
Prelims Exam Topics

STRENGTHENING SECURITY OF FISHING HARBOURS

Context

The Union Government plans to bring around 1,200 fishing harbours and fish landing centres under CISF oversight to strengthen coastal security and establish a uniform security framework.

Governments Plan for Coastal security

- **CISF Oversight:** Around 1,200 fishing harbours and fishing landing sites are all set to be brought under the oversight of the Central Industrial Security Force (CISF)
 - It follows the designation of CISF as security regulator for more than 250 seaports.
- **Security Architecture:** CISF will design the security template and guide the local administration in managing the security protocol.
 - E.g. biometric access systems, smart identity cards and regulated movement of fishermen.
- **Uniform Security Architecture:** Aims to plug gaps arising from multiple agencies handling coastal security.
- **Bureau of Port Security (BoPS):** Government is working towards creation of a dedicated port security body on the lines of Bureau of Civil Aviation Security (BCAS).

About Fishing Harbours

- **Management:** States manage operation and maintenance of fishing harbours, while Central Government-controlled facilities are managed through Port Authorities.
- **Coverage:** India has 1,547 notified fishing harbours and fish landing centres across 13 coastal States and UTs.
- **Significance:** Serve as key centres for fish landing, storage and marketing, while also being sensitive from a coastal security perspective.

CHANDRAYAAN-2 DETECTS SUBSURFACE ICE NEAR LUNAR SOUTH POLE

Context

Scientists from Physical Research Laboratory (PRL), using Chandrayaan-2's Dual Frequency Synthetic Aperture Radar (DFSAR), have found evidence suggesting the presence of subsurface ice in the Moon's south polar region.

About the Findings

- **Study Region:** Analysis focused on **doubly shadowed craters** within Permanently Shadowed Regions (PSRs), where temperatures remain below 25 K, favouring long-term preservation of water ice.
- **Evidence of Ice:** Radar signatures from four **doubly shadowed** craters indicated possible subsurface ice deposits; strongest evidence was found in a crater **within Faustini crater**.
- **Method Used:** DFSAR(Dual Frequency Synthetic Aperture Radar) data and polarimetric parameters(Circular Polarization Ratio (CPR) and Degree of Polarization (DOP)) were used to differentiate ice signatures from rocky terrain.
- **Significance:** Findings improve understanding of lunar water resources and may support future lunar exploration and resource utilisation missions.

INDIA–CHINA BORDER MANAGEMENT TALK

Context

India and China held the 35th meeting of the Working Mechanism for Consultation and Coordination (WMCC) on India-China Border Affairs in Beijing.

Key Outcomes

- **Border Stability:** Both sides noted continued peace and tranquillity along the border and its contribution to improving bilateral ties.
- **Boundary Management:** Discussed border delimitation, border management, mechanism-building and cross-border cooperation.
- **Trans-Border Rivers:** India sought an early meeting of the Expert Level Mechanism on Trans-Border Rivers.
- **Future Engagement:** Agreed to continue diplomatic and military-level exchanges and prepare for the next Special Representatives (SR) talks.

Institutional Mechanisms Between India and China

- **WMCC (2012):** Established under the **2012 Agreement on the Establishment of a Working Mechanism for Consultation and Coordination on India-China Border Affairs**.
- **Special Representatives (SR) Mechanism (2003):** Created following the visit of PM Atal Bihari Vajpayee to China; tasked with finding a political solution to the boundary dispute.
- **Corps Commander-Level Talks (2020):** Military dialogue mechanism activated after the eastern Ladakh standoff for disengagement and de-escalation along the LAC.

- **Expert Level Mechanism (ELM) on Trans-Border Rivers (2006):** Established through an MoU on hydrological cooperation; facilitates data sharing on trans-border rivers such as the Brahmaputra and Sutlej.
- **India-China Strategic Economic Dialogue (2010):** Launched during Chinese Premier Wen Jiabao's visit to India; promotes cooperation in infrastructure, energy, high technology and economic policy.

EARLY DETECTION OF ALZHEIMER'S DISEASE

Context

Two studies published in *The Lancet* reported a new blood test and an improved brain scan that may detect Alzheimer's disease years before symptoms appear.

About the New Blood Test

- **What It Detects(Biomarkers Used):** Measures amyloid-beta($A\beta_{42}$, $A\beta_{40}$) and tau proteins (p-tau₂₁₇₀), the two key proteins associated with Alzheimer's disease.
- **Early Detection:** Can identify Alzheimer's-related changes in middle-aged adults even before memory problems develop.
- **Improvement over Existing Methods:** Unlike costly PET scans and invasive spinal fluid tests, it enables simpler, cheaper and large-scale screening through a routine blood sample
- **Significance:** May help identify individuals at higher risk of future cognitive decline and allow earlier intervention.

About the New Brain Scan

- **Technology Used:** Uses specialised PET (Positron Emission Tomography) scan tracers that attach to tau proteins in the brain.
 - **PET Scan is a** medical imaging technique that uses small amounts of radioactive tracers to visualise biological processes inside the body.
- **Improved Accuracy:** Detects tau tangles earlier and more precisely than existing imaging methods.
- **Potential Use:** Can improve diagnosis, patient selection for clinical trials and future treatment decisions.

About Alzheimer's Disease

- **Nature:** Progressive brain disorder and the most common cause of dementia.
- **Cause:** Characterised by abnormal accumulation of amyloid plaques and tau tangles in the brain.
- **Impact:** Leads to memory loss, decline in thinking ability and behavioural changes.

- **Burden:** Accounts for around 60–70% of all dementia cases.

BRINKMANSHIP

Context

- Rising tensions involving Iran–U.S., Russia–Ukraine, the South China Sea and North Korea have renewed concerns over the growing use of brinkmanship in international relations.

About Brinkmanship

- **Meaning:** A strategy in which a country deliberately pushes a conflict to the edge of escalation to force an adversary to back down, make concessions or enter negotiations.
- **Origin:** The term emerged during the Cold War while analysing crises such as the Berlin Blockade (1948–49) and the Cuban Missile Crisis (1962).
- **Objective:** Gain strategic advantage without entering a full-scale war, while exploiting the fear of further escalation.
- **Methods Used:** Can involve military threats (troop mobilisation, missile deployments), economic coercion (sanctions and blockades), proxy groups/non-state actors, or aggressive actions in strategic maritime region.
- **Major Risk:** Escalation may spiral out of control, especially when nuclear-armed states are involved.

Mains Exam Topics

JUDICIAL PENDENCY AND INCREASING JUDICIAL CAPACITY

Context

The Supreme Court (Number of Judges) Amendment Ordinance, 2026 increases the sanctioned strength of the Supreme Court from 34 to 38 judges including the CJI to address rising pendency. However increasing the SC strength alone does not resolve judicial pendency.

Status of Case Pendency in India

- **Concentration in Subordinate Courts:** The burden of pending cases is most pronounced in subordinate courts, which handle the majority of litigation and often face acute shortages of judges and judicial infrastructure.
- **Regional Disparities:** The extent of pendency varies considerably across States, with some jurisdictions accounting for a disproportionately large share of the national backlog.
 - Eg: States such as Bihar and Uttar Pradesh consistently report some of the highest volumes of pending cases in the country.
- **Persistent Rise in Backlog:** Judicial arrears have witnessed a steady increase over the years.
 - Eg: Between 2010 and 2020, the number of pending cases across courts grew at an average annual rate of approximately 2.8%
- **Time Required for Clearance:** Estimates suggest that, even if no new cases were instituted, courts would require considerable time to eliminate the existing backlog.
 - Eg: The current disposal rate is around 1.3 years for the Supreme Court and nearly 3 years each for High Courts and subordinate courts.
- **Pendency in Tribunals and Special Courts:** Institutions established to facilitate faster dispute resolution, including tribunals and special courts, also face substantial backlogs.
 - Eg: The National Company Law Tribunal (NCLT) had over 21,000 pending cases by the end of 2020.

Pendency Across Different Levels of Courts

| Judicial Institution | Approximate Pending Cases (2022-23) |
|----------------------|-------------------------------------|
| Supreme Court | Over 71,000 cases |
| High Courts | Around 60 lakh cases |

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| Subordinate Courts | Over 4.1 crore cases |
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Reasons for Persistent Judicial Pendency in India

- **Inadequate Judicial Strength:** The number of judges remains insufficient relative to the volume of cases filed, resulting in an ever-growing backlog and slower case disposal rates.
- **Deficient Judicial Infrastructure:** Many courts face shortages of courtrooms, support staff, digital facilities, and other essential resources, constraining their ability to efficiently handle increasing caseloads.
- **Complex and Time-Consuming Litigation:** Certain disputes involve intricate legal, technical, or factual issues that require extensive hearings and detailed examination, prolonging adjudication.
- **Procedural Bottlenecks:** Delays arising from frequent adjournments, difficulties in securing witnesses, prolonged evidence collection, and cumbersome procedural requirements often impede the timely progress of cases.
- **Rising Legal Consciousness:** Greater public awareness of legal rights, coupled with expanded avenues for seeking judicial remedies, has significantly increased the number of cases reaching courts.
- **Limited Use of ADR:** Insufficient reliance on mechanisms such as mediation, arbitration, and conciliation results in disputes that could be settled outside courts continuing to enter the formal judicial system.

Reasons why increasing the SC strength alone does not resolve judicial pendency.

- **Reliance on Special Leave Petitions (SLPs):** The Supreme Court's broad exercise of jurisdiction under Article 136 has led to an influx of appeals that were originally intended to be exceptional.
- **Inadequate Screening:** The Court lacks robust filtering mechanisms to weed out frivolous, repetitive, or low-priority cases at the admission stage.
- **Demand-Induced Increase in Litigation:** Greater judicial capacity can create expectations of quicker justice, encouraging more litigants to approach the Court.
- **Difficulty in Constituting Constitution Benches:** Important constitutional and legal questions require benches of five or more judges. Merely increasing overall judicial strength does not ensure the regular functioning of such larger benches.
- **Government as the Largest Litigant:** Without reducing unnecessary government litigation, pendency is unlikely to decline substantially.
- **Persistent Case Management:** Frequent adjournments, lengthy oral arguments, and inefficient scheduling continue to delay case disposal.

- **Emphasis on Disposal Rates Over Legal Consistency:** Excessive emphasis on speed may compromise legal certainty and doctrinal coherence.
 - The Supreme Court's constitutional role extends beyond disposal statistics to maintaining uniformity and predictability in law.
- **Pendency in Lower Courts:** National Judicial Data Grid data show that over 85% of pending cases are concentrated in subordinate courts.
 - Judge strength alone cannot substitute for systemic reforms.

Impact of Judicial Pendency on India's Justice Delivery System

- **Delayed Dispensation of Justice:** The principle of "Justice delayed is justice denied" reflects the adverse consequences of prolonged litigation on litigants and society.
- **Deterioration in Quality:** Heavy caseloads limit the time judges can devote to examining legal issues, evidence, and arguments in depth.
- **Increased Pressure:** High pendency contributes to overcrowded court dockets and reduces the system's capacity to respond effectively to new cases.
- **Erosion of public trust:** Persistent delays can weaken citizens' trust in the ability of courts to provide timely remedies.
- **Escalating Financial Costs:** Extended litigation increases legal expenses, including lawyer fees, travel costs, documentation expenses, and opportunity costs.
- **Injustice to Victims:** Delays can adversely affect the reliability of evidence as witnesses may forget crucial details, become unavailable, or pass away over time.
- **Adverse economic impact:** The World Bank and various economic studies have emphasized the importance of efficient dispute resolution for improving the business environment.
- **Growth of Undertrial Population:** Delays in criminal proceedings often result in accused persons remaining in custody for extended periods without conviction.

Measures Undertaken to Address Judicial Pendency in India

- **Expansion of Judicial Strength:** Sanctioned strength of the Supreme Court was increased from 34 to 38 judges through the Supreme Court (Number of Judges) Amendment Ordinance, 2026.
- **Virtual Courts:** Courts have increasingly adopted virtual hearings and video-conferencing facilities to ensure uninterrupted judicial functioning and wider access to justice.
- **e-Courts Mission Mode Project:** The initiative seeks to modernize the judiciary through extensive use of information and communication technology.

- **Electronic Filing (e-Filing) of Cases:** Litigants and advocates can file cases online without physically visiting court premises.
- **Interoperable Criminal Justice System:** The ICJS integrates various components of the criminal justice system, including courts, police, prisons, prosecution agencies, and forensic laboratories.
- **Fast Track Courts:** FTCs have been created to expedite the disposal of specific categories of cases, particularly those involving women, children, senior citizens, and long-pending matters.
- **Promotion of Alternative Dispute Resolution (ADR):** The judiciary and government have encouraged mechanisms such as:
 - Lok Adalats
 - Mediation
 - Arbitration
 - Conciliation
 - Gram Nyayalayas
 - Online Dispute Resolution (ODR)
- **National Judicial Data Grid:** The NJDG provides real-time data on pending and disposed cases across courts and helps improve monitoring, policy formulation, and evidence-based judicial reforms.