

Prelims Exam Topics

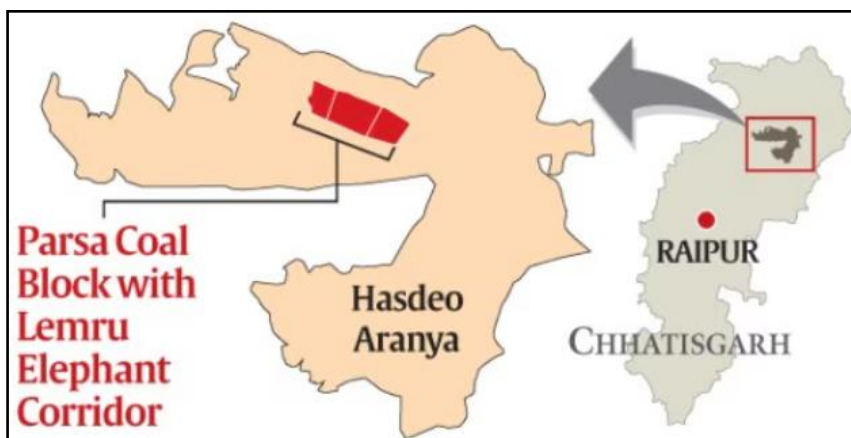
HASDEO ARAND FOREST

Context

Proposal to divert forest land for coal mining and ongoing protests by tribal communities highlight ecological and livelihood concerns.

About Hasdeo Arand Forest

- **Location:** Located in Chhattisgarh across Korba, Surguja and Surajpur districts forming one of the largest contiguous forest tracts in Central India.
- **Geographical Features:** Covers 1.7–1.75 lakh ha (coalfield 1,879 sq km) and forms the catchment of **Hasdeo River and Bango Dam**.
- **Flora:** Dominated by dense Sal and teak forests with 640 plant species including 128 medicinal plants
- **Fauna:** Habitat for Schedule-I species like Asian Elephant, leopard, sloth bear and about 25 mammals, 92 birds.
- **Significance**
 - **Ecological Significance:** Acts as “lungs of Chhattisgarh” with high carbon sequestration, biodiversity conservation and watershed protection (climate and water regulation).
 - **Wildlife Corridor Role:** Functions as elephant habitat and tiger dispersal corridor ensuring landscape connectivity
 - **Mining Significance:** Contains 23 coal blocks (25% area) including Parsa East and Kanta Basan (PEKB)(major coal resource region).
- **Conservation Status:** Earlier considered a high conservation “no-go” zone but now witnessing mining expansion.
- **Threats & Issues:** Facing deforestation, habitat fragmentation and tribal displacement due to mining (e.g. PEKB, Parsa projects)



Hasdeo River

Origin: It originates in the **Kaimur Hills** (Devgarh hills) near Sonhat in the **Koriya district** of Chhattisgarh, at an elevation of approximately **910 meters**.

Mouth: It is the largest left-bank tributary of the **Mahanadi River**. It joins the Mahanadi near **Shiladehi (Birra)** in the Janjgir-Champa district.

Tributaries:

- **Right Bank:** Gej River (major), Chornai, and Jhing.
- **Left Bank:** Ahiran, Tan, Ooteng.

SOMNATH TEMPLE

Context

2026 marks **75 years of reconstruction (1951)**, highlighting Somnath's continuity from destruction to renewal.

About Somnath Temple

- **Location:** At Prabhas Patan near Veraval in Gujarat on Arabian Sea coast at **Triveni Sangam (Kapila, Hiran, Sarasvati rivers)**
- **Historical References:** Mentioned in ancient texts and accounts Kalidasa (Raghuvamsa, 5th century), Al-Biruni (11th century) and Amir Khusrau (Delhi Sultanate period)
- **Attacks & Destruction:** Destroyed multiple times including: 1026 (by Mahmud of Ghazni) during the reign of Bhima I, 14th century (by Delhi Sultanate invasions) and 1706 (Under Aurangzeb)
- **Reconstruction History**
 - **18th century:** Rebuilt by Ahilyabai Holkar (ensured continuity of worship)
 - **Post-independence:** Sardar Vallabhbhai Patel initiated reconstruction in 1947 and was inaugurated in 1951 by Dr. Rajendra Prasad.
- **Architecture:** Built in **Maru-Gurjara (Solanki/Chalukyan) style** with **Kailash Mahameru Prasad layout** comprising:
 - Garbhagriha (sanctum)
 - Sabhamandap (assembly hall)
 - Nrityamandap (dance hall)
- **About Maru-Gurjara Architecture**
 - **Origin:** Flourished under Solanki rulers in Gujarat and Rajasthan, combining Māru (Mewar), Māha Gurjara and Saurashtra styles.
 - **Structural Layout:** Features garbhagriha connected to mandapa internally and externally
 - **Key Features:**
 - **Plain Exterior Walls:** Limited carvings (*focus on structure*)

- **Jharokha:** Projecting stone balcony (ventilation and aesthetics).
- **Chhatri:** Dome-shaped pavilion (memorial or decorative element).
- **Jaali:** Perforated stone screens (light and ventilation control). Courtyard-based planning (micro-climate regulation).
- **Water Architecture**
 - **Surya Kund:** Step tank with small shrines (*unique feature*)
 - **Baoli:** Stepwell (*water access*)
 - **Johad:** Rainwater harvesting (*groundwater recharge*)
- **Astronomical Feature:** East-facing temples aligned for sunlight entry into sanctum during equinox (astronomical precision).

EAC-PM FOR FOCUS ON PRIORITY SECTOR ADVANCES

Context

The paper titled ‘Economic Impact Analysis of Priority Sector Lending’ was released by the **Economic Advisory Council to the Prime Minister (EAC-PM)**.

Key Highlights of Report

Issues with Current Framework:

- **Bank Performance Gap:** Private Banks consistently fall short of the 40% target via direct lending and heavily rely on indirect mechanisms like Priority Sector Lending Certificates (PSLCs) and Rural Industrial Development Fund (RIDF) deposits sold by Nationalised Banks & Small Finance Banks (SFBs).
- **Economic Efficiency Trade-offs:** Mandated lending reduces Total Factor Productivity (TFP), encourages capital hoarding, and finances lower-yield projects.
 - PSL portfolios also face high administrative costs and elevated default risks.
- **Limited Growth Impact:** District-level analysis (using nighttime luminosity as output proxy) shows insignificant effects on economic output.
- **Geographical Skew:** Less than 10% of districts (mainly state capitals, industrial hubs, and southern/western regions) account for over 45% of total Priority Sector Advances.

Policy Recommendations

- **Shift to Social Equity Focus:** Treat PSL primarily as a social tool rather than growth engine.
 - Exclude legacy categories (e.g., corporate farmers), strictly target small/marginal farmers, micro-enterprises, and weaker sections. Consider lowering overall targets for greater bank flexibility.
- **Holistic Approach:** Avoid pure top-down credit mandates in lagging areas, which are inefficient.
 - Pair targeted credit with fiscal interventions addressing core constraints such as infrastructure, skills, and market linkages.

PSL Framework in India

- **PSL is an initiative by the RBI** that mandates banks to allocate a portion of their lending to **priority sectors**.
- Priority Sector means those sectors **which Government and RBI consider important for the country's development but remain underserved due to information asymmetry of banks** to lend to larger firms deep-rooted social or caste-based biases.

PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME

Context

The **Prime Minister's Employment Generation Programme (PMEGP)** has facilitated the establishment of more than **4 lakh micro-enterprises and generated employment for over 36 lakh people during the 15th Finance Commission cycle**.

About Prime Minister's Employment Generation Programme

- It is a **central sector scheme** launched in **August 2008**.
- It is a credit-linked subsidy scheme administered by the **Ministry of Micro, Small, and Medium Enterprises (MSME)**.
- It aims to create self-employment opportunities for first-generation entrepreneurs and promote sustainable livelihoods in the manufacturing and services sectors, especially in rural areas.
- **Implemented By:** The scheme is implemented by the Khadi and Village Industries Commission

Eligibility for Prime Minister's Employment Generation Programme

- Any individual above **18 years of age is eligible**.
- There will be no income ceiling for assistance for setting up projects under PMEGP.
- Beneficiaries should possess at least VIII standard pass educational qualification for setting up of projects costing above Rs.10 lakh in the manufacturing sector and above Rs. 5 lakh in the business/service sector.
- Self Help Groups (including those belonging to BPL provided that they have not availed benefits under any other Scheme), institutions registered under the **Societies Registration Act, 1860, Production Co-operative Societies, and, Charitable Trusts are also eligible for assistance under PMEGP**.
- Existing units that have already availed government subsidy under any other scheme of the Government of India or State Government are not eligible.

JANANI PLATFORM

Context

Recently, the **Union Ministry of Health and Family Welfare** launched **JANANI (Journey of Antenatal, Natal and Neonatal Integrated Care) platform**.

About JANANI Platform

- It is a **service-oriented digital platform designed to comprehensively monitor and maintain digital health records of women during their reproductive age.**
- It is developed as an **upgraded version of the existing RCH portal.**
- **Objective:** The platform aims to ensure seamless tracking of maternal and child health services, covering antenatal care, delivery preparedness, delivery, postnatal care, newborn care, home-based newborn and young child care, and family planning.

Key Feature of JANANI Platform

- Introduces **QR-enabled digital Mother and Child Health (MCH) Cards**
- Incorporates automated alerts for high-risk pregnancies, real-time dashboards for supervisory review, and due-list generation
- Enable integration with national platforms such as **U-WIN and POSHAN.**
- Enables registration of beneficiaries using unique identifiers such as ABHA, Aadhaar (OTP and biometric), and mobile number, along with pan-India search functionality.
- Provides self-registration facilities through web and mobile platforms.

GEOCELL

Context

CSIR-Central Road Research Institute (CSIR-CRRI) and BPCL have been recognized by the **India Book of Records and Asia Book of Records** for establishing the record titled **“First Roadblock Section Constructed Using Technical Textile Geocell Made from End-of-Life Plastic.”**

About Geocell

- It is a **three-dimensional cellular confinement system used in geotechnical engineering to improve soil stability and load-bearing capacity.**
- It consists of a network of interconnected **honeycomb-like cells made from geosynthetic materials such as high-density polyethylene (HDPE) or polyester.**
- These cells are expanded on site to form a mattress-like layer and are filled with infill materials such as soil, sand, aggregate, or clay.
- Once filled and compacted, the **geocell layer integrates with the underlying soil to create a stable, reinforced structure.**

Applications of Geocell

- **Three-dimensional lateral confinement of Geocell** along with anchoring techniques ensures the **long-term stability of slopes using vegetated topsoil, aggregate or concrete surfacing.**
- These can be used for constructing **steep vertical mechanically stabilized earth structures.**

SUPREME COURT ON RELIGION AND INDIA'S CIVILISATIONAL IDENTITY

Context

The Supreme Court of India, while hearing the long-pending Sabarimala Temple Entry reference case, raised an important constitutional question of continuous judicial intervention in religious matters affecting India's civilisational identity and cultural continuity.

Background: The Sabarimala case (2018)

- In 2018, the Supreme Court held that the practice of restricting the entry of women of menstruating age into the Sabarimala Temple was unconstitutional.
- The judgment was based on equality principles, non-discrimination and freedom of worship under the Constitution.

Supreme court observations (2026)

- **Historical evolution:** The Court noted that religion has historically remained an integral part of Indian society and many religious practices and rituals are therefore closely connected to the historical evolution of Indian civilization.
- **Concern Over Excessive Judicial Intervention:** The Court expressed concern that if every internal religious disagreement is brought before constitutional courts, the judiciary may gradually become a forum for resolving all theological and ritual disputes.
- **Constitutional Limits of Judicial Review:** The Court examined whether social reform should primarily take place through democratic legislation enacted by Parliament and State Legislatures, or through continuous judicial intervention in individual disputes.
- **Long-Term Constitutional Implications:** The Supreme Court emphasized that the issue before the Bench extends beyond a single temple-entry dispute. The Court stated that the principles evolved in the present case may influence:
 - Future interpretation of religious freedom
 - The relationship between faith and constitutional morality
 - The balance between social reform and preservation of traditions

Mains Exam Topics

OIL SPILL HAZARD

Context

Shipwreck incidents off Kerala's coast prompted preparation of a State-specific Oil Spill Contingency Plan (OSCP) to protect its 590 km coastline.

Impact of Oil Spill on Marine Ecosystems

- **Biodiversity loss:** Oil spill leads to the **death of marine organisms**, from plankton to large mammals, birds, and fish, severely affecting the food chain.
 - E.g., **2010 Deepwater Horizon oil spill** in the Gulf of Mexico resulted in widespread mortality across various marine species.
- **Health Risks to Marine Life:** degrades insulating properties of birds, chokes the respiratory system of marine animals
- **Habitat destruction:** damages and destroys important coastal habitats such as **mangroves, estuaries and salt marshes**.
 - E.g., the **1989 Exxon Valdez oil spill** in Prince William Sound, Alaska led to significant destruction of coastal habitats.
- **Damage to Coral Reefs:** Oil pollution can smother and kill coral polyps.
 - E.g. **The 2020 oil spill in Mauritius** destroyed coral gardens and was declared an environmental emergency by the government.
- **Contaminated marine products:** Oil spills contaminates marine products like fishes etc and makes them unsafe for human consumption.
 - E.g. **The 2021 oil spill in the Red sea** led to sea food contamination.
- **Other impacts-** Oil pollution reduces the amount of dissolved oxygen in water and hinders sunlight penetration etc.

Threat of Oil Pollution in India

- **Extensive coastline:** India has a vast coastline of about 7517 km making it highly susceptible to oil pollution incidents. The Indian coastline serves as a conduit for over 70% of the global oil demand.
- **High marine activity:** Due to its strategic location in the Indian ocean, India witnesses high marine activity making it highly vulnerable to oil spills.
- **Ecosystem diversity:** India's marine ecosystem is incredibly diverse, including the unique coral reefs of the Gulf of Mannar and the Sundarbans mangroves, making it highly vulnerable to oil pollution.
- **Economic dependence:** Oil pollution threatens the livelihoods and industries, including fishing, tourism etc, potentially leading to economic distress in affected regions.

- E.g., the **Goa oil spill in 2010** had adverse effects on the state's tourism industry
- **Monsoon and cyclones** exacerbate the impacts of oil spills, making containment and cleanup efforts more challenging.

Kerala's Oil Spill Contingency Plan (OSCP)

- OSCP is a structured framework for **preparedness, response and mitigation of oil spills** in marine and coastal areas (aligned with national guidelines).
- **Prepared by:** Kerala State Pollution Control Board in line with **National Oil Spill Disaster Contingency Plan (NOS-DCP)**, with coordination from agencies like Indian Coast Guard (nodal response authority).
- **Key Components**
 - **Environmental Sensitivity Mapping**
 - **Risk Assessment & Zonation**
 - **Crisis Management Framework:** Defines roles of departments and chain of command (clear accountability during emergencies).
 - **Response Strategies:** Includes wildlife protection, pollution control and clean-up methods (booming, skimming, dispersants).
 - **Operational Guidelines:** Covers shipboard emergency plans and marine response systems (integrated action plan).

How OSCP Addresses Effective Shoreline Response

- **Timely response:** With defined chain of command and responsibilities OSCP ensures coordinated and timely response.
- **Resource & Equipment Mapping:** Maintains database of machinery and response tools (booms, skimmers, dispersants).
- **Site-Specific Response Planning:** Tailors clean-up strategies based on shoreline type (sand, rocky coast, estuaries).
- **Pre-Clean-Up Assessment:** Evaluates oil characteristics and environmental conditions (ensures appropriate method selection).
- **Prioritisation of Sensitive Areas:** Focuses on protecting high-risk zones (fishing areas, biodiversity hotspots).
- **Integrated Multi-Agency Coordination:** Ensures coordination between state agencies and Indian Coast Guard (central nodal agency).

REPRODUCTIVE RIGHTS IN INDIA AND CHALLENGES FOR MINOR RAPE SURVIVORS

Context

Recent judicial interventions, particularly in cases involving rape survivors and minors, have intensified debates surrounding abortion access, privacy, and healthcare rights.

Understanding reproductive rights

- **Meaning of reproductive rights:** Reproductive rights refer to the freedom of individuals to make informed decisions regarding their reproductive health. These include:
 - Access to contraception
 - Safe abortion services
 - Maternal healthcare
 - Freedom from coercion in reproductive decisions
- **Constitutional guarantee of rights:** Reproductive rights are closely connected with Article 21 of the Constitution, which guarantees right to life, personal liberty, privacy, human dignity and bodily autonomy.

Supreme Court's expanding approach to Reproductive Rights

- **Recognition of Bodily Autonomy:** The Supreme Court has repeatedly stressed that a woman's body cannot be controlled by the State, society, or medical authorities. Decisions relating to pregnancy must remain with the individual concerned.
- **Primacy of Individual Choice:** The Court clarified that reproductive decisions belong primarily to the pregnant person. In the case of minors, parents or legal guardians may act in the child's best interests.
- **State as an Enabler, Not a Barrier:** The Court observed that the role of the State is to facilitate access to safe healthcare and counselling rather than impose unnecessary restrictions.
- **Protection of Dignity and Privacy:** The Court recognised that forcing a woman or rape survivor to continue an unwanted pregnancy violates dignity, mental well-being, and privacy.
- **Constitutional Basis:** This interpretation flows from Article 21 and the right to live with autonomy and dignity.

Abortion Laws in India

Medical Termination of Pregnancy (MTP) Act, 1971:

- **Key features:** The MTP Act created legal exceptions under which abortion became permissible. Key Features include:
 - Allowed abortion up to 20 weeks under specified conditions
 - Required medical opinion of registered doctors
 - Permitted abortion in cases involving:
 - Risk to the woman's life

- Foetal abnormalities
- Pregnancy due to rape
- Contraceptive failure in married women
- **Limitation:** The framework remained doctor-centric, as the final decision largely depended on medical approval.
- **MTP Amendment Act, 2021:** The 2021 amendment widened access to abortion, expanded legal recognition of reproductive autonomy beyond marital status.

Major Changes

Feature	MTP Act, 1971	MTP Amendment Act, 2021
Upper Gestation Limit	20 weeks	24 weeks for specified categories
Medical Opinion up to 20 Weeks	One doctor	One doctor
Medical Opinion for 20–24 Weeks	Not permitted	Two doctors required
Contraceptive Failure Clause	Only married women	Extended to all women
Medical Boards	Not required	Needed for cases beyond 24 weeks involving foetal abnormalities

Concerns over access to abortion for minor rape survivors

- **Social stigma and delayed reporting:** Many survivors are unable to report pregnancies at an early stage and several social and psychological barriers contribute to this delay, including trauma arising from sexual violence, social stigma, lack of awareness about pregnancy and delayed recognition of pregnancy itself.
- **Problem of Gestational Limits:** Under the Medical Termination of Pregnancy (MTP) Act, abortion is generally permitted up to 24 weeks of pregnancy under specified conditions and this legal framework becomes restrictive for many minor rape survivors who discover or disclose their pregnancies late.
- **Uneven Availability of Safe Abortion Services:** Access to safe and legal abortion facilities remains highly uneven across India, particularly in rural and underserved regions. This creates significant barriers for vulnerable groups, including minors and survivors of sexual violence.
- **Conflict Between the MTP Act and the POCSO Act:** The POCSO Act mandates reporting of sexual activity involving minors, creating confidentiality challenges in abortion cases and placing doctors between reproductive healthcare responsibilities and mandatory legal reporting obligations.

- **Fear among adolescents:** Many adolescents hesitate to approach hospitals because they fear criminal proceedings, social exposure, family backlash, and loss of privacy. This fear discourages timely medical intervention and contributes to delayed abortions.

Supreme Court's 2022 clarification

- In 2022, the Supreme Court attempted to balance reproductive autonomy with the reporting obligations under the POCSO Act. The Court emphasized that minors should be able to access abortion services without unnecessary disclosure of their identities.
- The Court highlighted the importance of safeguarding the privacy, dignity, and mental well-being of survivors while ensuring compliance with child protection laws.

International Best Practices

- **World Health Organization:** The WHO recommends a rights-based and patient-centric approach to abortion care, emphasizing privacy, confidentiality, informed consent, and timely access to safe abortion services without unnecessary legal barriers.
- **United Kingdom:** The UK follows the principle of confidential reproductive healthcare for adolescents through the “Gillick competence” framework, allowing minors capable of informed decision-making to access medical services confidentially.
- **France:** France combines abortion services with counselling, psychological assistance, and social support mechanisms, particularly for vulnerable women and survivors of sexual violence.
- **South Africa:** It permits abortion under broader legal grounds and recognises socio-economic and psychological factors affecting women’s reproductive choices, especially in vulnerable situations.

Way Forward

- **Expanding Gestational Flexibility:** Introduce greater flexibility in gestational limits for minor rape survivors, allowing medical and psychological circumstances to guide decisions rather than rigid timelines alone.
- **Fast-Track Medical Procedures:** Establish time-bound approval mechanisms and dedicated fast-track systems to prevent delays in medical care and reduce prolonged court intervention.
- **Harmonising the MTP and POCSO Acts:** Create legal clarity between reproductive healthcare rights and mandatory reporting obligations to reduce confusion among healthcare providers.
- **Increasing Safe Abortion Infrastructure:** Expand certified abortion facilities, especially in rural and underserved areas, and improve access to late-term abortion services.
- **Adopting a Survivor-Centric Approach:** Ensure that policies and institutional practices prioritise dignity, autonomy, mental well-being, and best interests of minor survivors.

- **Effective Implementation of Supreme Court Guidelines:** Issue uniform operational guidelines for hospitals and state authorities to properly implement the Supreme Court's 2022 clarification on privacy and reproductive autonomy.

ADDRESSING STRUCTURAL WEAKNESSES IN INDIA'S HEALTHCARE SYSTEM

Context

India has made notable progress in expanding its medical infrastructure through the establishment of new medical colleges, AIIMS institutions, and increased MBBS as well as postgraduate medical seats, however despite this expansion, improved public health outcomes cannot be achieved through infrastructure growth alone.

Structural Challenges in India's Healthcare System

- **Acute Shortage of Specialists in CHCs:** Data from the Health Dynamics of India 2022-23 report reveals an alarming shortage of specialists in Community Health Centres (CHCs). Against the required 21,964 specialists, only 4,413 are currently available, resulting in a vacancy rate of nearly 80%. This reflects the persistent inadequacy of rural healthcare services.
- **Excessive Burden on District Hospitals:** The weak functioning of CHCs forces patients to travel to district hospitals and medical colleges even for routine specialist treatment. As a result, tertiary healthcare institutions experience overcrowding and mounting pressure on limited resources.
- **Incomplete Operational Preparedness:** Several newly established hospitals and healthcare institutions suffer from shortages of medicines, diagnostic facilities, ambulances, and trained personnel. Merely constructing buildings without ensuring operational readiness limits the effectiveness of healthcare expansion.
- **Growing Privatisation of Medical Education:** Among the 43 newly sanctioned medical colleges, 27 are privately managed institutions. This trend raises concerns regarding affordability of medical education and may reduce the accountability traditionally associated with publicly funded healthcare systems.
- **Unfavourable Working Conditions in Rural Areas:** Medical professionals are often reluctant to serve in remote regions due to poor living conditions, inadequate residential facilities, lack of quality education for children, insufficient medical equipment, and limited professional support systems.
- **Ineffective Workforce Planning:** Although India produces a substantial number of medical specialists annually, vacancies in public healthcare institutions continue to remain unfilled. This reflects inadequate coordination between medical education policies and long-term healthcare workforce planning.

Way Forward

- **Prioritise Healthcare Outcomes Over Infrastructure Expansion:** Healthcare policy should shift its focus from merely constructing institutions to ensuring effective service delivery. Indicators such as availability of medicines, diagnostics, emergency care, and trained personnel should become central measures of success.

- **Introduce Strong Incentives for Rural Service:** Doctors working in remote and underserved areas should be provided with higher remuneration, better accommodation, educational support for their children, and improved career advancement opportunities. Some states, including Chhattisgarh, have already experimented with such incentive-based approaches.
- **Link Postgraduate Seats with Mandatory Public Service:** Government-supported postgraduate medical education can be tied to compulsory service obligations in underserved regions. This would help ensure that public investment in medical education contributes directly to strengthening rural healthcare.
- **Build Strong District-Level Healthcare Networks:** Instead of creating a large number of underperforming CHCs, emphasis should be placed on establishing fewer but fully equipped and adequately staffed healthcare centres at the district level. Quality healthcare infrastructure should take precedence over numerical expansion.
- **Reform Healthcare Governance:** Efficient recruitment systems, stronger coordination between the Centre and States, transparent transfer policies, and robust accountability mechanisms are essential for improving public healthcare administration.

