropower (PSH)** is a large-scale energy storage technology that uses water and gravity to store electricity. It is commonly described as a **"water battery"** because it stores surplus electricity for later use.
- A typical PSP consists of **two reservoirs located at different elevations**, connected through water-conveyance infrastructure and reversible pump-turbine units.
- Unlike conventional hydropower, which primarily generates electricity from the natural flow or stored flow of water, pumped storage can consume electricity to pump water back to an upper reservoir.

Working Mechanism:

- **Charging phase:** During periods of surplus electricity, such as high solar or wind generation, electricity powers pumps that transfer water from the lower reservoir to the upper reservoir. Energy is stored as gravitational potential energy.
- **Discharging phase:** When electricity demand rises or renewable generation declines, water flows from the upper reservoir through turbines to generate electricity.
- **Recharging:** During the next period of surplus electricity, water is pumped back to the upper reservoir, completing the storage cycle.
- PSPs are not primary energy sources because they consume electricity during pumping and return less electricity during generation due to conversion losses. Their principal function is to **shift electricity across time**, rather than create net energy.

Role in the Electricity Grid:

- **Renewable energy integration:** PSPs store surplus solar and wind electricity and supply it when renewable generation falls.
- **Peak-load management:** They provide electricity during periods of high demand, reducing pressure on conventional power plants.
- **Grid stability:** PSPs can support frequency regulation, balancing services, voltage support and other ancillary grid requirements, depending on plant design.
- **Energy security:** Domestic storage capacity reduces dependence on fossil-fuel-based peaking generation and strengthens the resilience of the electricity system.
- **Long-duration storage:** PSPs can store and supply large quantities of electricity over extended periods, complementing short-duration battery storage.

3. Classification of Pumped Storage Projects:

- PSPs are classified according to the location of their reservoirs and their relationship with natural watercourses. The three major types are **on-stream, off-stream open-loop and off-stream closed-loop schemes**.

On-Stream Pumped Storage:

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- Both reservoirs are located on a river, stream or *nallah*. Water flows from the upper reservoir through turbines to generate electricity and is pumped back when surplus electricity is available.
- Such projects have a direct relationship with natural watercourses and therefore require careful assessment of river ecology and water availability.

Off-Stream Open-Loop Pumped Storage:

- One reservoir is located on a river, stream or *nallah*, while the other is situated away from a perennial natural watercourse.
- The system uses the natural watercourse through one reservoir while maintaining the other reservoir outside it.

Off-Stream Closed-Loop Pumped Storage:

- Neither reservoir is located on a river, perennial stream or perennial *nallah*. Both reservoirs are situated away from perennial natural watercourses.

- These projects can reduce direct interference with river systems and may offer greater flexibility in site selection, subject to geological, hydrological and environmental suitability.

4. India's Pumped Storage Potential and Development:

Operational Capacity and Project Pipeline:

- India had **7.43 GW of operational PSP capacity as of August 2026**, distributed across 10 projects with installed capacity above 25 MW.
- An additional **15.87 GW across 11 projects** was under construction or implementation, while **10.40 GW across 8 projects** had received CEA concurrence or appraisal.
- The identified national potential comprises **320 projects with 345.38 GW of capacity**, including:
  - **On-stream projects:** 62 projects with 56.67 GW of potential.
  - **Off-stream projects:** 258 projects with 288.71 GW of potential.

Regional Distribution of Identified Potential:

- **Western Region:** 129.72 GW, the highest among India's five regions. Maharashtra accounts for 67.36 GW and Gujarat for 33.36 GW.
- **Southern Region:** 97.76 GW, with substantial potential in Andhra Pradesh, Telangana and Tamil Nadu.
- **Eastern Region:** 53.41 GW, including 41.53 GW in Odisha.
- **Northern Region:** 50.32 GW, with significant potential in Uttar Pradesh and Himachal Pradesh.
- **North-Eastern Region:** 14.18 GW of identified potential.
- The Western Region's high potential is largely associated with the topography and steep gradients of rivers originating in the **Western Ghats**.

Projected Capacity Expansion:

- The CEA has mapped a capacity-addition pathway of **100.81 GW between 2025–26 and 2035–36**.
- If the projected projects are commissioned, India's cumulative PSP capacity could reach approximately **105.56 GW by 2035–36**.
- The planned expansion is intended to strengthen grid flexibility and support the integration of a larger share of renewable electricity.

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5. Global Status of Pumped Storage Hydropower:

- Pumped storage hydropower is the **world's most widely deployed form of large-scale electricity storage**, reflecting its technological maturity and established operating experience.
- According to the **International Renewable Energy Agency (IRENA)**, global installed pumped hydro capacity stood at approximately **159.8 GW at the end of 2025**.
- **China** had the largest installed capacity at nearly 66 GW, followed by **Japan** at around 22 GW and the **United States** at approximately 19 GW.
- India ranked **fourth globally**, with 7.18 GW of installed capacity at the end of 2025. Its capacity subsequently increased to 7.43 GW by July 2026.

6. Government Initiatives to Promote Pumped Storage:

Dedicated Development Guidelines:

- The **Ministry of Power** notified the *Guidelines to Promote Development of Pumped Storage Projects in India* in April 2023.
- The guidelines provide a framework for project-site allotment, development facilitation, rationalisation of approval procedures and promotion of private-sector participation.

Tariff-Based Competitive Bidding:

- The Ministry of Power notified **Tariff-Based Competitive Bidding (TBCB) Guidelines** in February 2025.
- These guidelines establish a transparent and standardised framework for procuring storage capacity and stored energy from pumped storage projects through competitive bidding.

Inter-State Transmission System Charge Waiver:

- Eligible PSPs for which construction work is awarded on or before **30 June 2028** can receive a **100% waiver of Inter-State Transmission System (ISTS) charges**.
- The waiver applies for **25 years from the Commercial Operation Date (COD)** and improves the financial viability of eligible projects.

Budgetary Support for Enabling Infrastructure:

- The Central Government provides budgetary support for essential infrastructure required to develop hydropower and pumped storage projects.
- Eligible infrastructure includes roads, bridges, railway sidings, ropeways, communication facilities and transmission lines connecting the power station to the nearest pooling point.

Faster Project Approvals:

- The CEA has reduced the timeline for **Detailed Project Report (DPR) concurrence from 90 days to 50 days** for PSPs.
- The requirement for clearance of inter-State aspects has also been removed under the revised framework, facilitating faster project preparation and implementation.

Environmental Appraisal and Project Investigation:

- The Ministry of Environment, Forest and Climate Change has introduced differentiated environmental appraisal provisions for eligible PSPs, including applicable **B2 categorisation** and reduced baseline-data requirements for certain off-stream projects.
- Provisions facilitating forest-land surveys and enhanced borehole exploration help developers undertake project investigations and prepare technically sound DPRs.
- Off-stream closed-loop PSPs have also been exempted from the requirement of CEA concurrence, irrespective of their capital expenditure.

Integrated Grid and Transmission Planning:

- The Government is integrating energy-storage requirements with electricity transmission planning to reduce congestion, improve grid reliability and accommodate higher renewable energy capacity.

- The CEA's planning framework envisages substantial PSP capacity addition between 2025–26 and 2035–36.
- The **Jal Vidyut DPR portal** facilitates digital monitoring of survey and investigation activities and improves coordination among stakeholders during project preparation.

7. Challenges in Pumped Storage Development:

Economic and Financial Constraints:

- PSPs require **high initial capital investment** for reservoirs, dams, tunnels, underground powerhouses, turbines and transmission infrastructure.
- Long construction periods, land acquisition and project-specific risks can increase financing costs and delay commercial operation.
- The financial viability of projects depends on suitable revenue mechanisms for storage capacity, peak power supply and ancillary grid services.

Geographical and Technical Constraints:

- Projects require suitable elevation differences, geological conditions, reservoir locations and water availability.
- Seismic vulnerability, unstable slopes and difficult terrain can increase construction complexity and project costs.
- Transmission connectivity is essential to transfer stored electricity to demand centres and integrate projects into the national grid.

Environmental and Social Concerns:

- Large reservoirs and associated infrastructure can lead to forest diversion, habitat fragmentation, biodiversity loss and changes in aquatic ecosystems.
- Construction may affect local communities through land acquisition, displacement and changes in access to natural resources.
- Even off-stream projects require careful assessment of water sourcing, geological stability, ecological impacts and cumulative effects.

Implementation and Regulatory Challenges:

- Multiple approvals involving environmental, forest, land and water-related authorities can delay project execution.
- Coordination among developers, State Governments, transmission utilities and regulatory institutions is necessary for timely commissioning.
- The gap between identified potential and operational capacity highlights the need to convert project assessments into financially viable and environmentally sustainable infrastructure.

8. Way Forward:

- **Integrated energy planning:** Storage capacity should be planned alongside renewable generation, transmission networks and electricity demand to avoid regional imbalances and grid congestion.
- **Technology diversification:** Pumped storage and battery storage should be deployed as complementary technologies. Batteries can meet rapid-response and short-duration requirements, while PSPs can provide large-scale, long-duration storage.

- **Environmental sustainability:** Project selection should prioritise suitable off-stream and closed-loop configurations wherever technically and environmentally feasible, while ensuring rigorous environmental impact assessment.
- **Financial viability:** Competitive procurement, predictable revenue frameworks, budgetary support for enabling infrastructure and appropriate risk-sharing can attract public and private investment.
- **Faster implementation:** Time-bound clearances, improved DPR preparation, digital monitoring and coordination among central and State institutions can reduce project delays.
- **Community participation:** Local communities should be involved in project planning, rehabilitation and benefit-sharing to improve social acceptance and reduce implementation conflicts.
- **Grid modernisation:** Storage projects should be integrated with forecasting, real-time grid management and ancillary-service markets to maximise their contribution to electricity-system reliability.

9. Value Addition for UPSC:

Important Facts and Figures:

- **500 GW:** India's target for non-fossil fuel-based electricity generation capacity by 2030.
- **73.93 GW:** CEA's projected total energy-storage requirement by 2031–32.
- **26.69 GW:** Projected contribution of pumped storage to the 2031–32 storage requirement.
- **47.24 GW:** Projected contribution of battery energy storage systems to the 2031–32 storage requirement.
- **345.38 GW:** Identified pumped storage potential across 320 projects in India.
- **105.56 GW:** Projected cumulative PSP capacity by 2035–36.

Important Institutions:

- **Ministry of Power:** Formulates policies and guidelines for the development of pumped storage projects.
- **Central Electricity Authority (CEA):** Undertakes electricity-sector planning, assesses storage requirements and examines project-related technical proposals.
- **Central Electricity Regulatory Commission (CERC):** Regulates relevant aspects of the electricity sector, including transmission charges and tariff-related frameworks.
- **Ministry of Environment, Forest and Climate Change:** Oversees applicable environmental and forest-clearance frameworks.
- **International Renewable Energy Agency (IRENA):** Provides international data and analysis on renewable energy development, including pumped hydropower.

Key Conceptual Distinctions:

- **Installed generation capacity vs. storage capacity:** Installed generation capacity measures the maximum electricity-generation capability of power plants, whereas storage capacity measures the ability to store and subsequently supply electricity.
- **Pumped storage vs. conventional hydropower:** Conventional hydropower generates electricity using available water flow or reservoir storage, whereas pumped storage uses electricity to pump water uphill and later generates electricity from its release.
- **Pumped storage vs. battery storage:** Pumped storage generally provides large-scale, long-duration storage but requires suitable geographical conditions, whereas batteries offer rapid response, modular deployment and greater locational flexibility.
- **On-stream vs. off-stream projects:** On-stream projects have reservoirs associated with natural watercourses, whereas off-stream projects have one or both reservoirs located away from perennial natural watercourses.

UPSC Syllabus Linkages:

- **GS Paper III:** Infrastructure, energy security, renewable energy, environmental impact, conservation of natural resources and sustainable development.
- **GS Paper II:** Government policies, regulatory institutions, Centre–State coordination and infrastructure governance.
- **Essay:** Energy transition, climate-resilient infrastructure, sustainable development and the role of technology in economic growth.

Khelo India Sports Goods Manufacturing Scheme: Strengthening Domestic Manufacturing, Innovation and Global Export Competitiveness

1. Recent Developments:

- The **Union Cabinet approved the Khelo India Sports Goods Manufacturing Scheme on 28 October 2026**, with a total outlay of **₹1,856.67 crore for FY 2026–27 to FY 2033–34**. Announced in the Union Budget 2026–27, the scheme aims to attract private investment, expand domestic production, reduce import dependence, promote innovation and strengthen India's integration into global sports goods value chains.
- The scheme connects **sports development with industrial growth** by supporting manufacturing infrastructure, technology adoption, research and development, skill development, quality certification and export promotion. It complements **Khelo India**, **Khelo Bharat Niti 2025**, Make in India and Atmanirbhar Bharat.

2. Key Features of the Khelo India Sports Goods Manufacturing Scheme:

Integrated Sports Goods Manufacturing Zones:

- The scheme envisages dedicated **Sports Goods Manufacturing Zones (SGMZs)** that will bring manufacturers, suppliers, testing facilities, design and prototyping centres, and ancillary enterprises together.
- These zones will be developed through convergence with **BHAVYA** and **National Industrial Corridor Development Corporation (NICDC) industrial parks**, enabling shared infrastructure, stronger supplier networks and improved manufacturing efficiency.

Investment and Production Support:

- Two major incentive components have a combined outlay of **₹1,130 crore**:
  - **Anchor Investment Support:** Provides 20% capital expenditure support to anchor investors committing at least ₹100 crore within designated manufacturing zones.
  - **Turnover Linked Support:** Offers incentives of up to 15% to eligible manufacturers investing at least ₹10 crore, encouraging higher production and capacity expansion.
- These incentives are expected to attract domestic and global manufacturers, increase domestic value addition, generate employment and reduce import dependence.

MSME, Quality and Innovation Support:

- **Existing manufacturing clusters** will receive support for upgrading common facilities and shared infrastructure through cost-sharing with States, strengthening the capabilities of smaller enterprises.
- An allocation of **₹105 crore** will support certification from International Sports Federations, covering 70% of first-time certification costs and 50% of renewal costs.

- **Centres of Excellence** in educational and research institutions will promote research in sports equipment, material sciences, protective gear and advanced manufacturing technologies. Convergence with the **Anusandhan National Research Foundation (ANRF)** will strengthen industry–academia collaboration.
- Eligible **Department for Promotion of Industry and Internal Trade (DPIIT)-registered sports start-ups** can receive grants of up to ₹20 lakh for product development, testing, validation and commercialisation.

Skills and Export Promotion:

- Skill development will be undertaken with the Ministry of Skill Development and Entrepreneurship and industry stakeholders to address changing manufacturing requirements.
- An **India Sports Expo**, a **Brand India campaign** and convergence with the Export Promotion Mission will support international branding, market access and connections with overseas buyers.

3. Status and Potential of India's Sports Goods Industry:

Manufacturing Base and MSME Participation:

- **Jalandhar (Punjab)** and **Meerut (Uttar Pradesh)** are the principal sports goods manufacturing clusters. Together, they have more than 250 exporting units, over 1,000 domestic-market units, more than 4,000 micro enterprises and nearly 20,000 household units.
- Other important centres include **Ludhiana** for bicycles and **Delhi and Mumbai** for sports accessories and apparel. Small and micro enterprises account for nearly **90% of production**, making the sector important for local employment and entrepreneurship.
- India manufactures cricket bats, protective equipment, inflatable balls and gym and athletic training equipment. Indian manufacturers and brands account for an estimated **75–80% of the global cricket bat market** and around **30–35% of the cricket helmet market**.

Domestic Market and Export Opportunity:

- India's domestic sports goods market is estimated at **US$2.5 billion**, including approximately US$0.5 billion in equipment. The global sports equipment market was valued at around **US$140 billion in 2024** and is projected to reach approximately US$283 billion by 2036.
- Global sports equipment exports stood at approximately **US$52 billion in 2024**, while India's equipment exports were around **US$275 million**, representing a relatively small share of international trade.
- The United Kingdom, United States and Australia together account for more than half of India's sports equipment exports, indicating established access to major overseas markets.
- A NITI Aayog study identifies the potential for India's sports equipment exports to reach approximately **US$8.1 billion by 2036**, with nearly **54 lakh additional direct and indirect jobs**. These are projected opportunities, not assured outcomes.

Major Sporting Events as Market Opportunities:

- The **Los Angeles Olympics 2028**, **Commonwealth Games 2030 in Ahmedabad**, **Brisbane Olympics 2032** and India's planned bid for the **2036 Olympic Games** could create demand for sports equipment and provide opportunities for Indian manufacturers to enter international procurement networks.

4. Challenges Facing India's Sports Goods Industry:

- **High input costs:** Dependence on imported specialised materials such as carbon fibre, advanced polymers and technical textiles increases production costs and exposes manufacturers to global supply disruptions.

- **Technology and scale constraints:** Fragmented production, limited mechanisation and dependence on imported machinery restrict productivity, product innovation and economies of scale.
- **Inadequate testing and certification infrastructure:** Manufacturers often depend on overseas laboratories for internationally recognised testing, increasing costs and delaying market entry. These barriers disproportionately affect MSMEs.
- **Infrastructure and logistics gaps:** High land costs, fragmented industrial premises, inadequate common facilities and inefficient transport increase production and delivery costs.
- **Limited global branding and market integration:** Indian manufacturers have relatively weak links with international brands, sporting federations and global procurement networks, limiting their access to high-value markets.
- **Product concentration:** India's established strength in cricket equipment has not translated into comparable competitiveness across several other sports categories, indicating a need for product diversification.

5. Government Initiatives Supporting the Manufacturing Ecosystem:

Industrial Infrastructure and Investment:

- **Bharat Audyogik Vikas Yojna (BHAVYA):** Provides for 100 plug-and-play industrial parks with an allocation of **₹33,660 crore**. Ready-built factory infrastructure, testing facilities and warehousing can support integrated sports goods manufacturing zones.
- **NICDC:** Its industrial corridor programme covers 20 industrial smart cities across 13 States, with four completed as of September 2026. These industrial locations can provide connectivity, utilities and logistics infrastructure for manufacturers.

Research, Innovation and Entrepreneurship:

- **Anusandhan National Research Foundation:** Promotes collaboration among research institutions, universities and industry, supporting research in advanced materials, equipment design and manufacturing technologies.
- **Startup India:** Supports entrepreneurship through funding and investment facilitation. As of 31 March 2026, India had over **2.23 lakh recognised start-ups**, which had generated more than **23.36 lakh direct jobs**. The sports goods scheme complements this ecosystem through dedicated innovation support.

Export and Manufacturing Promotion:

- **Export Promotion Mission:** With an outlay of **₹25,060 crore for FY 2025–26 to FY 2030–31**, it supports export finance, quality compliance, logistics and international market access, particularly for MSMEs. Its two components are **Niryat Protsahan** (financial support) and **Niryat Disha** (non-financial export enablers).
- **Production Linked Incentive (PLI) Schemes:** These schemes promote investment and increased production across 14 designated sectors. By June 2026, they had attracted ₹2.6 lakh crore in investment, generated ₹23.8 lakh crore in production and sales, supported exports exceeding ₹15.5 lakh crore and created 14.6 lakh jobs. Sports goods are not a separately designated PLI sector.

6. Linkages with India's Sports Development Policies:

Khelo India Scheme:

- Launched in **2017**, the scheme integrated the Rajiv Gandhi Khel Abhiyan, Urban Sports Infrastructure Scheme and National Sports Talent Search Scheme under a common framework.
- Its five pillars are **talent identification, capacity building, sports science and technology, competitions and leagues, and sports infrastructure**.

- As of July 2026, 349 sports infrastructure projects had been approved with an investment of ₹3,176 crore. The programme also supported 1,067 Khelo India Centres, 267 academies and 2,745 Khelo India Athletes through coaching, equipment, medical care and monthly allowances.

Khelo Bharat Niti 2025:

- Launched in July 2025, the policy recognises sport as an instrument of **nation-building, economic development and social inclusion**, aligned with the vision of Viksit Bharat.
- Its five pillars are **excellence on the global stage, sports for economic development, sports for social development, sports as a people's movement, and integration of sports with education**.
- It emphasises grassroots-to-elite talent development, rural and urban sports infrastructure, wider participation of women and marginalised groups, and integration of sports into education under the National Education Policy 2020.
- The manufacturing scheme strengthens the policy's economic-development dimension by connecting sports participation with production, innovation, entrepreneurship and exports.

7. Way Forward:

- **Modernise existing clusters:** Upgrade Jalandhar and Meerut through common facility centres, shared machinery, modern industrial premises and improved logistics.
- **Strengthen domestic supply chains:** Encourage domestic production of specialised materials, advanced polymers and composites to reduce import dependence and improve cost competitiveness.
- **Build globally recognised testing facilities:** Establish accredited laboratories and certification centres in manufacturing clusters through partnerships with international sports federations.
- **Promote technology and design:** Strengthen research collaboration among manufacturers, universities, research institutions, athletes and sports federations to develop high-performance products.
- **Improve export readiness:** Diversify products and export destinations, build globally recognised Indian brands and integrate MSMEs into international supply chains.
- **Develop industry-aligned skills:** Expand training in precision manufacturing, materials science, product design, quality control and advanced production technologies.

8. Value Addition for UPSC:

- **GS Paper III – Indian Economy:** Manufacturing competitiveness, MSME development, industrial clusters, employment generation, export promotion and global value chain integration.
- **GS Paper III – Science and Technology:** Advanced materials, sports technology, product innovation, testing and certification infrastructure, and industry–academia collaboration.
- **GS Paper II – Government Policies and Interventions:** Khelo Bharat Niti 2025, Khelo India, Startup India, BHAVYA and Export Promotion Mission.
- **Important institutional linkages:** Ministry of Youth Affairs and Sports, DPIIT, NITI Aayog, ANRF, NICDC and Ministry of Skill Development and Entrepreneurship.

Conclusion: The Khelo India Sports Goods Manufacturing Scheme can help India convert its established manufacturing clusters and expanding sporting ecosystem into a globally competitive industry. Its success will depend on technology upgradation, affordable inputs, recognised testing facilities, MSME modernisation and stronger international market linkages, contributing to Make in India and Viksit Bharat@2047.

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QUESTIONS

1. Given below are two statements:

Assertion (A): Exhaustion of judicial remedies does not, by itself, preclude constitutional scrutiny of a finalised death sentence under Article 32.

Reason (R): Procedural violations in capital sentencing may constitute an independent ground for challenging the validity of the punishment under Article 21.

Select the correct answer:

(A) Both A and R are true, and R is the correct explanation of A.

(B) Both A and R are true, but R is NOT the correct explanation of A.

(C) A is true, but R is false.

(D) A is false, but R is true.

2. Consider the following statements regarding the Public Accounts Committee:

Statement 1: The PAC can disallow expenditure found to be irregular, excessive or unauthorised.

Statement 2: The Chairman of the PAC is elected by its members through proportional representation.

Which of the statements given above is/are correct?

(A) Both Statement 1 and Statement 2 are correct.

(B) Both Statement 1 and Statement 2 are incorrect.

(C) Statement 1 is correct, but Statement 2 is incorrect.

(D) Statement 1 is incorrect, but Statement 2 is correct.

3. With reference to the constitutional framework and affirmative action mechanisms in India, consider the following statements:

(1) The Supreme Court in NALSA v. Union of India (2014) recognized self-identified gender identity as a fundamental right protected under Articles 14, 15, 16, 19(1)(a), and 21.

(2) Articles 243D and 243T of the Constitution explicitly mandate reserved seats for transgender individuals in local self-government institutions alongside women.

(3) The Transgender Persons (Protection of Rights) Act, 2019 creates a constitutional mandate requiring vertical reservation for transgender persons in public employment.

(4) Horizontal reservation operates compartmentalized across vertical categories (SC, ST, OBC, General) without altering the total vertical quota limits under Article 16.

Which of the statements given above are correct?

(A) 1 and 2 only

(B) 2 and 3 only

(C) 3 and 4 only

(D) 1 and 4 only

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4. Consider the following statements regarding Pumped Storage Hydropower:

Statement 1: PSH units can provide grid inertia even without generating electricity.

Statement 2: Reversible pump-turbine units can operate as synchronous condensers during pumping.

Which one of the following is correct?

(A) Both Statement 1 and Statement 2 are correct, and Statement 2 is the correct explanation for Statement 1.

(B) Both Statement 1 and Statement 2 are correct, but Statement 2 is NOT the correct explanation for Statement 1.

(C) Statement 1 is correct, but Statement 2 is incorrect.

(D) Statement 1 is incorrect, but Statement 2 is correct.

5. Consider the following key pillars of the Khelo Bharat Niti 2025:

(1) Excellence on the global stage

(2) Sports for economic development

(3) Sports for social development

(4) Integration of sports with defense forces

(5) Integration of sports with education

How many of the above are explicitly designated as core pillars of the policy framework?

(A) Only two

(B) Only three

(C) Only four

(D) All five

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ANSWER KEY

1 – Answer (A), 2 – Answer (B), 3 – Answer (D), 4 – Answer (C), 5 – Answer (C)

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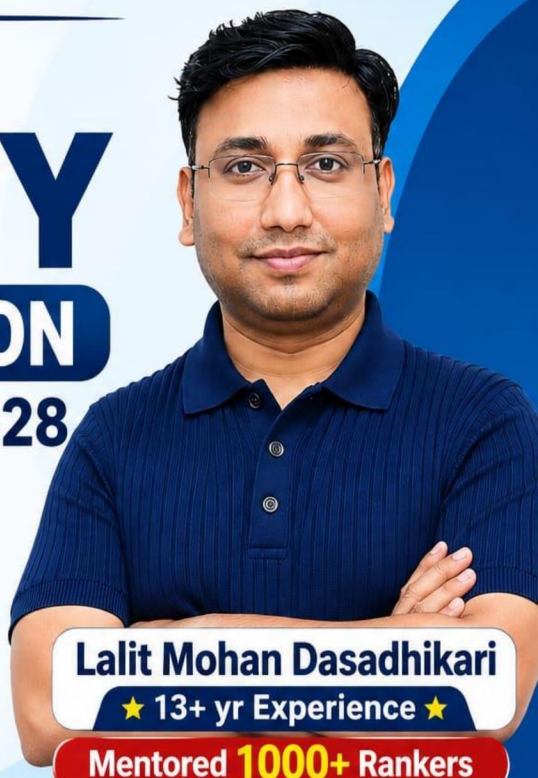
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