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Monthly Current Affairs Magazine

May 2025

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Governance and Policy

ECI Introduces Key Reforms for Cleaner Voter Lists and Better Voter Services

What's New?

The Election Commission of India (ECI) has recently announced three significant initiatives aimed at improving the accuracy of electoral rolls (voter lists) and making the voting process more convenient for citizens. These steps follow discussions held during the Conference of Chief Electoral Officers (CEOs) in March 2025, led by Chief Election Commissioner (CEC) Gyanesh Kumar.

The Three Major Reforms:

- **Electronic Integration of Death Registration Data:**
  - **How it works:** The ECI will now receive data on registered deaths **electronically** directly from the **Registrar General of India (RGI)**.
  - **Purpose:** This ensures that **Electoral Registration Officers (EROs)** get timely information about voters who have passed away.
  - **Action: Booth Level Officers (BLOs)** can then conduct field verification promptly to confirm the information, without needing someone to formally apply for deletion using Form 7.
  - **Goal:** To quickly and efficiently **remove the names of deceased persons** from the voter lists, making the electoral rolls **more accurate and reliable.**
  - **Legal Basis:** This aligns with the Registration of Electors Rules, 1960, and the amended Registration of Births and Deaths Act, 1969 (amended in 2023).
- **Redesigned Voter Information Slips (VIS):**
  - **What's changing:** The format of the **Voter Information Slip (VIS)**, which helps voters locate their polling booth details, is being modified.
  - **Improvement:** The voter's **serial number** and **part number** on the electoral roll will be displayed more clearly and in a **larger font size**.
  - **Benefit:** This will make it easier for voters to find their details and polling station, and also help polling officials locate the voter's name in the official list more efficiently on polling day.
- **Standardised Photo ID Cards for Booth Level Officers (BLOs):**
  - **Who are BLOs?** BLOs are appointed under Section 13B(2) of the **Representation of the People Act, 1950**, and act as the ECI's primary contact point with voters at the local level.
  - **New Measure:** All BLOs across the country will now be issued **standard photo identity cards**.
  - **Reason:** This will help citizens easily **recognise official BLOs** during house-to-house visits for voter verification and registration drives.
  - **Impact:** It aims to increase **voter confidence** and facilitate smoother interaction between voters and the election machinery.

Overall Aim:

These reforms are part of the ECI's continuous efforts to ensure the integrity of the electoral process by maintaining clean and accurate voter lists, leveraging technology, and enhancing the experience for voters.

Punjab-Haryana Water Dispute Escalates Over BBMB Order

The long-standing issue of water sharing between **Punjab** and **Haryana** has flared up again, following a recent directive by the **Bhakra Beas Management Board (BBMB)**. The BBMB ordered the release of additional water to Haryana, a move that has been met with unified and strong opposition from Punjab.

The Current Flashpoint:

- **Haryana's Request:** On April 23, Haryana requested **8,500 cusecs** (cubic feet per second) of water daily from the Bhakra-Nangal project, which is **4,500 cusecs more** than its current allocation (around 4,000 cusecs).
- **BBMB's Decision:** In a meeting, the BBMB voted in favour of releasing the extra water to Haryana. Haryana, Rajasthan, and Delhi supported the move, while Punjab opposed it, and Himachal Pradesh abstained from voting.
- **Punjab's Reaction:** All political parties in Punjab unanimously rejected the BBMB decision, stating Punjab has **"not a single drop to spare."** The Punjab government has refused to open the additional sluice gates at the Nangal dam required to release the extra water.
- **Legal Recourse:** Both states are exploring legal options. Haryana plans to approach the **Supreme Court** to secure the water, while Punjab is contesting what it calls an "unprecedented" and "forcible allocation" by the BBMB.

Arguments from Both Sides:

- **Haryana:**
  - Cites urgent need for **drinking water**, especially in water-scarce districts like Hisar, Sirsa, and Fatehabad.
  - Accuses Punjab of playing "dirty politics."
  - Claims it has not received its rightful share of water.
- **Punjab:**
  - Argues Haryana has already withdrawn **3.110 Million Acre-Feet (MAF)** of water this year, exceeding its annual allocated share of 2.987 MAF (i.e., over 104% usage).
  - Points to significantly **lower water levels** in major reservoirs like Bhakra (Sutlej), Pong (Beas), and Ranjit Sagar (Ravi) compared to last year, mainly due to less winter snowfall in the Himalayas.
  - States it cannot spare water, especially with agricultural needs looming.

Understanding BBMB and Water Sharing:

- **Origin:** The Bhakra Management Board was set up under **Section 79 of the Punjab Reorganisation Act, 1966**, after Punjab was divided into Punjab, Haryana, and Himachal Pradesh. It was renamed **BBMB** in 1976.

- **Mandate:** BBMB manages the **Bhakra Dam** (Himachal Pradesh) and **Nangal Dam** (Punjab) on the **River Sutlej**, as well as projects on the **River Beas** like the Pong Dam and Pandoh Dam (Beas-Sutlej Link), both in Himachal Pradesh.
- **Role:** It plays a crucial role in the **operation, maintenance, and distribution of water and power** from these projects among the partner states: **Punjab, Haryana, Rajasthan, Himachal Pradesh, and Delhi**.
- **Allocation Process:** BBMB determines the water allocation for each state at the beginning of the water accounting year (around September-August). For the current year, the allocations were roughly: Punjab 5.512 MAF, Haryana 2.987 MAF, and Rajasthan 3.318 MAF.

Broader Context:
- This dispute highlights the increasing pressure on water resources, exacerbated by factors like climate variability (reduced snowfall affecting reservoir levels).
- Inter-state water disputes are complex, involving historical agreements, riparian rights principles, and political sensitivities.
- Experts suggest dialogue and adherence to agreed-upon quotas are essential. Short-term releases, if unavoidable (like for drinking water), should ideally be compensated later to maintain the sanctity of the overall allocation.

Supreme Court Mandates Public Declaration of Judges' Assets: A Landmark Step for Transparency

In a historic move aimed at boosting **transparency** and **public confidence** in the Indian judiciary, the **Supreme Court of India** has now made it **mandatory** for its judges to publicly declare their assets and liabilities on the court's official website.

This significant decision was taken during a **Full Court meeting** (a meeting of all judges of the Supreme Court) on April 1, 2025, presided over by the **Chief Justice of India (CJI), Sanjiv Khanna**. Following this, the asset declarations of 21 out of the 33 serving Supreme Court judges, including CJI Khanna and other senior judges in line for the CJI's office, were uploaded on the court's website on May 6, 2025. The court has stated that the asset details of the remaining judges will be uploaded as they are received.

Key Highlights of the Development:
- **Mandatory Disclosure:** Unlike the previous system where judges submitted their asset details confidentially to the CJI, this information will now be accessible to the public.
- **Scope of Declaration:** The declarations include details of various assets such as real estate (flats, ancestral property, agricultural land), financial investments (Fixed Deposits, Public Provident Fund, shares, mutual funds), vehicles, jewellery, and loans. The assets of the judges' spouses and dependents are also part of the disclosure.
- **Driving Force:** This move is seen as a proactive step by the judiciary to enhance transparency, especially in light of recent controversies, such as the inquiry related to the alleged recovery of cash from the official residence of a High Court judge.

Evolution of Asset Declaration for Judges:
The journey towards public disclosure of judges' assets has been gradual:
- **1997 Resolution:** A Full Court Resolution on May 7, 1997, first required judges to declare their assets to the Chief Justice of India. However, this was an internal mechanism and the information was not public.
- **2009 Voluntary Disclosure:** Over a decade later, in 2009, another Full Court Resolution decided to put the asset details of judges on the Supreme Court website, but this was on a **voluntary basis**.
- **Role of RTI:**
  - In **2009**, the Delhi High Court ruled that the asset declarations made by Supreme Court judges under the 1997 resolution constituted "information" under Section 2(f) of the **Right to Information (RTI) Act, 2005**.
  - In **2019**, a Constitution Bench of the Supreme Court upheld this, stating that disclosing judges' assets would not infringe upon their personal information or right to privacy if it served a larger **public interest**. Notably, the current CJI, Sanjiv Khanna (then a Justice), had authored the main judgment for this Bench.

Details from Disclosed Assets:
The publicly available information provides insights into the financial holdings of the judges. For instance:
- **CJI Sanjiv Khanna** has declared a DDA flat, a share in an ancestral property, investments, and a car.
- **CJI-designate Justice B.R. Gavai** has disclosed inherited property, apartments, agricultural lands, and various investments.
- Other judges have declared assets ranging from residential properties and vehicle loans to significant investments reflecting their careers, including those elevated directly from the Bar like **Justice P.S. Narasimha** and **Justice K.V. Viswanathan**.

This mandatory public declaration of assets by Supreme Court judges marks a new chapter in India's judicial landscape, reinforcing the commitment to transparency and accountability, which are cornerstones of a robust democracy.

Govt Advises OTTs to Halt Streaming of Pakistani Content Amid Security Concerns

The **Government of India** has issued an advisory to all **Over-The-Top (OTT) platforms**, media streaming services, and digital intermediaries to immediately discontinue the streaming of any content originating from **Pakistan**. The directive, rooted in **national security concerns**, aims to prevent the dissemination of media that could potentially be detrimental to India's sovereignty, integrity, and public order. This move comes against the backdrop of heightened tensions between India and Pakistan, particularly following recent terror-related incidents and subsequent counter-measures.

key aspects:
- **National Security Imperative:** The advisory, issued by the **Ministry of Information and Broadcasting (I&B)**,

underscores the government's stance on safeguarding national interests. It cites the potential for Pakistan-origin content to be used to promote narratives that are against India's interests or to incite public disorder.

- **Legal Backing:** The government has invoked the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**. These rules provide a framework for regulating content on digital platforms and lay down a **Code of Ethics** that publishers of online curated content are expected to adhere to.
    - The **IT Rules, 2021**, empower the government to issue directions to intermediaries to block access to information when it deems it necessary for reasons including the sovereignty and integrity of India, security of the State, friendly relations with foreign states,1 or public order.
- **Scope of the Advisory:** The advisory encompasses a wide range of content, including **web series, films, songs, and podcasts**, irrespective of whether they are offered on a subscription basis or for free.
- **Context of Strained Relations:** This directive is seen as part of India's broader response to ongoing challenges in its relationship with Pakistan. The government has highlighted that several terrorist attacks in India have been found to have cross-border linkages with Pakistan-based entities. Recent incidents, such as the **Pahalgam terror attack**, have further strained diplomatic ties and prompted strong actions from India, including **Operation Sindoor**.
- **Impact on Platforms and Viewers:** OTT platforms operating in India will now be required to review their content libraries and remove any material that falls under the purview of this advisory. This may impact viewers who consume Pakistani dramas, films, and music, which have a niche but dedicated audience in India.

OTT Regulation in India - A Brief Overview:

- The **IT Rules, 2021** brought OTT platforms under a regulatory framework, mandating a three-tier grievance redressal mechanism.
- This includes self-classification of content by age-appropriateness (U, U/A 7+, U/A 13+, U/A 16+, A) and displaying content descriptors.
- The rules aim to create a balance between creative freedom and responsible content dissemination, with an emphasis on self-regulation by the platforms, complemented by a government oversight mechanism.

Supreme Court Re-examines Landmark PMLA Ruling: Focus on Fundamental Rights and Due Process

The **Supreme Court of India** is currently reviewing its own significant 2022 judgment which had upheld the constitutional validity of several stringent provisions of the **Prevention of Money Laundering Act (PMLA), 2002**. This review has garnered considerable attention as it touches upon crucial aspects of **fundamental rights, due process of law, and the powers of enforcement agencies** like the **Enforcement Directorate (ED)**.

The original 2022 ruling, in the case of **Vijay Madanlal Choudhary & Ors v. Union of India**, had affirmed the government's powers related to arrest, search, seizure, attachment of property, and the stringent bail conditions under the PMLA. However, numerous review petitions were filed, prompting the apex court to re-examine certain aspects of its earlier decision.

Background of PMLA and the 2022 Judgment:

- The **Prevention of Money Laundering Act (PMLA), 2002** was enacted to prevent money laundering and to provide for the confiscation of property derived from, or involved in, money laundering.
- The **2022 Supreme Court judgment** had largely upheld the sweeping powers of the ED, including:
    - The broad definition of "money laundering" under **Section 3**.
    - The controversial "twin conditions" for bail under **Section 45**, which make it very difficult for an accused to get bail.
    - The power of ED officers to summon individuals and record statements (**Section 50**), which are admissible as evidence.
    - The burden of proof, which often shifts to the accused (**Section 24**).
    - Not mandatorily providing a copy of the **Enforcement Case Information Report (ECIR)** – akin to an FIR – to the accused.

Why the Review?

- Petitioners have raised serious concerns that some PMLA provisions, as interpreted by the 2022 judgment, could be violating **fundamental rights**, including the right to life and personal liberty (**Article 21**), the right against self-incrimination (**Article 20(3)**), and the right to be informed of the grounds of arrest (**Article 22(1)**).
- Arguments were made that the stringent bail conditions and the admissibility of statements recorded by ED officials deviate from established principles of criminal jurisprudence.
- The lack of transparency due to the non-supply of ECIR has also been a major point of contention.

Current Status of the Review (as of May 2025):

- In **October 2024**, a special bench of the Supreme Court heard detailed arguments from the petitioners and the Central Government regarding the review petitions.
- The primary issue deliberated upon was whether the concerns raised were substantial enough to warrant a **reconsideration of the 2022 verdict by a larger constitutional bench**.
- The Supreme Court has **reserved its order** on this preliminary question of whether the matter should indeed be referred to a larger bench for a more detailed examination.
- The final outcome of the review itself – meaning, whether the 2022 judgment will be modified or overturned in part or full – is **contingent on the court's decision regarding the referral** and subsequent hearings if a larger bench is constituted.

Key Issues Argued for Reconsideration:

- The interpretation of "proceeds of crime" and whether it requires the property to be "tainted" at the time of acquisition.

- The necessity of providing the ECIR to the accused to ensure a fair investigation and trial.
- The constitutional validity of the extremely stringent twin conditions for bail under Section 45 of the PMLA.
- The reversal of the burden of proof, placing it on the accused to prove their innocence.
- The admissibility of statements given to ED officials as evidence in court, despite the absence of procedural safeguards typically available during police interrogations.

Aadhaar Authentication Crosses 150 Billion Mark, Powering India's Digital Transformation

India's groundbreaking digital identity program, **Aadhaar**, has achieved another significant milestone, with the total number of **Aadhaar authentication transactions crossing the 150 billion (15,000 crore) mark**. This landmark, announced by the **Ministry of Electronics and Information Technology (MeitY)**, underscores the extensive adoption and utility of Aadhaar in everyday life and its pivotal role in bolstering the country's digital economy.

The cumulative figure of 150.11 billion authentications was achieved by the end of April 2025. In April 2025 alone, nearly **2.10 billion (210 crore) Aadhaar authentication transactions** were carried out, marking an approximate 8% increase compared to the same month in 2024. This surge demonstrates the growing reliance on Aadhaar for accessing a multitude of public and private services.

Understanding Aadhaar and Its Authentication:

- **What is Aadhaar?** Aadhaar is a **12-digit unique identification number** issued by the **Unique Identification Authority of India (UIDAI)** to all residents of India. It is based on biometric (fingerprints, iris scans) and demographic data.
- **Legal Backing:** The Aadhaar program is governed by the **Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016**.
- **How Authentication Works:** Aadhaar authentication is the process by which an Aadhaar holder's identity is verified. This can be done through various methods:
  - **Biometric Authentication:** Using fingerprints or iris scans.
  - **Demographic Authentication:** Verifying details like name, date of birth, gender, and address.
  - **OTP-Based Authentication:** Using a One-Time Password sent to the Aadhaar holder's registered mobile number.
  - **Face Authentication:** An AI/ML-based solution developed by UIDAI, which is gaining traction with over 14 crore transactions in April 2025. More than 100 government and private entities are now using this for contactless verification. The UIDAI's Central Identities Data Repository (CIDR) verifies the submitted data and responds with a simple "yes" or "no," without returning any Personal Identity Information.

Aadhaar's Role in Governance and Inclusion:

- **Direct Benefit Transfer (DBT):** Aadhaar, as part of the **JAM Trinity (Jan Dhan-Aadhaar-Mobile)**, has revolutionized the DBT system. It ensures that welfare payments reach beneficiaries' bank accounts directly, minimizing intermediaries and corruption. This has led to significant savings for the exchequer.
- **Financial Inclusion:** Aadhaar has been a key enabler for financial inclusion, allowing millions to open bank accounts (like under the Pradhan Mantri Jan Dhan Yojana) with a single, universally accepted identity document.
- **Service Delivery:** It is used for accessing a wide array of services, including PDS rations, MGNREGA wage payments, scholarships, pensions, and telecom services.
- **Transparency and Accountability:** By creating a unique and verifiable identity, Aadhaar enhances transparency and accountability in the delivery of public services.

Challenges and Concerns:

While Aadhaar's achievements are commendable, certain challenges and concerns persist:

- **Privacy:** Concerns about data privacy and the potential for surveillance have been raised, although the Supreme Court has upheld Aadhaar's constitutionality with certain safeguards. UIDAI maintains that it collects minimal information and the system is designed to prevent profiling.
- **Data Security:** Ensuring the security of the massive Aadhaar database (CIDR) is a continuous and critical task. UIDAI employs advanced security technologies and regularly upgrades them.
- **Exclusion Errors:** Instances of authentication failures due to biometric issues (especially for manual laborers or the elderly) or connectivity problems can sometimes lead to the denial of essential services and benefits. UIDAI acknowledges these limitations and encourages service providers to have alternate identification and exception-handling mechanisms.
- **Mandatory vs. Voluntary Use:** There have been debates and legal clarifications regarding where Aadhaar can be made mandatory. The Supreme Court has specified its mandatory use for government benefits and subsidies and for PAN linking, while restricting its mandatory use by private entities in certain contexts.

UIDAI Unveils Non-Personal Aadhaar Data Dashboard to Boost Transparency and Research

The **Unique Identification Authority of India (UIDAI)** has begun sharing **non-personal Aadhaar dashboard data** with the public. This initiative, announced by the **Ministry of Electronics and Information Technology (MeitY)**, aims to provide valuable insights into Aadhaar usage trends while strictly adhering to privacy principles by ensuring all shared data is **anonymized and aggregated**.

What is Being Shared and Why?

- **Nature of Data:** The shared information is **non-personal data (NPD)**. This means it does **not** contain any Personally Identifiable Information (PII) of Aadhaar holders. Instead, it comprises anonymized and aggregated statistics related to:
  - Aadhaar enrolments (e.g., trends by age, gender, geography).

- o Authentication trends (e.g., number of biometric vs. OTP-based authentications, sector-wise usage).
  - o Demographic distribution of Aadhaar holders (at an aggregated level).
- **Platform:** This data is being made available through UIDAI's official website, likely via a dedicated dashboard.
- **Purpose and Benefits:**
  - o **Boosting Transparency:** Allowing the public, researchers, and civil society to observe and analyze trends in the Aadhaar ecosystem.
  - o **Enabling Data-Driven Decision-Making:** Providing policymakers and government agencies with valuable statistical insights for better scheme design, targeted interventions, and impact assessment.
  - o **Supporting Research and Innovation:** Offering a rich dataset for academicians, researchers, and analysts to study demographic trends, service delivery patterns, and the impact of digital identity.
  - o **Understanding Aadhaar Usage:** Helping to track the adoption and utility of Aadhaar across various sectors and regions.
  - o **Evidence-Based Governance:** Promoting a culture of governance based on empirical data and evidence.

Understanding Non-Personal Data (NPD)

- **Non-Personal Data** is any data that is not personal data, meaning it does not relate to an identified or identifiable natural person.
- In this context, it involves **anonymization** (removing or modifying PII to prevent identification of individuals) and **aggregation** (summarizing data at a group level, e.g., state-wise authentication counts).
- The sharing of NPD is increasingly seen as a way to unlock economic and social value while protecting individual privacy. India has also been deliberating on a broader framework for NPD governance.

Aadhaar: A Pillar of Digital India

This initiative comes at a time when Aadhaar has become deeply embedded in India's digital infrastructure. Key facts about Aadhaar:

- It is a **12-digit unique identification number** provided to residents of India.
- Issued and managed by **UIDAI**, a statutory authority established under the **Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016**.
- Aadhaar1 authentications recently crossed the **150 billion mark**, showcasing its extensive usage in:
  - o **Direct Benefit Transfer (DBT):** Ensuring subsidies reach intended beneficiaries directly, plugging leakages.
  - o **e-KYC:** Simplifying and speeding up Know Your Customer processes for banking, telecom, and other services.
  - o Accessing various government welfare schemes and services.

Digital Governance Boost: e-Civil List 2025 of IAS Officers Launched with Proposed AI Enhancements

In a significant move towards enhanced transparency and digital governance, Union Minister of State (Independent Charge) for Science and Technology, Earth Sciences, and Minister of State for PMO, Personnel, Public Grievances, and Pensions, Dr. Jitendra Singh, has launched the **electronic Civil List 2025** of **Indian Administrative Service (IAS) officers**. This marks the **70th edition** of the Civil List and its fifth consecutive year in a fully digital e-book format, further aligning with the government's **Digital India mission**.

A key highlight of this launch is the proposal by Dr. Jitendra Singh to integrate **Artificial Intelligence (AI)-driven enhancements** into the e-Civil List. This initiative aims to make the compendium more dynamic and useful for identifying suitable officers for specialized roles and mission-mode projects.

What is the e-Civil List?

- **Digital Directory:** The e-Civil List is a comprehensive digital compendium of serving IAS officers across the country. It serves as an important official document providing key details about the officers.
- **Information Included:** As of January 1, 2025, the list contains:
  - o Names, batches, and cadres of officers.
  - o Current postings and pay levels.
  - o Educational qualifications and dates of superannuation.
  - o Appointment data dating back to 1969.
  - o Cadre-wise strength and details of officers retiring in the next five years.
  - o For the first time, **photographs of the officers** have been included, enhancing user recognition.
- **Published by:** The **Department of Personnel and Training (DoPT)**, Ministry of Personnel, Public Grievances and Pensions, which is the cadre-controlling authority for IAS officers.
- **Format:** It is released as an interactive e-book in a **searchable PDF format** with embedded hyperlinks for easy navigation and quick access to officer profiles. It is publicly accessible on the DoPT website (dopt.gov.in).

Proposed AI-Driven Enhancements:

During the launch, Dr. Jitendra Singh proposed the integration of AI-based functionalities into the e-Civil List. This could include:

- **AI-Based Search Options:** Enabling **domain-specific or qualification-based searches** to identify officers with specific skills or expertise.
- **Facilitating Targeted Placements:** Helping the government identify suitable officers for specialized roles, mission-mode projects, and other targeted initiatives.
- **Improved Decision-Making:** Empowering decision-makers with smarter tools to access and analyze officer data, potentially adding strategic value to administrative machinery.
- **Secure Access:** Ensuring that such advanced search features, especially for sensitive operations, have appropriately restricted access.

  The Minister emphasized the importance of **regularly**

updating the digital list to maintain its relevance and utility.

Indian Administrative Service (IAS): The Steel Frame

- The IAS is the **premier administrative civil service** of the Government of India.
- IAS officers hold key strategic positions in the Union Government, State Governments, and public-sector undertakings.
- They are recruited through the highly competitive **Civil Services Examination** conducted by the **Union Public Service Commission (UPSC)**.
- The service plays a critical role in policy formulation, implementation, and the overall governance of the country.

Role of Department of Personnel and Training (DoPT):

- DoPT is the **nodal department** for personnel matters of the Government of India.
- It is responsible for policy formulation on recruitment, training, career development, service conditions, and welfare of central government employees, including the All India Services (AIS) like IAS, IPS, and IFoS.
- It acts as the cadre controlling authority for the IAS and is responsible for compiling and publishing the Civil List annually.

SC Restores 3-Year Law Practice Rule for Entry-Level Judicial Services

The Supreme Court of India, in a landmark judgment on **May 20, 2025**, has reinstated the requirement of **a minimum of three years of practice as an advocate** for candidates aspiring to enter **entry-level judicial services** as Civil Judges (Junior Division). This significant ruling, delivered by a bench headed by **Chief Justice of India B.R. Gavai and comprising Justices A.G. Masih and K. Vinod Chandran**, effectively bars fresh law graduates from directly appearing for judicial service examinations without prior courtroom experience. The Court has directed all High Courts and State Governments to amend their respective judicial service rules within three months to incorporate this mandate for future recruitments.

Key Aspects of the Supreme Court Ruling:

- **Mandatory Three-Year Practice:** Candidates must now demonstrate a minimum of three years of active practice as an advocate to be eligible for the post of Civil Judge (Junior Division).
- **Prospective Application:** The ruling will apply **only to future recruitment processes** and will not affect judicial recruitments where the selection process had already commenced or notifications were issued prior to this judgment.
- **Rationale for Restoration:** The Supreme Court observed that the earlier system of allowing fresh law graduates to join judicial services (a practice in place since a 2002 SC ruling that set aside this requirement based on the Shetty Commission recommendations) had led to "many problems" and was "not a successful experience."
  - The bench emphasized that **practical experience in court is essential for ensuring judicial efficiency and competence.**

- It noted that "neither knowledge based on law books nor pre-service training could be an adequate substitute to the first-hand experience of the working of the court system and administration of justice."
  - The Court agreed with the feedback from most High Courts, which indicated that the entry of fresh law graduates without practical experience was often "counter-productive."
- **Proof of Practice:**
  - A certificate from an advocate with at least **ten years of standing at the Bar**, duly endorsed by the Principal Judicial Officer of the district or station where the candidate practices, will serve as proof.
  - For those practicing at the Supreme Court or High Courts, a certificate from an advocate with a minimum of ten years' standing, endorsed by an officer designated by the respective court, will be required.
- **Commencement of Practice Period:** The three-year practice period will be reckoned from the **date of provisional enrollment** with the State Bar Council, not from the date of clearing the All-India Bar Exam (AIBE).
- **Law Clerk Experience Counts:** The Court clarified that experience gained by candidates working as **law clerks with judges or judicial officers** will also be considered towards fulfilling the three-year practice requirement.
- **Mandatory Training:** Successful candidates will still be required to undergo **one year of mandatory training** before presiding in court.
- **Timeline for Amendments:** High Courts are to amend their service rules within three months, and State Governments are to approve these amendments within a further three months.

Background and Previous Position:

- Prior to 2002, many states required a minimum of three years of practice for judicial services.
- In the **All India Judges' Association vs. Union of India (2002)** case, the Supreme Court, accepting the Shetty Commission's recommendations, had done away with this mandatory practice requirement to attract young talent to the judiciary, suggesting instead robust training for fresh recruits.
- The present ruling effectively **revisits and overturns the 2002 position**, based on the experience of the last two decades and feedback from various High Courts emphasizing the need for practical courtroom exposure for new judges.

Centre Launches "Depot Darpan" & "Anna Mitra" to Digitize Food Grain Management, Enhance PDS Efficiency

In a significant push towards modernizing India's food grain supply chain and enhancing the efficiency of the Public Distribution System (PDS), Union Minister of Consumer Affairs, Food & Public Distribution, Shri Pralhad Joshi, launched two new digital initiatives: **"Depot Darpan"** and the mobile application **"Anna Mitra"** on May 20, 2025. These

platforms aim to bring greater transparency, real-time monitoring, and improved operational capabilities to food grain storage and distribution across the country. The launch of an "Anna Sahayata" app was also indicated as part of these efforts to support stakeholders.

These digital tools are expected to play a crucial role in streamlining the operations of the **Food Corporation of India (FCI)** depots and empowering **Fair Price Shop (FPS) dealers**, ultimately benefiting millions of PDS beneficiaries.

"Depot Darpan": A Digital Window into FCI Operations

- **Real-time Monitoring:** "Depot Darpan" is an e-portal designed to provide real-time data and insights into the operations of FCI food grain depots across the country.
- **Key Functionalities:**
  - Monitoring stock positions of various food grains.
  - Tracking quality control measures.
  - Overseeing the movement and logistics of grains.
  - Assessing the operational efficiency of depots.
- **Transparency and Accountability:** The portal aims to enhance transparency in how FCI depots function, making data accessible to relevant stakeholders and improving accountability.
- **Gateway to "World's Largest Grain Storage Plan":** "Depot Darpan" is also envisioned as a digital gateway for monitoring the progress and implementation of the ambitious **"World's Largest Grain Storage Plan in the Cooperative Sector."** This plan aims to significantly augment India's food grain storage capacity, potentially leading to cost savings (estimated by some reports to be around ₹40,000 crore annually through reduced losses and better efficiency in the broader storage ecosystem).
- **Target Users:** Primarily FCI officials at various levels and Ministry officials for monitoring and decision-making. Select information may also be available publicly to enhance transparency.

"Anna Mitra": Empowering Fair Price Shop Dealers

- **Mobile Application for FPS Dealers:** "Anna Mitra" is a dedicated mobile application designed to assist Fair Price Shop (FPS) dealers in their day-to-day operations.
- **Key Features:**
  - Provides information on stock availability at their shops.
  - Facilitates better inventory management.
  - Aids in efficient distribution of food grains to PDS beneficiaries.
  - May include features for communication with authorities and accessing scheme-related information.
- **Improving Service Delivery:** By empowering FPS dealers with digital tools, "Anna Mitra" aims to improve the efficiency and transparency of the last-mile delivery of food grains under the PDS.

"Anna Sahayata": Support for Stakeholders

While details are emerging, the **"Anna Sahayata"** app, also indicated as part of the launch, is likely intended to provide support and a grievance redressal mechanism for various stakeholders within the food distribution ecosystem, potentially including PDS beneficiaries or FPS dealers.8 (The name "Sahayata" means assistance or help).

Context: India's Food Grain Management

India runs one of the largest food security programs in the world, anchored by the **National Food Security Act (NFSA), 2013**, and implemented through the extensive **Public Distribution System (PDS)**.

- **Food Corporation of India (FCI):** The FCI is the nodal agency responsible for procurement, storage, transportation, and distribution of food grains across the country. Efficient management of its vast network of depots is critical.
- **Challenges:** The system has faced challenges such as inadequate storage infrastructure, storage losses due to pests and weather, inefficiencies in logistics, and issues related to transparency and accountability.

India Rolls Out "e-Zero FIR" for Cybercrimes to Expedite Justice

Union Home Minister Amit Shah has announced the introduction of an **"e-Zero FIR" initiative**. This system is designed to enable the swift registration of cybercrime complaints, particularly financial frauds, irrespective of jurisdiction, and to automate parts of the process for faster investigation and action against perpetrators. Initially launched as a **pilot project in Delhi**, the system will soon be extended nationwide.

Understanding "e-Zero FIR" for Cybercrimes:

- **What is a Zero FIR?** A **Zero FIR** is a First Information Report that can be lodged at any police station, regardless of whether the reported crime occurred within that station's geographical jurisdiction. The station registers the FIR (as a "Zero FIR" because it's not assigned a regular serial number initially) and then transfers it to the appropriate police station having jurisdiction for investigation. This mechanism was emphasized post the Justice Verma Committee recommendations to ensure timely registration of complaints, especially in sensitive cases, without victims being turned away due to jurisdictional issues.
- **"e-Zero FIR" for Cybercrimes:** This is the digital avatar of the Zero FIR concept, specifically tailored for cybercrimes.
  - **Automatic Conversion (for high-value frauds):** Under the pilot project in Delhi, complaints of **cyber financial frauds involving losses above ₹10 lakh**, reported through the **National Cybercrime Reporting Portal (NCRP - cybercrime.gov.in)** or the **national helpline number 1930**, will be **automatically converted into e-Zero FIRs**.
  - **Integration of Platforms:** The system involves the integration of:
    - The **Indian Cyber Crime Coordination Centre's (I4C)** NCRP system.
    - **Delhi Police's e-FIR system**.
    - The **National Crime Records Bureau's (NCRB) Crime and Criminal Tracking Network & Systems (CCTNS)**.
  - **Process in Pilot Phase (Delhi):**
    - Complaints meeting the threshold (financial loss > ₹10 lakh) will

automatically trigger a Zero FIR at the **e-Crime Police Station of Delhi**.

- This e-Zero FIR will then be immediately routed to the relevant territorial cybercrime police station based on the complainant's location or other case details.
- Complainants are required to visit the concerned cybercrime police station within **three days** to get the Zero FIR converted into a regular FIR, which then initiates the formal investigation process.

- **Legal Backing:** The process for registration of cases aligns with the new provisions under **Section 173 (1) and 1(ii) of the Bharatiya Nagarik Suraksha Sanhita (BNSS)**, which facilitates electronic registration of FIRs.

Why is e-Zero FIR for Cybercrimes Significant?

- **Overcoming Jurisdictional Barriers:** Cybercrimes are inherently borderless. Perpetrators, victims, and digital evidence can be located in different states or even countries. The e-Zero FIR system allows victims to report a crime immediately without being hassled about which police station has the jurisdiction, which is often a cause for crucial delays.
- **Speedy Action:** Time is of the essence in cybercrimes, especially financial frauds. Quick registration of an FIR enables law enforcement agencies to initiate actions like tracing and blocking illicitly transferred funds, identifying and blocking malicious IP addresses, or preserving digital evidence.
- **Victim-Centric Approach:** It makes the reporting process easier and more accessible for victims, who are often already distressed.
- **Improved Coordination:** The digital nature of the e-Zero FIR and its integration with platforms like NCRP and CCTNS will facilitate seamless information flow and better coordination between police forces of different states and union territories.
- **Data for Actionable Intelligence:** Centralized digital reporting can lead to better collection and analysis of cybercrime data, helping I4C and other agencies to identify trends, patterns, and emerging threats, thereby strengthening preventive strategies.

The Ecosystem for Combating Cybercrime in India:

- **Indian Cyber Crime Coordination Centre (I4C):** Established under the Ministry of Home Affairs (MHA), I4C serves as the nodal point in the fight against cybercrime. It has several components, including:
  - **National Cybercrime Threat Analytics Unit (NCTAU)**
  - **National Cybercrime Reporting Portal (NCRP)**
  - **Platform for Joint Cybercrime Investigation Team**
  - **National Cybercrime Forensic Laboratory (NCFL) Ecosystem**
  - **National Cybercrime Training Centre (NCTC)**
  - **Cybercrime Ecosystem Management Unit**
  - **Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS)** - linked to

helpline 1930 for immediate reporting and action on financial frauds.

- **National Cybercrime Reporting Portal (cybercrime.gov.in):** Allows citizens to report all types of cybercrimes online, with a special focus on crimes against women and children.
- **Helpline 1930:** A national helpline for reporting financial cyber frauds.
- **State Cyber Crime Cells:** Specialized units within state police forces to deal with cybercrimes.

MGNREGS: Report Highlights Gaps Between Scheme's Reach and Actual Employment Delivery

A recent report has brought to light significant concerns regarding the implementation of the **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)**, revealing a mismatch between the scheme's extensive coverage and its actual delivery of employment and wages to rural households. The findings, likely from civil society organizations such as **LibTech India** or **People's Action for Employment Guarantee (PAEG)** which actively track the scheme, underscore ongoing challenges despite the program's critical role as a rural safety net.

Key Concerns Highlighted in Recent Analyses:

Recent reports and analyses, including those for the financial year 2024-25, have pointed to several critical issues:

- **Decline in Employment Provided:**
  - Despite an increase in the number of registered households under MGNREGS (some reports indicate an 8.6% rise in FY 2024-25), the actual **person-days of employment generated have reportedly fallen** (e.g., by around 7.1% in FY 2024-25).
  - The **average days of employment provided per household have also decreased** (e.g., from 52.42 days in FY 2023-24 to 50.18 days in FY 2024-25).
  - A very small percentage of households (around 7%) that demanded work actually completed the **guaranteed 100 days of employment**.
- **Regional Disparities:** There are significant variations in the scheme's performance across states. States like **Odisha (a reported decline of 34.8% in person-days)**, Tamil Nadu (–25.1%), and Rajasthan (–15.9%) have seen sharp drops in employment days, while a few like Maharashtra (+39.7%) and Bihar (+13.3%) registered increases.
- **Delayed Wage Payments:** This remains a persistent and critical issue. Delays in wage payments undermine the fundamental right to timely compensation guaranteed under the MGNREGA (which mandates payment within 15 days of work completion) and act as a major disincentive for workers.
- **Inadequate Budget Allocation:**
  - Civil society groups like PAEG have consistently argued that budgetary allocations for MGNREGS are insufficient to meet the actual demand for work. For instance, while PAEG recommended ₹2.64 lakh crore for FY 2022-23, the Union

government allocated ₹86,000 crore for FY 2024-25.

- o Underfunding can lead to rationing of work, suppression of demand, and accumulation of wage arrears.

- **Issues with Technological Interventions:**
  - o **Aadhaar Based Payment System (ABPS):** While intended to streamline payments and reduce leakages, the mandatory implementation of ABPS has reportedly led to exclusion errors. A significant percentage of workers (around 27.5% of all workers and 1.5% of active workers as of April 2025, according to a LibTech India report) were still found ineligible for ABPS, potentially denying them work or wages.
  - o **National Mobile Monitoring System (NMMS):** The app-based attendance system, requiring geo-tagged photos, has faced criticism for issues related to poor internet connectivity in rural areas, non-availability of smartphones, app glitches, and difficulties faced by workers, sometimes leading to non-registration of attendance and wage loss. Parliamentary committees have also raised concerns about these technical glitches.

- **Job Card Deletions:** While in FY 2024-25 additions to job cards reportedly exceeded deletions for the first time in a few years (2.22 crore new additions vs. 99 lakh deletions), massive deletions in previous years (e.g., 7.8 crore between 2022-24) due to reasons like ABPS non-compliance or minor errors have raised concerns about workers being unfairly excluded.

About MGNREGS: A Lifeline for Rural India

- **Legal Guarantee:** The **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005**, provides a legal guarantee for at least **100 days of wage employment** in a financial year to every rural household whose adult members volunteer to do unskilled manual work.
- **Demand-Driven:** It is a demand-driven scheme, meaning employment must be provided when a registered household demands work. An unemployment allowance is payable if work is not provided within 15 days of demand.
- **Key Objectives:**
  - o Enhance livelihood security in rural areas.
  - o Create durable community assets (like roads, ponds, irrigation facilities).
  - o Empower rural poor, especially women (who consistently form over 50% of the workforce), Scheduled Castes (SCs), and Scheduled Tribes (STs).
  - o Strengthen Panchayati Raj Institutions (PRIs) by involving them in planning and implementation.
  - o Reduce distress migration.
- **Funding:** The Central Government bears 100% of the cost of unskilled manual labour and 75% of the material cost. State governments contribute 25% of the material cost and the unemployment allowance.

iGOT Karmayogi Hits Milestone: Over 1 Crore Civil Servants on Digital Learning Platform

India's ambitious digital capacity-building platform for government employees, **iGOT Karmayogi**, has crossed a significant milestone by registering over **1 crore (10 million) users**. This achievement marks a major leap in the government's efforts to create a skilled, efficient, and future-ready civil service through continuous online learning. The platform is a cornerstone of the **Mission Karmayogi** – the National Programme for Civil Services Capacity Building (NPCSCB).

What is iGOT Karmayogi?

- **Integrated Government Online Training:** iGOT Karmayogi is a comprehensive online learning platform designed to provide continuous, competency-based learning opportunities to all government officials across various levels and departments.
- **Anytime, Anywhere Learning:** It offers a "learn on the go" experience, allowing civil servants to access courses and learning materials at their convenience, on any device.
- **Democratized Learning:** The platform aims to democratize learning by providing equitable access to capacity-building resources for officials irrespective of their posting or seniority.
- **Rich Content Library:** As of early 2025, the platform hosts over **850 courses** covering a wide range of subjects relevant to governance and public service delivery. Users have collectively completed over **37.3 lakh courses**, clocking more than **5.9 crore learning hours**.
- **Diverse User Base:** The 1 crore registered users encompass officials from Central Government ministries, State Governments, Union Territories, and Local Government bodies, indicating its wide adoption.

The Driving Force: Mission Karmayogi (NPCSCB)

The iGOT Karmayogi platform is an integral part of **Mission Karmayogi (National Programme for Civil Services Capacity Building)**, which was launched in September 2020. Mission Karmayogi aims to bring about a fundamental shift in civil services capacity building by:

- **Moving from Rule-based to Role-based HR Management:** Focusing on the specific competencies required for different government roles.
- **Citizen-Centricity:** Developing a civil service that is more responsive and accountable to the needs of citizens.
- **Future-Readiness:** Equipping officials with the skills, knowledge, and attitudes (ASK) to handle complex challenges and leverage emerging technologies.
- **Continuous Learning:** Fostering a culture of lifelong learning within the government.

Key Pillars of Mission Karmayogi:

1. **Policy Framework:** Guiding the overall approach to capacity building.
2. **Institutional Framework:**
   - o **Capacity Building Commission (CBC):** Acts as the apex body to guide reforms, harmonize training standards, create shared faculty and resources, and make recommendations.
   - o **Karmayogi Bharat SPV (Special Purpose Vehicle):** A not-for-profit company

responsible for owning, managing, and operating the iGOT Karmayogi digital platform and its content.
3. **Competency Framework (FRAC):** The **Framework of Roles, Activities, and Competencies** maps out the specific competencies required for every government position. Courses on iGOT Karmayogi are aligned with these competencies.
4. **Digital Ecosystem (iGOT Karmayogi):** The online learning platform itself.
5. **Monitoring and Evaluation Framework:** To assess the impact and effectiveness of capacity-building efforts.

How iGOT Karmayogi Works:
- **Competency-Based Learning:** Courses are tagged to specific competencies identified under the FRAC framework.
- **Curated Content:** Offers a diverse range of courses from various content providers, including government training institutions, universities, and subject matter experts.
- **Personalized Learning Paths:** The platform can potentially offer personalized learning recommendations based on an official's role, current competencies, and career development goals.
- **Assessments and Certification:** Many courses include assessments and provide certificates upon completion.

VP Dhankhar Calls for Revisit of SC Judgment on Prior Sanction to Prosecute Judges

Vice President Jagdeep Dhankhar has ignited a significant debate on judicial accountability by stating that the "time has come to revisit" the 1991 Supreme Court judgment in the **K. Veeraswami vs. Union of India case**. This landmark verdict mandated that **prior sanction from the competent authority (like the Chief Justice of India)** is required before initiating an investigation or prosecution against serving judges of the Supreme Court and High Courts for offences under the **Prevention of Corruption Act**.

Speaking at the **26th Justice Sunanda Bhandare Memorial Lecture** in New Delhi on May 19, 2025, the Vice President argued that this judgment had "erected scaffolding of impunity" around the judiciary, potentially hindering accountability.

The K. Veeraswami Judgment (1991): A Protective Shield?

The **K. Veeraswami vs. Union of India** case is a pivotal judgment in India's legal history concerning the prosecution of judges of the higher judiciary.

- **Background:** The case involved Justice K. Veeraswami, former Chief Justice of the Madras High Court, who was accused of possessing assets disproportionate to his known sources of income. An FIR was filed against him by the CBI under the Prevention of Corruption Act, 1947.
- **Supreme Court's Ruling (3:2 Majority):**
  - The Supreme Court held that a **judge of a High Court or the Supreme Court is a "public**

servant" within the meaning of the Prevention of Corruption Act.
  - However, to protect judicial independence from frivolous or motivated prosecutions, the Court ruled that **no criminal case shall be registered against a sitting judge of a High Court or the Supreme Court under the Act without the prior consent/sanction of the Chief Justice of India (CJI)**.
  - If the allegations are against the CJI, the President of India would be the sanctioning authority, required to consult other judges of the Supreme Court.
- **Rationale at the Time:** The judgment aimed to safeguard the independence of the judiciary by ensuring that judges could perform their duties without fear of harassment through vexatious litigation initiated by disgruntled litigants or other entities, including the executive.

Vice President Dhankhar's Call for Reconsideration:

The Vice President's remarks suggest a need to re-evaluate this protective mechanism in the interest of greater accountability and transparency.

- **Concerns Raised:**
  - **Potential for Impunity:** The prior sanction rule, while intended to protect judicial independence, might inadvertently create a perception or reality of immunity, making it difficult to hold errant judges accountable under anti-corruption laws.
  - **Equality Before the Law:** The principle that all individuals, irrespective of their position, should be equally subject to the law.
  - **Strengthening Anti-Corruption Framework:** The Vice President implied that such safeguards could hinder the effective investigation and prosecution of corruption if it exists within the higher judiciary.
  - **Public Trust:** Enhancing accountability mechanisms is seen as crucial for maintaining and bolstering public trust in the judiciary.
- **Context of Remarks:** The Vice President often speaks about the accountability of all constitutional functionaries and the need for every institution to be subject to scrutiny under the rule of law. His comments were made in the broader context of ensuring transparency and probity in public life. He also referred to a recent case involving allegations of cash recovery from a High Court judge's residence, questioning the delay in lodging an FIR and the efficacy of the current in-house mechanisms.

Balancing Judicial Independence and Accountability:

This issue lies at the heart of a critical debate in any democracy:

- **Arguments for Prior Sanction (Upholding Judicial Independence):**
  - Protects judges from unwarranted pressure and harassment, allowing them to adjudicate fearlessly.
  - Prevents frivolous complaints aimed at tarnishing the judiciary's reputation or influencing judicial outcomes.

- o Ensures that allegations against judges are vetted at the highest judicial level before formal criminal proceedings begin.
- **Arguments Against Prior Sanction (Seeking Greater Accountability):**
  - o Can be perceived as a special privilege that places judges above the ordinary law applicable to other public servants.
  - o May lead to delays or even the scuttling of genuine investigations if sanction is withheld without transparent reasons.
  - o The process of obtaining sanction itself can be non-transparent.

DoT Launches "Financial Fraud Risk Indicator" to Shield Digital Payments

In a significant move to bolster cybersecurity in India's rapidly expanding digital payments ecosystem, the **Department of Telecommunications (DoT)**, under the Ministry of Communications, has launched the **"Financial Fraud Risk Indicator" (FFRI)**. This new analytical tool, developed as part of the DoT's **Digital Intelligence Platform (DIP)**, aims to provide an early warning system to banks, UPI platforms, and other financial institutions by flagging mobile numbers suspected of being used for financial fraud.

How the Financial Fraud Risk Indicator (FFRI) Works:

The FFRI is a risk-based metric designed to proactively identify and classify mobile numbers based on their likelihood of involvement in financial fraud.

- **Risk Classification:** Mobile numbers will be categorized into three risk levels: **Medium, High, or Very High**.
- **Data Sources for Risk Assessment:** The classification is derived from a comprehensive, multi-dimensional analysis of inputs obtained from various stakeholders, including:
  - o The **Indian Cybercrime Coordination Centre's (I4C)** National Cybercrime Reporting Portal (NCRP).
  - o DoT's **Chakshu platform** (part of the Sanchar Saathi portal, where citizens can report suspected fraud communications).
  - o Intelligence shared by **banks, Non-Banking Financial Companies (NBFCs), and Unified Payments Interface (UPI) service providers**.
- **Real-time Intelligence Sharing:** Once a mobile number is flagged and its risk level assessed by the DIP system, this information is immediately shared with all stakeholders (banks, financial institutions, UPI platforms, Telecom Service Providers - TSPs) through the DIP.
- **Pre-emptive Action:** This advance notification enables these institutions to take timely protective measures, such as:
  - o Implementing additional validation checks for transactions involving flagged numbers.
  - o Warning users before they make payments to high-risk numbers.
  - o Potentially delaying or blocking transactions to "Very High" risk numbers.
  - o Enhancing due diligence when such numbers are used for opening new accounts.

Context: The Rise of Digital Payments and Associated Frauds

India has witnessed exponential growth in digital payments, with UPI emerging as the most preferred mode for millions of citizens. While this has brought convenience and efficiency, it has also led to a surge in sophisticated financial cyber frauds. Common methods include:

- **Phishing/Vishing/Smishing:** Tricking users into revealing sensitive information.
- **UPI Frauds:** Using various tactics like fake payment requests, remote screen access, or QR code scams.
- **Identity Theft and Impersonation:** Using stolen credentials to access accounts.
- **SIM Swap/Cloning Frauds:** Gaining unauthorized access to a user's mobile number.
- **Mule Accounts/SIMs:** Fraudsters often use SIM cards and bank accounts obtained using anothers' credentials for short periods to commit fraud and quickly siphon off funds, making them difficult to trace.

The FFRI aims to address the challenge posed by the short lifespan of such fraudulent mobile numbers by providing an advance risk assessment even before full verification processes might conclude.

DoT's Broader Efforts to Combat Telecom-Related Frauds:

The FFRI is part of a larger suite of tools and initiatives by the DoT to curb the misuse of telecom resources for fraudulent activities:

- **Sanchar Saathi Portal:** A citizen-centric portal offering services like:
  - o **Chakshu:** For reporting suspected fraud communications (calls, SMS, WhatsApp).
  - o **Know Your Mobile Connections:** To check mobile connections registered in one's name.
  - o **Block Your Lost/Stolen Mobile:** To block and trace lost or stolen mobile devices.
- **Digital Intelligence Platform (DIP):** A secure, integrated platform for real-time intelligence sharing and coordination among TSPs, LEAs, banks, financial institutions, social media platforms, and identity document issuers. The DIP acts as a backend system for citizen requests submitted through the Sanchar Saathi portal.
- **Mobile Number Revocation List (MNRL):** DoT's Digital Intelligence Unit (DIU) regularly shares this list with stakeholders, detailing mobile numbers disconnected due to involvement in cybercrime, failed re-verification, or exceeding prescribed usage limits. The FFRI adds a predictive layer to this.
- **ASTR (Artificial Intelligence and Facial Recognition powered Solution for Telecom SIM Subscriber Verification):** An AI tool used to detect and block fraudulent mobile connections obtained using fake or forged documents.

SC Sounds Alarm on Online Betting & IPL, Seeks Centre's Reply

The **Supreme Court of India** has taken serious note of the growing problem of **online betting and gambling**, particularly in connection with popular sporting events like the **Indian Premier League (IPL)**. Hearing a **Public Interest Litigation (PIL)** on Friday, May 23, 2025, the apex court observed that "in the name of IPL, a lot of people are betting and indulging in gambling." It has issued a **notice to the Central Government**, asking for its response on how it plans to tackle this menace.

What Happened in the Supreme Court?

- A bench of **Justices Surya Kant and N. Kotiswar Singh** was hearing a PIL filed by social activist Dr. K.A. Paul.
- The petitioner highlighted the dangerous rise of **online betting apps** and their promotion by celebrities, including cricketers and actors, which is luring the youth.
- The plea claimed that these apps are leading to **financial ruin, addiction, and even suicides** among young people, citing over 1,000 such deaths in Telangana alone.
- The petitioner argued for a **complete ban on illegal betting apps**, stringent regulations for online gaming and fantasy sports, and a comprehensive central law to address the issue.
- The Supreme Court acknowledged the gravity of the situation, terming it a **"serious issue"** and a **"complete social aberration,"** especially with easy internet access for children.
- While expressing concern, the Court also noted the challenge of tackling activities people indulge in voluntarily, stating, "Probably you are under a misconception that it can be stopped through a law. Just like we can't stop people from committing murder, a law cannot prevent people from indulging in betting or gambling."
- The Court **issued notice to the Union Government** to understand its stance and actions.
- It also requested the assistance of the **Attorney General and Solicitor General** in the matter and indicated that notices to states might follow if needed.

The Core Issue: A National Concern

The PIL and the Supreme Court's observations bring to light several critical problems:

- **Unregulated Growth:** Online betting and gambling platforms have mushroomed, often operating in a legal grey area.
- **Disguised as Games:** Many apps are presented as 'fantasy sports' or 'games of skill' to bypass gambling laws, but they often involve significant financial transactions and uncertain outcomes, resembling gambling.
- **Aggressive Promotion:** The widespread promotion by celebrities lends a false sense of legitimacy and attracts a large number of users, particularly the impressionable youth.
- **Devastating Consequences:** Reports of addiction, severe debt, mental health issues, and suicides linked to these online platforms are increasingly common.

- **Economic Crimes:** The plea also alleged that these platforms are being used for **money laundering** and **hawala transactions**, posing a threat to financial security.

Why is Regulation Difficult but Essential?

Regulating online betting and gambling is complex due to several factors:

- **Technology:** The borderless nature of the internet makes it difficult to control platforms hosted outside India.
- **Legal Ambiguity:** The distinction between 'game of skill' (generally permissible) and 'game of chance' (largely restricted) is often blurry and subject to legal interpretation.
- **State Subject:** 'Betting and Gambling' is a **State subject** under the Indian Constitution (Entry 34 of List II), leading to varied laws across states and a lack of uniform central legislation.
- **Enforcement Challenges:** Identifying and prosecuting illegal operators, especially those based overseas, is a significant hurdle.

Despite these challenges, the need for robust regulation is undeniable to protect citizens, especially the youth, from exploitation and financial distress, and to curb illegal activities.

Legal Landscape in India

- **Public Gambling Act, 1867:** This is a central law that prohibits running or being in charge of a public gambling house. However, it is an old law and does not explicitly cover online gambling. States have their own enactments based on this.
- **Information Technology Act, 2000:** This Act deals with cybercrime and electronic commerce but does not specifically define or regulate online betting or gambling.
- **State Laws:** Several states have banned online gambling and betting, while others like Sikkim and Goa have regulations permitting certain forms. This creates a patchwork of laws across the country.
- **Skill vs. Chance Debate:** The Supreme Court has in past judgments (e.g., regarding Rummy or horse racing) differentiated between games of skill and games of chance. Games of skill are generally considered legal business activities. However, the application of this distinction to many new forms of online games remains contentious.

Government Boosts Funds for National Sports Federations to Strengthen Indian Sports

The **Ministry of Youth Affairs and Sports (MYAS)** has announced a significant **revision in the financial grants** provided to **National Sports Federations (NSFs)** under the 'Scheme of Assistance to NSFs'. This move, declared around May 22-23, 2025, aims to bolster India's sports ecosystem, enhance athlete performance, support infrastructure development, and align with the nation's aspirations, including a potential bid for the **2036 Olympic Games**.

What are the Key Revisions?

The revised norms bring substantial enhancements in financial assistance and introduce new strategic mandates for the NSFs:

- **Increased Financial Outlay:**
  - **National Championships:** Funding for conducting national championships has been increased to **₹90 lakh for High-Priority sports** (up from ₹51 lakh) and **₹75 lakh for Priority sports**.
  - **Hosting International Tournaments:** Assistance for hosting international events in India has been **doubled to ₹2 crore**.
  - **Coaches' Salaries:** The monthly salary for **Chief National Coaches** has been raised from ₹5 lakh to **₹7.5 lakh**, and for **other coaches** from ₹2 lakh to **₹3 lakh**.
  - **Athletes' Diet Charges:** Daily diet charges for **senior athletes** are up from ₹690 to **₹1,000**, and for **junior athletes** from ₹480 to **₹850**.
  - **Nutrition Support:** Athletes identified in probable groups will receive a **dietary allowance of ₹10,000 per month** during non-camp days.
- **Strategic Mandates for NSFs:**
  - **Grassroots Focus:** NSFs are now mandated to allocate at least **20% of their annual budget** towards **grassroots development**, specifically for junior and youth programmes, through their affiliated units to build bench strength.
  - **Capacity Building (Coaches & Staff):** A minimum of **10% of the funding** must be dedicated to the **development of coaches and technical staff**. This includes training courses in India and abroad, curriculum development, and workshops. All NSFs must also appoint a **Coaching Education Expert**.
  - **High-Performance Directors (HPDs):** NSFs with an annual budget of ₹10 crore or more are required to appoint an HPD to design and monitor the sport's technical development programme.
  - **Professionalizing Administration:** Up to **10% of the grant** can be used for hiring administrative personnel like CEOs, Directors, and managers for finance, competitions, etc.

PM Modi at NITI Aayog Meet: "Viksit Rajya for Viksit Bharat" Key to 2047 Goal

Prime Minister Narendra Modi chaired the **10th Governing Council Meeting of NITI Aayog** on Saturday, May 24, 2025, at Bharat Mandapam in New Delhi. The central theme of this crucial meeting, attended by Chief Ministers, Lieutenant Governors, and Union Ministers, was **"Viksit Rajya for Viksit Bharat @ 2047"** (Developed States for a Developed India by 2047). The Prime Minister emphasized that the collective efforts of states working in the spirit of **"Team India"** are paramount to achieving the national vision of a developed India, potentially even before the 2047 target.

PM Modi's Vision and Key Messages:

Prime Minister Modi delivered a powerful address, outlining the roadmap and the collective resolve needed to achieve the "Viksit Bharat" dream:

- **National Aspiration:** He described **"Viksit Bharat"** not as a political agenda but as the aspiration of 140 crore Indians. "When every state is Viksit, then Bharat will be Viksit," he stated, urging every state, city, and village to commit to this goal.
- **Accelerated Transformation:** Acknowledging India's rise as one of the top five global economies and the milestone of 25 crore people escaping poverty, the PM stressed the need to **increase the speed of this transformation**.
- **Role of States:** He called upon states to:
  - Leverage their **manufacturing strengths** and make it easier for **global investments** to flow in, with NITI Aayog tasked to prepare an "Investment-friendly Charter."
  - Focus on **skilling youth** for modern technologies like AI, semiconductors, and 3D printing, aiming to make India the **"Skill Capital of the world."** A ₹60,000 crore scheme for skilling has been approved by the Centre.
  - Develop at least **one tourist destination of global standards** ("One State, One Global Destination") to boost the local economy.
  - Drive **sustainable urban growth**, especially in Tier 2 and Tier 3 cities, supported by a ₹1 lakh crore Urban Challenge Fund.
  - Empower **Nari Shakti (women power)** by reforming laws and policies to enhance their respectful integration and ease of working in the workforce.
  - Consider **interlinking rivers within states** to combat water scarcity and floods.
  - Strengthen agriculture by focusing on **"lab to land" initiatives** like the Viksit Krishi Sankalp Abhiyan.
- **Team India Spirit:** The PM reiterated that if the Centre and states work together as "Team India," no goal is impossible to achieve.
- **National Security and Preparedness:** The meeting commenced with a minute of silence for the victims of the **Pahalgam terrorist attack (April 2025)**. PM Modi also mentioned "Operation Sindoor" (a reported successful counter-terror operation), emphasizing it shouldn't be a one-off initiative and stressed the need for modernizing civil preparedness.

Core Agenda: Viksit Rajya for Viksit Bharat

The meeting served as a platform for deliberations on achieving the "Viksit Bharat @ 2047" vision, with a strong focus on the contributions of individual states:

- **State Vision Documents:** States were encouraged to craft their own bold, long-term, and inclusive vision documents for development by 2047, aligned with national priorities yet rooted in regional strengths.
- **Key Discussion Areas:** Deliberations centered on strategies to:
  - Promote **entrepreneurship, employment, and skilling** to leverage India's demographic dividend.

- o Boost **manufacturing and services**, especially by creating enabling ecosystems in Tier 2 and Tier 3 cities.
  - o Support **Micro, Small, and Medium Enterprises (MSMEs)** and address informal employment in rural non-farm and urban sectors.
  - o Harness opportunities in the **green economy**, including renewable energy and green hydrogen.
  - o Address challenges like **cybersecurity** and enhance **health service delivery**, including preparedness for potential COVID-related challenges.

Emphasis on Cooperative Federalism

The 10th Governing Council meeting underscored NITI Aayog's role as a crucial platform for fostering **cooperative federalism**. It provided an opportunity for the Centre and States/Union Territories to:

- Deliberate on national development challenges.
- Build consensus on the pivotal role of states in transforming India into a developed nation.
- Share best practices and specific regional demands. (Several Chief Ministers raised state-specific issues related to funding, projects, and fiscal devolution).

Understanding "Viksit Bharat @ 2047"

"Viksit Bharat @ 2047" is the ambitious vision of the Government of India to transform the nation into a **developed country by the 100th year of its independence (2047)**. This comprehensive vision encompasses:

- **Economic Growth:** Achieving high levels of economic prosperity, making India a $30 trillion economy (as per some projections linked to the vision).
- **Social Progress:** Ensuring inclusive development, high standards of living, quality education, healthcare, and empowerment for all citizens.
- **Environmental Sustainability:** Balancing development with environmental protection and climate resilience.
- **Good Governance:** Promoting efficient, transparent, and citizen-centric governance.
- **Global Leadership:** Positioning India as a leading voice and power in the global arena.

Panchayat Advancement Index 2.0 Launched to Boost Grassroots Governance and Track SDGs

The **Ministry of Panchayati Raj** has launched the **Panchayat Advancement Index (PAI) 2.0 portal** and a related **Local Indicator Framework (LIF) Booklet** for the financial year **2023-24**. This significant initiative, rolled out during a national writeshop held on May 26-27, 2025, aims to empower **Gram Panchayats** across the country by enabling them to systematically assess their performance, plan effectively, and monitor progress towards achieving the **Localization of Sustainable Development Goals (LSDGs)**.

What is the Panchayat Advancement Index (PAI) 2.0?

- **Purpose:** PAI 2.0 is a **multi-dimensional assessment framework** designed to track the performance of over 2.5 lakh Gram Panchayats. It helps Panchayats understand their strengths and weaknesses across key areas of governance and service delivery.
- **Alignment with SDGs:** The index evaluates Panchayats across **nine specific themes** that are directly linked to the **Localization of Sustainable Development Goals (LSDGs)**. These themes include areas like poverty alleviation, health, education, water sufficiency, clean environment, infrastructure, good governance, social justice, and women empowerment.
- **Data-Driven Governance:** The PAI promotes **evidence-based planning and monitoring** at the grassroots level. It aims to institutionalize transparent, accountable, and performance-based governance within Panchayats.
- **Evolution from PAI 1.0:** PAI 2.0 is an enhanced version of its predecessor (PAI 1.0, which served as a baseline for FY 2022-23). The new version incorporates feedback from field experiences and stakeholders.

Key Improvements and Features of PAI 2.0:

PAI 2.0 represents a significant leap forward with several key enhancements:

- **Rationalized Indicators:** The number of indicators has been substantially **reduced from 516 in PAI 1.0 to 147 in PAI 2.0**. This makes the framework sharper, more focused on **outcome-oriented and measurable indicators**, reduces the reporting burden, and improves data quality. Similarly, data points have been streamlined from 794 to 227.
- **Auto-integration of Data:** The portal will now **automatically pull data** from various national portals of Union Ministries and Departments, ensuring efficiency and reliability.
- **User-Friendly Interface:** The PAI 2.0 portal is **mobile-friendly** and features improved dashboards and better user accessibility.
- **Data Validation:** It includes **built-in validation and anomaly detection mechanisms** to ensure accurate data entry and tracking.
- **Decision Support System:** A key feature is the **Decision Support System (DSS)**, designed to help Panchayats identify development gaps in their areas and prioritize resource allocation effectively.
- **Public Accountability:** Ministry officials have urged Gram Panchayats to **display their PAI scorecards prominently** at Gram Panchayat Bhawans to promote public participation and local accountability.

Why is PAI 2.0 Important?

The launch of PAI 2.0 is a vital step for several reasons:

- **Empowering Local Governments:** It equips Panchayats with practical tools to assess their own progress, identify critical gaps, and plan their development initiatives more meaningfully.
- **Achieving SDGs from the Ground Up:** By focusing on LSDGs, the PAI ensures that national and global development goals are translated into actionable strategies at the village level.
- **Enhancing Transparency and Accountability:** The data-driven approach and public display of scores will foster greater transparency and make local governance more accountable to the citizens.

- **Promoting Healthy Competition:** The index is expected to encourage a culture of healthy competition and continuous improvement among Panchayats.
- **Informing Policy and Resource Allocation:** PAI data will serve as a crucial input for policymakers at all levels (State, Central) to understand ground-level progress, fine-tune strategies, and allocate resources more effectively.
- **Supporting National Goals:** As highlighted by officials, PAI 2.0 will complement the SDG India Index, enhance India's readiness for future Voluntary National Reviews (VNRs) at global forums, and contribute to the vision of **"Viksit Bharat"** (Developed India) through a bottom-up, participatory approach.

SC Rejects Plea to Add V.D. Savarkar's Name to 1950 Emblems Act

The **Supreme Court of India** on Tuesday, May 27, 2025, dismissed a plea seeking a direction to the Central Government to include the name of **Vinayak Damodar Savarkar** in the Schedule of the **Emblems and Names (Prevention of Improper Use) Act, 1950**. The petitioner had argued that such an inclusion was necessary to prevent the alleged misuse and misrepresentation of Savarkar's name and legacy.

A bench comprising **Chief Justice of India (CJI) B.R. Gavai** and **Justice Augustine George Masih** stated that it found no grounds to intervene as there was **no violation of the petitioner's fundamental rights**, a prerequisite for the court to entertain a petition under **Article 32** of the Constitution.

The Plea Before the Court:

The petition was filed by Dr. Pankaj Kumudchandra Phadnis, who identified himself as a research scholar on V.D. Savarkar. The plea sought several directions, including:

- Instructing the Union of India and the Ministry of Home Affairs to include Vinayak Damodar Savarkar's name in the **Schedule to the Emblems and Names (Prevention of Improper Use) Act, 1950**.
- The petitioner contended that this was necessary to protect Savarkar's name from improper use and misrepresentation, particularly in light of alleged derogatory remarks made by political figures like Leader of Opposition Rahul Gandhi.
- The petitioner argued that such remarks impeded his (the petitioner's) fundamental duties under **Article 51A** of the Constitution, specifically the duty to cherish and follow the noble ideals that inspired India's national struggle for freedom.
- The plea also sought that Rahul Gandhi be directed to perform community service as a form of "punishment" for his remarks.

Supreme Court's Stand and Reasoning:

The Supreme Court bench declined to entertain the plea, dismissing it with clear observations:

- **No Violation of Fundamental Rights:** The CJI, B.R. Gavai, repeatedly questioned the petitioner on how his fundamental rights were being violated. The bench emphasized that a petition under **Article 32** of the Constitution can only be entertained if there is an infringement of fundamental rights guaranteed under Part III of the Constitution.
- **Fundamental Duties vs. Fundamental Rights:** While the petitioner invoked his fundamental duties under Article 51A, the Court clarified that its writ jurisdiction under Article 32 is primarily for the enforcement of fundamental rights, not fundamental duties.
- **Scope of Judicial Intervention:** The Court stated that it cannot entertain "writs like this" and that the specific relief sought—directing the government to amend the schedule of an Act—falls within the domain of the executive or legislature.
- **Alternative Remedy:** The bench suggested that if the petitioner wishes to have Savarkar's contributions included in the educational curriculum or his name added to the Act's schedule, the appropriate course of action would be to make a representation to the Union Government. The petitioner informed the court that such a representation had already been made.

The Court ultimately found no merit in the plea to grant the reliefs sought through an Article 32 petition and dismissed it.

Understanding the Act in Question:

- **The Emblems and Names (Prevention of Improper Use) Act, 1950:**
  - This Act was enacted to **prevent the improper use of certain emblems and names for professional and commercial purposes**.
  - It prohibits the use of specified emblems, names, or pictorial representations listed in its **Schedule** without the previous permission of the Central Government or an authorized officer.
  - The objective is to maintain the dignity associated with these national symbols and names of esteemed personalities and to prevent their unauthorized commercial exploitation or use in a manner that could mislead the public.
  - The Schedule to the Act includes names and emblems like the Indian National Flag, the State Emblem of India, names and pictorial representations of Mahatma Gandhi, Pandit Jawaharlal Nehru, Chhatrapati Shivaji Maharaj, the Prime Minister of India, President of India, Governors of States, as well as names and emblems of UN organizations, WHO, etc.
  - The Central Government has the power to amend the Schedule.

Justice Oka Bids Adieu to SC: Calls for Less "CJI-Centric" Court, Upholding Liberties

In a candid and thought-provoking farewell address, **Supreme Court Justice Abhay S. Oka** on his last working day emphasized his profound hope that the apex court will continue to be a champion of **constitutional liberties**. He also made significant observations about the functioning of the Supreme Court, stating it is currently too **"Chief Justice-centric"** and suggested a need for a more democratic approach in its administration, similar to High Courts. His remarks have sparked discussions on judicial reforms and the operational dynamics of India's highest court.

A Staunch Defender of Constitutional Liberties:

Throughout his address, Justice Oka, known for his unwavering commitment to fundamental rights and environmental protection during his tenure, reiterated the Supreme Court's crucial role as a guardian of the Constitution.

- He stated, "I believe this is one court which can uphold constitutional liberties. And that has been my humble endeavour."
- He expressed confidence that "with the collective efforts of so many giants who are sitting here, this court will continue to uphold liberty because that was the dream of the framers of the Constitution."
- His judicial career, spanning over two decades including his time in the Bombay and Karnataka High Courts before his elevation to the Supreme Court in August 2021, has been marked by several landmark judgments upholding civil liberties, freedom of expression, and environmental protection.

Critique of "Chief Justice-Centric" Supreme Court:

Justice Oka offered a significant critique of the administrative functioning of the Supreme Court, drawing comparisons with the High Courts:

- He observed, "One difference I felt between the High Courts and Supreme Court is – High Courts work more democratically through committees, while the Supreme Court is centered around the Chief Justice. This needs to change."
- He emphasized that the Supreme Court is a court of **34 judges** from diverse backgrounds across India, and its functioning should reflect this collective nature rather than being overly reliant on the Chief Justice.
- He expressed hope that this approach might see a transformation under the new **Chief Justice of India, B.R. Gavai**.

Call for Reforms in Case Listing and Judicial Administration:

A key area Justice Oka highlighted for reform was the **listing of cases** in the Supreme Court:

- He pointed out public concerns: "People complain when some cases get listed quickly while others wait for weeks."
- He advocated for **reducing manual intervention** in the case listing process and leveraging **technology, including Artificial Intelligence (AI)**, to make the system more **"rational" and transparent**.
- He recalled his experience in the Karnataka High Court, where an **auto-listing system** was successfully implemented during the pandemic.
- He stressed that the Supreme Court is not just a Constitutional Court but also an **appellate court**, and appeals from common people deserve timely attention. A fair and transparent listing system is crucial for this.
- He also urged greater attention towards **trial and district courts**, calling them the "backbone of the judiciary" and stating they should not be referred to as "subordinate courts," as this is against constitutional values.

India Post Unveils "DigiPIN" to Revolutionize National Address System, Boost E-commerce

In a landmark move to modernize India's addressing infrastructure, **India Post**, under the Ministry of Communications, has launched the **"DigiPIN"** – an **8-digit alphanumeric digital address code** – along with new services like **"Know Your DigiPIN"** and an enhanced **"Know Your PIN Code"**. This initiative aims to create a more precise, efficient, and digitally-friendly addressing system, significantly benefiting citizens, e-commerce, logistics, and various government services, including integration with the **Open Network for Digital Commerce (ONDC)**.

Introducing DigiPIN: India's New Digital Address Code

- **What is DigiPIN?** The **DigiPIN** is an **8-digit alphanumeric code** that will serve as a unique digital identifier for each address or delivery point across the country. It is designed to be more granular and precise than the existing 6-digit PIN (Postal Index Number) code.
- **Structure:** While the exact structure is being rolled out, it is expected to incorporate existing PIN codes along with additional characters to offer a much higher level of specificity, potentially identifying individual buildings or even flats within a complex.
- **Objective:** To overcome the limitations of the traditional addressing system, which often lacks standardization and can be ambiguous, especially in rural and semi-urban areas. DigiPIN aims to provide an unambiguous, machine-readable digital address.

"Know Your DigiPIN" & Enhanced "Know Your PIN Code": New Services

To facilitate the adoption and use of this new system, India Post has launched:

- **"Know Your DigiPIN" Service:** This will likely be an online portal or feature within India Post's existing platforms where citizens and businesses can find out the specific DigiPIN for any given address.
- **Enhanced "Know Your PIN Code" Service:** The existing service for finding PIN codes will also be upgraded, possibly integrating with the DigiPIN system to provide a seamless transition and continued utility.

These services are aimed at making it easy for everyone to identify and use both the traditional PIN codes and the new DigiPINs.

Centre Cracks Down on E-commerce Giants Over "Dark Patterns," Mandates Audits for Fair Online Practices

The Central Government has intensified its scrutiny of **e-commerce platforms**, "pulling them up" for the increasing use of **"dark patterns"** – deceptive online design practices that manipulate consumer choices and subvert their autonomy. In a high-level meeting with major e-commerce players, industry bodies, and consumer groups around May 28-29, 2025, Union Minister for Consumer Affairs, Shri Pralhad Joshi, issued a stern directive for **immediate compliance** with existing guidelines and called for companies to conduct **annual internal audits** to identify and eliminate such manipulative tactics.

What are "Dark Patterns"? Deceptive Online Practices Explained

Dark patterns refer to user interface (UI) or user experience (UX) design techniques used on websites and apps that are intentionally crafted to **mislead, trick, or pressure users into making choices they did not originally intend to make**. These practices often exploit cognitive biases to benefit the platform or seller, sometimes at the expense of the consumer. The government, through the **Central Consumer Protection Authority (CCPA)**, has identified **13 specific dark patterns** that are considered unfair trade practices. Common examples include:

- **False Urgency:** Creating a fake sense of urgency or scarcity to pressure immediate purchase (e.g., "Only 2 items left!", fake countdown timers that reset).
- **Basket Sneaking:** Adding items to a user's cart without their explicit consent (e.g., pre-selected donations or add-on services).
- **Subscription Traps:** Making it very easy to sign up for a service but extremely difficult or confusing to cancel.
- **Confirm-Shaming:** Using language or visuals to make users feel guilty or foolish for declining an offer or opting out of a service (e.g., "No thanks, I don't want to save money").
- **Drip Pricing:** Revealing the full price of a product or service only at the final step of the checkout process, after adding various hidden fees and charges.
- **Disguised Advertisements:** Presenting ads in a way that they look like editorial content or user-generated content to mislead consumers.
- **Forced Action:** Requiring users to perform an unrelated action (like signing up for a newsletter or sharing personal data) to access a service or complete a purchase they intended.
- **Nagging:** Persistent and repetitive prompts, requests, or interruptions that disrupt the user experience to nudge them towards a particular action.
- **Bait and Switch:** Advertising one product or service but then offering a different, often less desirable or more expensive, one.
- **Trick Questions:** Using confusing or ambiguous language to trick users into giving a response they didn't intend.
- **Interface Interference:** Highlighting certain options or obscuring others to misdirect users.

Government's Firm Stand: Audits, Compliance, and Consumer Tools

Faced with a surge in consumer complaints on the National Consumer Helpline regarding these deceptive practices, the Department of Consumer Affairs took a firm stance:

- **Meeting with Stakeholders:** Union Minister Shri Pralhad Joshi and Consumer Affairs Secretary Smt. Nidhi Khare held discussions with representatives from over 50 major e-commerce companies (including Amazon, Flipkart, Google, Meta, Swiggy, Zomato, Apple, MakeMyTrip, Ola, Uber), industry associations (like NASSCOM, FICCI, CAIT), and consumer organizations.
- **Mandate for Annual Audits:** E-commerce platforms have been directed to conduct **annual internal audits** to detect and eliminate dark patterns from their interfaces. These audit reports are to be submitted to the Department of Consumer Affairs.

- **Call for Proactive Compliance:** The Minister urged companies not to wait for enforcement action from the CCPA but to **proactively remove these deceptive practices**, emphasizing that this is not just about regulatory compliance but also about building consumer trust.
- **Joint Working Group:** A **joint committee** comprising government officials, industry leaders, and consumer groups will be established to monitor compliance, review audit reports, and ensure the effective implementation of the guidelines.
- **New Consumer Protection Tools:** The government highlighted the development of three new digital tools, created in partnership with IIT BHU through the "Dark Patterns Buster Hackathon 2023," to empower consumers:
  - **Jagriti App:** Allows consumers to report instances of dark patterns.
  - **Jago Grahak Jago App:** Provides real-time safety scores for e-commerce platforms (likely evaluating their use of dark patterns).
  - **Jagriti Dashboard:** Helps regulators track and analyze consumer complaints and platform behavior related to dark patterns.

Why the Crackdown? Protecting Consumer Interests

The government's crackdown stems from the understanding that dark patterns:

- **Undermine Consumer Autonomy:** They manipulate user choices and prevent consumers from making informed decisions.
- **Constitute Unfair Trade Practices:** These practices are seen as unethical and detrimental to a fair marketplace.
- **Erode Consumer Trust:** Deceptive designs can lead to frustration and a loss of trust in online platforms.
- **Can Lead to Financial Loss:** Consumers may end up paying more than intended or subscribing to unwanted services.

Legal Framework Against Dark Patterns

The government's actions are backed by a legal framework aimed at protecting consumers:

- **Consumer Protection Act, 2019:** This Act provides the overall framework for protecting consumer rights and addressing unfair trade practices. The **Central Consumer Protection Authority (CCPA)** was established under this Act with powers to investigate and take action against violations.
- **Guidelines for Prevention and Regulation of Dark Patterns, 2023:** Notified by the CCPA in November 2023, these guidelines specifically define and prohibit 13 types of dark patterns. Engaging in these practices is considered a violation of consumer rights.
- **Penalties:** Non-compliance with the Consumer Protection Act and the dark patterns guidelines can lead to penalties, including fines (potentially up to ₹20 lakh) and, in some cases, imprisonment as per Section 88 of the Act for non-compliance with CCPA directions. The CCPA has already issued notices to several companies, including cab aggregators, regarding alleged dark patterns like "advance tipping."
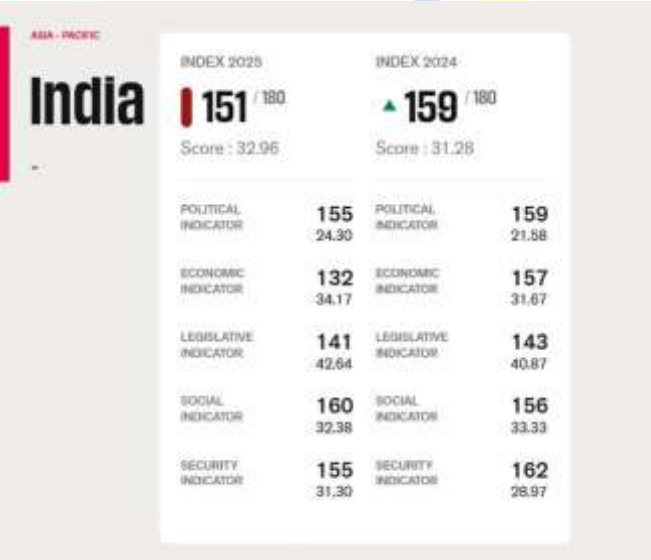
Social Issues

India and the Global Press Freedom Index 2025: Challenges and Significance

The **World Press Freedom Index 2025**, released by the global media watchdog **Reporters Without Borders (RSF)**, has placed India at **151st position** out of 180 countries. While this marks an improvement of 8 places from 159th in 2024 and 10 places from 161st in 2023, India continues to be categorised under the concerning **"very serious" category** for press freedom.

Key Findings for India:

- **Rank:** India is ranked **151st** out of **180 countries** in the 2025 index.
- **Score:** India's score is **32.96**.
- **Category:** India remains in the **"very serious" category**, the lowest ranking on the index.
- **Comparison with Neighbours:** India is ranked below some of its neighbours like Nepal (90th), Maldives (104th), Sri Lanka (139th), and Bangladesh (149th), but ahead of Bhutan (152nd), Pakistan (158th), Myanmar (169th), Afghanistan (175th), and China (178th).
- **RSF's Assessment:** RSF describes the state of media in India as an "unofficial state of emergency," citing concerns about violence against journalists, high concentration of media ownership, and political alignment affecting media independence.

Global Picture and Key Challenges Highlighted by RSF:

The 2025 index describes the global state of press freedom as a **"difficult situation"** for the first time, pointing to several key challenges worldwide:

- **Economic Pressures:** Growing financial instability of media outlets globally, affecting their independence.
- **Political Instability:** Exacerbating challenges for the media economy in many regions.
- **Concentration of Media Ownership:** This threatens media diversity and can encourage self-censorship in many countries. In some cases, this control is entirely state-owned.
- **Restrictive Legislation:** Laws limiting "foreign influence" or imposing other curbs on the press pose additional challenges.

- **Editorial Interference:** Media owners interfering with editorial decisions is a widespread issue.
- **Safety of Journalists:** Violence, harassment, intimidation, threats, and arbitrary arrests against journalists remain major concerns globally. RSF highlights India as one of the world's most dangerous countries for the media, with journalists critical of the government often facing such issues.

Evaluation Criteria:

RSF evaluates countries based on five key indicators:

1. **Political Context:** Assessing the degree of political pressure and the media's ability to act as a watchdog.
2. **Economic Context:** Looking at economic constraints, including media ownership and financial independence.
3. **Legal Framework:** Evaluating the legal environment and regulations affecting the press.
4. **Sociocultural Context:** Examining social and cultural pressures that might lead to self-censorship.
5. **Safety:** Assessing the physical and mental safety of journalists.

Top and Worst Performers in 2025:

- **Top 3: Norway** leads the index, followed by **Estonia** and the **Netherlands**. These countries generally have strong legal protections and diverse media landscapes.
- **Bottom 3: Eritrea** is at the bottom, just below North Korea and Afghanistan. These countries face severe repression and dangerous conditions for journalists.

Maternity Leave a Fundamental Right, Not Just a Perk: Supreme Court

In a landmark observation that significantly strengthens the rights of working women in India, the **Supreme Court has underscored that maternity leave is an integral part of a woman's reproductive rights and human dignity, not merely a statutory benefit or an act of charity by employers.** This profound interpretation came during a recent ruling where the apex court also touched upon the delicate balance between population control measures and a woman's autonomous reproductive choices.

The ruling, delivered by a bench of **Justice Abhay S. Oka and Justice Ujjal Bhuyan** on **May 23, 2025**, concerned a case where a government school teacher in Tamil Nadu was denied maternity leave for her third child, citing state rules that restricted such benefits to women with no more than two children. The Supreme Court set aside the Madras High Court judgment that upheld this denial, emphasizing that such restrictions undermine constitutional and international human rights principles.

Supreme Court's Observations:

- **Maternity Leave as a Facet of Reproductive Rights:** The Court firmly stated that "maternity benefits are a part of reproductive rights and maternity leave is integral to maternity benefits." It recognized that reproductive rights, including the right to health, privacy, equality, non-discrimination, and dignity, are now part of international human rights law.
- **Link to Article 21 (Right to Life and Personal Liberty):** The bench emphasized that the right to life under Article 21 of the Constitution means a life in its

fullest sense, encompassing all aspects that make life meaningful and dignified, including the right to health and privacy. The Court asserted that a woman's right to make reproductive choices without undue state interference is central to human dignity.

- **Overriding Effect of Maternity Benefit Act:** The Court noted that the **Maternity Benefit Act, 1961 (as amended in 2017)**, does not bar maternity leave for women with more than two children. It only differentiates the *duration* of the leave – 26 weeks for those with fewer than two surviving children and 12 weeks for those with two or more. The benefit itself is not denied based on the number of children under the central Act.
- **Harmonizing Population Control and Reproductive Rights:** While acknowledging population control as a valid policy objective, the Supreme Court cautioned that it should not override fundamental reproductive rights. The Court stressed that "population control and reproductive rights are not mutually exclusive goals. They must be reconciled in a rational, humane6 manner."
- **Constitutional Mandate for Maternity Relief:** The judgment referred to **Article 42 of the Constitution** (a Directive Principle of State Policy), which mandates the State to make provisions for securing just and humane conditions of work and for maternity relief.
- **Not Confined to Contractual Terms:** In a related context and previous rulings, the SC has also indicated that maternity benefits should not be restricted by the tenure of employment contracts, emphasizing that the focus is on the dignity and well-being of the woman employee.

Understanding Reproductive Rights:

Reproductive rights encompass a broad range of entitlements related to reproduction and reproductive health. These include an individual's right to:

- Make free and informed decisions about their reproductive life, including whether and when to have children.
- Access comprehensive reproductive health information and services, including contraception, safe abortion (where legal), and maternal healthcare.
- Bodily autonomy and integrity, free from coercion, discrimination, and violence in reproductive matters.
- Enjoy the highest attainable standard of reproductive health.

In India, these rights are primarily derived from the interpretation of **Article 21 (Right to Life and Personal Liberty)** of the Constitution, which includes the right to dignity, privacy, and health.

Maternity Benefit Act, 1961 (as amended in 2017):

This Act is a key piece of social welfare legislation in India aimed at protecting the health and employment of working women during maternity. Key provisions include:

- **Applicability:** To factories, mines, plantations, government establishments, shops, and other establishments employing 10 or more persons.
- **Duration of Paid Leave:**
  - **26 weeks** for the first two children (up to 8 weeks can be availed before the expected delivery date).
    - **12 weeks** for women already having two or more surviving children (up to 6 weeks can be availed before the expected delivery date).
    - **12 weeks** for adopting mothers (adopting a child below three months) and commissioning mothers (using a surrogate).
- **Eligibility:** A woman must have worked for the employer for at least **80 days** in the 12 months immediately preceding the date of her expected delivery.
- **Other Benefits:** Medical bonus, nursing breaks, and mandatory crèche facilities in establishments with 50 or more employees.
- **Protection from Dismissal:** Section 12 of the Act prohibits employers from dismissing or discharging a woman during her maternity leave or on account of her pregnancy.

Empowerment

9 Years of PM Ujjwala Yojana: Impact on Clean Fuel Access & Women Empowerment

The **Pradhan Mantri Ujjwala Yojana (PMUY)**, a flagship scheme of the Indian government, completed **nine successful years** on May 1, 2025. Launched in May 2016, the scheme aims to provide **clean cooking fuel (LPG)** to households, especially benefiting women from poor families.

Objective of PMUY:

- To provide **deposit-free LPG connections** to adult women from economically weaker households.
- To replace unhealthy traditional cooking fuels like firewood, coal, and cow-dung cakes with clean LPG.
- To safeguard the health of women and children by reducing **indoor air pollution**.
- To empower women by reducing the drudgery associated with collecting firewood.
- To contribute to environmental sustainability.

Key Achievements and Statistics (as of early 2025):

- **Beneficiaries:** Over **10.33 crore** households have received PMUY connections.

- **Total LPG Coverage:** India now has 32.94 crore active domestic LPG consumers, with PMUY beneficiaries forming a significant portion.
- **Sustained Usage:** Over **238 crore cylinder refills** have been availed by beneficiaries over the nine years, indicating sustained adoption of LPG. (Specifically, 8.34 crore out of 8.99 crore beneficiaries connected by April 2022 took at least one refill between April 2022-March 2024).
- **Increased Consumption:** The annual **per capita consumption** of LPG among PMUY beneficiaries has steadily increased, reaching **4.43 cylinders** (14.2 kg) as of March 1, 2025, up from 3.01 cylinders in FY 2019-20.
- **Infrastructure Boost:** The **LPG distributor network** has significantly expanded, especially in rural areas.
  - Total distributors increased by 83% (from 13,896 in 2014 to 25,481 in 2024).

- o Rural distributors increased by 161% (from 6,724 in 2014 to 17,560 in 2024).

Expansion through Ujjwala 2.0:
- Launched in August 2021 to cover remaining households.
- Achieved initial target of 1 crore connections by Jan 2022.
- Expanded further, reaching 1.60 crore connections under Ujjwala 2.0 by Dec 2022.
- Latest phase approved release of 75 lakh more connections (target achieved July 2024).
- **Special Provision: Migrant families** can avail connections using simple self-declaration, without needing formal Proof of Address or Ration Card.

Impact and Benefits:
- **Improved Health:** Significant reduction in respiratory illnesses associated with indoor air pollution from traditional fuels.
- **Women Empowerment:** Reduced time and physical effort spent on collecting firewood, freeing up women's time for education, skill development, or income-generating activities.
- **Environmental Protection:** Decreased reliance on firewood helps reduce deforestation and conserve the environment.
- **Better Nutrition:** Easier and faster cooking facilitates the preparation of more diverse and nutritious meals.
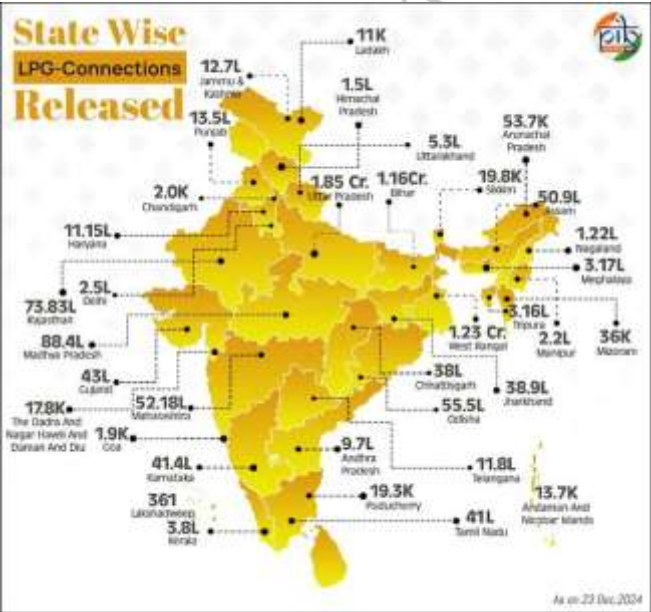
Affordability & Global Context:
- The government provides subsidies to make LPG affordable for PMUY beneficiaries. The effective price was cited as significantly lower than in neighbouring countries like Pakistan, Sri Lanka, and Nepal as of early 2025.

Country	Domestic LPG (Rs./14.2 kg.cyl.)
India	503.00*
Pakistan	1094.83
Sri Lanka	1231.53
Nepal	1206.65

Top Performing States (Beneficiaries):
1. Uttar Pradesh (1.85 crore)
2. West Bengal (1.23 crore)
3. Bihar (1.16 crore)
4. Madhya Pradesh (88.4 Lakh)
5. Rajasthan (73.83 Lakh)

International Recognition:
- The scheme has received praise from international bodies like the **International Energy Agency (IEA)** and the **World Health Organization (WHO)** for its positive impact on health, environment, and women's lives.

APY Crosses Major Milestones: Securing India's Unorganised Sector

The **Atal Pension Yojana (APY)**, a flagship social security scheme of the Government of India, has achieved significant milestones, showcasing its growing popularity among citizens, especially those in the **unorganised sector**. As of April 2025, the scheme has garnered over **7.65 crore subscribers** and accumulated an impressive **Assets Under Management (AUM)** of over **Rs 45,974.67 crore**.

This indicates a strong drive towards ensuring old-age income security for a vast section of the Indian population that previously lacked formal pension coverage.

Key Highlights of Atal Pension Yojana:
- **Objective:** To provide a **guaranteed minimum monthly pension** to subscribers after the age of 60, encouraging a culture of savings and financial security for old age. It primarily targets workers in the **unorganised sector**.
- **Administering Body:** The scheme is administered by the **Pension Fund Regulatory and Development Authority (PFRDA)**.
- **Eligibility:**
  - o Open to all **Indian citizens**.
  - o Entry age is between **18 and 40 years**.
  - o Must have a **savings bank account** or a post office savings bank account.
  - o **Important Note:** Individuals who are **income-tax payers are not eligible** to join APY from October 1, 2022.
- **Pension Slabs:** Subscribers can choose a guaranteed minimum monthly pension of **Rs 1,000, Rs 2,000, Rs 3,000, Rs 4,000, or Rs 5,000** after attaining 60 years of age.
- **Contribution:** The monthly contribution amount depends on the **age of entry** and the **chosen pension slab**. Contributions need to be made until the age of 60.
- **Government Co-contribution (Legacy Provision):** The Central Government used to co-contribute 50% of the subscriber's contribution or Rs. 1,000 per annum, whichever was lower, for a period of 5 years (2015-16 to 2019-20) for those who joined before March 31, 2016, were not beneficiaries of any other statutory social security scheme, and were not income tax payers. This specific co-contribution is not applicable for new subscribers now, but the scheme continues with its defined pension benefits.
- **Benefits on Maturity/Death:**
  - o On attaining 60 years, the subscriber receives the chosen monthly pension.
  - o After the subscriber's death, the **same pension is payable to the spouse**.
  - o On the death of both the subscriber and the spouse, the **accumulated pension corpus** (as

accumulated till age 60 of the subscriber) is returned to the **nominee**.

- **Premature Exit:** Exit before 60 years is generally not permitted. However, it is allowed only in exceptional circumstances, such as death of the beneficiary or terminal disease, with certain conditions regarding the refund of contributions.

Significance of APY for India:

- **Social Security Net:** Provides a crucial safety net for individuals in the unorganised sector who often lack job security and post-retirement financial support.
- **Financial Inclusion:** Encourages people from lower-income groups to join the formal financial system through bank accounts and regular savings.
- **Empowerment:** Particularly empowers vulnerable sections, including women, by providing them with a means to secure their old age. Reports indicate a **high participation rate of women** in the scheme.
- **Reduced Dependency:** Aims to reduce the dependency of the elderly on ad-hoc government support or family members, fostering dignity in old age.
- **Long-term Savings:** Promotes long-term savings for a specific, critical life goal – retirement.

10 Years of Jansuraksha: Securing Millions with Affordable Insurance and Pension

India recently marked the **10th anniversary of** three flagship social security schemes – **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)**, **Pradhan Mantri Suraksha Bima Yojana (PMSBY)**, and **Atal Pension Yojana (APY)** – **on** May 9, 2025. Launched by Prime Minister Shri Narendra Modi on May 9, 2015, these schemes were envisioned with the principle of **"Securing the Unsecured,"** aiming to provide affordable financial protection to all citizens, particularly the underserved and vulnerable.

Over the past decade, these **Jansuraksha schemes have** significantly broadened the insurance and pension landscape in India, shielding millions against life's uncertainties.

Overall Achievements (as of April 2025):

- **PMJJBY:** Over **23.6 crore** enrolments.
- **PMSBY:** Over **51 crore** enrolments.
- **APY:** Over **7.6 crore** enrolments.
- A key highlight has been the **digitization and simplification** of enrolment and claims processes, notably through the **Jan Suraksha Portal**, making these schemes more accessible.

1. Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):

- **Objective:** Provides life insurance cover for death due to any reason.
- **Eligibility:** Available to individuals aged **18 to 50 years** with a bank or post office account who give consent for auto-debit of premium.
- **Premium: Rs. 436 per annum** (less than Rs. 2 per day).
- **Benefits:** A sum assured of **Rs. 2 lakh** is payable to the nominee upon the subscriber's death.
- **Cover Period:** One-year cover, renewable annually from June 1st to May 31st.
- **Claims Settled:** Claims worth **₹18,398 crore** have been paid to over 9 lakh families.

2. Pradhan Mantri Suraksha Bima Yojana (PMSBY):

- **Objective:** Provides insurance cover for accidental death or disability.
- **Eligibility:** Available to individuals aged **18 to 70 years** with a bank or post office account who give consent for auto-debit.
- **Premium:** Very affordable at **Rs. 20 per annum**.
- **Benefits:**
    - **Rs. 2 lakh** for accidental death or total and irrecoverable loss of both eyes/hands/feet.
    - **Rs. 1 lakh** for total and irrecoverable loss of one eye/hand/foot.
- **Claims Settled:** Claims worth **₹3,121 crore** have been paid to over 1.57 lakh families.

3. Atal Pension Yojana (APY):

- **Objective:** A pension scheme focused on workers in the **unorganised sector**, encouraging them to save for their retirement.
- **Eligibility:** Open to Indian citizens aged **18 to 40 years** with a bank account.
- **Benefits:** Subscribers receive a **guaranteed minimum monthly pension** of Rs. 1,000, Rs. 2,000, Rs. 3,000, Rs. 4,000, or Rs. 5,000 after attaining the age of 60.
- **Contribution:** The monthly contribution amount depends on the age of joining and the chosen pension amount. The government also co-contributed 50% of the subscriber's contribution or Rs. 1,000 per annum, whichever is lower, for five years for those who joined before March 31, 2016, and were not income tax payers.

Summit on Global Accessibility Awareness Day Pushes for Inclusive India, Digital Access for Divyangjan

Marking **Global Accessibility Awareness Day (GAAD)** on May 15, 2025, the **Department of Empowerment of Persons with Disabilities (DEPwD)**, under the Union Ministry of Social Justice and Empowerment, organized the **"Inclusive India Summit."** Held in New Delhi in a hybrid mode, the summit aimed to promote inclusive development and enhance digital accessibility for **Divyangjan** (Persons with Disabilities) across the country.

The event, conducted in collaboration with partners like the SBI Foundation, National Association for the Blind (NAB), Association of People with Disability (APD), and Mission Accessibility, brought together stakeholders from government, industry, academia, and civil society. Secretary of DEPwD, Shri Rajesh Aggarwal, was the Chief Guest and emphasized that ensuring accessibility and inclusion is a collective societal duty, highlighting the transformative role of technology in the lives of Divyangjan.

Key Highlights and Outcomes of the Summit:

The summit focused on practical measures to create a barrier-free environment and equal opportunities for persons with disabilities. Significant announcements and initiatives included:

- **Signing of MoUs:** DEPwD signed three Memoranda of Understanding (MoUs) with different organizations to bolster accessibility efforts:

- **I for Humanity Foundation:** To develop an accessible built environment and transportation system, including creating an 'Accessibility Index' for auditing public buildings.
- **Nipman Foundation and Young Leaders for Active Citizenship (YLAC):** To promote innovation and awareness about the rights of PwDs through hackathons, national competitions, and Equal Opportunity Awards.
- **Ramp my City Foundation:** To focus on building barrier-free public infrastructure, including healthcare centers, tourist spots, and government buildings.

- **AI-enabled Chatbot Demonstration:** A voice and WhatsApp-based AI-enabled chatbot, being developed with Sarvam AI, was showcased. This chatbot aims to improve Divyangjan's access to information about disability-related schemes and initiatives.
- **Accessibility Report Card:** Mission Accessibility was slated to release its annual Accessibility Report Card, presenting the current status of accessibility nationwide.
- **Draft Curriculum on Digital Accessibility:** A draft curriculum developed by APD, aimed at integrating digital accessibility guidelines into computer science and design courses, was presented.
- **Panel Discussions:** Experts deliberated on practical measures to make technologies and products more inclusive and accessible for persons with disabilities.

Understanding Key Terms and Concepts:

- **Global Accessibility Awareness Day (GAAD):** Observed annually on the third Thursday of May (May 15th in 2025), GAAD aims to get everyone talking, thinking, and learning about digital access and inclusion for people with different disabilities.
- **Divyangjan:** A term coined by Prime Minister Narendra Modi for Persons with Disabilities, meaning "persons with divine ability."
- **Digital Accessibility:** Ensuring that websites, mobile applications, digital documents, and other online information and services are designed and developed so that people with disabilities can use them effectively. This often involves adhering to standards like the **Web Content Accessibility Guidelines (WCAG)**.
- **Inclusive Development:** A process that ensures all marginalized and excluded groups (including Divyangjan) are stakeholders in development processes, leading to equitable opportunities and outcomes.
- **Assistive Technology:** Devices, software, or equipment that help people with disabilities perform tasks that might otherwise be difficult or impossible (e.g., screen readers, hearing aids, mobility aids).

India's Legal and Policy Framework for Divyangjan:

India has a robust legal and policy framework to protect and promote the rights of Divyangjan:

- **Rights of Persons with Disabilities (RPwD) Act, 2016:** This landmark legislation replaced the PwD Act, 1995.
  - It expanded the number of recognized disabilities from 7 to **21**, including conditions like acid attack victimhood, dwarfism, specific learning disabilities, and Parkinson's disease.
  - It mandates **non-discrimination** and **equal opportunity** in education, employment, and access to public services.
  - It stipulates **reservations** for PwDs in government jobs (not less than 4%) and higher education institutions.
  - It emphasizes the creation of a **barrier-free environment** by making public infrastructure, transportation, and information and communication technology (ICT) accessible.
  - It provides for penalties for offenses committed against persons with disabilities.

- **Accessible India Campaign (Sugamya Bharat Abhiyan):** Launched in 2015, this nationwide flagship campaign aims to achieve universal accessibility for PwDs by focusing on three verticals:
  - **Built Environment Accessibility:** Making public buildings accessible.
  - **Transportation System Accessibility:** Ensuring public transport (trains, buses, airports) is accessible.
  - **ICT Ecosystem Accessibility:** Making websites, public documents, and TV programs accessible.
- **National Policy for Persons with Disabilities:** Provides an overarching framework for the empowerment of PwDs.
- **Chief Commissioner for Persons with Disabilities (CCPD):** A statutory body to safeguard the rights of PwDs and monitor the implementation of the RPwD Act. (An Online Case Monitoring Portal by CCPD was expected to be highlighted or launched, facilitating faster grievance redressal).
- **National Informatics Centre (NIC):** Plays a vital role in developing accessible government websites and digital platforms.

"SAGAR Mein SAMMAN": India Launches New Initiative to Boost Women in Maritime Sector

Marking the **International Day for Women in Maritime** on May 18, 2025, India has launched a significant new policy initiative named **"SAGAR Mein SAMMAN"** (Respect in the Ocean). Unveiled by Union Minister of Ports, Shipping and Waterways (MoPSW), Shri Sarbananda Sonowal, this initiative aims to create a gender-equitable maritime workforce and substantially increase the participation of women in the sector. This move aligns with India's broader goals of **'Nari Shakti'** (women empowerment) and strengthening its position as a global maritime powerhouse.

The theme for the International Day for Women in Maritime 2025, as highlighted by the **International Maritime Organization (IMO)**, is **"An Ocean of Opportunities for Women."** India's new initiative resonates strongly with this global call to action.

Key Objectives and Scope of "SAGAR Mein SAMMAN":

The "SAGAR Mein SAMMAN" policy is designed to provide a structured roadmap for enhancing women's participation in both seafaring and shore-based maritime roles. Its core objectives include:

- **Empowerment and Leadership:** Creating pathways for women to take on leadership roles within the maritime industry.

- **Inclusivity and Equal Opportunity:** Ensuring fair opportunities and a level playing field for women.
- **Safety and Well-being:** Addressing safety concerns and ensuring a conducive and secure working environment for women seafarers. This includes focusing on aspects critical for women working far from home.
- **Skill Development and Training:** Providing targeted training and skill enhancement programs to equip women for various technical and operational roles in the sector.
- **Bridging the Gender Gap:** Actively working to reduce the existing gender disparity in all facets of maritime operations, from dock work to decision-making positions on boards.
- **Structured Roadmap:** The policy will entail planning and strategy, training and development, research and development, robust governance and compliance mechanisms, communications, and community outreach.
- **National Target:** The government has set an ambitious target of achieving **12% female representation in technical maritime roles by 2030.**

Why is This Initiative Important?

- **Addressing Underrepresentation:** Globally, women are significantly underrepresented in the maritime sector, accounting for a very small percentage of the seafaring workforce (around 1-2% globally according to some reports, though overall workforce participation in the broader maritime sector is higher but still skewed).
- **Strategic Necessity:** As Minister Sonowal stated, "Empowering women in maritime is not just about equity—it's a strategic necessity. Their leadership brings innovation, strength, and a more sustainable future for the sector."
- **Meeting Skill Demand:** The maritime industry faces a growing demand for skilled professionals. Tapping into the potential of women can help address this shortage.
- **Diverse Perspectives:** Increased participation of women can bring diverse perspectives and approaches to problem-solving and innovation within the industry.
- **Economic Empowerment:** Providing more job opportunities for women in a significant economic sector contributes to their financial independence and overall empowerment.
- **Alignment with Global Goals:** The initiative supports the UN Sustainable Development Goal 5 (Gender Equality) and the IMO's efforts to promote women in maritime.

Challenges Faced by Women in the Maritime Sector:

Despite progress, women in the maritime industry often face several challenges:

- **Gender Stereotyping and Bias:** Preconceived notions about roles suitable for women can hinder recruitment and career progression.
- **Safety and Security Concerns:** Issues related to personal safety and harassment on board ships or in port areas.
- **Lack of Adequate Facilities:** Insufficient gender-sensitive facilities and amenities on vessels and in maritime institutions.
- **Work-Life Balance:** Long voyages and time away from home can pose challenges, particularly for women with family responsibilities.

- **Limited Career Advancement Opportunities:** Systemic biases can sometimes limit opportunities for women to reach senior and managerial positions.
- **Pay Gap:** Disparities in pay between men and women for similar roles can exist.

India's Maritime Vision and Broader Context:

- **Sagarmala Programme:** This flagship programme of the MoPSW aims at port-led development, enhancing port connectivity, modernizing ports, and developing coastal communities. It has a significant impact on employment generation and economic growth in the maritime sector.
- **Maritime India Vision 2030:** This document outlines a roadmap for the development of India's maritime sector, which also includes encouraging women's participation through initiatives like the 'Women in Seafarer' program.
- **Nari Shakti:** The "SAGAR Mein SAMMAN" initiative is a clear reflection of the government's emphasis on 'Nari Shakti' (women power) as a fundamental pillar of national development.

Centre Earmarks 4% Housing Quota for Employees with Disabilities

The Central Government has announced a **4% reservation for Persons with Disabilities (PwDs)** in the allocation of **Central Government residential accommodations**. This decision, effective immediately, aims to provide easier access to housing for government employees with disabilities and aligns with the principles of the **Rights of Persons with Disabilities (RPwD) Act, 2016**.

What is the New Policy?

- **Reservation Percentage:** A **4% quota** has been introduced in the allotment of **General Pool Residential Accommodation (GPRA)**.
- **Beneficiaries:** This reservation is for **Central Government civilian employees** who have **benchmark disabilities** as defined under the RPwD Act, 2016.
- **Implementing Authority:** The **Directorate of Estates**, under the **Ministry of Housing and Urban Affairs (MoHUA),** will implement this policy. An Office Memorandum to this effect was issued around May 22-23, 2025.
- **Legal Backing:** The move is in direct alignment with the provisions of the **Rights of Persons with Disabilities (RPwD) Act, 2016**, which mandates non-discrimination and equal opportunity.

Who Benefits from This?

- The primary beneficiaries are **Central Government employees with benchmark disabilities**. A "person with benchmark disability" generally means a person with not less than 40% of a specified disability.
- The **Unique Disability ID (UDID) card**, issued by the Government, will serve as valid proof of disability for availing this quota. Applicants will need to upload their UDID card to their profile on the eSampada portal for verification.
- Reports suggest this reservation will cover various types of accommodations, potentially up to Type V housing, benefiting officials across different ranks, from Assistant Section Officers to Directors.

Implementation Details

- The allotment will be processed through the government's **automated system of allotment (ASA)** via the **eSampada portal**.
- Eligible PwD applicants will be given **priority over the unified waiting list** during the monthly online bidding process for both initial allotment and requests for change of GPRA.
- The respective ministries or departments will verify the UDID card before forwarding the application to the Directorate of Estates.

This initiative is expected to make a tangible difference in the lives of many Central Government employees with disabilities, promoting a more supportive and accessible work ecosystem.

President Murmu Honours Nursing Professionals with National Florence Nightingale Awards

President Droupadi Murmu conferred the prestigious **National Florence Nightingale Awards** upon **30 nursing professionals** from across the country at a ceremony held at Rashtrapati Bhavan on May 29, 2025. The awards, given for the years 2023 and 2024 (15 awardees for each year), recognized the selfless dedication, compassion, and meritorious services rendered by these nurses in various healthcare settings.

The National Florence Nightingale Awards, instituted by the **Ministry of Health and Family Welfare in** 1973, stand as the highest national distinction for nurses in India. The award ceremony highlighted the crucial role played by the nursing community in strengthening the nation's healthcare system.

Key Highlights of the Awards:

- **Recognition of Excellence:** The awards acknowledge the extraordinary contributions of nursing personnel, including **Auxiliary Nurse Midwives (ANMs)**, **Lady Health Visitors (LHVs)**, and **Registered Nurses and Midwives (RNMs)**, working in central, state/UT, private, missionary, and voluntary organizations.
- **Presidential Honour:** The awards were presented by the President of India, underscoring the high esteem in which the nursing profession is held.
- **Diverse Representation:** The awardees represented a wide geographical spread and diverse specializations within the nursing field, showcasing the breadth of talent and dedication within the profession.
- **Award Components:** Each awardee received a **cash prize of ₹1 lakh, a medal, and a certificate of merit**.
- **Inspiring Future Generations:** The ceremony serves as an inspiration for young individuals to join the nursing profession and contribute to society's well-being.

About the National Florence Nightingale Awards:

- **Instituted:** In **1973** by the Ministry of Health and Family Welfare, Government of India.
- **Named After: Florence Nightingale**, the founder of modern nursing.
- **Objective:** To recognize the meritorious services rendered by nursing professionals to society.
- **Eligibility:** Open to Registered Auxiliary Nurse Midwives (ANMs), Lady Health Visitors (LHVs), and Registered Nurses and Midwives (RNMs) employed in Central, State/UT governments, private, missionary, and voluntary organizations.
- **Selection Process:** Involves nominations by respective state governments/UT administrations or employing authorities. A screening committee and a central selection committee, comprising experts and representatives from the health sector, evaluate the nominations based on service records, dedication, innovation, and impact on public health.
- **Frequency:** Typically awarded annually.

Who was Florence Nightingale (1820-1910)?

- **The Founder of Modern Nursing:** Florence Nightingale, an English social reformer and statistician, is revered as the founder of modern nursing.
- **"The Lady with the Lamp":** She gained prominence during the **Crimean War (1854-1856)** where she, along with a team of nurses, dramatically improved the unsanitary conditions at a British base hospital, significantly reducing death rates. Her nightly rounds tending to wounded soldiers earned her the iconic title "The Lady with the Lamp."
- **Contributions to Nursing Education:** She established the **Nightingale School of Nursing at St. Thomas' Hospital in London in 1860**, the first secular nursing school in the world. This laid the foundation for professional nursing education.
- **Pioneer in Statistics and Hospital Reform:** Nightingale was a skilled statistician and used data visualization (like the polar area diagram, a precursor to the pie chart) to advocate for healthcare reforms. Her work led to significant improvements in hospital sanitation and public health policies.
- **Legacy:** Her work professionalized nursing, emphasizing hygiene, sanitation, patient observation, and compassionate care. **International Nurses Day** is celebrated annually on her birthday, **May 12th**.

The Nursing Profession in India: Role and Challenges:

- **Pivotal Role:** Nurses are the largest group of healthcare providers in India. They are crucial for:
  - **Direct Patient Care:** In hospitals, clinics, and home settings.
  - **Public Health Delivery:** Implementing national health programs, immunization drives (like Mission Indradhanush), maternal and child health services (under schemes like Janani Shishu Suraksha Karyakram - JSSK), and health education in communities.
  - **Emergency and Disaster Response:** Providing critical care during health emergencies and natural disasters.
  - **Health Management and Administration:** Experienced nurses often take up supervisory and administrative roles.
- **Challenges Faced:**
  - **Shortage of Nurses:** India faces a significant shortfall of nurses compared to WHO norms (nurse-to-population ratio).
  - **Uneven Distribution:** Concentration of nursing staff in urban areas, leaving rural and remote areas underserved.

- o **Workforce Burnout:** Due to high patient loads, long working hours, and often inadequate staffing and resources.
- o **Remuneration and Working Conditions:** Issues related to pay disparities (especially in the private sector), job security for contractual staff, and challenging work environments.
- o **Need for Continuous Skill Upgradation:** Keeping pace with advancements in medical technology and evidence-based practices.
- o **Social Recognition and Status:** While recognized for their service, the profession sometimes faces challenges in terms of social status and empowerment.

Government Initiatives to Strengthen Nursing:

- **Increasing Nursing Education Institutions:** Establishment of new nursing colleges, often co-located with medical colleges.
- **Upgradation of Nursing Schools:** Improving infrastructure and faculty in existing nursing schools.
- **Development of Specialized Nursing Courses:** To cater to the growing need for specialists in areas like critical care, oncology, and geriatrics.
- **National Nursing and Midwifery Commission Bill:** Aimed at reforming the regulatory structure for nursing and midwifery education and practice, replacing the Indian Nursing Council Act, 1947.

Culture and Arts

Inscription from Vikramaditya I Era

A **7th-century AD** Old Kannada inscription was unearthed at **Madapura Lake**, Nyamati taluk, Davangere district, providing fresh insights into **Badami Chalukya** administration under **Vikramaditya I** (r. 654–681 CE). The slab—five feet long with 17 lines—documents a **tax waiver**, **land donation**, and the extent of the **Ballavi** administrative unit, while later carvings hint at continued **cultural significance**.

- **Discovery Details**
  - o Found during lake desilting by villagers using a JCB at Madapura Lake on **April 29, 2025**.
  - o Measures **five feet** in length, with **17 lines** in **Old Kannada script**.
- **Historical Context**
  - o Dates to **Vikramaditya I's reign** (654–681 CE), third son of Pulakesin II who restored Chalukya stability and repelled Pallava incursions.
  - o Vikramaditya I is credited with recapturing **Vatapi** and consolidating the empire after 642 CE turmoil.
- **Content & Significance**
  - o Records an act by **Singhavenna**, a local officer who **waived taxes** for villagers, indicating early **welfare measures**.
  - o Mentions a **six-acre land donation** (six mattaru) for **lake construction**, shedding light on **landholding patterns**.

- o References **Ballavi** as an administrative unit overseeing **~70 villages**, illustrating organised local governance.
- **Cultural Continuity**
  - o The same slab bears a **17th-century** incomplete relief sculpture, suggesting the site's **religious or communal importance** through later centuries.

Telangana's Shatavahana Heritage

The **ASI** has documented **11 inscriptions** in the **Gundaram Reserve Forest**, Telangana, dating from the **1st century BCE to 1st century CE**, enriching our knowledge of **Satavahana polity**, **Chutu alliances**, and Telangana's role as **Asmaka**. Two key stones bear **trident** and **damaru** symbols and reference **Kumāra Hakusiri** and his **Chutu** associates.

- **Expedition & Documentation**
  - o ASI's **epigraphy branch** conducted estampage in **late April 2025**, with forest department cooperation.
  - o Eleven inscriptions were copied at **Sitammalodi rock shelter**, Peddapalli district.
- **Dynastic Insights**
  - o References to **Kumāra Hakusiri**, Satavahana prince (son of Naganika & Satakarni I), highlight **royal patronage** and **territorial control**.
  - o Inscriptions begin with **trident** (Ṭṛiśūla) and **damaru** symbols—rare in early Deccan scripts—indicating **Shaiva influence**.
- **Political Alliances**
  - o Mention of a **Hāritiputra** figure from the **Chutu dynasty**, called a **mitasa** (friend) of the Satavahanas, points to **inter-dynastic collaboration**.
  - o Reinforces Telangana's identification as part of **Asmaka**, one of the **sixteen Mahajanapadas**.
- **Socio-Cultural Dimensions**
  - o Evidence of **Buddhist patronage** (cave excavation for monks) and **local governance structures**.
  - o Artifacts provide material for studying **early Brahmi script evolution** and **religio-political symbolism**.

India Acts to Halt Hong Kong Auction of Sacred Buddhist Relics

The Government of India has taken swift action to prevent the auction of highly revered Buddhist relics by Sotheby's in Hong Kong, scheduled for May 7, 2025. The **Archaeological Survey of India (ASI)**, under the Ministry of Culture, and the Ministry of External Affairs (MEA) are actively working to stop the sale and seek the return of these sacred items.

What are the Relics in Question?

- The auction lot, reportedly titled "The Sakyamuni Buddha — Seven Sacred Relics and an Imperial Edict Scroll," includes **seven bone fragments** claimed to be from the mortal remains of **Buddha Sakyamuni**.
- These relics are considered to be of immense spiritual and historical significance to Buddhists worldwide.

- The lot also contains other artifacts, including an imperial edict scroll by Chinese Emperor Qianlong dating back to 1757.
- The collection was expected to fetch between HK$40 million and HK$60 million.

India's Concerns and Actions:

- **Sacred Nature:** India strongly objects to the commercialization of items that are of profound religious importance. These are not mere artifacts but are viewed as sacred body relics of the Buddha.
- **Provenance and Ownership:** The relics were reportedly excavated in 1898 by British colonial landowner William Claxton Peppé from a stupa at Piprahwa, in present-day Uttar Pradesh, India (a site widely identified with ancient Kapilavastu). While a portion of the original find was gifted to the King of Siam (Thailand) and some are in the Indian Museum, Kolkata (classified as 'AA' antiquities, making their sale or removal from India illegal), the items up for auction were reportedly retained by Peppé's descendants, now a Japanese private collector. India is questioning the authority of the current possessor to sell these items.
- **Legal and Diplomatic Measures:**
  - The Ministry of Culture has issued a **legal notice** to Sotheby's Hong Kong and the family of William Claxton Peppé, demanding an immediate halt to the auction and the repatriation of the relics to India.
  - The **ASI** has formally requested the **Consulate General of India in Hong Kong** to take up the matter with local authorities.
  - The **MEA** is actively engaged in diplomatic efforts. The Union Culture Minister, Gajendra Singh Shekhawat, reportedly raised the issue with his UK counterpart, the Secretary of State for Culture, Media and Sport, during a bilateral meeting.
  - The Financial Investigation Unit (FIU) has also been asked to coordinate with its counterpart in Hong Kong to highlight the illegality of the auction.
- **Violation of Laws and Conventions:** India contends that the auction violates Indian and international laws, as well as United Nations conventions concerning cultural heritage.

Why is this Intervention Significant?

- **Protection of Cultural and Religious Heritage:** This action underscores India's unwavering commitment to protecting its invaluable cultural and religious heritage, which has a global significance, especially in the context of Buddhism.
- **Ethical Stance:** It highlights the ethical concerns surrounding the trade and commodification of sacred objects that hold deep spiritual meaning for millions.
- **Custodianship of Buddhist Legacy:** India, as the birthplace of Buddhism, sees itself as a custodian of Buddhist traditions and heritage. This intervention reinforces that role.
- **International Cooperation:** The issue brings to the forefront the need for international cooperation in preventing the illicit trafficking of cultural property and

ensuring the respectful treatment of such items. While specific conventions might not be explicitly cited in initial reports, the spirit of UNESCO's 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property often guides such interventions.

Sotheby's has reportedly acknowledged the legal notice and assured that the matter is receiving their full attention. The Indian government remains steadfast in its efforts to ensure these sacred relics are not auctioned and are returned to their rightful context, preserving their sanctity and historical value.

Environment

Mahuadanr: A Model of Tribal Wisdom in Wolf Conservation

Indian Gray Wolf (Canis lupus pallipes)

- Wild population estimated at **fewer than 3,000** individuals, scattered mostly across central and western India.
- Plays a **vital ecological role** as a top predator, helping control herbivore numbers and maintain healthy grasslands.

Human–Wolf Conflict

- Negative perceptions arise from **livestock predation** and proximity to villages.
- Media narratives often **sensationalise** wolf attacks, ignoring underlying causes like shrinking prey or habitat loss.
- Wolves receive **minimal policy attention** compared to charismatic species (e.g., tigers, elephants).

Mahuadanr Wolf Sanctuary, Jharkhand

- India's **first dedicated wolf sanctuary**, established in Latehar district.
- Landscape dominated by tribal communities (over **80% Sarna Dharma** followers) who practice **nature worship**.

Cultural Buffer Zones

- Sarna Dharma believers **avoid Sal forests** (Shorea robusta) from **November to February**, coinciding with wolf **breeding and denning season**.
- This seasonal taboo creates **undisturbed habitats**, unintentionally safeguarding wolf dens.

Key Research Findings

- Wolves select den sites on **steep slopes** and in **dense undergrowth**, reducing detection risk.
- A significant preference for **Sal-dominated areas** confirms the effect of **cultural avoidance** on den site choice.
- Den sites are **farther from human settlements** with **lower disturbance indices**, highlighting effective human–wildlife coexistence.

Centre Unveils 30-Point Action Plan for Yamuna Rejuvenation

The Government of India has finalized a comprehensive **30-point action plan** aimed at cleaning and rejuvenating the heavily polluted **Yamuna River** in Delhi. This multi-agency plan, developed following a high-level meeting chaired by Prime Minister Narendra Modi in April 2025, focuses on tackling pollution, restoring the river's ecosystem, and ensuring clean drinking water for Delhi's residents.

Key Objectives and Action Areas:

The plan is built around several core pillars:

- **Enhancing Environmental Flow (E-flow):** Increasing the minimum water flow required to sustain the river's ecological health.
- **Sewage Management:** Treating sewage effectively before it enters the river.
- **Drain Management:** Tapping and treating polluted water from major drains.
- **Flood Plain Protection & Riverfront Development:** Removing encroachments and restoring the river's natural floodplains.
- **Solid Waste Management:** Addressing issues of solid waste dumping, especially plastics.
- **Septage and Dairy Waste Management:** Managing waste from unsewered areas and dairies.
- **Governance, Monitoring & Public Outreach:** Ensuring effective implementation, surveillance, and citizen engagement.

Specific Targets and Timelines:

- **Boosting E-flow:**
    - Discharge **773 MLD** (Million Litres per Day) of treated water from Coronation Pillar & Yamuna Vihar **Sewage Treatment Plants (STPs)** downstream of Wazirabad barrage by **September 2026**.
    - Release an additional **6.23 cumecs** (cubic meters per second) of treated water from the Okhla STP.
- **Sewage Treatment Upgrade:**
    - Create approximately **500 MLD additional STP capacity** by **March 2029**.
    - Build new STPs at strategic locations (e.g., Delhi Gate, Shastri Park).
    - Connect **1,799 unauthorised colonies** to the formal sewage network.
- **Floodplain Restoration:**
    - A dedicated **Special Task Force** will remove **floodplain encroachments** by **September 2026**.
    - Implement 10 floodplain restoration projects (e.g., Mayur Nature Park).
- **Waste Management:**
    - Immediate focus (next 3 months from May 2025) on removing plastic and trash from drains.
    - Set up biogas plants for managing dairy waste.

Implementation Framework:

- **Key Agencies Involved:** The plan requires coordinated efforts from central and Delhi agencies including:
    - **Delhi Development Authority (DDA)**
    - **National Mission for Clean Ganga (NMCG)**
    - **Central Pollution Control Board (CPCB)**
    - **Delhi Government**
    - **Delhi Jal Board (DJB)**
    - **Municipal Corporation of Delhi (MCD)**
- **Funding:** A dedicated **"Yamuna Kosh" (Yamuna Fund)** is proposed to support revitalization initiatives and ensure complete treatment of wastewater from major drains.
- **Timelines:** Specific tasks have deadlines ranging from **June 2025 to March 2029**.

Significance:

- **Urban River Management:** This plan addresses the critical challenge of rejuvenating a major river flowing through a densely populated megacity, tackling issues common to many urban rivers in India.
- **Pollution Abatement:** Directly targets major sources of pollution – untreated sewage, industrial effluents (via drains), solid waste, and agricultural runoff (dairy waste). This aligns with SDG Goal 6 (Clean Water and Sanitation).
- **Ecological Restoration:** Restoring E-flow and protecting floodplains are crucial for reviving the river's biodiversity and natural self-purification capacity.
- **Inter-Agency Coordination:** The success hinges on effective collaboration between multiple central and state-level agencies, a common challenge in large-scale projects.
- **Governance & Enforcement:** Establishing a dedicated task force and fund indicates a focus on implementation and long-term sustainability.

Political Context:

The initiative follows the BJP's pledge in its 2025 Delhi Assembly election manifesto to clean the Yamuna, criticizing past efforts. Plans also include developing the Yamuna Riverfront, similar to Ahmedabad's Sabarmati Riverfront.

COP30: Brazil Pushes for New Global Climate Governance Model

As Brazil prepares to host the **30th Conference of the Parties (COP30)** to the UN Framework Convention on Climate Change (UNFCCC) in **Belém do Pará in November 2025**, it is championing a call for a **new paradigm in global climate governance**. This push, articulated by officials including Environment Minister Marina Silva, aims to move beyond traditional frameworks and foster more effective and accelerated implementation of climate commitments.

The Core Call for Change:

- **Beyond Old Divisions:** Brazil advocates for a governance model that transcends the historic North-South divide, emphasizing **shared but differentiated responsibilities and respective capabilities (CBDR-RC)** with a renewed focus on common solutions and collective action.
- **Focus on Implementation:** A key driver for this call is the perceived inadequacy of the current system to ensure the effective implementation of existing climate pledges, such as **Nationally Determined Contributions (NDCs)**. Brazil argues that simply negotiating new commitments is insufficient without robust mechanisms to translate them into action.
- **Proposed Forum for Governance Discussion:** Interestingly, the Brazilian COP30

Presidency has suggested that discussions on "innovative governance approaches" might be better suited for the **United Nations General Assembly (UNGA)** rather than within the COP process itself. This could involve exploring ways to enhance international cooperation in sharing data, knowledge, and resources.

- **"Global Mutirão" (Collective Effort):** Brazil is promoting the idea of a "global mutirão," an unprecedented collective mobilization against climate change. This involves integrating local actions into a global movement, engaging sub-national governments, the private sector, civil society, indigenous peoples, and other stakeholders.

Key Priorities and Vision for COP30 in Belém:

COP30 is set to be a landmark event, marking the 10th anniversary of the Paris Agreement and a crucial juncture to assess progress and ramp up ambition.4 Brazil's presidency is expected to focus on several key areas:

- **Enhanced Climate Finance:** This remains a critical issue. There will be a strong push for developed countries to fulfill past financial commitments and to agree on an ambitious **New Collective Quantified Goal (NCQG)** on climate finance, building on the previous $100 billion annual target. The **"Baku to Belém Roadmap"** aims to mobilize at least **$1.3 trillion per year by 2035** for developing countries.
- **Ambitious NDCs:** Countries are expected to submit new and more ambitious NDCs for 2035, aligned with the goal of limiting global warming to **1.5°C**.5
- **Implementing Global Stocktake (GST) Outcomes:** COP30 will be vital for translating the decisions from the first Global Stocktake (concluded at COP28) into concrete actions. This includes efforts to triple global renewable energy capacity, double energy efficiency, and transition away from fossil fuels in a just and equitable manner.
- **Adaptation and Resilience:** Giving equal political priority to adaptation alongside mitigation, and making progress on the **Global Goal on Adaptation (GGA)**.
- **Loss and Damage:** Operationalizing and adequately funding the Loss and Damage fund established at previous COPs.
- **Halting Deforestation:** Given COP30's location in the Amazon, a strong focus on combating deforestation, promoting sustainable forest management, and recognizing the role of indigenous communities is anticipated.6 Brazil aims to showcase its efforts in this regard.
- **Just and Inclusive Transition:** Ensuring that the transition to low-carbon economies is equitable, creates new opportunities, and supports the most vulnerable populations and ecosystems.
- **Technology Transfer and Capacity Building:** Strengthening mechanisms for technology development and transfer to developing countries.

Brazil's Leadership Circles and COP30 Pillars:

To facilitate a more inclusive and action-oriented COP, the Brazilian presidency has announced:

- **Four Pillars for COP30:** Mobilization, Action Agenda, Negotiations, and a Leaders' Summit.
- **Four Leadership Circles:** The COP Presidents' Circle, Peoples' Circle, Finance Ministers' Circle, and the Global

Ethical Stocktake (GES) will work independently to support the COP30 Presidency.

Delhi Approves Cloud Seeding Trials to Combat Air Pollution

New Delhi: In a bid to explore new ways to tackle its severe **air pollution crisis**, the **Delhi government** has given its approval for conducting **five cloud seeding trials**. This initiative, with an outlay of approximately **₹3.21 crore**, aims to induce **artificial rain** to help settle pollutants and improve air quality, especially during peak pollution periods. The project will be implemented in collaboration with the **Indian Institute of Technology (IIT) Kanpur**.

Key Details of the Project:

- **Objective:** To assess the effectiveness of **cloud seeding technology** in mitigating air pollution in Delhi and the National Capital Region (NCR).
- **Trials and Cost:**
  - A total of **five trials** have been approved.
  - The estimated total project cost is **₹3.21 crore**, which includes approximately ₹55 lakh for each trial and a one-time setup cost of around ₹66 lakh for aircraft calibration, chemical storage, and logistics.
- **Implementing Agency: IIT Kanpur**, known for its expertise in this area, will be responsible for the planning, aircraft deployment, chemical dispersal, scientific modelling, and overall operational logistics.
- **Timeline and Coverage:** The first trial is anticipated around **May-June 2025**, contingent upon receiving necessary clearances from various central agencies. Each trial is expected to cover an area of approximately **100 square kilometres**, primarily on the outskirts of Delhi.
- **Scientific Evaluation:** After the trials, comprehensive **scientific evaluations** will be conducted to determine the effectiveness of cloud seeding in reducing air pollution levels and to assess any potential environmental impacts.

Understanding Cloud Seeding:

- **What it is:** Cloud seeding is a **weather modification technique** that aims to enhance precipitation (like rain or snow) from clouds.
- **How it works:** It involves dispersing specific substances into certain types of clouds. These substances act as **cloud condensation nuclei (CCN)** or **ice nuclei (IN)**, around which water droplets or ice crystals can form more easily.
  - Common seeding agents include **silver iodide (AgI)**, **potassium iodide (KI)**, **dry ice (solid carbon dioxide)**, and common salts like **sodium chloride**.
- **Mechanism for Pollution Control:** The induced rainfall is expected to **wash down particulate matter** and other pollutants suspended in the atmosphere, thereby temporarily improving air quality.

Potential Benefits and Concerns:

- **Potential Benefits:**

- o **Temporary Relief:** Could offer short-term relief from high pollution episodes, especially during winter smog in Delhi.
- o **Alternative Method:** Explores a technological intervention when other conventional methods show limitations.
- **Challenges and Concerns:**
  - o **Effectiveness:** The success of cloud seeding is highly dependent on **specific atmospheric conditions**, including the presence of suitable clouds with adequate moisture, wind patterns, and temperature. Its effectiveness for pollution control on a large and sustained scale is still a subject of research and debate.
  - o **Environmental Impact:** Concerns exist regarding the potential ecological effects of the seeding agents (e.g., silver iodide) on soil, water bodies, and overall ecosystems with repeated use.
  - o **Cost-Effectiveness:** Cloud seeding can be an expensive undertaking, and its cost-benefit ratio for pollution control needs careful evaluation compared to addressing pollution at its sources.
  - o **Not a Long-Term Solution:** Experts caution that cloud seeding should not be viewed as a permanent solution to air pollution. It does not address the **root causes** of pollution, such as emissions from vehicles, industries, construction activities, and stubble burning.
  - o **Logistical and Regulatory Hurdles:** Requires obtaining clearances from multiple agencies, including aviation authorities and environmental ministries.

Broader Context: Delhi's Air Pollution Challenge

Delhi and the NCR region face one of the world's worst air pollution crises, particularly from October to January. This initiative is part of the government's ongoing efforts to find innovative solutions, alongside existing measures like the Graded Response Action Plan (GRAP), promotion of electric vehicles, and curbs on polluting activities. While cloud seeding offers a potential tool, sustainable, long-term solutions lie in aggressively tackling the sources of pollution.

MP Govt Approves ₹47 Crore Plan to Tackle Human-Elephant Conflict

The Madhya Pradesh government has given its nod to a comprehensive plan worth **₹47.11 crore** aimed at managing wild elephant populations and mitigating the growing issue of **human-elephant conflict (HEC)** in the state. The approval was granted by the **State Wildlife Board**, in a meeting chaired by the Chief Minister, signalling a focused effort to address this emerging challenge. Elephants have been increasingly migrating into Madhya Pradesh from neighbouring states like Chhattisgarh and Odisha, leading to more frequent encounters with human settlements.

This multi-year plan, spanning from the financial year 2023-24 to 2026-27, will be implemented by the **MP Forest Department**. Of the total amount, ₹1.52 crore has reportedly been utilized in 2023-24 and 2024-25, with ₹20 crore allocated for 2025-26 and ₹25.59 crore for 2026-27.

Key Features of the Mitigation Plan:

- **Core Objectives:**
  - o To reduce instances of **human-elephant conflict**.
  - o To ensure the **safety of human lives and property**, as well as the **welfare of wild elephants**.
  - o To promote **elephant conservation** and effective **habitat management**.
- **Monitoring and Early Warning:**
  - o Establishment of **control rooms** for round-the-clock monitoring of elephant movement.
  - o Deployment of **e-eye surveillance systems** and use of **radio collars** for tracking elephant herds.
- **Physical Barriers and Habitat Improvement:**
  - o Construction of **elephant-proof trenches (EPTs)** and installation of **solar-powered electric fences** to deter elephants from entering human habitations and agricultural fields.
  - o Creation and rejuvenation of **water bodies** within forest areas.
  - o **Fodder development programs** in elephant habitats to ensure food availability and reduce their need to venture out.
- **Response and Community Involvement:**
  - o Formation and strengthening of **Rapid Response Teams (RRTs)** equipped with patrolling vehicles and necessary equipment for swift intervention during conflict situations.
  - o Creation of **'Haathi Mitra Dal' (Elephant Friend Teams),** comprising local villagers, to assist in tracking, providing early warnings, and awareness generation.
- **Capacity Building and Awareness:**
  - o **Training programs** for forest department personnel, villagers, and officials from other relevant departments on strategies to manage and respond to HEC.
  - o Conducting **awareness campaigns** among local communities living in proximity to elephant habitats.
- **Relief and Rehabilitation:**
  - o Streamlining the process for providing **ex-gratia payments** to victims for loss of life, injury, or damage to property and crops caused by elephants.
  - o Undertaking **rescue and rehabilitation** efforts for distressed wild animals.
- **Targeted Implementation:** The plan will initially focus on areas with significant elephant presence and conflict, including protected areas and adjoining regions in districts such as Sidhi, Shahdol, Anuppur, Umaria, Balaghat, Mandla, Dindori, and Seoni.

Background: Elephants in Madhya Pradesh

Historically, Madhya Pradesh was not considered a primary elephant habitat. However, in recent years, wild elephants have been migrating from states like Chhattisgarh, Odisha, and Jharkhand, establishing small populations in MP. The current estimate is around 100-150 elephants, with a notable presence in the Bandhavgarh Tiger Reserve. This new demographic has brought forth the challenge of HEC, a

phenomenon the state is now actively gearing up to manage. The recent unfortunate deaths of elephants in Bandhavgarh, reportedly due to poisoning or mycotoxins, have further highlighted the urgency for a robust management plan.

Understanding Human-Elephant Conflict (HEC)

HEC refers to the negative interactions between humans and elephants, which can result in injury or death to humans and elephants, crop raiding, damage to property, and retaliatory actions against elephants.

- **Key Causes of HEC:**
  - **Habitat Loss and Fragmentation:** Expansion of agriculture, infrastructure projects (roads, railways), and mining activities shrink and break up elephant habitats.
  - **Encroachment:** Human settlements expanding into forest areas and traditional **elephant corridors** (routes used by elephants to move between habitats).
  - **Resource Competition:** Elephants and humans competing for resources like land and water.
  - **Crop Raiding:** Elephants are attracted to palatable agricultural crops like sugarcane, paddy, and maize, leading to significant economic losses for farmers.
- **Consequences:**
  - Loss of human lives and injuries.
  - Economic hardship for communities due to crop and property damage.
  - Retaliatory killings of elephants, undermining conservation efforts.
  - Increased fear and negative perception towards wildlife among local populations.

National Efforts: Project Elephant

- Launched in **1992** by the Government of India as a **Centrally Sponsored Scheme**.
- **Aims:**
  - To protect elephants, their habitats, and migration corridors.
  - To address HEC through various management and mitigation strategies.
  - To ensure the welfare of domesticated elephants.
- It provides financial and technical assistance to states with elephant populations.

Legal Protection for Elephants

- The **Asian Elephant** is listed in **Schedule I** of the **Wildlife (Protection) Act, 1972**, granting it the highest degree of legal protection.
- Hunting, poaching, and illegal trade of elephants or their parts attract stringent penalties under this Act.

Relevance for Odisha

- Odisha is a traditional elephant-bearing state with a significant population (estimated around 2,000).
- The state faces intense HEC, resulting in considerable loss of human and elephant lives, and widespread crop damage.
- The Odisha government has been implementing various measures similar to MP's plan, including:
  - Installation of **solar fences** and digging of **trenches**.

- Creation of **'Gaja Bandhu'** (Friends of Elephants) and **'Gaja Saathi'** volunteers from local communities.
- Enhanced **ex-gratia** for victims of HEC.
- Improvement of elephant habitat and restoration of corridors.
- Declaration of **Elephant Reserves** (e.g., Mayurbhanj, Mahanadi, Sambalpur).
- The migration of elephants from Odisha to MP underscores the critical need for **inter-state coordination** and collaborative wildlife management strategies.

India's Forests: A Story of Growth and Challenges

India is making positive strides in increasing its green footprint, with a recent **State Bank of India (SBI) Research report** highlighting the nation's position among the top 10 countries globally that have seen a rise in **forest cover** over the years. This development, coupled with the findings of the **India State of Forest Report (ISFR) 2023**, paints a picture of progress, ongoing efforts, and persistent challenges in managing India's vital forest resources.

Key Highlights from the SBI Report & ISFR 2023:

- **India Among Top Performers:** The SBI report notes that India has successfully increased its forest area, a significant achievement in the face of developmental pressures.
- **Urbanisation and Forests - A 'U' Turn:** An interesting point in the SBI report is the **'U-shaped' relationship** between **urbanisation** and forest cover.
  - Initially, as cities grow, there's a tendency for deforestation.
  - However, as urbanisation matures, policies like urban greening, forest conservation programs, and sustainable land-use planning lead to a recovery and even expansion of forest areas.
  - The report suggests that once urbanisation crosses the 40% mark, its impact on forest cover is expected to turn positive.
  - Megacities in India now have a combined forest cover of 511.81 sq km, about 10.26% of their total geographical area. Delhi has the largest forest cover among them.
- **ISFR 2023 Snapshot:** The **India State of Forest Report (ISFR) 2023**, released by the **Forest Survey of India (FSI)**, provides a detailed assessment:
  - **Total Forest and Tree Cover:** India's total forest and tree cover stands at **8,27,357 square kilometres**, which is **25.17%** of the country's total geographical area.
    - **Forest Cover:** This is **7,15,343 sq km (21.76%** of GA). This refers to land more than 1 hectare in area with a tree canopy density of more than 10%, irrespective of ownership and legal status.
    - **Tree Cover:** This is **1,12,014 sq km (3.41%** of GA). This includes tree patches outside recorded forest areas, less than 1 hectare.

- o **Modest Increase:** There has been an overall increase of **1,445 sq km** in the total forest and tree cover compared to the ISFR 2021 assessment.
- o **Top Performing States (Increase in Forest & Tree Cover):** Chhattisgarh, Uttar Pradesh, Odisha, and Rajasthan showed the maximum increase.
- o **Largest Forest Cover (Area-wise):** Madhya Pradesh has the largest forest cover, followed by Arunachal Pradesh and Chhattisgarh.
- o **Concerns in the North-East:** The North-Eastern region, known for its rich forests, has shown a decrease in forest cover. This is a significant concern due to the region's high biodiversity.
- o **Mangrove Cover:** There has been a slight decrease of 7.43 sq km in **mangrove cover** nationally. Gujarat saw a notable decrease, while Andhra Pradesh recorded an increase. Mangroves are crucial coastal ecosystems.
- o **Bamboo Bearing Area:** There's an increase in the bamboo bearing area, which is important for local economies and as a wood substitute.
- o **Carbon Stock:** India's total **carbon stock** in forests is estimated to be 7,285.5 million tonnes, showing an increase. This is vital for India's **Nationally Determined Contributions (NDCs)** to combat climate change, aiming for an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent by 2030.
- **Economic Contribution:** The forestry sector contributes around 1.3-1.6% to India's **Gross Value Added (GVA)**, supporting industries like furniture, construction, and paper.

Geotubes Show Promise in Guarding Kerala's Coastline at Poonthura

A recent study has highlighted the **effectiveness of geotubes** in controlling **coastal erosion** at **Poonthura**, a vulnerable coastal area in Kerala. The findings suggest that this technology could be a viable solution for protecting India's extensive and increasingly threatened coastlines. The study, likely conducted or involving the **National Centre for Earth Science Studies (NCESS)**, observed the performance of geotubes installed at Poonthura. It found them to be successful in mitigating erosion and even aiding in beach formation.

What are Geotubes and How Do They Work?

- **Geotubes** are essentially large, tube-like bags made from special, strong, and permeable **geotextile fabric** (typically polypropylene or polyester).
- These tubes are filled with sand or a sand-slurry mix, often using locally dredged material.
- Once filled, they become quite heavy and are strategically placed along the coastline, either on the beach or as submerged breakwaters offshore.
- **How they protect the coast:**
  - o **Wave Energy Dissipation:** They act as barriers, absorbing and reducing the energy of incoming

waves before they can hit the shore and cause erosion.
  - o **Sand Trapping:** When used as submerged breakwaters or groynes (structures built perpendicular to the shore), they can slow down coastal currents and encourage sand to deposit, helping to build up the beach.
  - o **Stabilisation:** They can be used to form the core of dunes or to reinforce existing coastal structures.

Why is this Poonthura Study Significant?

- **Coastal Erosion in Kerala:** Kerala has a long coastline (around 590 km) and is one of the Indian states most affected by coastal erosion. Reports indicate that a significant percentage (around 45-46%) of Kerala's coast is experiencing varying degrees of erosion.
- **Vulnerability of Poonthura:** Poonthura, near Thiruvananthapuram, has historically been a hotspot for severe sea erosion, especially during the monsoon season, leading to loss of land, damage to property, and displacement of fishing communities.
- **Need for Effective Solutions:** Traditional methods like seawalls have often been criticized for sometimes exacerbating erosion in adjacent areas or damaging the beach ecosystem. Geotubes offer a potentially more "soft" and ecologically compatible alternative.

Coastal Erosion: A National Concern

- **India's Vast Coastline:** India has a coastline spanning approximately 7,516 km (according to older figures, with revised figures suggesting even longer lengths based on new measurement methodologies).
- **Causes of Coastal Erosion:**
  - o **Natural Causes:** Wave action (especially during storms and monsoons), strong littoral currents, sea-level rise, and storm surges.
  - o **Anthropogenic (Man-made) Causes:** Construction of harbours and dams (which trap sediment), indiscriminate sand mining from beaches and rivers, destruction of mangroves and coral reefs (which act as natural barriers), and poorly planned coastal development.
- **Impacts:**
  - o Loss of land and displacement of coastal communities.
  - o Damage to infrastructure (roads, buildings, ports).
  - o Loss of coastal habitats (beaches, mangroves, wetlands) and biodiversity.
  - o Salinization of groundwater.
  - o Impact on livelihoods, especially fishing and tourism.
- **NCCR Data:** The **National Centre for Coastal Research (NCCR)**, under the Ministry of Earth Sciences, monitors India's shoreline. Its findings indicate that a substantial portion of India's coastline (around 33.6%) is vulnerable to erosion, with states like West Bengal, Kerala, and Tamil Nadu being significantly affected.

Advantages and Limitations of Geotubes:

- **Advantages:**

- o **Cost-Effective:** Generally cheaper and quicker to install compared to hard concrete structures like seawalls.
- o **Use of Local Material:** Can often be filled with locally available sand.
- o **Flexibility:** Can be adapted to specific site conditions and are less visually intrusive than large concrete walls, especially if covered with sand and vegetated.
- o **Eco-friendlier (Potentially):** Considered a "soft" engineering solution that can allow for some natural coastal processes to continue and can even aid in beach nourishment.
- **Limitations:**
  - o **Durability:** Geotextile fabric can be susceptible to damage from UV radiation, vandalism, or severe storm events if not properly designed and maintained.
  - o **Maintenance:** Periodic inspection and repair may be needed.
  - o **Site-Specific Effectiveness:** Their performance can vary depending on local wave dynamics, sediment supply, and proper installation.
  - o **Aesthetics:** While better than concrete walls for some, large exposed geotubes can still be considered unsightly by communities.

Other Coastal Protection Measures:
Besides geotubes, various other methods are employed:
- **Hard Structures:**
  - o **Seawalls:** Concrete or rock barriers built parallel to the coast.
  - o **Groynes:** Structures built perpendicular to the shore to trap sediment.
  - o **Breakwaters:** Offshore structures to break wave energy.
  - o **Revetments:** Sloping structures on banks or cliffs to absorb wave energy.
- **Soft Structures/Approaches:**
  - o **Beach Nourishment:** Artificially adding sand to a beach.
  - o **Dune Stabilisation/Creation:** Planting vegetation to stabilise dunes.
  - o **Mangrove Plantation:** Restoring or planting mangrove forests, which are excellent natural coastal defenses.
  - o **Artificial Reefs:** Creating underwater structures to reduce wave energy and promote marine life.

Government Initiatives and Regulations:
- **Coastal Regulation Zone (CRZ) Notifications:** Issued under the **Environment (Protection) Act, 1986**, these rules regulate activities in coastal areas to protect the fragile coastal environment. The notifications (1991, 2011, and the latest **CRZ Notification 2018-19**) aim to balance development needs with coastal conservation. They categorize coastal zones and specify permissible activities, including erosion control measures.
- **Integrated Coastal Zone Management (ICZM) Project:** A World Bank-assisted project aimed at sustainable management of coastal resources and protection of coastal communities.

- **Ministry of Earth Sciences (MoES):** Plays a key role through its agencies like **NCCR** (for shoreline monitoring) and **INCOIS** (Indian National Centre for Ocean Information Services, which develops tools like the Coastal Vulnerability Index).
- **National Centre for Earth Science Studies (NCESS):**
  - o An autonomous research institute under the Ministry of Earth Sciences, located in Thiruvananthapuram, Kerala.
  - o Conducts research in various fields of earth sciences, including coastal processes, natural hazards (like coastal erosion and landslides), and environmental management.
  - o Provides scientific and technical expertise to government departments.

India's E-waste Crisis: A Call for a Revamped Management Strategy
As India rapidly digitises and embraces new technologies, a significant environmental challenge is mounting – **electronic waste (e-waste)**. A recent opinion piece in The Hindu highlights the escalating problem of e-waste and underscores the urgent need to "recast its management."

India is among the **top e-waste producers globally**, alongside countries like China and the USA. The volume of e-waste is surging, with one report indicating a **151% increase over six years**, from 7,08,445 metric tonnes in 2017-18 to an alarming 17,78,400 metric tonnes in 2023-24. This explosive growth necessitates a robust and effective management system.

What is E-waste?
- **E-waste** refers to discarded electrical and electronic equipment (EEE). This includes everything from everyday items like mobile phones, computers, televisions, refrigerators, and air conditioners to more specialized equipment like medical devices.
- Essentially, any electronic product that has reached the end of its "useful life" or is no longer wanted becomes e-waste.

The Double-Edged Sword: Impacts of E-waste
Improper handling and disposal of e-waste pose severe threats:
- **Environmental Hazards:**
  - o E-waste contains a cocktail of **hazardous substances** like lead, mercury, cadmium, beryllium, brominated flame retardants, and arsenic.
  - o When e-waste is dumped in landfills or dismantled using crude methods (like open burning or acid leaching, common in the informal sector), these toxins can leach into the **soil and groundwater**, contaminating them.
  - o Burning e-waste releases harmful gases and particulate matter into the **air**, contributing to air pollution.
- **Health Risks:**
  - o Exposure to these toxins can lead to serious health problems for workers in the informal recycling sector (including women and children

who are often involved) and communities living near dumping sites.

- o Potential health impacts include damage to the nervous system, kidneys, and brain, respiratory illnesses, developmental issues, and even cancer. The op-ed cited suggests the average lifespan of informal recyclers can be drastically reduced due to toxic exposure.
- **Loss of Valuable Resources:**
  - o E-waste also contains valuable and **critical metals** such as gold, silver, copper, platinum, palladium, and rare earth elements.
  - o Inefficient and unscientific recycling methods, predominantly used by the informal sector, lead to the loss of these resources. India reportedly loses significant revenue annually due to such inefficient metal extraction.
- **Economic Loss:** The op-ed mentions an estimated annual loss of $10 billion due to environmental degradation and ₹80,000 crore from inefficient metal extraction, along with tax revenue losses.

India's E-waste Management Framework:

India has put in place rules to manage e-waste, primarily:

- **E-Waste (Management) Rules, 2016:** This was a significant step, introducing the concept of **Extended Producer Responsibility (EPR)**.
- **E-Waste (Management) Rules, 2022 (effective April 1, 2023):** These rules have further strengthened the EPR framework and aim to streamline the e-waste management process. Key aspects include:
  - o **Extended Producer Responsibility (EPR):** This is a core principle where **producers** (manufacturers, importers, brand owners) are made responsible for the environmentally sound management of their products from cradle to grave, especially at the end-of-life stage. This includes setting up collection mechanisms and ensuring that e-waste is channelled to **authorised dismantlers and recyclers**.
  - o **EPR Targets:** Producers have specific targets for collecting and recycling e-waste, which are often linked to their sales figures.
  - o **Registration:** Manufacturers, producers, refurbishers, and recyclers are required to register on a centralized portal developed by the **Central Pollution Control Board (CPCB)**. This aims to improve accountability, traceability, and transparency.
  - o **EPR Certificates:** The system involves the generation of EPR certificates based on the quantity of e-waste recycled. Producers can meet their obligations by purchasing these certificates. The op-ed specifically discusses the importance of a **floor price for EPR certificates** to ensure fair returns for formal recyclers and curb the dominance of the informal sector.
  - o **Reduction of Hazardous Substances (RoHS):** The rules mandate that electrical and electronic equipment do not contain hazardous
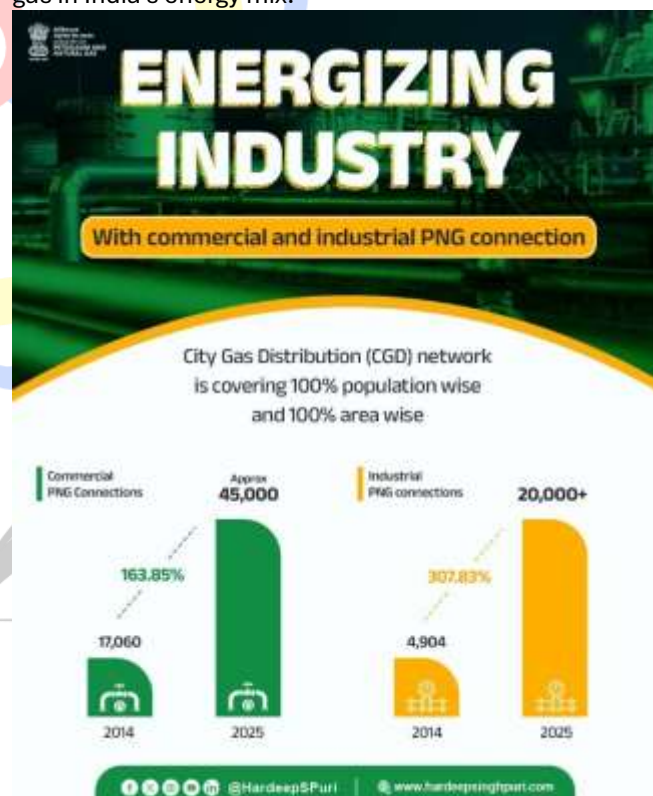
substances like lead, mercury, and cadmium beyond prescribed limits.

- o **Environmental Compensation:** Provisions for levying environmental compensation for non-compliance have been introduced.
- o **Focus on Circular Economy:** The rules aim to promote a circular economy by encouraging the scientific recycling and disposal of e-waste.

PNG Powering India: Over 1.47 Crore Homes & Thousands of Businesses Connected, Driving Cleaner Growth

India is significantly expanding its **Piped Natural Gas (PNG)** network, with Union Minister for Petroleum and Natural Gas, Hardeep Singh Puri, recently highlighting that over **1.47 crore households**, approximately **45,000 commercial establishments**, and more than **20,000 industries** across the country are now connected to this cleaner and more convenient fuel source. This development, as reported by DD News, underscores PNG's growing role in driving India's economic growth while supporting its transition towards a gas-based economy.

The minister emphasized the transformative impact of PNG, noting a **164% growth in commercial PNG connections** and a remarkable **308% surge in industrial connections** over the last decade. This expansion is a testament to the government's sustained push to increase the share of natural gas in India's energy mix.

What is Piped Natural Gas (PNG)?

- **Composition:** PNG is primarily **methane (CH_4)**, supplied directly to end-users through a dedicated pipeline network.
- **Source:** It is a type of natural gas, a fossil fuel extracted from underground reservoirs.
- **Key Advantages:**

- **Convenience:** Offers an uninterrupted, 24x7 supply, eliminating the need for cylinder booking, storage, or replacement (unlike LPG).
- **Safety:** PNG is lighter than air, so in case of a leak, it disperses quickly, reducing the risk of fire or explosion. The pipeline systems are also equipped with safety features like automatic shut-off valves.
- **Cost-Effective:** Generally considered more economical in the long run compared to fuels like LPG, especially for high-consumption users. It can help industries lower fuel costs and improve profitability.
- **Environmentally Friendlier:** PNG is a cleaner-burning fuel compared to other fossil fuels like coal, petrol, diesel, and even LPG in terms of emissions like particulate matter and sulphur dioxide. This contributes to better air quality, especially in urban areas.

The Expansion Drive: City Gas Distribution (CGD) Network

The backbone of PNG supply is the **City Gas Distribution (CGD) network**.

- **Reach:** The CGD infrastructure has seen massive expansion and now reportedly covers 100% of the country's population in terms of geographical areas authorized.
- **Regulatory Body:** The **Petroleum and Natural Gas Regulatory Board (PNGRB)** is the statutory body responsible for regulating the refining, processing, storage, transportation, distribution, marketing, and sale of petroleum, petroleum products, and natural gas. PNGRB authorizes entities for the development of CGD networks in various Geographical Areas (GAs).
- **Targets:** The government, through PNGRB, has set ambitious targets for CGD entities, including providing approximately **12.6 crore PNG connections** and laying extensive pipeline infrastructure by **2034**.

Government's Vision: A Gas-Based Economy

India is actively working to increase the share of **natural gas in its primary energy mix from the current ~6.3% to 15% by 2030**. This transition is driven by several strategic objectives:

- **Energy Security:** Reducing dependence on crude oil imports and diversifying the energy basket.
- **Environmental Goals:** Promoting cleaner fuels to combat air pollution and meet climate change commitments.
- **Economic Development:** Supporting industrial growth by providing a reliable and cost-effective fuel, and boosting Small and Medium Enterprises (SMEs).
- **Ease of Living:** Enhancing the quality of life for citizens by providing a safer and more convenient cooking fuel.

Key initiatives supporting this vision include:

- **National Gas Grid:** Developing a robust and interconnected pipeline network across the country to ensure the availability of natural gas. As of early 2025, significant progress has been made, with around 25,000 km of pipelines operational and more under development to reach a target of about 33,500 km.
- **Expansion of LNG Terminals:** Increasing the capacity to import Liquefied Natural Gas (LNG) to meet growing demand.
- **Priority Allocation:** Domestic gas is allocated on a priority basis to the CGD sector (for PNG domestic and CNG transport).
- **Policy Reforms:** Allowing marketing and pricing freedom for gas produced from challenging fields to incentivize domestic production.

Operation Olivia: Indian Coast Guard Protects Record 6.98 Lakh Olive Ridley Turtles in Odisha

In a significant achievement for marine conservation, the **Indian Coast Guard (ICG)**, through its annual **"Operation Olivia,"** has successfully protected a record **6.98 lakh Olive Ridley turtles** during their mass nesting season along the Odisha coast. This success, particularly highlighted by the record nesting at the **Rushikulya river mouth** in February 2025, underscores the dedicated efforts of the ICG in safeguarding these vulnerable marine creatures.

What is Operation Olivia?

- **Annual Mission:** Operation Olivia is an annual mission undertaken by the **Indian Coast Guard** to protect **Olive Ridley turtles** during their breeding and mass nesting season. It typically runs from **November to May**.
- **Historical Context:** The operation was initiated in the **early 1980s** and has since become a critical component of marine turtle conservation in India.
- **Modus Operandi:** The operation involves:
  - **Intensive Patrolling:** Round-the-clock surveillance by ICG ships and aircraft to monitor the coastal waters and prevent illegal fishing activities.
  - **Enforcement of Regulations:** Ensuring fishing trawlers adhere to regulations, such as the mandatory use of **Turtle Excluder Devices (TEDs)**, which allow turtles to escape fishing nets.
  - **Preventing Illegal Activities:** Detaining vessels engaged in illegal fishing or those operating in prohibited zones near nesting sites.
  - **Community Engagement:** Working with local fishing communities to promote sustainable fishing practices and conservation awareness.
  - **Inter-Agency Coordination:** Collaborating with the Odisha State Forest Department and various NGOs.

Olive Ridley Turtles: Odisha's Prized Visitors

- **Scientific Name:** *Lepidochelys olivacea*.
- **Unique Nesting Behavior - "Arribada":** Olive Ridleys are renowned for their unique mass nesting phenomenon called **"Arribada"** (a Spanish word meaning "arrival by sea"), where thousands of female turtles congregate simultaneously on the same beaches to lay eggs.
- **Odisha – A Global Hotspot:** The coast of Odisha is one of the **world's largest mass nesting sites** for Olive Ridley turtles. Key rookeries include:
  - **Gahirmatha Marine Sanctuary:** Considered the largest rookery globally.

- o **Rushikulya River Mouth:** Witnessed a record nesting of over 6.98 lakh turtles this season.
  - o **Devi River Mouth.** An estimated over eight lakh turtles arrive annually along Odisha's coast for nesting.
- **Conservation Status:**
  - o **IUCN Red List:** Vulnerable
  - o **Wildlife (Protection) Act, 1972 (India):** Schedule I (affording the highest level of protection)
  - o **CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora):** Appendix I (prohibiting international trade in the species and its parts).
- **Threats:** Olive Ridley turtles face numerous threats, including:
  - o **Incidental Capture in Fishing Gear (Bycatch):** Entanglement in trawl nets and gill nets is a major cause of mortality.
  - o **Illegal Fishing:** Fishing by mechanized trawlers in prohibited coastal waters during the nesting season.
  - o **Coastal Development and Habitat Degradation:** Erosion, artificial illumination near nesting beaches (which disorients hatchlings), and pollution.
  - o **Climate Change:** Rising sea levels and changing temperatures can impact nesting sites and the sex ratio of hatchlings.
  - o **Poaching:** Though reduced, poaching of eggs and turtles for meat still occurs in some areas.

SC Orders States/UTs to Reclaim Reserved Forests Illegally Allotted to Private Parties

In a landmark judgment with far-reaching implications for forest conservation in India, the **Supreme Court on May 15-16, 2025,** has directed all **States and Union Territories (UTs)** to identify and **reclaim reserved forest lands that were illegally allotted to private individuals or institutions** for non-forestry purposes. The apex court has mandated the constitution of **Special Investigation Teams (SITs)** by Chief Secretaries of all States and Administrators of UTs to examine such allotments and ensure the possession of these lands is handed back to the respective Forest Departments within **one year**.

This crucial ruling, delivered by a bench headed by **Chief Justice of India B.R. Gavai and comprising Justices Augustine George Masih and K. Vinod Chandran**, underscores the judiciary's unwavering commitment to protecting India's forests and upholding the **public trust doctrine**.

Key Directives from the Supreme Court:

- **Formation of SITs:** Chief Secretaries/Administrators are to constitute SITs to examine if any reserved forest land, particularly those in possession of Revenue Departments, has been improperly allotted to private entities.
- **Reclamation of Forest Land:** States and UTs must take concrete steps to take back possession of such illegally allotted lands and transfer them to the Forest Department.

- **Timeline for Action:** The entire exercise of identifying, reclaiming, and transferring these lands to the Forest Department must be completed within one year from the date of the judgment.
- **Cost Recovery if Reclamation Not Feasible:** In exceptional cases where taking back possession of the land is deemed not to be in the larger public interest (e.g., due to irreversible developments), the State Governments/UTs are directed to **recover the cost of the said land** from the allottees. This recovered amount must then be utilized for the **development of forests and afforestation** on alternative land parcels.
- **Future Use Restricted to Afforestation:** The Court explicitly stated that any land reclaimed or for which costs are recovered under this order must hereinafter be used **only for the purpose of afforestation**.
- **Case Origin:** The directions came while deciding a case involving the illegal allotment of 11.89 hectares of reserved forest land in Kondhwa Budruk, Pune (Maharashtra). This land was originally allotted for agricultural purposes in 1998 and subsequently sold to a private housing society, Richie Rich Cooperative Housing Society Limited (RRCHS), in 1999. The Court found this allotment "totally illegal" and a "classic example" of a nexus between politicians, bureaucrats, and builders.

Rationale Behind the SC's Strong Stance:

The Supreme Court's judgment is rooted in several critical legal and environmental principles:

- **Violation of Forest (Conservation) Act, 1980:** The Court emphasized that Section 2 of the Forest (Conservation) Act, 1980 (FC Act) places an absolute restriction on the de-reservation of forests or the use of forest land for any non-forest purpose without the prior approval of the Central Government. Any allotment made after the FC Act came into force (October 25, 1980), or particularly after the Supreme Court's landmark orders in the **T.N. Godavarman Thirumulpad case (December 12, 1996)** which reinforced the FC Act's provisions, without Central Government approval, is illegal.
- **Public Trust Doctrine:** The Court strongly invoked the Public Trust Doctrine, which posits that natural resources like forests are held by the State in trust for the benefit of the public and cannot be alienated for private profit at the expense of ecological integrity. The judgment noted that officials involved in the Pune land allotment had acted in "total breach of public trust."
- **Definition of "Forest":** The judgment implicitly reinforces the broad definition of "forest" as established in the Godavarman case, which includes not only lands notified as forests but also those recorded as forests in government records, irrespective of ownership.
- **Nexus and Misuse:** The Court highlighted the "unholy nexus" between politicians, bureaucrats, and builders leading to the conversion of precious forest land for commercial purposes, often under dubious pretexts.

Understanding "Reserved Forests":

- **Highest Protection:** Under the **Indian Forest Act, 1927**, Reserved Forests are the most protected category of forests.
- **Restricted Rights:** In Reserved Forests, most activities like grazing, hunting, or felling of trees are prohibited

unless specific permission is granted by forest officials. The aim is to conserve biodiversity, protect watersheds, and maintain ecological balance.
- **Notification Process:** Lands are declared as Reserved Forests through a formal notification process by the State Government, after settling any existing rights.

Legal Framework for Forest Protection in India:
- **Indian Forest Act, 1927:** Provides the basic framework for the protection and management of forests, and classification into Reserved, Protected, and Village Forests.
- **Forest (Conservation) Act, 1980:** The cornerstone of forest protection in India, enacted to check indiscriminate deforestation and diversion of forest land for non-forest uses. It mandates prior approval from the Central Government for any such diversion.
- **Wildlife (Protection) Act, 1972:** Provides for the protection of wild animals, birds, and plants, and for matters connected therewith, including the establishment of National Parks and Sanctuaries, many of which encompass forest areas.
- **Constitutional Provisions:**
  - **Article 48A (Directive Principles of State Policy):** States that "The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country."
  - **Article 51A(g) (Fundamental Duties):** Makes it a fundamental duty of every citizen "to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures."

Gujarat Roars Louder: Asiatic Lion Population Surges to 891, Territory Expands
In a remarkable conservation success story, the population of **Asiatic lions** (*Panthera leo persica*) in Gujarat has surged to **891**, according to the **16th Asiatic Lion Population Estimation (Census) 2025**, results of which were recently announced. This marks a significant **32.2% increase** from the 674 lions recorded in the 2020 estimation (15th census). The census, conducted by the **Gujarat Forest Department** between May 10 and 13, 2025, also revealed that the lions have expanded their territory to approximately **35,000 square kilometres across 11 districts** in the Saurashtra region.

Key Findings of the 16th Asiatic Lion Census 2025:
- **Total Population: 891 Asiatic lions** were recorded.
  - This includes **196 adult males, 330 adult females, 140 sub-adults, and 225 cubs**. The notable increase in adult females (from 260 in 2020 to 330 in 2025) indicates a healthy breeding population and potential for further growth.
- **Population Growth:** A substantial increase of 217 lions (32.2%) compared to the 674 lions recorded in 2020. Over the past decade (since 2015, when the population was 523), the lion population has grown by over 70%.
- **Habitat Expansion:**
  - The lions' territory has expanded from around 30,000 sq km in 2020 to approximately **35,000 sq km in 2025** (a 16.67% increase).

- Lions are now found across **11 districts** in the Saurashtra region: Junagadh, Gir Somnath, Amreli, Bhavnagar, Rajkot, Botad, Porbandar, Jamnagar, Surendranagar, Morbi, and Devbhoomi Dwarka.
  - **Amreli district** reported the highest lion population outside the core Gir forest, with 339 lions.
- **Lions Outside Protected Areas:** A significant portion of the lion population, **507 lions (nearly 57%)**, now resides outside the traditional protected areas of Gir National Park and Wildlife Sanctuary. Only 384 lions were recorded within the core protected forest areas. This underscores the lions' adaptability and the need for landscape-level conservation.
- **New Territories:** For the first time, the census officially recorded lion populations in new satellite areas, including **Barda Wildlife Sanctuary** (near Porbandar, now home to 17 lions, marking their return after 1879), Jetpur, and Babra-Jasdan areas, indicating the establishment of new corridors.
- **Census Methodology:**
  - The estimation used the **Direct Beat Verification method (Block Count method)**, considered more scientific and statistically robust. The entire census area was divided into regions, zones, sub-zones, and beats.
  - Approximately **3,000 personnel**, including forest officials, experts, and volunteers, participated in the exercise.
  - Advanced technologies such as **GIS mapping, camera traps, GPS-enabled radio collars, and the e-GujForest app** for real-time data entry were utilized to enhance accuracy.

Asiatic Lions: India's Pride
- **Scientific Name:** *Panthera leo persica*.
- **Unique Subspecies:** The Asiatic lion is a subspecies of lion that is genetically distinct from the African lion. Key distinguishing features include a **longitudinal fold of skin along their belly** and a sparser mane in males compared to their African counterparts.
- **Last Wild Abode:** Gujarat's Gir forest and the greater Saurashtra landscape is the **only place in the world** where Asiatic lions are found in the wild.
- **Conservation Status:**
  - **IUCN Red List: Vulnerable** (recently reclassified from Endangered, reflecting population recovery, though still facing threats).
  - **Wildlife (Protection) Act, 1972 (India): Schedule I** (highest level of legal protection).
  - **CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora): Appendix I**.
- **Ecological Role:** As an apex predator, the Asiatic lion plays a crucial role in maintaining the health and balance of the Gir ecosystem.

Crisis in Conservation: Biodiversity Funds Bypass Local Guardians

A recent report has highlighted a serious concern: **biodiversity funds** are often not reaching the **Indigenous Peoples and Local Communities (IPLCs)**, especially **women,** who are at the forefront of protecting our planet's nature and wildlife. This is a significant issue for India, a country rich in biodiversity and with a large population of indigenous communities.

What the Report Says: Key Findings

The report reveals some disturbing facts about how global funds meant for protecting biodiversity are distributed:

- **Funds Not Reaching the Ground:** Despite their critical role, most **IPLCs** receive very little or no direct financial support. They are often listed as **indirect beneficiaries**, meaning the money passes through several layers before any potential, often diluted, benefits reach them.
- **Women Overlooked:** Shockingly, **no IPLC women's organisations** were found to be direct recipients of support in the countries studied. This is a major gap, as women in these communities often play a central role in managing natural resources.
- **Issues with Major Funding Channels:** The **Global Environment Facility (GEF)**, a major source of biodiversity funding, struggles with **gender equality** in its main funding streams. While a percentage of GEF funding is targeted at local actors, the actual flow to them is problematic.

Why Are the Funds Not Reaching the Right Hands?

Several reasons contribute to this gap:

- **Role of Intermediaries:** The GEF often relies on large **international agencies, development banks, and national government offices** to distribute funds. These intermediaries may make decisions without adequately involving the very communities the funds are intended for.
- **Complex Processes:** Many indigenous organizations find it difficult to understand and navigate the **complex procedures** for accessing GEF funding.
- **Lack of Tracking:** There's often no strict requirement to track how much money directly reaches women's organisations.
- **Delays and Confusion:** The overall funding process can be plagued by **confusion and delays**, further hindering access for local groups.

A Silver Lining: The GEF Small Grants Programme (SGP)

The report does point to a more successful model: the **GEF Small Grants Programme (SGP)**.

- This programme has been more effective in **reaching indigenous and local actors directly.**
- It offers them more **flexibility and ownership** over their projects, leading to better outcomes.

Meghalaya Reveals New Cavefish: A "Two-World" Dweller Thriving in Darkness and Daylight

Scientists have discovered a **new species of cave-dwelling fish, named *Schistura densiclava*,** in the subterranean streams of Meghalaya. What makes this discovery particularly exciting is the fish's remarkable ability to not only survive in the pitch-dark cave environment but also thrive in surface waters, retaining its eyesight and body colour – a rare trait among cave-adapted species. This finding sheds new light on evolutionary processes and underscores the rich, yet fragile, biodiversity hidden within Meghalaya's extensive cave systems.

The Discovery: Unveiling *Schistura densiclava*

- **New Species:** The newly identified fish is a type of **stone loach** belonging to the genus *Schistura* and has been named **Schistura densiclava**. The name "densiclava" is Latin for "dense stripe," referring to a distinctive thick stripe near its dorsal fin.
- **Location:** It was discovered in **Krem Mawjingbuiñ**, a limestone cave located near Mawsynram in the **East Khasi Hills district of Meghalaya**, a region famous for being one of the wettest places on Earth and for its complex cave networks.
- **The Research Team:** The discovery was made by a collaborative team of zoologists from **Gauhati University (Assam)**, **Lady Keane College in Shillong (Meghalaya)**, and the **ICAR-National Bureau of Fish Genetic Resources (NBFGR) in Lucknow (Uttar Pradesh)**. Their findings have been published in the prestigious "Journal of Fish Biology."

A Fish of Two Worlds: Remarkable Adaptations

Schistura densiclava is classified as a **troglophile**, meaning it is adapted to cave life but is not entirely dependent on it and can also live in surface environments. This is in contrast to **troglobites**, which are obligate cave dwellers that typically lose their eyesight and pigmentation over generations.

Key adaptive features of *Schistura densiclava*:

- **Retained Eyesight and Pigmentation:** Unlike many true cavefish (like *Schistura papulifera* or *Neolissochilus pnar* also found in Meghalaya's caves, which are blind and lack body colour), *Schistura densiclava* has **functional eyes** and a **coloured body**. It exhibits a pale yellow-green hue with 14 to 20 bold black vertical bars.
- **Habitat Versatility:** The fish was found thriving in a cool (around 18°C), fast-flowing stream about 60 meters inside the cave, an environment with low oxygen levels. However, its physical characteristics suggest it can comfortably inhabit surface streams as well.
- **Diet:** Its diet is adaptable, consisting of copepods, tiny shrimp, insect fragments, and even **bat guano** (droppings), which is often a key nutrient source in cave ecosystems.
- **Sexual Dimorphism:** The species exhibits clear differences between sexes, with males being slimmer with irregular patterns and puffier cheeks, while females are more robust and display more uniform markings.
- **Genetic Distinction:** DNA sequencing has confirmed that *Schistura densiclava* is a **genetically distinct new species**, different from any other *Schistura* found in the region.

Conservation Imperative: Protecting Fragile Ecosystems

- **Pristine Habitat:** The Krem Mawjingbuiñ cave, where *Schistura densiclava* was found, is currently in a relatively pristine condition, largely untouched by tourism or significant human disturbance due to its seasonal accessibility and surrounding dense forest.

- **Vulnerability:** This ecological isolation, while protective, also makes such specialized species extremely **vulnerable to even minor environmental changes** or human intrusions like unregulated tourism, quarrying, or pollution.
- **Need for Protection:** The discovery underscores the urgent need for **comprehensive conservation strategies** for Meghalaya's unique limestone cave ecosystems to protect their endemic and often critically sensitive fauna.

India Lost 18,200 Hectares of Critical Primary Forest in 2024, Shows Global Data

India witnessed the loss of **18,200 hectares of invaluable primary forest** in the year 2024, according to the latest data released by **Global Forest Watch (GFW)**, an online platform providing data and tools for monitoring forests. This marks a slight increase from the 17,700 hectares lost in 2023, raising concerns about the preservation of these vital, old-growth ecosystems.

Key Findings from the Global Forest Watch Data:

- **Extent of Loss:** The 18,200 hectares (which is 182 square kilometers) of primary forest lost in 2024 highlights an ongoing challenge in protecting India's most ecologically significant forests.
- **Long-Term Trend:** Between 2002 and 2024, India lost a staggering **348,000 hectares of humid primary forest**. This represents about 5.4% of the country's total humid primary forest area and accounts for approximately 15% of India's total tree cover loss during the same period.
- **Overall Tree Cover Dynamics:** While the focus is on primary forests, GFW data also indicates that India has lost about **2.31 million hectares of total tree cover** since 2001, a 7.1% decline in this category. However, it's also noted that between 2000 and 2020, India saw a gain of around 1.78 million hectares in overall tree cover (which includes plantations and secondary forests).
- **Carbon Emissions:** The loss of tree cover is estimated to have generated about **1.29 gigatonnes of carbon dioxide equivalent emissions** between 2001 and 2024.
- **Regional Hotspots:** The Northeastern states of India, including **Assam, Mizoram, Nagaland, Manipur, and Meghalaya**, continue to show significant tree cover loss.

What are Primary Forests and Why is Their Loss So Critical?

Primary forests are mature, natural forests, typically humid tropical forests, that have remained undisturbed by significant human activity for a long time. They have not been completely cleared and regrown in recent history.

Their loss is deeply concerning because:

- **Rich Biodiversity:** They are a-hotbeds of **biodiversity**, housing a vast array of plant and animal species, many of which are endemic and endangered.
- **Carbon Sinks:** These old-growth forests act as crucial **carbon sinks**, storing vast amounts of carbon in their biomass and soil, thus playing a vital role in mitigating climate change. Their destruction releases this stored carbon into the atmosphere.

- **Ecological Stability:** They are essential for maintaining **ecological balance**, regulating water cycles, preventing soil erosion, and supporting the livelihoods of indigenous communities.
- **Irreplaceable:** Once lost, primary forests are virtually **irreplaceable**. While reforestation can occur, the complex ecosystem and biodiversity of a primary forest take centuries, if not millennia, to recover, if at all.

Probable Drivers of Primary Forest Loss in India:

While the specific drivers for the 2024 primary forest loss need detailed analysis, GFW data over the years points to several factors contributing to tree cover loss in India, which can also impact primary forests:

- **Shifting Cultivation:** Particularly prevalent in Northeast India.
- **Agricultural Expansion:** Conversion of forest land for farming.
- **Logging Activities:** Both legal and illegal felling of trees.
- **Infrastructure Development:** Roads, dams, and urban expansion.
- **Mining Operations:** Extraction of minerals often leads to forest clearing.
- **Forest Fires:** An increasing threat, exacerbated by climate change. The GFW report highlighted that fire-related tree cover loss in India escalated in 2024.

Global Scenario: A Worsening Crisis, Especially with Forest Fires

The situation in India mirrors a concerning global trend. The GFW data for 2024 revealed a record-shattering **6.7 million hectares of tropical primary rainforest loss globally**, an area nearly the size of Panama. This was almost double the loss in 2023.

- Significantly, **fires became the primary driver of tropical forest loss globally in 2024** for the first time in over two decades, accounting for nearly half of the total. This was largely attributed to record-breaking heat and drought conditions linked to climate change and the El Niño phenomenon.

Understanding the Data: Global Forest Watch (GFW) vs. Forest Survey of India (FSI)

It's important for aspirants to understand that data from global platforms like GFW can sometimes differ from national assessments like the **India State of Forest Report (ISFR)** published biennially by the **Forest Survey of India (FSI)**.

- **Different Definitions:**
  - **GFW** specifically tracks "primary forest" loss based on its definition of mature, undisturbed natural forests. Its "tree cover loss" data reflects the removal of tree canopy cover taller than five meters.
  - **FSI** defines 'forest cover' as "all lands, more than one hectare in area with a tree canopy density of more than 10 percent," irrespective1 of land ownership, legal status, or tree species. This definition **includes plantations, bamboo groves, and orchards**.
- **Methodology:** Both use satellite imagery, but their methodologies, resolutions, and interpretation criteria can vary.

- **Focus:** ISFR often reports an **increase in India's overall forest and tree cover**. While this is positive in terms of greening efforts (including afforestation and plantations), it might mask the loss of ecologically critical primary forests, which GFW data specifically highlights. The loss of natural, old-growth forests cannot be compensated for by plantations in terms of biodiversity or ecosystem complexity.

Key Forest Conservation Efforts and Legislations in India:

- **National Forest Policy, 1988:** Aims to maintain environmental stability and ecological balance, with a goal of having 33% of India's geographical area under forest or tree cover.
- **Forest (Conservation) Act, 1980 (and amendments):** Regulates the diversion of forest land for non-forest purposes, requiring prior approval from the Central Government.
- **Wildlife (Protection) Act, 1972:** Provides for the protection of wild animals, birds, and plants, including the establishment of Protected Areas like National Parks and Wildlife Sanctuaries.
- **Compensatory Afforestation Fund Management and Planning Authority (CAMPA):** Aims to promote afforestation and regeneration activities as a way of compensating for forest land diverted to non-forest uses.
- **National Mission for a Green India (GIM):** One of the missions under the National Action Plan on Climate Change (NAPCC), focused on protecting, restoring, and enhancing India's forest cover and responding to climate change.
- **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006:** Aims to recognize and vest2 forest rights in forest-dwelling communities.

India's Coastline "Grows" by Thousands of Kilometres

India's coastline has "lengthened" significantly, from the long-accepted figure of **7,516.6 kilometres** to a new, re-verified length of approximately **11,099 kilometres (specifically 11,098.81 km)**. This seemingly dramatic increase, however, is **not due to any physical gain of new land or territorial expansion**. Instead, it is a result of **advanced mapping technologies, a more precise measurement methodology, and a finer scale of assessment**, which now captures the intricate details of India's coastal features more accurately than ever before.

The New Numbers: A More Detailed Measurement

- **Previous Official Length:** For decades, India's coastline, including the mainland and the island territories of Andaman & Nicobar and Lakshadweep, was stated as **7,516.6 km**. This figure was based on measurements done in the 1970s, likely using maps at a much smaller scale (e.g., 1:4,500,000).
- **Re-verified Length:** The new, updated length is **11,098.81 km**. This figure was accepted by the **Coastal Protection and Development Advisory Committee (CPDAC)** in 2019, based on computations by the NHO, and has since been re-verified in coordination with the Survey of India.

The **Ministry of Home Affairs (MHA)** has updated this in its recent records (e.g., 2023-24 report).

Why the Change? Understanding the Measurement Shift – The "Coastline Paradox"

The "lengthening" of the coastline is a classic example of the **"Coastline Paradox,"** a geographical concept that explains how the measured length of a boundary can change significantly depending on the scale of measurement.

- **Finer Scale of Measurement:** The primary reason for the increased length is the use of a much **finer measurement scale (1:250,000 or even more detailed in some cases)** using modern **Electronic Navigation Charts (ENCs)**. Imagine measuring a jagged line with a long ruler versus a very short ruler; the shorter ruler will trace the curves more closely, resulting in a longer total length. The older measurements, using smaller scale maps, would have smoothed over many of the smaller indentations.
- **Advanced Technology:**
  - **Geographic Information Systems (GIS), satellite altimetry, LiDAR-GPS mapping, and drone-based imaging** have enabled highly accurate and detailed mapping of the High-Water Line (the reference for measurement, based on 2011 data).
  - These technologies can capture features like **narrow tidal creeks, estuaries, small bays, sandbars, and coastal ridges** that were previously omitted or generalized.
- **Comprehensive Inclusion of Islands:** The re-verified length now meticulously includes the peripheral coastline (High-Water Line) of all **1,298 identified offshore islands and islets** (1059 islands and 239 islets). Earlier measurements might have left out many smaller islands or used less precise methods for their coastlines due to scale constraints and manual techniques.
- **Standardized Methodology:** The new measurement adheres to clear **Terms of Reference (ToR)**, including using the **WGS-84 datum**, respective Universal Transverse Mercator (UTM) Zones, and specific rules for closing off river mouths and creeks at standard inland points.

In essence, we are not seeing more land; we are seeing the existing land and its interface with the sea in much greater detail.

Kerala Coast on Alert: Sunken Cargo Ship Sparks Major Oil Spill and Hazardous Material Fears

A state of high alert has been declared across the coastal regions of **Kerala** following the sinking of a Liberian-flagged container cargo ship, **MSC ELSA 3**, off its coast around May 25, 2025. The incident has triggered serious concerns about a **major oil spill** and the leakage of **hazardous materials**, including **calcium carbide**, posing a significant threat to the state's sensitive marine ecosystem, fisheries, and coastal communities. A multi-agency operation, led by the **Indian Coast Guard (ICG)**, is currently underway to contain the spillage and mitigate the environmental damage.

The Incident: How It Unfolded

- **The Vessel:** The **MSC ELSA 3**, a 184-meter-long container ship, was en route from Vizhinjam port to Kochi.
- **Distress and Sinking:** On May 24, 2025, the ship, located approximately 38 nautical miles southwest of Kochi (some reports indicate about 14.6 nautical miles off Thottappally in Alappuzha district), developed a critical tilt (starboard list) due to flooding in one of its compartments. Despite efforts, the vessel capsized and sank on May 25.
- **Rescue:** All **24 crew members** on board were safely rescued in a coordinated operation by the Indian Coast Guard and the Indian Navy.
- **Hazardous Cargo Onboard:** The ship was carrying **640-643 containers**. Crucially, among these were:
    - **13 containers with unspecified hazardous materials.**
    - **12 containers filled with calcium carbide**, a chemical that reacts dangerously with seawater to produce highly flammable acetylene gas and can significantly alter water alkalinity.
- **Fuel Load (Oil Spill Source):** The vessel was carrying a substantial amount of fuel in its tanks, including approximately:
    - **84.44 metric tonnes of diesel.**
    - **367.1 metric tonnes of furnace oil.**
    - Reports also mention Marine Gas Oil (MGO) and Very Low Sulphur Fuel Oil (VLSFO).

The Looming Threat: Oil Spill and Chemical Contamination

- **Oil Spill Confirmed:** The Indian Coast Guard has confirmed a **"significant oil leak"** from the sunken vessel. The oil slick was observed spreading over an area (initially around 2x1 nautical miles) and drifting towards the Kerala coast, particularly threatening districts like Alappuzha, Kollam, Thrissur, and Ernakulam.
- **Containers Washing Ashore:** Dozens of containers (around 29 reported by May 27) have started washing ashore along the Kollam and Alappuzha coastlines, some of them breaking open and spilling their contents. Authorities have warned the public to maintain a distance of at least 200 meters from these containers and report sightings to emergency number 112.
- **Chemical Hazard:** The presence of **calcium carbide** poses an additional risk, as its reaction with seawater can be explosive and harmful to marine life.
- **Ecological Danger:** Kerala's coastline is known for its rich biodiversity, including mangroves, potential coral zones, and vital fish breeding grounds. An oil spill and chemical contamination could have devastating and long-lasting impacts on these ecosystems.
- **Economic Impact:** The incident threatens the livelihoods of coastal fishing communities (fishing has been banned in a 20-nautical-mile radius) and could adversely affect tourism, a key sector for Kerala.

Massive Response and Mitigation Efforts Underway

A multi-pronged response, classified as a **Tier-II maritime incident** (requiring national-level coordination), has been launched:

- **Indian Coast Guard (ICG) at the Forefront:** As the Central Coordinating Authority under the **National Oil Spill Disaster Contingency Plan (NOSDCP)**, the ICG is leading the pollution response.
    - **Deployment:** ICG ships like **ICGS Saksham, Vikram, and Samarth**, along with **Dornier aircraft**, have been deployed.
    - **Containment:** Efforts are focused on containing the oil slick using booms (if feasible given weather) and neutralizing it by spraying **Oil Spill Dispersants (OSD)**. Infrared cameras are being used to detect the extent of the spill.
    - **Specialized Vessel:** The ICG's specialized pollution response vessel, **ICGS Samudra Prahari**, has been mobilized from Mumbai to augment the efforts.
- **State-Level Emergency Response:**
    - The Kerala government has declared a statewide alert, with the Chief Minister Pinarayi Vijayan chairing high-level meetings.
    - The **Kerala State Disaster Management Authority (KSDMA)** is actively involved in issuing advisories and coordinating ground efforts.
    - Teams from the **Pollution Control Board** (for shoreline cleanup), **Factories and Boilers Department** (for safe removal of containers), and **Customs** (for assessing container contents) are on the ground.
- **Inter-Agency Coordination:** The **Directorate General of Shipping** is monitoring the situation closely. The Indian Navy, National Disaster Response Force (NDRF), and other central and state agencies are working in coordination.
- **Investigation and Liability:** The **Mercantile Marine Department (MMD)** has initiated an investigation into the cause of the sinking and has issued a warning to the ship's owners (MSC, Mediterranean Shipping Company, representatives of which are in Kochi) regarding pollution liability.

NGT Directs Environment Ministry: Frame Guidelines for Plywood Industry to Curb Pollution

The **National Green Tribunal (NGT)** has taken a significant step to address pollution from the plywood industry. The NGT directed the **Union Ministry of Environment, Forest and Climate Change (MoEF&CC)** to formulate specific guidelines for plywood manufacturing units across the country. This move aims to regulate these industries, which are known to cause considerable air and water pollution.

The NGT's order came while hearing a petition concerning pollution caused by several plywood units in Damla village, Yamunanagar district, Haryana. The tribunal has given the MoEF&CC **six months** to frame the requisite guidelines and submit an action-taken report.

NGT's Directive:

- **Urgent Need for Guidelines:** The NGT bench, headed by Chairperson Justice Prakash Shrivastava, highlighted the "urgent need for framing of guidelines" for the plywood industry. It noted that while guidelines exist for other polluting industries like sand mining, stone crushers, and brick kilns, the plywood sector has largely remained unregulated in terms of specific environmental norms.

- **Pollution Potential Acknowledged:** Plywood industries have a **pollution index of 78.3** and are classified under the **'Orange' category** by the **Central Pollution Control Board (CPCB)**. This category signifies industries with a significant potential to cause pollution.
- **Existing Gaps:** The tribunal pointed out that currently, there are no specific guidelines covering crucial aspects such as:
    - The location of plywood factories.
    - Mandatory pollution control devices for preventing air and water pollution.
    - Safeguards for the use and storage of chemicals, including those with **carcinogenic properties** like formaldehyde, which is commonly used in adhesives.
- **Specific Concerns in Yamunanagar Case:** The original petition from Damla village highlighted issues like:
    - Air pollution and black ash settling on houses.
    - Deteriorating health of villagers.
    - Lack of pollution control plants in many factories.
    - Contamination of drinking water and groundwater due to improper disposal of industrial wastewater (some factories allegedly dug borewells to dump dirty water).
- **Action for Haryana State PCB:** The NGT also issued specific directions to the **Haryana State Pollution Control Board (HSPCB)**, including:
    - Reviewing the 'consent-to-operate' for several plywood units.
    - Inspecting units to verify compliance, especially regarding resin plants and chemical handling.
    - Preparing and implementing a Standard Operating Procedure (SOP) for the proper disposal of wood ash.
    - Verifying the installation and adequacy of air pollution control equipment.

Environmental Impact of the Plywood Industry:

Plywood manufacturing can have several adverse environmental effects:

- **Air Pollution:**
    - Release of **Volatile Organic Compounds (VOCs)**, especially **formaldehyde**, from resins and adhesives. Formaldehyde is a known carcinogen.
    - Dust and particulate matter from wood cutting, sanding, and pressing operations.
    - Emissions from boilers and generators, including Sulphur Dioxide (SO_2), Nitrogen Oxides (NO_x), and Carbon Monoxide (CO).
    - Fugitive emissions (leaks) of chemicals.
- **Water Pollution:**
    - Discharge of untreated or inadequately treated wastewater containing chemicals, wood preservatives, resins, and organic matter.
    - Leaching of harmful substances from stored logs and wood waste, contaminating surface and groundwater.
    - Increased Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) in water bodies receiving effluents.

- **Deforestation:** Unsustainable sourcing of wood for veneer can contribute to deforestation and loss of biodiversity if not sourced from certified, responsibly managed forests.
- **Waste Generation:** Wood waste (sawdust, offcuts), glue waste, and chemical residues require proper management and disposal.
- **Noise Pollution:** From machinery like saws, presses, and generators.

Categorisation of Industries by CPCB:

The Central Pollution Control Board (CPCB) categorises industries based on their Pollution Index (PI) score to streamline regulation and monitoring:

- **Red Category:** PI score of 60 and above (most polluting).
- **Orange Category:** PI score of 41 to 59 (significantly polluting).
- **Green Category:** PI score of 21 to 40 (moderately polluting).
- **White Category:** PI score up to 20 (practically non-polluting; consent to operate often not required).

Plywood industries fall under the **Orange category**, indicating a need for robust pollution control measures and regulatory oversight.

Earth Could Lose 76% of Glaciers if Warming Hits 2.7°C, Study Warns

A stark new scientific study has delivered a grim forecast for the world's glaciers, predicting that **only 24% of the present-day glacier ice mass will remain if global temperatures rise by 2.7 degrees Celsius** above pre-industrial levels. This level of warming aligns with the trajectory set by current global climate policies, suggesting a catastrophic loss of these vital frozen reservoirs if more ambitious climate action is not taken urgently.

The international study, often citing research published in leading journals like **'Science'**, underscores the extreme sensitivity of glaciers to even slight increases in global average temperatures. It highlights that the consequences of such extensive ice loss would be devastating, impacting sea levels, water availability for millions, and the stability of ecosystems worldwide.

Findings and Implications:

- **Drastic Ice Loss at Current Trajectory:** The projection of losing three-quarters of global glacier mass at 2.7°C warming is a critical warning. This is significantly higher than previously estimated, indicating that glaciers are more vulnerable than once thought.
- **Impact of Paris Agreement Targets:**
    - The study reinforces the importance of the **Paris Agreement's** goals. Limiting warming to **1.5°C** would be far less devastating, potentially preserving around **54% of the current glacier mass**.
    - Even at **2°C** of warming, a scenario still within the Paris Agreement's broader aim, the glacier loss would be extreme, with regions like the European Alps, the Rockies, Iceland, and Scandinavia losing almost all their ice. The Hindu Kush

Himalaya (HKH) region could see only about 25% of its 2020 ice remaining at 2°C.

- **Regional Disparities:** While the 24% figure is a global average, heavily influenced by the massive ice sheets of Antarctica and Greenland, many smaller but critically important mountain glaciers in regions vital for human communities are even more sensitive and could disappear almost entirely at lower warming levels.
- **Long-term Commitment to Melt:** Glaciers respond slowly to climate change. Even if global temperatures stabilize, the ice loss will continue for decades, and in some cases, centuries, as glaciers adjust to the heat already locked into the climate system.
- **Every Fraction of a Degree Matters:** The research emphasizes that every increment of warming has a disproportionately large impact on glacier survival, making immediate and deep cuts in greenhouse gas emissions essential.

Understanding Glaciers and their Importance:

- **What are Glaciers?** Glaciers are large, persistent bodies of dense ice that form over many years in areas where the accumulation of snow exceeds its ablation (melting and sublimation). They slowly deform and flow due to stresses induced by their weight.
- **Importance:**
  - **Freshwater Source:** They are the largest reservoirs of freshwater on Earth after the oceans (most of which is saline). They feed rivers that provide drinking water, irrigation, and support for industries.
  - **Climate Regulators:** Their white surfaces reflect solar radiation (albedo effect), helping to cool the planet.
  - **Indicators of Climate Change:** Glaciers are sensitive indicators of long-term climate change. Their retreat provides visible evidence of global warming.
  - **Support Ecosystems:** Glacial meltwater sustains unique alpine and downstream ecosystems.

The Cryosphere and Climate Change:

- The **cryosphere** refers to all portions of the Earth's surface where water is in solid form. This includes glaciers, ice caps, ice sheets (like those in Greenland and Antarctica), sea ice, lake and river ice, and permafrost (permanently frozen ground).
- The cryosphere is a critical component of the global climate system and is highly sensitive to changes in global temperature. Its melting has profound global consequences.

Impact on the Hindu Kush Himalaya (HKH) Region:

- The HKH region, spanning eight countries including India, contains the largest volume of ice outside the polar regions.
- Its glaciers are the source of 10 major river systems in Asia, providing water, food, and energy for over 2 billion people.
- Studies by organizations like the **International Centre for Integrated Mountain Development (ICIMOD)** have repeatedly warned about the rapid melting of Himalayan

glaciers, projecting significant losses even under optimistic climate scenarios.

- Consequences for India include:
  - Changes in river flows: Initially increased flows (and flood risk) followed by drastically reduced flows, impacting agriculture and drinking water.
  - Increased risk of GLOFs.
  - Impacts on monsoon patterns.
  - Threats to hydropower generation.

Health & Pharma

Thailand Reports First Anthrax Death in Decades

Thailand has recorded its first **anthrax-related death** since 1994 after a 53-year-old man in Mukdahan province succumbed to the disease on May 1, 2025. A second confirmed case and three suspected infections have been identified in the same area, and authorities have traced **638 people** potentially exposed through raw or undercooked beef. Containment measures include **antibiotic prophylaxis**, a **5 km quarantine zone**, and plans to **vaccinate over 1,200 cattle**.

Background

- **First fatality since 1994**: A 53-year-old man in Mukdahan province died from anthrax on May 1, 2025, marking Thailand's first anthrax death in over **30 years**.
- **Additional human cases**: Authorities confirmed a second infection in the same province and are investigating three more suspected cases.
- **Historical cases**:
  - **2017**: Two non-fatal human infections.
  - **2000**: Fifteen recorded cases, no deaths.

Key Facts

- **Potential exposures**:
  - **638 people** traced after eating raw or undercooked beef; **36** were involved in butchering livestock.
- **Containment measures**:
  - **Antibiotic prophylaxis** (doxycycline) administered to all exposed individuals.
  - **5 km quarantine zone** around Khok Sawang village in Don Tan district.
  - **Livestock vaccination**: Plans to inoculate **1,222 cattle**; no animal illness reported so far.
- **Disease profile**:
  - Caused by *Bacillus anthracis*; transmission via contact with infected animals or consumption of contaminated meat.
  - **Not** spread person-to-person.

Regional Context

- **Laos outbreak**: Reported **129 infections** and **one death** in 2024.
- **Vietnam cases**: **13 cases** confirmed in May 2023.

WHO Report: Health Inequities Slash Lifespans by Over 30 Years in Poorer Nations

A stark new report from the **World Health Organization (WHO)**, titled the "World report on social determinants of health equity" and launched on May 6, 2025, reveals a grim reality: **health inequities** are drastically shortening lives in poorer countries. People in low-income nations live, on average, **33 years less** than their counterparts in high-income countries. This significant gap underscores the profound impact of social and economic factors on global health outcomes.

Key Findings Highlighting Global Disparities:

The WHO report paints a sobering picture of these inequities:

- **Life Expectancy Chasm:** A staggering **33-year difference in average life expectancy** exists between people born in the country with the highest life expectancy and those in the country with the lowest.
- **Child Mortality:** Children born in low-income countries are **13 times more likely to die before reaching the age of five** compared to children in high-income countries. The WHO estimates that if wealth-related inequality within low-and-middle-income countries were eliminated, the lives of 1.8 million children could potentially be saved annually.
- **Maternal Mortality:** Despite a 40% global decline in maternal mortality between 2000 and 2023, an overwhelming **94% of maternal deaths still occur in low and lower-middle-income countries**.
- **Non-Communicable Diseases (NCDs):** These diseases, often associated with lifestyle, disproportionately affect poorer populations who may lack access to preventative care and treatment.
- **Road Traffic Injuries:** These are a leading cause of death among youth, particularly in low-income countries.
- **Mental Health:** Higher rates of depression and other mental health conditions are often observed in poorer populations, exacerbated by stress, lack of opportunity, and inadequate access to mental healthcare.
- **Social Protection Gap:** An estimated **3.8 billion people worldwide lack adequate social protection coverage**, such as child benefits or paid sick leave, directly impacting their health.
- **Debt Burden:** The report notes that the total value of interest payments made by the world's 75 poorest countries has quadrupled over the past decade, crippling their capacity to invest in essential social determinants of health.

What are Health Inequities and Their Root Causes?

Health inequities refer to unfair, avoidable, and remediable differences in health status observed both within and between countries. These are not random but are systematically produced by differences in socioeconomic position and other factors.

The WHO report emphasizes that our health and well-being depend on much more than just genetics and access to healthcare. The **social determinants of health** play a crucial role. These include:

- **Economic Stability:** Poverty, income inequality, lack of employment opportunities.
- **Education Access and Quality:** Lower levels of education are linked to poorer health outcomes.
- **Healthcare Access and Quality:** Unequal access to affordable, quality healthcare services, including preventative care and treatment.
- **Neighborhood and Built Environment:** Lack of safe housing, clean water, sanitation, and exposure to pollution.
- **Social and Community Context:** Discrimination (based on race, gender, etc.), social isolation, conflict, and lack of social support.

Government Rolls Out Nationwide Cashless Treatment for Road Accident Victims

In a significant move to bolster **road safety** and provide immediate **medical assistance**, the Central Government has notified a nationwide **cashless treatment scheme for victims of road accidents**. This initiative, which came into effect on **May 5, 2025**, aims to ensure that anyone injured in a road accident receives prompt medical care without the immediate financial burden.

Key Provisions of the Scheme (Cashless Treatment of Road Accident Victims Scheme, 2025):

- **Eligibility:** Any person who is a victim of a road accident arising out of the use of a **motor vehicle**, occurring on any road in India, is entitled to cashless treatment under this scheme. This applies irrespective of class or category.
- **Cashless Treatment Limit:** Victims are entitled to cashless treatment up to a maximum amount of ₹**1.5 lakh per person per accident**.
- **Treatment Duration:** The cashless facility can be availed for a maximum period of **seven days** from the date of the accident.
- **Designated Hospitals:** Treatment can be availed at any hospital designated under the scheme.
- **Treatment at Non-Designated Hospitals:** If a victim is taken to a hospital not designated under the scheme, the treatment provided will be for **stabilisation purposes only**, as specified by the scheme's guidelines.

Implementation Framework:

- **Implementing Agency:** The **National Health Authority (NHA)** will be the primary agency responsible for implementing the scheme nationwide. The NHA will coordinate with police, hospitals, State Health Agencies, and other relevant bodies.
- **State Nodal Agency:** At the state and Union Territory level, the **State Road Safety Council** will act as the nodal agency. They will be responsible for:
  - Coordinating with the NHA.
  - Facilitating the onboarding of designated hospitals onto a dedicated portal.
  - Overseeing the treatment of victims.
  - Managing payments to the designated hospitals.
- **Oversight Committee:** The Central Government will constitute a **steering committee** to monitor the overall implementation and effectiveness of the scheme.
- **Notification Body:** The scheme has been notified by the **Ministry of Road Transport and Highways (MoRTH)**. It's noteworthy that MoRTH had launched a **pilot program** for cashless treatment of road accident victims

on March 14, 2024, the experiences from which likely informed this nationwide rollout.

Healthy Childhood Diet May Delay Menstruation Onset in Girls, Study Finds

A recent study has indicated a significant link between a **healthy diet during childhood** and a **later onset of menstruation (menarche)** in girls. The research, published in the international journal *Human Reproduction*, suggests that consuming a diet rich in **vegetables, legumes, and whole grains** could play a crucial role in pubertal timing, independent of other known factors like Body Mass Index (BMI) or height. This finding has important implications for public health, child nutrition, and long-term well-being.

Key Findings of the Study:

- **Dietary Impact:** The study found that girls who consumed healthier diets tended to start menstruating later.
- **Independence from BMI and Height:** This association remained consistent even after accounting for BMI and height, which were previously thought to be primary influencers of pubertal timing. This suggests that **diet quality** might be a more significant factor than body size alone.
- **Research Methodology:**
  - The study analyzed data from over **7,500 children** aged 9 to 14.
  - Researchers used two established dietary frameworks to assess the children's diets:
    - **Alternative Healthy Eating Index (AHEI):** This index gives higher scores for healthier foods like vegetables, legumes, and whole grains, while penalizing the intake of red and processed meats, trans-fats, and excessive salt.
    - **Empirical Dietary Inflammatory Pattern (EDIP):** This framework evaluates a diet based on its potential to cause inflammation. Foods like refined grains, processed meats, and sugary beverages are considered contributors to systemic inflammation.
- **Inflammation as a Factor:** Both dietary patterns (AHEI and EDIP) were linked to the age of menarche. The researchers concluded that the **inflammatory potential of food** consumed during childhood and adolescence might play a more substantial role in determining menstruation timing than physical growth indicators.

Why is this Significant? The Link Between Early Menstruation and Adult Health:

The timing of a girl's first menstrual period is not just a developmental milestone; it has been linked to several **long-term health outcomes**.

- **Increased Health Risks:** Early onset of menstruation has been associated with a **higher risk of developing** conditions such as:
  - Obesity
  - Type 2 diabetes
  - Breast cancer
  - Cardiovascular diseases in adulthood.

Implications and Policy Relevance for India:

These findings are particularly relevant for India, where malnutrition (both undernutrition and, increasingly, overnutrition leading to childhood obesity) is a significant public health concern.

- **Importance of Nutritious Food Access:** The study underscores the critical need to ensure that all children and adolescents have **access to nutritious food**. This aligns with national goals of improving child health and combating malnutrition.
- **Role of School Meal Programs:** As highlighted by Associate Professor Holly Harris from the Fred Hutchinson Cancer Center (involved in the study), there's a crucial role for **school-based meal programs** (like India's PM-POSHAN, formerly Mid-Day Meal Scheme) to be guided by **evidence-based nutritional standards**. Ensuring these meals are healthy and non-inflammatory can have lasting positive impacts.
- **Public Health Awareness:** Creating awareness among parents, educators, and policymakers about the long-term benefits of a healthy childhood diet, including its potential role in pubertal development, is essential.
- **Focus on Diet Quality:** The emphasis on "diet quality over body size alone" is an important message, shifting focus from mere caloric intake to the nutritional value and type of food consumed.

New Diabetes Subtype Discovery: A Boost for Precision Medicine in India

Indian and U.S. researchers have identified a **new subtype of monogenic diabetes**, offering hope for more precise treatments. This breakthrough comes from a collaboration between the **Madras Diabetes Research Foundation (MDRF), Chennai**, and the **Washington University School of Medicine in St. Louis, U.S.**

The discovery is particularly important for India, which has a large number of diabetes patients. It highlights the growing need for **genetic testing** to correctly diagnose and manage different forms of diabetes.

What is Monogenic Diabetes?

- Unlike Type 1 or Type 2 diabetes which are generally caused by multiple factors (polygenic and lifestyle), monogenic diabetes results from a **mutation in a single gene**.
- **Maturity-Onset Diabetes of the Young (MODY)** is a common form of monogenic diabetes. It usually appears in adolescents and young adults.
- Previously, 13 subtypes of MODY were known. This new discovery adds another to the list.

The New Discovery:

- The research, published in the American Diabetes Association's journal *Diabetes*, identifies this new MODY subtype linked to **Loss of Function (LOF) mutations** in the **ABCC8 gene**.
- The **ABCC8 gene** plays a crucial role in regulating insulin release from the pancreas by controlling a potassium channel.

- Interestingly, **Gain of Function (GOF) mutations** in the same ABCC8 gene were previously known to cause other MODY forms and neonatal diabetes.
- This newly found LOF variant shows a unique progression: **low blood sugar (hypoglycemia) in early life, followed by diabetes later on**. This pattern was not previously documented for MODY.

Why is this Significant?
- **Challenges Old Assumptions:** It changes the understanding of how MODY can develop.
- **Precision Treatment:** This new subtype **does not respond to conventional MODY treatments** like sulphonylureas, which work for other forms. This makes correct diagnosis through genetic testing vital for choosing the right therapy.
- **Need for Genetic Screening:** The researchers stress the urgent need to make **genetic testing more accessible and routine** in diabetes care in India. Many MODY patients are currently misdiagnosed as having Type 1 or Type 2 diabetes.
- **Drug Development:** Understanding this new genetic mechanism could lead to the discovery of **new drug targets** for diabetes treatment.

Mechanism Explained Simply:
- The ABCC8 gene helps create a protein that forms part of a channel (K-ATP channel) in pancreatic beta cells (the cells that produce insulin).
- In this new subtype, the **Loss of Function (LOF) mutation impairs the potassium channel's function**. This disrupts normal insulin secretion, leading to the observed pattern of early hypoglycemia and later diabetes.
- Previously known MODY types linked to ABCC8 involved **Gain of Function (GOF) mutations**, where the channel's activity was enhanced, also leading to diabetes but through a different mechanism.

India's Maternal Mortality Ratio Declines: A Positive Trend, But Challenges Remain

India has shown a positive trend in reducing its **Maternal Mortality Ratio (MMR)**, which has fallen to **93 deaths per 100,000 live births in 2019-21**. This is an improvement from 97 in 2018-20 and 103 in 2017-19, according to the latest data from the **Office of the Registrar General and Census Commissioner of India**, released through the **Sample Registration System (SRS)**.

This decline indicates progress in maternal healthcare, but the country still faces challenges in meeting the **Sustainable Development Goal (SDG)** target and addressing regional disparities, including in states like Odisha.

Understanding MMR:
- **Definition:** MMR is the number of maternal deaths during a specific time period per 100,000 live births during the same period.
- **Maternal Death (WHO Definition):** The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

- **Significance:** MMR is a critical indicator of a country's reproductive health services, overall healthcare quality, and socio-economic development.

Key Findings from the Latest Data (2019-21):
- **National MMR:** 93 per 100,000 live births.
- **Declining Trend:** Shows consistent improvement from previous periods (97 in 2018-20, 103 in 2017-19, and 130 in 2014-16).
- **Age Group Vulnerability:** The highest MMR occurs in the **20-29 years age group**, followed by the 30-34 years age group. This highlights the need for focused interventions for women in their peak reproductive years.

State-wise Disparities:
- Several states report MMR higher than the national average. These include:
  - Madhya Pradesh (175)
  - Assam (167)
  - Uttar Pradesh (151)
  - **Odisha (135)**
  - Chhattisgarh (132)
  - West Bengal (109)
  - Haryana (106)
- The data indicates that eight states have already achieved the SDG target for MMR: Kerala (20), Maharashtra (38), Telangana (45), Andhra Pradesh (46), Tamil Nadu (49), Jharkhand (51), Gujarat (53), and Karnataka (63).

Global Context and SDG Target:
- **SDG Target 3.1:** The United Nations' Sustainable Development Goals aim to reduce the global MMR to **less than 70 per 100,000 live births by 2030**. India is making progress but is yet to reach this target.
- **WHO Insights:**
  - Globally, over 700 women died every day in 2023 from preventable causes related to pregnancy and childbirth.
  - The global MMR dropped by about 40% between 2000 and 2023.
  - A vast majority (over 90%) of maternal deaths in 2023 occurred in low- and lower-middle-income countries.
  - Access to **skilled health professionals** before, during, and after childbirth is crucial for saving lives.

Causes of Maternal Mortality:
- Complications during and following pregnancy and childbirth.
- Unsafe abortions.
- Key direct obstetric causes include severe bleeding (hemorrhage), infections (sepsis), high blood pressure during pregnancy (pre-eclampsia and eclampsia), and delivery-related complications.

Factors Contributing to MMR Decline in India:
- Improved access to and quality of maternal health services.
- Increase in institutional deliveries.
- Enhanced antenatal and postnatal care.
- Government initiatives like:
  - **Janani Suraksha Yojana (JSY):** Promotes institutional deliveries.

- o **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA):** Provides free, comprehensive, and quality antenatal care.
- o **Pradhan Mantri Matru Vandana Yojana (PMMVY):** Provides maternity benefits.
- o **Surakshit Matritva Aashwasan (SUMAN):** Aims for zero preventable maternal and newborn deaths.
- o Strengthening of health infrastructure under the **National Health Mission (NHM)**.

Challenges Ahead:

- **Regional Disparities:** Significant differences in MMR exist between states, requiring targeted interventions in high-burden states.
- **Access in Rural/Remote Areas:** Ensuring quality maternal healthcare reaches women in rural, remote, and underserved areas.
- **Socio-economic Factors:** Addressing issues like poverty, malnutrition (especially anemia), low levels of education, and early marriage.
- **Quality of Care:** Ensuring adherence to standard operating procedures and availability of skilled healthcare professionals at all levels.
- **Awareness:** Increasing awareness about available schemes and the importance of timely medical care.

India Achieves Major Public Health Milestone: WHO Certifies Elimination of Trachoma

India has been awarded the **World Health Organization (WHO) certificate for eliminating trachoma as a public health problem**. The formal recognition was conferred at the **78th World Health Assembly (WHA)** held in Geneva, Switzerland (May 19-27, 2025). This milestone is a testament to India's sustained and concerted efforts over decades to combat this leading infectious cause of preventable blindness.

What is Trachoma?

- **An Infectious Eye Disease:** Trachoma is a chronic infectious disease of the eye caused by the bacterium *Chlamydia trachomatis*.
- **Transmission:** It spreads through:
  - o Direct contact with eye or nose discharge from infected individuals.
  - o Indirect contact via contaminated hands, clothing (fomites).
  - o Flies that have come into contact with the eyes or nose of an infected person.
- **Impact:** Repeated infections, especially in childhood, lead to scarring on the inner eyelid. This can cause the eyelashes to turn inward and rub against the cornea (a condition called **trachomatous trichiasis or TT**). If left untreated, this constant friction leads to corneal opacification, severe visual impairment, and irreversible blindness.
- **Vulnerability:** Trachoma disproportionately affects populations in poor, rural areas with inadequate access to clean water, sanitation, and hygiene (WASH). Children and women are often the most affected.

- **Neglected Tropical Disease (NTD):** WHO categorizes trachoma as a Neglected Tropical Disease.

India's Journey to Trachoma Elimination:

India's fight against trachoma has been a long and arduous one, with the disease being a major cause of blindness in the country in the mid-20th century.

- **Early Efforts:** The **National Trachoma Control Programme** was launched as early as **1963**, with support from WHO and UNICEF. Later, these efforts were integrated into the broader **National Programme for Control of Blindness and Visual Impairment (NPCBVI)** in 1976.
- **Strategic Implementation of SAFE:** India adopted the **WHO-recommended SAFE strategy**, a comprehensive public health approach, which was crucial for this success:
  - o **S**urgery: To correct trachomatous trichiasis (TT) and prevent further corneal damage and blindness.
  - o **A**ntibiotics: Mass drug administration (MDA) of antibiotics like Azithromycin to treat active infection and reduce community transmission.
  - o **F**acial Cleanliness: Promoting personal hygiene, especially face washing in children, to prevent the spread of infection.
  - o **E**nvironmental Improvement: Ensuring access to safe water, improved sanitation, and fly control to reduce transmission risk factors.
- **Disease Mapping and Surveillance:**
  - o **National Trachoma Surveys:** India conducted extensive surveys to map the prevalence of the disease. The National Trachoma Survey Report (2014-17) found that active trachoma infection had been eliminated among children in all surveyed districts, with an overall prevalence of only 0.7%, well below WHO's elimination threshold.
  - o **Trachomatous Trichiasis (TT) Surveys:** Subsequent surveys, like the National Trachomatous Trichiasis (TT only) survey conducted in 200 endemic districts between 2021 and 2024, confirmed that India had met the criteria for eliminating TT as a public health problem.
  - o **Continuous Surveillance:** Since 2019, a continuous surveillance setup for trachoma cases has been in place, collecting reports from all districts.
- **Multi-sectoral Collaboration:** The success involved concerted efforts from the Union Ministry of Health and Family Welfare, state governments, healthcare professionals (ophthalmologists, ASHA workers, ANMs), and community participation.

WHO Criteria for Elimination:

To declare trachoma eliminated as a public health problem, countries must meet specific criteria set by WHO:

- A prevalence of **trachomatous trichiasis (TT) "unknown to the health system"** of **less than 0.2%** in people aged 15 years and above (i.e., less than 1 case per 5,000 population).

- A prevalence of **active trachoma (trachomatous inflammation—follicular or TF)** of **less than 5%** in children aged 1–9 years in each formerly endemic district.
- Evidence that the health system can identify and manage new cases of TT.

India has successfully met these epidemiological benchmarks.

New COVID-19 Variants NB.1.8.1 and LF.7 Detected in India, Health Ministry Urges Vigilance

India's genomic surveillance network has detected the presence of two new COVID-19 subvariants, **NB.1.8.1** and **LF.7**, according to recent data from the **Indian SARS-CoV-2 Genomics Consortium (INSACOG)**. While these variants are currently classified as **"Variants Under Monitoring" (VUMs)** by the World Health Organization (WHO) and are associated with a rise in cases in some parts of Asia, health officials have stated that most cases in India remain mild, and there is no cause for immediate alarm. However, they have urged continued vigilance and adherence to COVID-appropriate behavior.

What are the New Variants?

- **Detection:**
  - One case of the **NB.1.8.1** subvariant was identified in **Tamil Nadu in April 2025**.
  - Four cases of the **LF.7** subvariant were detected in **Gujarat in May 2025**.
- **Lineage:** Both NB.1.8.1 and LF.7 are descendants of the **Omicron variant**, specifically sublineages of **JN.1**, which remains the predominant variant in India (accounting for 53% of tested samples).
- **WHO Classification:** As of May 2025, the WHO classifies LF.7 and NB.1.8.1 as VUMs. This means they are being monitored for their potential characteristics and public health impact but are not yet designated as Variants of Concern (VOC) or Variants of Interest (VOI).

What Do We Know About Them?

- **Transmissibility and Immune Evasion:**
  - These subvariants are reportedly contributing to an increase in COVID-19 cases in China and other parts of Asia.
  - The NB.1.8.1 variant possesses certain spike protein mutations (like A435S, V445H, and T478I) that suggest a potential for **increased transmissibility and immune evasion** compared to other variants.
- **Severity and Vaccine Effectiveness:**
  - Despite these characteristics, the WHO's preliminary risk assessment indicates that NB.1.8.1 poses a **low public health risk globally**.
  - Currently **approved COVID-19 vaccines are expected to remain effective** in protecting against symptomatic and severe disease caused by these variants.
  - Symptoms associated with these new subvariants are largely consistent with previous Omicron strains, including sore throat, fatigue, mild cough, fever, muscle aches, and congestion.

Current COVID-19 Scenario in India and Surveillance

- **Active Cases:** As of May 19, 2025, India reported a relatively low number of active COVID-19 cases (around 257).
- **Dominant Variant: JN.1** continues to be the most common variant circulating in the country, followed by BA.2 and other Omicron sublineages.
- **Localized Increases:** Some states, including **Kerala (which reported 273 cases in May alone), Delhi, Tamil Nadu, Maharashtra, and Karnataka**, have seen localized increases in COVID-19 cases. However, health officials have noted that most of these cases are mild, with patients recovering under home care.
- **INSACOG's Role:** The detection of these new variants is a result of continuous genomic sequencing efforts by INSACOG, a network of laboratories established to monitor genomic variations in SARS-CoV-2.

India & WHO Ink Landmark Pact to Globalize Ayush Systems through Standardized Interventions

In a major boost to India's traditional systems of medicine, the **Ministry of Ayush** and the **World Health Organization (WHO)** have signed a significant **Project Collaboration Agreement** on May 24, 2025. This historic pact aims to standardize and globally mainstream **Ayush systems** (Ayurveda, Yoga, Unani, Siddha, Sowa-Rigpa, and Homoeopathy) by developing a dedicated **Traditional Medicine (TM) module** within the WHO's **International Classification of Health Interventions (ICHI)**. India has also committed **$3 million** to support this WHO initiative.

Details of the Landmark Agreement:

- **Objective:** The primary goal is to create a **standardized global classification system** for traditional medicine interventions. This new module will be part of the **ICHI**, which is a companion tool to the WHO's widely used **International Classification of Diseases (ICD-11)**.
- **What it Entails:** The agreement will facilitate the development of the **second strategy for traditional medicine (TM-2)**, focusing on codifying interventions and procedures from Ayush systems. This means practices like **Panchakarma (Ayurveda), specific Yoga therapies, Unani regimens, and Siddha procedures** will have globally recognized, evidence-based terminology and classifications.
- **Financial Commitment:** India will contribute **$3 million** to the WHO to support its work in traditional medicine and the development of the ICHI system.
- **Global Recognition:** This will allow for the documentation of Ayush interventions in a standardized format, making them recognizable and understandable within global health systems.

Prime Minister Shri Narendra Modi, in his 'Mann Ki Baat' radio address, lauded this initiative, stating, "This step will ensure that Ayush reaches the maximum number of people across the world scientifically and credibly." WHO Director-General Dr. Tedros Adhanom Ghebreyesus also welcomed the agreement and India's commitment to global health.

Why is This Collaboration Significant?

This India-WHO partnership carries immense significance for Ayush systems and global health:

- **Global Mainstreaming of Ayush:** By integrating Ayush practices into the ICHI, the agreement will elevate their status from traditional practices to globally recognized health interventions.
- **Enhanced Credibility & Scientific Validation:** Standardization and classification will promote more rigorous, evidence-based research on Ayush therapies, strengthening their scientific credibility worldwide.
- **Improved Healthcare Integration:**
    - It is expected to lead to **transparent billing and equitable pricing** for Ayush services in clinical settings.
    - It will facilitate the **inclusion of Ayush treatments in health insurance schemes**, making them more accessible.
    - It will improve **clinical documentation and hospital management** related to Ayush interventions.
- **Increased Accessibility:** A globally accepted classification will make it easier for people worldwide to access and understand Ayush treatments.
- **Strengthening India's Soft Power:** This initiative showcases India's rich heritage in traditional medicine and positions it as a leader in promoting holistic and accessible healthcare solutions globally.
- **Policy Formulation:** Standardized data on traditional medicine interventions will aid in better policy formulation and regulation at national and international levels.

Alignment with Global Efforts:

This agreement aligns perfectly with broader global initiatives to integrate traditional medicine into mainstream healthcare:

- **WHO Traditional Medicine Strategy:** The WHO has been actively working on strategies (the current one being 2014-2023, with a new one for 2025-2034 in development) to help member states harness the potential of traditional and complementary medicine (T&CM) and promote its safe and effective use.
- **WHO Global Centre for Traditional Medicine (GCTM) in Jamnagar:** Established in Gujarat, India, with WHO support, the GCTM aims to be a global hub for evidence-based research, data, and awareness in traditional medicine. This new agreement will complement the work of the GCTM.

Measles Vaccine: A Global Lifesaver, Preventing Millions of Deaths

A landmark study has highlighted the colossal impact of the **measles vaccine**, revealing that its widespread use has **prevented an estimated 9 to 9.4 crore (90 to 94 million) deaths worldwide** over the past few decades, specifically between 1970s/1980s and more recently between 2000-2023 (different studies cite slightly different figures and timeframes, but the scale of impact is consistently enormous). This monumental public health achievement underscores the power of vaccination in combating infectious diseases and saving lives, particularly among children.

The findings, often citing research published in prestigious journals like **The Lancet** and data from organisations like the **World Health Organization (WHO)** and the **U.S. Centers for Disease Control and Prevention (CDC)**, reiterate that measles vaccination is one of the most effective public health interventions ever implemented.

Vaccine's Impact:

- **Massive Reduction in Mortality:** Before the widespread availability and use of the measles vaccine, the disease claimed millions of lives annually, especially in developing countries. The introduction and scaling up of vaccination programs have dramatically reduced this death toll.
- **Global Collaborative Effort:** The success is a result of sustained efforts by international organisations like the WHO, **Gavi, the Vaccine Alliance**, UNICEF, and national governments worldwide through initiatives like the **Expanded Programme on Immunization (EPI)** and subsequent national immunization drives.
- **High Efficacy:** The measles vaccine is highly effective, with two doses providing around **97-99% protection** against the disease.
- **Cost-Effective Intervention:** Measles vaccination is considered one of the most cost-effective public health tools, yielding significant returns in terms of lives saved and disability averted for a relatively small investment.
- **Beyond Preventing Death:** Besides preventing deaths, the vaccine also averts millions of cases of severe complications associated with measles, such as pneumonia, encephalitis (brain inflammation), blindness, deafness, and malnutrition. It also prevents "immune amnesia," where the measles virus wipes out the body's memory of past infections, leaving individuals vulnerable to other diseases.

Understanding Measles:

- **What it is:** Measles is a **highly contagious viral disease** caused by a virus of the paramyxovirus family. It primarily affects children but can infect individuals of any age who are not immune.
- **Transmission:** It spreads through the **air by respiratory droplets** produced from coughing or sneezing by an infected person. The virus can remain active and contagious in the air or on infected surfaces for up to two hours.
- **Symptoms:** Initial symptoms usually appear 10-12 days after infection and include:
    - High fever
    - Runny nose
    - Cough
    - Red and watery eyes (conjunctivitis)
    - Small white spots (Koplik's spots) inside the mouth.
    - After a few days, a characteristic **red blotchy rash** appears, usually starting on the face and upper neck, and then spreading downwards.
- **Complications:** Measles can lead to serious complications, including:
    - Severe diarrhoea and dehydration

o Ear infections (otitis media), which can cause hearing loss
o Pneumonia (a common cause of measles-related death)
o Encephalitis (swelling of the brain), which can lead to convulsions, deafness, or intellectual disability.
o Subacute Sclerosing Panencephalitis (SSPE), a rare but fatal degenerative disease of the central nervous system that can occur several years after measles infection.
o Malnutrition and vitamin A deficiency.

Measles Vaccine:

- **Type:** The measles vaccine is a **live-attenuated vaccine**, meaning it contains a weakened version of the live measles virus that does not cause disease in healthy individuals but stimulates a strong immune response.
- **Administration:** It is usually given as a combined vaccine, most commonly the **Measles-Mumps-Rubella (MMR) vaccine** or Measles-Rubella (MR) vaccine.
- **Schedule in India (under UIP):**
  o First dose: 9-12 months of age.
  o Second dose: 16-24 months of age.
  o India has also conducted several **Measles-Rubella (MR) vaccination campaigns** to cover a wider age group and accelerate elimination efforts.

India's Fight Against Measles:

- **Universal Immunization Programme (UIP):** India's UIP provides free vaccination against measles.
- **Elimination Goal:** India is committed to the goal of **measles and rubella elimination**. The target year for elimination has been revised, with ongoing intensive efforts.
- **Mission Indradhanush:** This special drive aims to increase immunization coverage, including the measles vaccine, by reaching unvaccinated and partially vaccinated children in pockets of low coverage.
- **Surveillance:** Strengthening surveillance systems to detect measles cases and outbreaks quickly is a key strategy.
- **Progress:** India has made significant progress in reducing measles cases and deaths. In recognition of its efforts, India received the **Measles and Rubella Champion Award** by The Measles & Rubella Partnership in March 2024. As of early 2025, many districts in India have reported zero measles cases, indicating positive strides.

Global Efforts:

- **Measles & Rubella Initiative (M&RI):** A global partnership (including American Red Cross, UN Foundation, U.S. CDC, UNICEF, WHO) committed to achieving a world free of measles and rubella.
- **Immunization Agenda 2030 (IA2030):** A global strategy to maximize the lifesaving impact of vaccines – one of the most successful and cost-effective public health interventions. Measles elimination is a core indicator.
- **Gavi, the Vaccine Alliance:** Plays a crucial role in funding vaccines and strengthening immunization programs in lower-income countries.

Challenges:

- **Maintaining High Coverage:** Achieving and maintaining at least **95% coverage with two doses** of measles vaccine in every community is essential to stop transmission.
- **Vaccine Hesitancy:** Misinformation and unfounded fears about vaccine safety can lead to lower uptake.
- **Outbreaks:** Even in countries that have achieved high coverage, outbreaks can occur due to imported cases or in under-immunized pockets of the population.
- **Weak Health Systems:** In some regions, weak health infrastructure, conflict, and displacement can hinder vaccination efforts.
- **Impact of COVID-19:** The pandemic disrupted routine immunization services globally, leading to a resurgence of measles in some areas. Catch-up campaigns are crucial.

Education

Bihar Hosts 7th Khelo India Youth Games: Boosting India's Sporting Future

The **7th edition of the Khelo India Youth Games (KIYG)** was inaugurated by **Prime Minister Narendra Modi** via video conference on May 4, 2025. This marks a significant moment as **Bihar** is hosting this major multi-disciplinary national sporting event for the first time. The games serve as a crucial platform for young athletes and reflect the growing importance of sports in India's development journey.

Key Highlights of KIYG 2025

- **Host State:** Bihar (First time)
- **Host Cities:** Patna, Nalanda (Rajgir), Gaya, Bhagalpur, Begusarai. (Note: Shooting, Gymnastics, and Track Cycling events are being held in New Delhi).
- **Duration:** May 4 to May 15, 2025.
- **Participants:** Over 8,500 young athletes from across India are participating.
- **Sports Disciplines:** The games feature **27 medal sports**, including newly added **Sepaktakraw**. **Esports** is also included as a demonstration event, highlighting the inclusion of modern sports trends.

Understanding the Khelo India Initiative

- The **Khelo India scheme**, launched in 2017-18 by the Ministry of Youth Affairs and Sports, is a flagship programme aimed at achieving the twin objectives of **mass participation** and **promotion of excellence** in sports.
- It focuses on identifying and nurturing talent at the **grassroots level**, primarily targeting under-17 school students and under-21 college students.
- Key components include the **Khelo India Youth Games (KIYG)**, University Games, Winter Games, and Para Games, creating a year-round competitive environment.
- The scheme provides **financial assistance** (scholarships) and support for training to promising athletes.
- Infrastructure development is key, with over 1,000 **Khelo India Centres** established nationwide, including 38 centres across all districts in Bihar.

Cabinet Greenlights Rs. 60,000 Crore Scheme to Modernise ITIs and Boost Skilling

In a major push to transform India's vocational training landscape, the **Union Cabinet**, chaired by Prime Minister Narendra Modi, on **Wednesday, May 7, 2025**, approved a landmark national scheme. This initiative, with an outlay of **Rs. 60,000 crore** over five years, aims to upgrade **Industrial Training Institutes (ITIs)** and establish five **National Centres of Excellence (NCOEs) for Skilling**.

This ambitious scheme is designed to create a future-ready workforce, aligning with the evolving demands of various industries and contributing to the vision of **'Viksit Bharat' (Developed India) by 2047**.

Key Features and Objectives of the Scheme:

- **ITI Upgradation: 1,000 Government ITIs** across the country will be upgraded. This will follow a **hub-and-spoke model** to ensure better industry alignment and resource utilization.
- **National Centres of Excellence (NCOEs): Five NCOEs for Skilling** will be established. These centres will be housed within existing **National Skill Training Institutes (NSTIs)**.
- **NSTI Capacity Augmentation:** The five NSTIs earmarked for housing the NCOEs and for capacity enhancement are located in **Bhubaneswar, Chennai, Hyderabad, Kanpur, and Ludhiana**.
- **Skilling Target:** The scheme aims to impart industry-relevant skills training to **20 lakh (2 million) youth** over the next five years.
- **Industry-Led Approach:** A significant shift involves adopting an **industry-led Special Purpose Vehicle (SPV) model** for implementation. This aims to make ITIs **government-owned but industry-managed**, ensuring that training is directly linked to industry needs in curriculum, infrastructure, and management.
- **Focus on Trainers:** To enhance teaching quality, the scheme will upgrade **Training of Trainers (ToT)** facilities in the five NSTIs and provide pre-service and in-service training to **50,000 trainers**.
- **Modernised Courses:** ITIs will offer revamped courses focusing on **new-age trades** relevant to high-growth sectors such as **electronics, automotive, and renewable energy**.

Funding and Partnerships:

The scheme will be implemented as a **Centrally Sponsored Scheme** with a robust funding model:

- **Central Government:** Rs. 30,000 crore
- **State Governments:** Rs. 20,000 crore
- **Industry Partners:** Rs. 10,000 crore
- **International Co-financing:** 50% of the Centre's share (Rs. 15,000 crore) will be co-financed equally by the **Asian Development Bank (ADB)** and the **World Bank**.

Addressing Gaps in Vocational Training:

The government statement highlighted that previous financial aid was often insufficient for comprehensive ITI upgradation. This new scheme introduces a **need-based investment model**, providing flexibility to institutions for:

- Enhancing infrastructure.
- Introducing modern, capital-intensive trades.
- Overcoming outdated course content.
- Improving the low employability rates of ITI graduates.
- Changing the perception of vocational training, making it a more aspirational educational pathway.

Alignment with National Goals:

This initiative is a crucial component of the broader **Skill India Mission**. By focusing on creating a skilled workforce, it directly supports the Prime Minister's vision of **'Viksit Bharat' by 2047**, where skilling is a key pillar for inclusive growth and global competitiveness. India currently has a network of over 14,600 ITIs with approximately 14.4 lakh students enrolled.

Significance for India's Skilling Ecosystem:

- **Leveraging Demographic Dividend:** The scheme is vital for harnessing India's vast youth population by equipping them with employable skills.
- **Industry 4.0 Readiness:** Focusing on new-age trades will help prepare the workforce for the demands of **Industry 4.0**, including automation, AI, and green technologies.
- **Boosting Employability & MSMEs:** By aligning training with industry demands, the scheme aims to improve the employability of youth and provide Micro, Small, and Medium Enterprises (MSMEs) with access to a skilled talent pool.
- **Strengthening Cooperative Federalism:** As a Centrally Sponsored Scheme with significant state participation, it underscores the importance of Centre-State collaboration in national development.
- **Enhanced Quality and Relevance:** The industry-led SPV model and the focus on training trainers are expected to significantly improve the quality and relevance of vocational training.
- **International Collaboration:** The involvement of ADB and World Bank brings in financial resources as well as global expertise in skill development. For aspirants from Odisha, the upgradation of the **NSTI in Bhubaneswar** is a notable local development under this national scheme.

Cabinet Approves ₹11,828 Crore Expansion for Five New IITs, Boosting Research and Student Capacity

In a significant move to bolster higher technical education and research in the country, the **Union Cabinet**, chaired by Prime Minister Narendra Modi, on **Wednesday, May 7, 2025**, approved an ₹11,828.79 crore expansion plan for five of the newer **Indian Institutes of Technology (IITs)**. This initiative, termed **Phase-B construction**, aims to significantly enhance the academic and infrastructure capabilities of these premier institutions over the next four years (2025-26 to 2028-29).

The five IITs set to benefit from this expansion are:

- **IIT Tirupati** (Andhra Pradesh)
- **IIT Palakkad** (Kerala)
- **IIT Bhilai** (Chhattisgarh)
- **IIT Jammu** (Jammu & Kashmir)
- **IIT Dharwad** (Karnataka)

These institutions were established after 2014 and are now operating from their permanent campuses.

Key Highlights of the Expansion Plan:

- **Financial Outlay:** A total of **₹11,828.79 crore** will be invested over a four-year period from 2025-26 to 2028-29.
- **Increased Student Intake:** The plan will facilitate the education of over **6,500 additional students**, nearly doubling the current combined capacity of these five IITs from 7,111 to **13,687 students**. This increase will be phased:
    - Year 1: 1,364 additional students
    - Year 2: 1,738 additional students
    - Year 3: 1,767 additional students
    - Year 4: 1,707 additional students This expansion will cover undergraduate, postgraduate, and PhD programs.
- **New Faculty Positions:** The Cabinet has sanctioned the creation of **130 new faculty posts** at the level of Professor (Level 14 and above) to support the increased academic activities.
- **State-of-the-Art Research Parks:** A crucial component is the establishment of **five new research parks**, one at each of these IITs. These parks are envisioned to strengthen **industry-academia collaboration**, promote technology transfer, and nurture startup incubation.

Alignment with National Vision:

This expansion plan aligns with the **2025-26 Union Budget** announcement, which acknowledged the significant increase in student strength across all IITs over the past decade (from 65,000 in 2014 to 1.35 lakh in 2024). It also reinforces the government's vision of a **'Viksit Bharat' (Developed India) by 2047**, where world-class educational institutions play a pivotal role.

Broader Significance for India:

- **Strengthening STEM Ecosystem:** This investment is critical for strengthening India's Science, Technology, Engineering, and Mathematics (STEM) education and research ecosystem, which is vital for technological self-reliance and economic development.
- **Fostering Innovation Culture:** The emphasis on research parks is a strategic move to bridge the gap between academia and industry, translating research into tangible products and solutions, crucial for initiatives like **Atmanirbhar Bharat (Self-reliant India)**.
- **Addressing Regional Development:** Establishing and strengthening IITs in diverse states, including newer ones like Chhattisgarh and Jammu & Kashmir, contributes to balanced regional development and provides opportunities for local talent.
- **Human Capital for Future Growth:** The expanded pool of IIT graduates will be instrumental in driving innovation in emerging technology areas and contributing to India's overall economic and social progress.
- **Quality in Higher Education:** This move reflects a continued focus on enhancing the quality and capacity of India's premier technical institutions, a key aspect of the **National Education Policy (NEP) 2020**'s objectives, even if not directly cited in the announcement.

Mizoram Scripts History: Declared India's First Fully Literate State at 98.2%

Mizoram has achieved a historic milestone by being officially declared **India's first "fully literate state,"** boasting an impressive **literacy rate of 98.20%**. This significant accomplishment was announced by Mizoram Chief Minister Shri Lalduhoma on May 20, 2025, during a special ceremony in Aizawl, attended by Union Minister of State for Education, Shri Jayant Chaudhary. This achievement, realized under the **ULLAS – Nav Bharat Saaksharta Karyakram (New India Literacy Programme)**, surpasses the Ministry of Education's benchmark of 95% literacy for a state to be considered fully literate.

Journey to Full Literacy: Key Factors and Strategies

Mizoram's success is not an overnight phenomenon but the culmination of sustained efforts and unique societal strengths:

- **High Baseline Literacy:** Mizoram has consistently ranked among the top states in literacy. As per the **2011 Census**, it recorded a literacy rate of **91.33%**, the third-highest in India. This provided a strong foundation for the final push towards full literacy.
- **ULLAS – Nav Bharat Saaksharta Karyakram (New India Literacy Programme):**
    - This **centrally sponsored scheme**, being implemented from 2022 to 2027, is aligned with the **National Education Policy (NEP) 2020**.
    - It targets **adults aged 15 years and above** who missed the opportunity for formal schooling.
    - The scheme has five key components: Foundational Literacy and Numeracy, Critical Life Skills, Basic Education, Vocational Skills, and Continuing Education.
    - The vision of ULLAS is to make **"Bharat - Jan Jan Saakshar"** (India - Every Person Literate) and is driven by the spirit of **"Kartavya Bodh"** (sense of duty) through volunteerism.
- **Targeted Identification and Engagement:**
    - A door-to-door survey conducted by **Cluster Resource Centre Coordinators (CRCCs)** across Mizoram in August-September 2023 identified **3,026 non-literate individuals**.
    - Out of these, **1,692 learners were actively engaged** in teaching-learning activities.
- **Volunteerism at its Core:** A remarkable **292 volunteer teachers** – including students, educators, resource persons, and CRCCs themselves – played a crucial role. Their dedication, guided by a sense of duty and the Mizo cultural value of **'Tlawmngaihna'** (a philosophy of selfless service, altruism, and community spirit), was pivotal.
- **Community Participation:**
    - The success story of Mizoram's literacy drive is deeply intertwined with the active involvement of its vibrant civil society.
    - Organizations like the **Young Mizo Association (YMA),** various **church bodies**, and women's groups have historically played a significant role in promoting education and adult literacy as a part of everyday community life.
- **Government and Administrative Support:**

- o Concerted efforts by the Mizoram School Education Department, particularly through **Samagra Shiksha** and the New India Literacy Programme, were instrumental.
  - o The State Literacy Mission Authority, with the State Centre for Literacy (SCL) under SCERT, supported the mission by developing learning materials in Mizo and English.
- **Data Corroboration:** The literacy rate of **98.20%** is as per the **Periodic Labour Force Survey (PLFS) for 2023-24**, confirming that Mizoram crossed the 95% threshold set by the Ministry of Education.

Defining Literacy in India:

- For census and survey purposes in India, a person aged **seven years and above** who can **both read and write with understanding in any language** is treated as literate.
- A person who can only read but cannot write is not considered literate.
- The ULLAS initiative also emphasizes **"functional literacy,"** which includes critical life skills, digital literacy, and financial literacy, aligning with a more holistic understanding of education.

Beyond Basic Literacy: The Next Frontiers

Chief Minister Lalduhoma emphasized that this achievement is "not the end, but a new beginning." Mizoram now aims to advance further by focusing on:

- **Digital Literacy**
- **Financial Literacy**
- **Entrepreneurial Skills**
- **Continuing Education and Lifelong Learning**

This holistic approach seeks to ensure that literacy translates into tangible improvements in the quality of life and economic prospects for all citizens.

CBSE Schools to Set Up "Sugar Boards" to Tackle Rising Sugar Intake Among Students

The **Central Board of Secondary Education (CBSE)** has issued a directive to all its affiliated schools across India to establish **"Sugar Boards"** on their campuses. This initiative aims to raise awareness among students, parents, and school staff about the **harmful effects of excessive sugar consumption** and to promote healthier dietary choices. The move comes in response to growing concerns over the rising incidence of **childhood obesity, Type 2 diabetes**, and other lifestyle-related diseases among school-going children.

What are "Sugar Boards"?

"Sugar Boards" are essentially **educational display panels** that will be prominently placed within school premises, such as canteens, corridors, and near entry points. These boards will feature:

- **Information on Recommended Daily Sugar Intake:** Clear guidelines on how much sugar is considered healthy for different age groups of children, often referencing World Health Organization (WHO) recommendations.
- **Sugar Content in Common Foods:** Visual and easy-to-understand information about the amount of sugar present in commonly consumed packaged foods and

beverages, especially items popular among children like soft drinks, packaged juices, chocolates, cookies, and even some so-called "healthy" breakfast cereals. This will help students identify "hidden sugars."

- **Health Risks of High Sugar Intake:** Details about the adverse health consequences of consuming too much sugar, including obesity, Type 2 diabetes, dental cavities, and potential impacts on cognitive function and behavior.
- **Healthier Dietary Alternatives:** Suggestions for nutritious and low-sugar snacks and drink options.
- **Interactive Content:** Schools are encouraged to make the content age-appropriate, visually engaging, and possibly interactive, using infographics, comparison charts, and weekly updates.

Why this Initiative? Concerns Over Student Health

CBSE has highlighted several pressing reasons for launching this initiative:

- **Alarming Rise in Lifestyle Diseases:** There has been a significant increase in **Type 2 diabetes** among children over the past decade, a condition once almost exclusively seen in adults. Childhood **obesity** and other metabolic disorders are also on the rise.
- **Excessive Sugar Consumption:** Data indicates that Indian children are consuming sugar far beyond recommended limits. Studies cited by CBSE show that sugar constitutes about **13% of the daily calorie intake for children aged 4-10 years** and nearly **15% for those aged 11-18 years**. This is substantially higher than the WHO's recommendation of limiting free sugar intake to less than 10% of total energy intake, and ideally below 5% for additional health benefits.
- **Easy Availability of Unhealthy Options:** The "proliferation of sugary snacks, beverages, and processed foods, often readily available in school environments," has been identified as a major contributor to this excessive intake.
- **Impact on Overall Well-being:** High sugar intake can adversely affect children's long-term health, academic performance, physical fitness, and emotional well-being.

CBSE's Vision: Promoting Healthy Habits and Health Literacy

The "Sugar Board" initiative is part of CBSE's broader goal to:

- **Foster Health-Positive Environments:** Create school campuses that actively promote well-being and healthy lifestyles.
- **Integrate Health Literacy:** Embed health consciousness and nutritional awareness into everyday school culture.
- **Empower Students:** Provide students with the knowledge and tools to make informed dietary choices for themselves.
- **Involve Parents and Community:** Encourage parents and the wider community to support healthy eating habits. The National Commission for Protection of Child Rights (NCPCR) also supports such measures and plans to involve parents through Parent-Teacher Meetings.

Implementation and Expected Impact:

- CBSE has directed schools to set up these "Sugar Boards" and also to **organize awareness seminars and workshops** on nutrition and health.

- Schools are required to submit a concise report on their activities, along with photographs, by a stipulated deadline (e.g., July 15, 2025).
- Health experts have lauded this initiative as a timely and essential public health measure that aligns with global nutrition goals. Prime Minister Narendra Modi also praised the initiative in his 'Mann Ki Baat' address.
- The potential impact is significant, given that CBSE has over 24,000 affiliated schools across India, reaching nearly two crore students and their families.
- While some experts believe this is a good first step, they also emphasize the need for more comprehensive measures, including stricter regulations on the sale of High Fat, Salt, and Sugar (HFSS) foods in and around schools and clear front-of-pack labelling on food products.

UPSC Launches New User-Friendly Online Portal to Streamline Exam Applications

The **Union Public Service Commission (UPSC)**, India's premier central recruiting agency, has launched a **new Online Application Portal**, effective May 28, 2025. This revamped system, available at **upsconline.nic.in**, is designed to significantly **simplify and streamline the registration and application process** for the lakhs of aspirants who apply for various prestigious examinations conducted by the UPSC every year. The new portal replaces the older One-Time Registration (OTR) module, and all candidates, including those previously registered, will now need to register afresh on this platform.

UPSC's New Gateway: What Has Changed?

The new Online Application Portal is structured into four user-friendly sections or "cards" on its homepage, aiming to make the process more organized and less prone to last-minute rushes:

1. **Account Creation:** The initial step where candidates create a user account using their email ID and mobile number.
2. **Universal Registration:** This section captures general details of the candidate that remain common across various UPSC examinations. This includes personal information, educational qualifications, and identification details. **Aadhaar card integration** is strongly advised by UPSC for seamless verification and authentication, serving as a permanent and common record.
3. **Common Application Form:** Here, aspirants can input shared information applicable to multiple exams. This part, along with Account Creation and Universal Registration, can be completed by candidates **anytime, well in advance of specific exam notifications**.
4. **Examination Section:** This part is dynamic and exam-specific. It will display active examination notices, allow candidates to fill out the examination-specific application forms (during the notified period), and check their application status.

Key Features and Benefits for Aspirants:

The revamped portal promises several advantages for candidates:

- **Replaces Old OTR System:** The previous One-Time Registration (OTR) module is no longer applicable. **All aspirants must register afresh** on the new portal.
- **Time-Saving and Convenient:** Candidates can complete the first three common parts (Account Creation, Universal Registration, Common Application Form) at their leisure, even before an exam notification is out. This allows them to keep their profile ready, saving crucial time and avoiding the last-minute rush when exam applications open.
- **Simplified Application for Multiple Exams:** Once the universal profile is created, applying for different UPSC exams becomes faster as much of the common information will be pre-filled.
- **Reduced Errors:** By allowing advance filling and storing common data, the scope for manual errors during the hectic application window for specific exams is minimized.
- **Aadhaar-Based Verification:** UPSC strongly encourages the use of the Aadhaar card as the primary ID document for easy, effortless, and seamless verification and authentication.
- **User-Friendly Interface:** The portal is designed to be more intuitive and easier to navigate.
- **Centralized Information:** Aspirants can access exam notifications, apply, and check application status all through this single portal.
- **Transparency:** The new system aims to bring greater transparency to the application process.
- **Document Upload:** Candidates will need to upload required documents (like educational certificates, category certificates, photograph, signature) afresh on this new portal.

Why This Revamp? UPSC's Objectives

The introduction of this new portal is part of UPSC's ongoing efforts to:

- **Modernize its recruitment processes.**
- **Enhance user experience** for the vast number of aspirants.
- **Improve efficiency** in handling applications.
- **Reduce the burden on candidates** by simplifying procedures.
- **Align with the Digital India initiative** for better governance and service delivery.

Navigating the New System: Key Advice for Aspirants

- **Register Afresh:** All candidates, even those registered on the old OTR platform, must create a new account and complete the registration process on upsconline.nic.in.
- **Use Aadhaar:** While other valid photo IDs are permissible, using Aadhaar is strongly recommended for smoother verification.
- **Complete Common Parts Early:** Aspirants are advised to complete the 'Account Creation,' 'Universal Registration,' and 'Common Application Form' sections well in advance and not wait for exam notifications.
- **Keep Documents Ready:** Have scanned copies of necessary documents (photograph, signature, educational certificates, category certificates if applicable) in the prescribed format ready for upload.
- **Check Official Website Regularly:** For all authentic information, exam notifications, and updates, always

refer to the official UPSC websites: upsc.gov.in and upsconline.nic.in.
The new portal is already being used for applications for the **Combined Defence Services (CDS) Exam-II, 2025, and the National Defence Academy (NDA) & Naval Academy (NA) Exam-II, 2025**, which were notified on May 28, 2025.

Economy & Finance

NITI Aayog & GAME Partner to Boost Local Entrepreneurship Across India

India's premier policy think tank, **NITI Aayog**, has joined hands with the **Global Alliance for Mass Entrepreneurship (GAME)** in a strategic partnership. Their goal is to cultivate strong, **local entrepreneurship ecosystems** in various parts of India, aiming to drive **economic growth** and **job creation** from the ground up.

Key Aspects of the Collaboration:

- **Focus:** To nurture **place-based** (localized) entrepreneurship ecosystems, meaning support systems tailored to the specific needs and resources of a particular region.
- **Pilot Locations:** The initiative will initially be launched in **Nagpur (Maharashtra)**, **Visakhapatnam (Andhra Pradesh)**, and **Uttar Pradesh**, with plans for future expansion.
- **Collaborative Approach:** The partnership aims to bring together all key local players:
  - Government bodies
  - Corporates
  - Educational institutions
  - Financial institutions
  - Successful local entrepreneurs ("champions")
  - Community organizations
- **Methodology:**
  - Adopting a **bottom-up approach** to understand and address the unique challenges faced by entrepreneurs in each pilot region.
  - Implementing **GAME's proven strategies**, which include improving **access to finance**, providing **capacity-building programs**, undertaking **policy advocacy** to remove hurdles, and encouraging community-driven initiatives.
- **Ultimate Goal:** To create **self-sustaining local ecosystems** that foster innovation, promote **inclusive growth**, and turn entrepreneurship into a widespread movement, ultimately generating large-scale employment.

Why is this Important?

- **Promoting MSMEs:** This aligns with the government's focus on strengthening the Micro, Small, and Medium Enterprises (MSME) sector, which is crucial for India's economy and employment.
- **Job Creation:** Fostering mass entrepreneurship is seen as a key strategy to address unemployment and underemployment, particularly at the local level.
- **Balanced Regional Development:** By focusing on specific locations (place-based), the initiative aims to reduce regional disparities and promote growth beyond major metropolitan hubs.
- **Leveraging Local Strengths:** The bottom-up approach ensures that solutions are built using local resources, knowledge, and addressing specific local market needs.
- **Role of NITI Aayog:** This partnership highlights NITI Aayog's role in fostering collaboration between government, private sector, and civil society organizations to achieve developmental goals. It reflects its function as a catalyst and facilitator in policy implementation.
- **Ecosystem Approach:** Recognizes that entrepreneurship doesn't happen in isolation. It requires a supportive environment (ecosystem) with access to finance, markets, mentorship, and networks.

About the Partners:

- **NITI Aayog (National Institution for Transforming India):** The Government of India's apex public policy think tank, playing a key role in designing strategic and long-term policies and programmes and fostering cooperative federalism.
- **Global Alliance for Mass Entrepreneurship (GAME):** Launched in 2018, GAME works as a catalyst to boost mass entrepreneurship in India through research, pilot programs, and policy advocacy. It focuses on tackling challenges like access to credit and markets, empowering women entrepreneurs, strengthening MSMEs, and promoting sustainable business models, having already supported over 300,000 entrepreneurs.

Boosting India's MSMEs: NITI Aayog's Roadmap for Competitiveness

NITI Aayog, the Indian government's policy think tank, recently released a significant report titled **"Enhancing MSMEs Competitiveness in India"**. Prepared in collaboration with the Institute for Competitiveness (IFC), this report provides a detailed plan to unleash the vast potential of India's **Micro, Small and Medium Enterprises (MSMEs)**.

Why MSMEs Matter:

- MSMEs are crucial for India's economic growth, contributing significantly to **Gross Value Added (GVA)** and **exports**. According to the report, MSMEs contribute **30.1%** to India's GVA and account for **45.79%** of total exports.
- They are major job creators and play a key role in inclusive growth, providing livelihood opportunities across the country.

Key Challenges Faced by MSMEs:

The report identifies several critical challenges hindering the competitiveness of Indian MSMEs:

- **Limited Access to Finance:** Despite some improvement in formal credit access between 2020 and 2024 (share of micro and small enterprises accessing credit through scheduled banks rose from 14% to 20%, medium enterprises from 4% to 9%), a large **credit gap** remains. An estimated **₹80 lakh crore** of MSME credit demand was unmet formally in FY21. The **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)**, though expanded, still faces limitations.

- **Skill Shortages:** A significant portion of the MSME workforce lacks formal training, impacting productivity and the ability to scale up.
- **Lack of Innovation and Technology Adoption:** Many MSMEs underinvest in research, development, quality improvement, and adopting modern technologies. This is often due to issues like unreliable electricity, poor internet connectivity, and high implementation costs. Awareness and accessibility of government schemes for technology adoption are also low.
- **Market Access Issues:** MSMEs face barriers in reaching markets effectively, particularly in high-growth potential regions like India's northeastern and eastern belts.

Recommendations for Enhancing Competitiveness:

The NITI Aayog report proposes systemic reforms to address these challenges:

- **Revamping CGTMSE:** Reforming the Credit Guarantee Fund to improve regulatory oversight, reduce premium rates, and increase coverage, especially for women-led enterprises, is crucial to bridge the credit gap.
- **Strengthened State-Level Policies:** Emphasising better design and implementation of policies at the state level, with consistent monitoring, improved data integration, and better engagement with stakeholders. The report advocates for a **cluster-based and adaptive policy framework**.
- **Boosting Skill Development:** Promoting accessible skill development initiatives, particularly for MSMEs in remote areas.
- **Promoting Technology Adoption:** Improving basic infrastructure like reliable electricity and internet, promoting affordable digital solutions, and increasing awareness and accessibility of relevant schemes.
- **Enhancing Market Linkages:** Providing support through digital marketing training, partnerships with logistics providers, and creating platforms for direct market access, especially in targeted growth regions.

Sector Focus:

The report specifically analysed four important sectors to provide sector-specific recommendations:

- **Textiles manufacturing and apparel**
- **Chemical products**
- **Automotive**
- **Food processing**

Collaboration for Entrepreneurship:

In a related development on May 2, 2025, **NITI Aayog** also partnered with the **Global Alliance for Mass Entrepreneurship (GAME)** to foster entrepreneurship ecosystems across India, starting with pilot projects in Nagpur, Visakhapatnam, and Uttar Pradesh. This collaboration aims to improve access to finance, capacity building, and policy advocacy for local entrepreneurs.

CCEA Approves Revised SHAKTI Policy for Enhanced Coal Allocation to Power Sector

The **Cabinet Committee on Economic Affairs (CCEA)**, chaired by Prime Minister Narendra Modi, on **Wednesday, May 7, 2025**, approved revisions to the **SHAKTI (Scheme for Harnessing and Allocating Koyala Transparently in India)** policy. This revised framework aims to simplify coal allocation, promote ease of doing business, and enhance energy security for the nation.

The core objective of the revised policy is to ensure better coal availability for thermal power plants, encourage new investments, and ultimately benefit electricity consumers.

Key Features of the Revised SHAKTI Policy:

The revamped policy simplifies the existing eight coal allocation categories into two distinct mechanisms:

1. **Window-I: Coal Linkage at Notified Price**
   - This window will continue to provide coal linkages at **notified prices** (prices set by coal companies) to **Central and State Government-owned thermal power projects (TPPs)**, including their Joint Ventures (JVs) and subsidiaries.
   - States can utilize these allocated linkages for their own generating companies (Gencos).
   - They can also allocate this coal to **Independent Power Producers (IPPs)** selected through **Tariff-Based Competitive Bidding (TBCB)** or to existing IPPs that have Power Purchase Agreements (PPAs) under Section 62 of the Electricity Act, 2003, for setting up new expansion units.

2. **Window-II: Coal Linkage at a Premium above Notified Price**
   - This window allows **all thermal power producers** – including domestic coal-based plants and, significantly, **Imported Coal-Based (ICB) power plants** – to acquire coal through **auctions**.
   - The auction will be at a **premium above the notified coal price**.
   - Linkages under this window will be available for flexible durations, ranging from **12 months up to 25 years**.
   - A major change is that power generated using coal procured under this window can be sold in the open market **without the mandatory requirement of a Power Purchase Agreement (PPA)**, offering producers greater market flexibility.

Implementation and Oversight:

- Public Sector Undertakings **Coal India Limited (CIL)** and **Singareni Collieries Company Limited (SCCL)** will be responsible for implementing the revised policy.
- The policy provides for the **delegation of powers** to concerned Ministries for making minor changes to the policy.
- An **"Empowered Committee"** comprising the Secretary (Power), Secretary (Coal), and Chairperson of the Central Electricity Authority (CEA) is proposed to deal with operational issues.

Background of the SHAKTI Policy:

The SHAKTI policy was first introduced in **2017**, marking a shift from a primarily nomination-based coal allocation system to a more transparent mechanism involving auctions and tariff-based bidding for certain categories of power plants. However, nomination-based allocation continued for

Central and State sector TPPs. The policy was subsequently amended in 2019 and 2023 to address evolving sector needs.

Significance for India's Power Sector:

- **Energy Security:** Coal remains a mainstay of India's energy mix. This policy aims to strengthen fuel security for the vital power sector, which is crucial for economic growth.
- **Operational Efficiency and Transparency:** The revisions are geared towards making coal allocation more efficient, transparent, and market-oriented.
- **Attracting Private Investment:** The increased flexibility, especially for IPPs, is likely to attract more private investment into the thermal power sector.
- **Consumer Interest:** Measures like coal source rationalization and benefits from import substitution are intended to positively impact electricity consumers.
- **Addressing Sectoral Challenges:** The policy attempts to address long-standing issues related to coal shortages, PPA constraints, and the financial health of power plants.

RBI Eases Norms for Foreign Investment in Corporate Bonds

The **Reserve Bank of India (RBI)** has announced a significant relaxation of norms for **Foreign Portfolio Investors (FPIs)** investing in **corporate debt securities** through the **general route**. This move, effective immediately (as of May 8-9, 2025), aims to provide greater flexibility to FPIs, attract more foreign capital into India's debt market, and further deepen the domestic corporate bond market.

Key Changes in FPI Investment Norms:

- **Removal of Cap on Shorter Maturity Bonds:** The RBI has withdrawn the rule that previously restricted FPIs from investing more than **50% of their total corporate bond holdings** in securities with a **residual maturity of less than three years**. This gives FPIs more freedom to manage their investment duration.
- **Abolition of Concentration Limit:** The **concentration limit**, which restricted any single FPI from holding more than **10% of the outstanding amount of a particular corporate bond issue**, has also been removed. This will allow FPIs to take larger positions in specific bond issuances.
- **Overall Limit Unchanged:** It's important to note that the **aggregate FPI investment limit** in corporate bonds remains unchanged at **15% of the outstanding stock** of corporate debt in India. The current changes only pertain to the micro-prudential limits on individual FPIs and their portfolio composition.

Why this Matters: Significance of the Move

- **Increased Flexibility for FPIs:** The removal of these restrictions will offer FPIs greater operational ease and flexibility in designing their investment strategies for Indian corporate debt.
- **Boost to Corporate Bond Market:** This step is expected to:
  - Increase demand for Indian corporate bonds, potentially across different maturity spectrums.
  - Improve liquidity in the secondary market.
  - Help in better price discovery for corporate debt securities.
- **Attracting Foreign Inflows:** By simplifying the investment regime, the RBI aims to make the Indian corporate debt market more attractive to foreign investors, potentially leading to higher capital inflows.
- **Lower Borrowing Costs for Companies:** Increased FPI participation and demand could lead to a reduction in borrowing costs for Indian companies that raise funds through corporate bonds.
- **Alignment with Market Development:** This move aligns with broader efforts to develop and deepen India's corporate bond market, which is crucial for financing economic growth and infrastructure development. It also comes at a time when India's inclusion in global bond indices is attracting greater international interest.

Important Aspects:

- **Foreign Portfolio Investment (FPI):**
  - FPI refers to investments made by foreign entities in the financial assets of a country, such as stocks, bonds, and other securities.
  - Unlike Foreign Direct Investment (FDI), FPI does not involve acquiring a controlling stake or management involvement in a company. It is generally driven by returns and portfolio diversification.
  - FPI flows can be influenced by interest rate differentials, economic outlook, and the regulatory environment.
- **Corporate Debt Market in India:**
  - This is the market where companies issue bonds (debt instruments) to raise capital.
  - A well-developed corporate bond market provides an alternative to bank financing for companies, diversifies financial risk, and helps in channeling savings into productive investments.
  - India's corporate bond market, while growing, is still considered underdeveloped compared to many other major economies. Key challenges include liquidity, depth, and retail participation.
- **RBI's Regulatory Role:**
  - The RBI, as the central bank, plays a crucial role in regulating capital flows, including FPI, to maintain financial stability and manage foreign exchange reserves.
  - It periodically reviews and adjusts investment limits and conditions for foreign investors in Indian markets.
- **Medium Term Framework (MTF) for FPIs:** These relaxations are part of the ongoing refinements by the RBI to the FPI regime in debt, which operates under a broader Medium Term Framework.

RBI Overhauls Rule-Making: New Framework for Transparency and Public Feedback

The **Reserve Bank of India (RBI)** has introduced a new **"Framework for Formulation of Regulations"** to standardize its process for creating and amending rules, with a strong emphasis on **transparency, public consultation, and impact assessment**. This move, announced on May 7-8,

2025, aims to make the central bank's regulatory process more predictable, stakeholder-friendly, and aligned with global best practices.

Key Features of the New Framework:

- **Standardized Process:** The framework lays down clear principles and procedures for all **regulatory instruments** issued by the RBI. This includes directions, guidelines, notifications, orders, policies, specifications, and standards.
- **Public Consultation as a Norm:**
  - Before issuing a regulation, the RBI will now publish its **draft** on its official website.
  - This will be accompanied by a **"Statement of Particulars"** detailing the regulation's objectives, the legal authority for its issuance, an **impact analysis** (to the extent feasible), and references to international standards or best practices, if any.
  - Stakeholders and the public will be given a minimum of **21 days** to submit their comments and feedback on the draft.
- **Response to Feedback:** The RBI will also publish a **general statement of its response** to the comments received, along with the final regulations on its website. This ensures that public input is acknowledged.
- **Impact Analysis:** A crucial component is the requirement to conduct an **impact analysis** of the proposed regulation, where feasible. This will help assess the potential consequences and ensure that regulations are well-considered.
- **Periodic Review of Existing Regulations:** The framework mandates a **periodic review of regulations currently in force**. This review will consider:
  - The stated objectives of the regulations.
  - Their relevance in the evolving economic and technological environment.
  - Experience gained through surveillance, supervision, and enforcement actions.
  - Global best practices.
  - The scope for reducing redundancies and simplifying compliance.
- **Scope of Application:** While the framework applies broadly, certain categories of regulations might be exempt. These could include those related to internal administration, minor procedural changes with no significant external impact, or situations requiring urgent action or confidentiality in the public interest. The RBI retains discretion in such cases.

Significance of the RBI's Initiative:

- **Enhanced Transparency and Accountability:** Publishing draft regulations and the rationale behind them makes the regulatory process more open and holds the RBI more accountable for its decisions.
- **Improved Quality of Regulations:** Incorporating public feedback and conducting impact analyses can lead to better-designed, more effective, and less burdensome regulations.
- **Greater Stakeholder Participation:** This move institutionalizes a consultative approach, allowing regulated entities, industry bodies, experts, and the public to contribute to the rule-making process.

- **Predictability and Clarity:** A standardized process helps in bringing greater consistency and clarity to regulatory issuances, making it easier for stakeholders to understand and comply.
- **Alignment with Best Practices:** This initiative aligns the RBI's regulatory governance with international benchmarks, which often emphasize consultation and evidence-based policy-making.
- **Reduced Compliance Burden:** Periodic review of regulations can help in weeding out outdated or redundant rules, thereby potentially reducing the compliance burden on regulated entities.

Important Aspects:

- **Good Governance in Regulation:** This framework is a prime example of efforts to instill principles of good governance (like transparency, participation, accountability, predictability, and efficiency) in the regulatory domain.
- **Role of Regulatory Bodies:** It highlights the evolving role of regulators like the RBI, moving towards more collaborative and evidence-based approaches rather than just prescriptive rule-making.
- **Participatory Policy-Making:** The emphasis on public consultation is a key feature of participatory democracy and effective policy formulation.
- **Ease of Doing Business:** Clear, predictable, and well-consulted regulations can contribute significantly to the ease of doing business by reducing ambiguity and compliance costs.
- **Link to Previous Efforts:** This framework can be seen as building upon earlier initiatives by the RBI, such as the **Regulations Review Authority (RRA 2.0)**, which also aimed to review and streamline regulatory prescriptions. The new framework institutionalizes many of the principles underlying such reviews.

SIP Craze Continues: Record ₹20,652 Crore Poured In April 2025

Indians are increasingly choosing the **Systematic Investment Plan (SIP)** route to invest in **mutual funds**, with contributions hitting a new **all-time high in April 2025**. This highlights a growing trend of disciplined retail participation in the equity markets.

Key Figures for April 2025:

- **Record SIP Contribution:** Monthly SIP inflows reached **₹20,652 crore**, the highest ever recorded. This marks a growth of approximately 3% compared to the previous month.
- **Growing SIP Accounts:** The number of **active SIP accounts** also saw a significant rise, standing at **9.17 crore** as of April 30, 2025.
- **New Registrations:** A robust **63.64 lakh new SIPs** were registered in April 2025, indicating sustained investor interest.
- **Rising SIP AUM:** The total **Assets Under Management (AUM)** in SIPs stood at an impressive **₹11.53 lakh crore**.

What this Indicates:

- **Increased Investor Discipline:** The consistent rise in SIP contributions points towards investors adopting a more disciplined and long-term approach to wealth creation.
- **Financialisation of Savings:** More household savings are being channelled into financial assets like mutual funds.
- **Retail Investor Confidence:** The record numbers suggest continued confidence among retail investors in the Indian growth story, despite market volatilities.
- **Growing Mutual Fund Awareness:** Efforts by the industry, including the **Association of Mutual Funds in India (AMFI)**, which releases this data, seem to be bearing fruit in terms of investor education and awareness.

CCI Tightens Rules on Predatory Pricing with New Cost Definitions

The **Competition Commission of India (CCI)**, the country's fair-trade regulator, has notified new definitions for costs, specifically the **CCI (Determination of Cost of Production) Regulations, 2025**. This move aims to more effectively identify and curb **predatory pricing** by companies, ensuring a level playing field, especially in dynamic sectors like the digital economy.

What is Predatory Pricing?

- According to the **Competition Act, 2002**, predatory pricing occurs when a company (usually a dominant one) sells its goods or services **below its cost of production**.
- The primary **intention** behind this practice is to **reduce competition or eliminate competitors** from the market. Once competitors are out, the dominant firm can raise prices to recoup losses and exploit its market power.
- Predatory pricing is considered an **abuse of dominant position** under Section 4 of the Competition Act.

Key Changes in the New "Cost Regulations 2025":

- **Primary Cost Benchmark:** The cost of a good or service will generally be assumed to be its **'Average Variable Cost' (AVC)**.
    - **AVC Defined:** It is calculated by dividing the **total variable cost** by the **total output** during a specific period.
    - **Total Variable Cost (TVC):** This refers to the total cost of production minus fixed costs and fixed overheads attributable to that product. (Variable costs change with the level of output, e.g., raw materials, direct labour; Fixed costs remain constant regardless of output, e.g., rent, salaries of permanent staff).
- **Sector-Agnostic Approach:** The CCI will **avoid using sector-specific definitions of cost**. Instead, it will adopt a **case-by-case assessment**.
    - This provides flexibility, allowing the CCI to consider the unique features and evolving dynamics of different industries, particularly the **digital economy** (e.g., e-commerce, quick commerce) where cost structures can be complex (involving high initial fixed costs, network effects, and cross-subsidization).

- **Other Cost Concepts:** While AVC is the primary benchmark (as a proxy for marginal cost), the CCI may, in specific cases and for reasons to be recorded, consider other cost concepts like Average Total Cost (ATC), Average Avoidable Cost, or Long-Run Average Incremental Cost (LRAIC), depending on the industry, market, and technology.
- **Process:** The final notification of these regulations follows stakeholder consultations on a draft released in February 2025, incorporating some suggested changes. These new regulations replace the earlier Cost Regulations of 2009.

Why is this Important?

- **Clarity and Predictability:** Provides greater clarity for businesses on how the CCI will assess pricing behaviour.
- **Curbing Anti-Competitive Practices:** Strengthens CCI's ability to investigate and act against dominant firms that try to drive out smaller players through unfair pricing.
- **Protecting Consumer Interest:** While low prices seem good for consumers initially, predatory pricing can lead to reduced choice and higher prices in the long run once competition is eliminated.
- **Relevance for Digital Markets:** The flexible, case-by-case approach is crucial for the digital economy, where traditional cost-plus pricing models may not always apply. It helps address challenges like deep discounting by e-commerce platforms.
- **Promoting Fair Competition:** Ensures a level playing field where businesses compete on merits like innovation, quality, and efficiency, rather than financial muscle to sustain losses.

Role of the Competition Commission of India (CCI):

- Established under the **Competition Act, 2002**.
- **Mandate:**
    - To prevent practices having an adverse effect on competition.
    - To promote and sustain competition in markets.
    - To protect the interests of consumers.
    - To ensure freedom of trade carried on by other participants in markets in4 India.
- The CCI investigates cases of anti-competitive agreements, abuse of dominant position, and regulates combinations (mergers and acquisitions) that could harm competition.

India's Sovereign Credit Rating Upgraded to 'BBB' by Morningstar DBRS

In a positive development for the Indian economy, global sovereign credit rating agency **Morningstar DBRS** has upgraded India's **Long-Term Foreign and Local Currency – Issuer Ratings** from BBB (low) to **BBB** with a **Stable trend**. This upgrade places India more firmly in the 'investment grade' category.

Simultaneously, India's **Short-Term Foreign and Local Currency – Issuer Ratings** have also been upgraded to **R-2 (high)** from R-2 (middle), again with a Stable trend. This indicates an improved perception of India's creditworthiness in the international market.

What is a Sovereign Credit Rating?

- A sovereign credit rating is an independent assessment of a country's creditworthiness. It reflects the rating agency's opinion on the ability and willingness of a sovereign government to meet its financial obligations in full and on time.
- These ratings are crucial as they influence investor confidence and the interest rates at which a country can borrow money in international markets. A higher rating generally leads to lower borrowing costs.

Details of the Upgrade by Morningstar DBRS:

- **Long-Term Rating:** Upgraded to **BBB** (from BBB low). A 'BBB' rating is considered the lowest rung of 'investment grade,' indicating adequate capacity to meet financial commitments, though more susceptible to adverse economic conditions.
- **Short-Term Rating:** Upgraded to **R-2 (high)** (from R-2 middle).
- **Trend: Stable**, suggesting that the rating is not likely to change in the near future.
- **Rating Scale:** Morningstar DBRS uses 'high' and 'low' suffixes within its categories, which is comparable to the '+' or '-' used by other major agencies like S&P and Fitch.

Key Drivers Behind India's Rating Upgrade:

- **Structural Reforms:** The agency acknowledged India's ongoing efforts in implementing structural reforms, particularly through significant **infrastructure investments** (e.g., highways, railways, airports) and rapid **digitalisation** (like Digital Public Infrastructure - DPI).
- **Fiscal Consolidation:** India's commitment to fiscal discipline, leading to declining public debt and fiscal deficit, was a major factor. The government is aiming to reduce the fiscal deficit as a percentage of GDP.
- **Sustained High Growth & Macroeconomic Stability:**
  - The Indian economy has demonstrated robust growth, with the report citing an average **GDP growth of 8.2% during FY22-25**.
  - Inflation has largely remained within the Reserve Bank of India's (RBI) tolerance band (2-6%).
  - The exchange rate has been relatively stable, and the external balance (like the current account deficit) is considered sound.
- **Resilient Banking System:**
  - Indian banks are seen as well-capitalised, with a **high capital adequacy ratio (CAR)** – meaning banks have a sufficient capital cushion against potential losses.
  - **Non-Performing Loans (NPLs)**, or bad loans, have fallen to a 13-year low (around 2.5% as per some reports), indicating improved asset quality in the banking sector.

Implications of the Rating Upgrade for India:

- **Lower Borrowing Costs:** May lead to reduced interest rates for the Indian government and Indian companies when borrowing from international markets.
- **Increased Investor Confidence:** A higher rating can attract more foreign direct investment (FDI) and foreign portfolio investment (FPI) by signaling a more stable and creditworthy economic environment.

- **Improved Global Standing:** Enhances India's image as a reliable investment destination.

Conditions for Further Upgrade:

- Morningstar DBRS indicated that further upgrades could occur if India:
  - Continues to implement reforms that boost the investment rate and enhance medium-term growth prospects.
  - Achieves a further material reduction in the public debt-to-GDP ratio.

Debt Sustainability:

- Despite India's public debt levels being relatively high (around 80% of GDP for general government debt), the agency believes risks to debt sustainability are limited. This is primarily because:
  - Most of India's debt is denominated in the **local currency (rupee)**.
  - The debt has **long maturity structures**, reducing immediate repayment pressures.

About Morningstar DBRS:

- Morningstar DBRS is a global credit rating agency. While the "Big Three" global rating agencies are Standard & Poor's (S&P), Moody's Investors Service, and Fitch Ratings, Morningstar DBRS (formed after Morningstar Inc. acquired DBRS) is recognized as a significant player and is one of the few agencies recognized by the European Central Bank (ECB) as an External Credit Assessment Institution (ECAI).

RBI Fines SBI: A Lesson in Regulatory Compliance

The **Reserve Bank of India (RBI)**, our country's central bank and banking regulator, has imposed a monetary penalty of ₹**1.72 crore on** the **State Bank of India (SBI)**, the nation's largest public sector bank. This action was taken due to SBI's failure to comply with certain specific directions issued by the RBI.

What did SBI do wrong?

The penalty was imposed after a **Statutory Inspection for Supervisory Evaluation (ISE)** conducted by the RBI, looking at SBI's financial position as of March 31, 2023. The RBI found that SBI had not followed its instructions in a few key areas:

- **Loans and Advances:** SBI was found to have extended a **bridge loan** to an entity based on expected payments (receivables) from the Central or State Government. This was against RBI's rules regarding statutory and other restrictions on loans and advances.
  - A **bridge loan** is a short-term loan used to cover a temporary financing need until a more permanent form of financing can be arranged.
- **Customer Protection in Digital Transactions:** The bank failed to credit (or make a 'shadow reversal' of) the amount involved in certain unauthorised electronic banking transactions to customers' accounts within the mandated 10 working days from when the customer reported it. Furthermore, in some cases, compensation to customers was not paid within the prescribed 90 days.
- **Opening of Current Accounts:** SBI was also found to have opened and maintained some current accounts in a way that violated RBI's regulatory requirements.

RBI's Power to Penalise:

- The RBI has the authority under the **Banking Regulation Act, 1949**, to regulate and supervise banks in India. This includes the power to impose penalties on banks for deficiencies in regulatory compliance.
- The process usually involves an inspection, followed by a **show-cause notice** to the bank, asking it to explain why a penalty should not be imposed. The RBI considers the bank's response before making a final decision.
- It's important to note, as the RBI often clarifies, that such penalties are for **deficiencies in regulatory compliance** and are **not intended to invalidate any transaction or agreement** the bank has entered into with its customers.

Public Sector Banks Shine: Record Profits in FY24 Signal Strong Recovery

In a significant positive development for the Indian economy, **Public Sector Banks (PSBs)** have reported a remarkable financial performance. According to recent figures, these government-owned lenders collectively posted a record profit of approximately **₹1.78 trillion** in the Financial Year 2023-24 (FY24). This represents a robust growth of around **26%** compared to the previous fiscal year.

Key Highlights of PSB Performance in FY24:

- **Record Profits:** A collective profit of about ₹1.78 trillion marks a new high for PSBs.
- **Strong Growth:** The 26% year-on-year growth in profitability underscores a significant improvement in their financial health.
- **Sustained Improvement:** This performance continues the trend of PSBs strengthening their financials over the past few years.

What Fueled This Impressive Growth?

Several factors have contributed to this stellar performance by Public Sector Banks:

- **Improved Asset Quality:** A substantial reduction in **Non-Performing Assets (NPAs)** or bad loans has been a primary driver. Banks have been able to clean up their balance sheets more effectively.
- **Enhanced Loan Recovery:** Efforts towards recovering dues from defaulted loans, including mechanisms like the **Insolvency and Bankruptcy Code (IBC)**, have yielded better results, boosting income.
- **Healthy Loan Growth:** An increase in lending to various sectors of the economy has led to higher **interest income** for banks.
- **Better Operational Efficiency:** PSBs have been working on improving their operational efficiency, including better cost management and leveraging technology.
- **Higher Treasury Income:** Some banks also benefited from income generated from their investment portfolios (treasury operations).
- **Consistent Government and RBI Support:** Strategic interventions and reforms by the Government of India and the Reserve Bank of India have played a vital role.

The Turnaround Story: From NPA Crisis to Profitability

It's important to remember that just a few years ago, PSBs were grappling with a severe **NPA crisis**. This had eroded their profitability and their ability to lend, impacting economic activity. The current record profits signify a major turnaround.

Key Government and RBI Reforms that Aided the Recovery:

- **The 4R Strategy:** The government's strategy of **Recognising** NPAs transparently, facilitating **Resolution** and Recovery, **Recapitalising** PSBs adequately, and implementing **Reforms** in the banking sector.
- **Insolvency and Bankruptcy Code (IBC) 2016:** Provided a time-bound mechanism for resolving insolvency, which has improved recovery rates for banks.
- **Recapitalisation Drive:** The government infused significant capital into PSBs to strengthen their financial position and enable them to lend more.
- **EASE Reforms Agenda (Enhanced Access and Service Excellence):** Focused on institutionalising clean and smart banking, improving governance, and adopting technology.
- **Amalgamation of PSBs:** Consolidation of several PSBs into larger, more robust entities aimed at improving efficiency and scale.

Why Healthy PSBs Matter for India:

Profitable and strong Public Sector Banks are crucial for India's economic development for several reasons:

- **Financial Inclusion:** PSBs play a pivotal role in taking banking services to the remotest corners of the country and implementing schemes like the **Pradhan Mantri Jan Dhan Yojana (PMJDY)**.
- **Credit to Priority Sectors:** They are key lenders to critical sectors like **agriculture, Micro, Small, and Medium Enterprises (MSMEs)**, education, and housing, which are important for inclusive growth.
- **Infrastructure Financing:** PSBs are major contributors to financing long-term infrastructure projects.
- **Implementing Government Schemes:** They act as a vital channel for delivering various government welfare and credit-linked schemes to the beneficiaries.
- **Economic Stability:** A healthy banking sector, with strong PSBs, is essential for overall financial and economic stability.
- **Contribution to Exchequer:** Profitable PSBs mean higher dividend payouts to the government, which is a major shareholder.

India's Major Ports Handle Record Cargo in FY25, Boost Economy

India's **12 major ports** have achieved a new milestone by handling a record **855 million tonnes (MT)** of cargo in the financial year 2024-25 (FY25). This marks a significant **4.3% increase** compared to the 819.2 MT handled in the previous fiscal year (FY24). This robust growth highlights the increasing efficiency and capacity of India's maritime infrastructure, playing a crucial role in the nation's economic upswing and international trade.

Key Highlights of Port Performance:

- **Record Throughput:** The collective cargo handling of **~855 MT** is the highest ever recorded by India's major ports.

- **Growth Momentum:** The **4.3% year-on-year growth** indicates a sustained increase in trade and economic activity.
- **Port-Specific Achievements:**
  - **Paradip Port Authority (PPA)** in Odisha emerged as the top cargo handler among the major ports, for the second consecutive year, managing a record **151.4 MT**, a growth of 4.5% over FY24.
  - **Deendayal Port Authority (DPA)** in Kandla, Gujarat, also crossed a significant milestone, handling **150.1 MT** of cargo, marking a growth of 6.5%.
  - For the first time, both **Paradip and Deendayal ports** surpassed the **150 MT cargo handling mark** individually.
  - **Jawaharlal Nehru Port Authority (JNPA)** set a new record by handling **7.3 million TEUs** (Twenty-foot Equivalent Units) of containers, reflecting a 13.5% year-on-year growth.
  - Other ports also showcased strong performance, including **Visakhapatnam Port** (9.8% growth), **Chennai Port** (5.6% growth), **New Mangalore Port Authority (NMPA)** (4.8% growth), and **Cochin Port** (4.7% growth).
- **Commodity Drivers:** The overall increase in cargo was driven by a significant rise in handling:
  - **Container throughput** (up by 10%)
  - **Fertiliser cargo** (up by 13%)
  - **Petroleum, Oil, and Lubricants (POL) cargo** (up by 3%), which remained the largest commodity handled (254.5 MT, nearly 30% of total traffic).
  - **Miscellaneous commodities** (up by a substantial 31%).
  - **Coal** also formed a significant portion of the cargo handled.
- **Improved Operational Efficiency:**
  - The average **Pre-Berthing Detention (PBD) time** at major ports (on port account) improved by approximately 36% compared to FY24, indicating quicker turnaround times for ships.
  - Over the last decade (FY15 to FY25), **Turnaround Time** has improved from 96 hours to 49.5 hours.
- **Financial Health:**
  - Major Ports saw an **8% increase in total income**, reaching ₹24,203 crore in FY25.
  - The **operating surplus grew by 7%** to ₹12,314 crore.
- **Private Sector Participation:**
  - Investments in **Public-Private Partnership (PPP) projects** at major ports saw a threefold increase, from ₹1,329 crore in FY23 to ₹3,986 crore in FY25, showcasing strong investor confidence.
- **Port-Led Industrialisation:**
  - In FY25, **962 acres of land** were allocated across major ports for port-led industrialisation, expected to generate significant revenue and attract further investment.

Factors Driving Growth:

- **Government Initiatives:** The **Ministry of Ports, Shipping and Waterways** has been actively promoting various measures:
  - Development of **world-class infrastructure**.
  - **Mechanization** of port operations to improve efficiency.
  - **Digitalization** of processes, enhancing transparency and speed.
  - Focus on **process reengineering** and **multi-modal integration**.
- These efforts have led to optimized capacity utilization, reduced vessel wait times, and increased overall productivity.

Related Government Programmes:

- **Sagarmala Programme:** This flagship initiative aims at promoting **port-led development** in the country. Its key components include port modernization & new port development, port connectivity enhancement, port-linked industrialization, and coastal community development.1 The programme aims to reduce logistics costs for both domestic and EXIM (Export-Import) cargo.
- **Maritime Amrit Kaal Vision 2047 (MAKV):** This vision builds upon the Sagarmala programme and sets ambitious targets for the Indian maritime sector, including developing global standard ports, promoting sustainable shipping, and enhancing India's role as a global maritime leader.

India a "Bright Spot" in "Precarious" Global Economy, Says UN

India is projected to remain the **fastest-growing major economy** in the world in 2025, according to a recent **United Nations (UN) report**. The **UN's World Economic Situation and Prospects (WESP) mid-year update for 2025** forecasts the Indian economy to grow by **6.3% in the current fiscal year (2025-26)** and anticipates a slight rise to **6.4% in the next fiscal year (2026-27)**. This makes India a significant "bright spot" even as the global economic outlook is described by the UN as being at a "precarious moment."

UN's Global Economic Outlook: A "Precarious Moment"

The UN report paints a cautious picture for the world economy, highlighting several factors contributing to its "precarious" state:

- **Slowing Global Growth:** Global GDP growth is forecast to be subdued, projected at just **2.4% in 2025** (a downward revision from earlier estimates). This slowdown is described as broad-based, affecting both developed and developing economies.
- **Trade Tensions and Policy Uncertainty:** Rising trade frictions, including increased tariffs, are threatening to raise production costs, disrupt global supply chains, and amplify financial turbulence.
- **Geopolitical Volatility:** Ongoing geopolitical conflicts and instability contribute to economic uncertainty and can impact energy prices and supply chains.
- **Inflationary Pressures:** While global headline inflation has eased somewhat, price pressures remain stubbornly

high in many economies, including food inflation, which disproportionately affects low-income households.

- **Challenges for Developing Nations:** Many developing countries, especially the Least Developed Countries (LDCs), face declining export revenues, tightening financial conditions, reduced official development assistance, and heightened risks of debt distress.

India's Economic Resilience and Growth Drivers:

Despite the gloomy global backdrop, the UN report identifies several factors underpinning India's strong economic performance:

- **Robust Domestic Demand:** Strong private consumption continues to be a primary engine of growth.
- **Strong Public Investment:** Consistent government spending, particularly in infrastructure development, is providing a significant boost to economic activity.
- **Booming Services Exports:** India's services sector, especially in IT and IT-enabled services, remains a key contributor to export earnings and overall growth.
- **Manufacturing Sector Expansion:** The manufacturing sector has shown steady growth, supported by government initiatives like 'Make in India' and Production Linked Incentive (PLI) schemes.
- **Stable Macroeconomic Fundamentals:**
  - **Inflation Control:** Inflation in India is projected to slow from 4.9% in 2024 to **4.3% in 2025**, remaining within the Reserve Bank of India's (RBI) target comfort zone.
  - **Stable Employment:** While persistent gender disparities in employment remain a concern needing greater inclusivity, overall unemployment levels have been largely stable.

Comparison with Other Major Economies (as per UN WESP mid-2025 update):

- **China:** Expected to grow at 4.6% in 2025.
- **United States:** Projected growth of 1.6% in 2025.
- **European Union:** Forecast to grow at 1.0% in 2025.
- **Japan:** Expected to grow at 0.7% in 2025.
- **Germany:** May even see a slight negative growth (-0.1%).

GeM Scales New Heights: India's E-Marketplace Emerges as a Global Public Procurement Leader

India's **Government e-Marketplace (GeM)** is rapidly solidifying its position as one of the **world's largest public procurement platforms**, showcasing remarkable growth and transforming how the government buys goods and services. Recent figures and official statements indicate that GeM is not only handling an unprecedented volume of transactions but is also setting global benchmarks in transparency, efficiency, and inclusivity, particularly

GeM's Phenomenal Growth and Scale:

- **Massive Transaction Volume:** The GeM portal has been consistently breaking its own records. While specific figures for early 2025 are emerging, it was reported that GeM was on track in Fiscal Year 2024-25 to surpass previous achievements, with procurement through the platform crossing **₹1.24 lakh crore in just the first quarter of FY25 (April-June 2024)**. It had already

achieved a Gross Merchandise Value (GMV) of over **₹4 lakh crore in FY24 (ending March 2024)**.

- **Global Contender:** This scale of operations has propelled GeM into the league of the largest public procurement portals globally, with strong indications that it is poised to become the definitive world leader in this domain.
- **Expanding Ecosystem:** The platform hosts a vast and growing number of:
  - **Government Buyers:** Over 70,000 government buyer organizations.
  - **Sellers and Service Providers:** More than 2.1 million (21 lakh) sellers, a significant portion being MSMEs.
  - **Products and Services:** An extensive catalogue with over 3.2 million (32 lakh) products and more than 300 service categories.

What is GeM?

- **National Public Procurement Portal:** Launched in **August 2016** by the **Ministry of Commerce and Industry**, GeM is a one-stop online platform for Central and State Government departments, organizations, Public Sector Undertakings (PSUs), and other autonomous bodies to procure common use goods and services.
- **Core Objectives:**
  - Enhance **transparency, efficiency, and speed** in public procurement.
  - Ensure **cost-effectiveness** and generate savings for the government.
  - Promote **inclusivity** by providing a level playing field for sellers, especially MSMEs, women entrepreneurs, startups, and artisans.
  - Support the **'Make in India'** initiative and encourage procurement of local products.

How GeM Drives Transformation:

GeM leverages technology to create a transparent, efficient, and user-friendly procurement ecosystem:

- **Paperless, Cashless, and Faceless Transactions:** All transactions are conducted online, reducing human interface and opportunities for corruption.
- **Key Features:** E-bidding, reverse e-auctions, dynamic pricing, demand aggregation, direct purchase options, and L1 (lowest bidder) procurement.
- **Technology Integration:** Uses advanced analytics, Artificial Intelligence (AI), and Machine Learning (ML) for fraud detection, ensuring fair competition, and improving user experience.
- **Integration with Government Systems:** Seamlessly integrates with various government financial and procurement systems.

Impact and Achievements:

- **Empowering MSMEs:** This is one of GeM's most significant achievements.
  - Over **50% of the total order value** transacted through GeM is consistently sourced from MSMEs.
  - It provides MSMEs direct access to the vast government market, eliminating intermediaries and simplifying participation.

- **Promoting Inclusivity:** Special provisions and filters encourage participation from women entrepreneurs, startups, tribal communities, and Self-Help Groups (SHGs).
- **Significant Cost Savings:** By ensuring competitive bidding and transparency, GeM has led to average savings of around **10%** for government buyers.
- **Enhanced Transparency and Efficiency:** The online platform ensures all procurement activities are traceable, accountable, and conducted in a time-bound manner.
- **'Vocal for Local' and 'Make in India':** GeM prioritizes the procurement of products and services from domestic sources, boosting local manufacturing and self-reliance.
- **Increased Compliance:** The platform aids in adhering to the **General Financial Rules (GFR),** which often mandate procurement through GeM for specified items and values.

Factors Behind GeM's Success:
- **Strong Political Will and Government Support:** Consistent backing from the highest levels of government.
- **Policy Mandates:** Rules making GeM procurement mandatory have driven adoption.
- **User-Friendly Platform:** Continuous improvements in the portal's interface and functionality.
- **Proactive Onboarding and Training:** Extensive efforts to register and train both buyers and sellers.
- **Robust Governance:** A well-defined framework for operations and grievance redressal.

AI in Banking: Only a Quarter of Banks Truly Gaining an Edge, Says BCG Report

A recent report by the **Boston Consulting Group (BCG),** titled **"The AI Reckoning in Banking,"** has revealed a significant gap in how banks worldwide are adopting **Artificial Intelligence (AI).** While AI, especially new forms like **Generative AI** and **agentic AI**, is set to fundamentally change the banking sector, **only one out of four banks** is currently using these tools effectively to gain a real **competitive advantage**. The remaining three-quarters are merely "experimenting on the margins," often without a clear strategy or path to making these technologies a core part of their operations.

Key Highlights from the BCG Report (May 2025):
- **A Widening Divide:** There's a growing gap between banks leading the AI transformation and those falling behind. The leaders are strategically investing in AI to improve efficiency, customer experience, and create new services.
- **Experimentation vs. Strategy:** Most banks (75%) are still in the experimental phase. Their AI initiatives often lack:
  - **Strategic alignment** with overall business goals.
  - Clear **Return on Investment (ROI)** metrics.
  - A concrete plan to **scale up** successful pilot projects.
- **AI Reshaping Banking:** AI is challenging traditional banking advantages.
  - Tools like **Generative AI** are making it easier for customers to compare services and switch providers.

- **Pricing transparency** is increasing, potentially reducing profit margins.
  - Customer interactions are shifting more towards **digital platforms**.
- **Pressure on Profit Models:** AI-driven services like automated loan underwriting, real-time credit risk assessment, and **embedded finance** (financial services integrated into non-banking platforms) are changing how banks earn money, particularly affecting fee-based income.

Why Are Most Banks Struggling to Keep Pace?
The report points to several challenges:
- **Outdated Infrastructure:** Many banks operate on **legacy IT systems** and have **fragmented data**. This makes it difficult to implement and scale real-time, integrated AI applications. Upgrading this requires significant investment and strong leadership.
- **Talent Shortage:** Two-thirds of banks report difficulties in hiring skilled **AI talent**. Moreover, existing bank leaders often need training to understand, interpret, and challenge AI-driven outputs.
- **Governance and Regulation:** Uncertainty around **AI regulations** is slowing down adoption, even though there's pressure to act quickly.
- **Lack of Measurement:** A surprising 60% of banks have not yet defined clear financial performance indicators to track the impact of their AI investments.

Government Approves 8.25% Interest Rate on EPF Deposits for FY 2024-25

The Central Government has officially ratified an **8.25% interest rate on Employees' Provident Fund (EPF) deposits** for the financial year **2024-25** (April 1, 2024, to March 31, 2025). This decision, announced around May 24, 2025, means that the interest rate remains unchanged from the previous fiscal year (2023-24). The move is set to benefit over **seven crore EPF subscribers** across the country.

Details of the Announcement:
- **Approved Interest Rate:** The government has approved an **8.25% rate of interest**.
- **Financial Year:** This rate is applicable for the financial year **2024-25**.
- **Recommendation:** The **Central Board of Trustees (CBT)** of the **Employees' Provident Fund Organisation (EPFO)** had recommended this rate at its meeting on February 28, 2025, chaired by the Union Minister for Labour & Employment.
- **Ratification:** The **Ministry of Finance** has provided its concurrence to this recommended rate. The Labour Ministry has subsequently notified the EPFO.
- **Crediting Interest:** Following this ratification, the EPFO will now proceed to credit the interest into the accounts of its subscribers.

How is the EPF Interest Rate Determined?
The process of deciding the EPF interest rate involves several steps:
1. **EPFO's Earnings Assessment:** The EPFO, which manages the EPF corpus, assesses its earnings from various investments made during the year.

2. **CBT Recommendation:** Based on these earnings and the overall financial health of the fund, the **Central Board of Trustees (CBT)** of EPFO proposes an interest rate for the financial year. The CBT is a tripartite body with representatives from the government (Central and State), employers, and employees.
3. **Finance Ministry Approval:** This recommendation is then sent to the **Ministry of Finance** for its approval. The Finance Ministry examines the proposal to ensure financial prudence and its alignment with broader economic conditions.
4. **Notification and Crediting:** Once the Finance Ministry ratifies the rate, it is formally notified by the government. The EPFO then credits the interest to the individual accounts of its members. Interest is calculated on the monthly running balances in the EPF account but is credited annually.

Significance for Subscribers:

- **Stable Returns:** The decision to maintain the interest rate at 8.25% provides a sense of stability and continued good returns for EPF subscribers, especially when compared to many other fixed-income instruments. For FY 2023-24, the 8.25% rate was based on a record income of ₹1.07 lakh crore on a corpus of ₹13 lakh crore.
- **Retirement Savings:** EPF is a cornerstone of retirement savings for a vast majority of salaried individuals in India. The interest earned significantly contributes to building a substantial retirement corpus.
- **Social Security:** The scheme plays a crucial role in providing social security to the organized sector workforce.
- **Tax Efficiency:** Contributions to EPF, the interest earned, and the maturity amount are tax-free under certain conditions (EEE - Exempt-Exempt-Exempt status), making it an attractive long-term savings option.
- **Comparison:** The 8.25% rate for FY 2024-25 and FY 2023-24 is an improvement from the 8.15% offered in FY 2022-23 and the 8.10% in FY 2021-22 (which was an over four-decade low).

This consistent and relatively high interest rate reinforces EPF's position as a secure and rewarding savings avenue for millions of Indian employees.

India's Net FDI Plummets in FY25 Despite Strong Gross Inflows, RBI Cites Market Maturity

India witnessed a dramatic **96.5% plunge in its Net Foreign Direct Investment (FDI)** during the financial year **2024-25 (April 2024 - March 2025),** which fell to an all-time low of approximately **$353 million**. This sharp decline occurred despite **robust gross FDI inflows**, which grew by 13.7% year-on-year to reach **$81 billion** in the same period. According to the Reserve Bank of India (RBI), this significant drop in net figures is primarily due to a surge in repatriation and disinvestment by foreign investors and a substantial increase in overseas investments by Indian companies.

Decoding the Numbers: FY 2024-25 FDI Performance

- **Gross FDI Inflows:** India continued to attract substantial foreign investment, with gross inflows (total money

coming into the country as FDI) reaching **$81 billion** in FY 2024-25, up from about $71.3 billion in FY 2023-24.
- **Net FDI:** This figure, which is **Gross FDI inflows minus (Repatriation/disinvestment by foreign firms + Outward FDI by Indian firms)**, stood at a mere **$353 million**. This is a stark contrast to the **$10.1 billion** net FDI recorded in FY 2023-24 and $44 billion in FY 2020-21.
- **Repatriation and Disinvestment:** The amount of money repatriated (profits sent back to home countries) or disinvested (stakes sold) by foreign companies operating in India saw a significant jump to around **$49 billion - $51.5 billion** in FY25 (figures vary slightly across reports), up from approximately $41 billion - $44.5 billion in the previous year.
- **Outward FDI by Indian Companies:** Indian firms also significantly increased their investments abroad, with outward FDI (OFDI) surging by over 75% to **$29.2 billion** in FY25 from about $16.7 billion - $17 billion in FY24.

Why the Sharp Dip in Net FDI?

The drastic reduction in net FDI, despite healthy gross inflows, is primarily attributed to two key factors:

1. **Increased Repatriation and Disinvestment by Foreign Investors:**
   o A booming **Initial Public Offering (IPO) market** in India during FY25 allowed many long-term foreign investors, including private equity and venture capital firms, to make profitable exits from their investments. For instance, significant stake sales were seen during the IPOs of companies like Hyundai Motor India and Swiggy, leading to large outflows.
   o Some foreign companies also chose to repatriate higher profits or disinvest from certain ventures.
2. **Surge in Overseas Investments by Indian Companies:**
   o Indian businesses have shown a growing appetite for global expansion, leading to a substantial increase in their investments in foreign countries. This reflects their increasing global ambitions and efforts to tap into international supply chains and markets.

RBI's Perspective: A Sign of Market Maturity?

The Reserve Bank of India (RBI), in its May 2025 monthly bulletin ("State of the Economy" report), has suggested that the sharp fall in net FDI should not be viewed solely as a negative indicator.

- The RBI noted that the **ease of capital mobility**, allowing foreign investors to enter and exit the Indian market smoothly, reflects the **maturity and resilience of the country's financial system**.

Gross FDI: Where is the Money Coming From and Going To?

Despite the net figure, the continued strength in gross FDI inflows indicates sustained global investor interest in the Indian economy.

- **Top Sectors:** More than 60% of gross FDI inflows in FY25 were directed into key sectors such as **manufacturing, financial services, electricity and other energy, and communication services**.
- **Key Source Countries:** Singapore, Mauritius, the United Arab Emirates (UAE), the Netherlands, and the

- **United States (US)** remained the top contributors, accounting for over 75% of the total gross FDI inflows.
- **Outward FDI Destinations:** Indian firms primarily channeled their outbound investments into similar destinations like Singapore, the US, UAE, Mauritius, and the Netherlands. The key sectors for these overseas investments included **financial, banking and insurance services, manufacturing, and wholesale & retail trade**.

Medium Enterprises: India's Future Economic Powerhouses, Says NITI Aayog Report

A landmark report by **NITI Aayog**, titled **"Designing a Policy for Medium Enterprises,"** has identified **medium-sized enterprises** as the crucial engines for India's future economic growth, innovation, employment, and export performance. Launched on May 26, 2025, by NITI Aayog Vice Chairman Shri Suman Bery and Members Dr. V.K. Saraswat and Dr. Arvind Virmani, the report presents a detailed roadmap to unlock the immense, yet largely untapped, potential of these enterprises, positioning them as key drivers for achieving the vision of **Viksit Bharat @ 2047**.

The "Missing Middle" with Mighty Potential

The NITI Aayog report highlights a "structural skew" in India's MSME sector. While the sector contributes significantly to the economy (approximately 29% to GDP, 40% of exports, and over 60% of employment), it is overwhelmingly dominated by micro-enterprises.

- **Small in Number, Big in Impact: Medium enterprises** constitute a mere **0.3%** of all registered MSMEs.
- However, this tiny fraction contributes nearly **40% of total MSME exports** and accounts for **81% of R&D investment** within the MSME sector.
- They also employ the highest number of individuals per unit, with an average of **89 employees**, compared to just 6 in micro-enterprises and 19 in small enterprises.

This data underscores the extraordinary efficiency and export-orientation of medium enterprises, often referred to as the "forgotten middle" or "silent scalers," which have the potential to become future large corporations.

Why Medium Enterprises are Key for Viksit Bharat @ 2047

NITI Aayog identifies medium enterprises as strategic players in India's journey towards self-reliance and global competitiveness because:

- **Scalability:** They possess the inherent capacity to scale up operations, unlike many micro and small enterprises.
- **Innovation Hubs:** They invest more in R&D and are better positioned to adopt new technologies.
- **Export Champions:** Their significant contribution to exports can help India integrate more deeply into global value chains.
- **Quality Job Creation:** They create more formal and higher-value jobs compared to smaller firms.
- **Bridging the Gap:** They can act as a vital link between small enterprises and large corporations, fostering a more robust industrial ecosystem.

Hurdles Stunting Growth: Challenges Faced

Despite their potential, medium enterprises grapple with several significant challenges that hinder their growth:

- **Limited Access to Tailored Finance:** They face a credit demand gap exceeding $10 billion (as of 2024), receive fewer priority sector loans compared to micro-enterprises, and often pay higher interest rates than large corporations. Many government schemes are not tailored to their working capital needs.
- **Low Technology Adoption:** Slow uptake of advanced technologies like Industry 4.0 and smart manufacturing solutions.
- **Inadequate R&D Support:** Lack of a supportive ecosystem for innovation and research.
- **Weak Testing & Certification Infrastructure:** Difficulty in accessing affordable and sector-specific testing and certification facilities, impacting quality and compliance.
- **Skill Gaps:** A mismatch between the skills of the available workforce and the specific needs of medium enterprises.
- **Regulatory Burdens:** Complex compliance requirements can be a deterrent.
- **Scheme Accessibility:** Out of over 250 MSME schemes, only a handful (around eight) are reportedly accessible to medium enterprises, with very few offering dedicated credit support.

NITI Aayog's Roadmap: Six Pillars for Empowerment

To address these challenges and unlock the potential of medium enterprises, the NITI Aayog report proposes a comprehensive policy framework built on six priority pillars:

1. **Tailored Financial Solutions:**
   - Introducing working capital financing linked to enterprise turnover.
   - Providing a **₹5 crore credit card facility** at market rates for urgent needs.
   - Ensuring expedited fund disbursal through retail banks, overseen by the Ministry of MSME.
   - Establishing a dedicated financing scheme for medium enterprises offering concessional loans (up to ₹25 crore, with a maximum of ₹5 crore per request).
2. **Technology Integration and Industry 4.0:**
   - Upgrading existing Technology Centers into sector-specific and regionally customized **"India SME 4.0 Competence Centers"** to promote the adoption of advanced digital solutions.
3. **R&D Promotion Mechanism:**
   - Establishing a **dedicated R&D cell within the Ministry of MSME**.
   - Leveraging the **Self-Reliant India (SRI) Fund** for cluster-based innovation projects of national importance.
4. **Cluster-Based Testing Infrastructure:**
   - Developing sector-focused **testing and certification hubs** (e.g., for manufacturing, pharmaceuticals, textiles) to ease compliance and enhance product quality.
5. **Custom Skill Development:**
   - Aligning skilling programs with the specific needs of medium enterprises by region and sector.

o Integrating **medium enterprise-centric modules** into existing Entrepreneurship and Skill Development Programmes (ESDP).

6. **Centralized Digital Portal:**
   o Creating a dedicated **AI-enabled sub-portal within the Udyam platform** specifically for medium enterprises. This portal would offer scheme discovery tools, compliance assistance, and business facilitation resources.

Expected Impact of Nurturing Medium Enterprises

The report suggests that if these targeted interventions are effectively implemented, the growth of medium enterprises could have a massive positive impact. For instance, a **20% increase in the number of medium enterprises** could potentially lead to:

- **₹5.42 lakh crore** in additional foreign exchange earnings.
- **₹28,119 crore** in extra R&D spending.
- Over **12 lakh new jobs**.

NITI Aayog emphasizes that fostering these "future large enterprises" requires a shift towards inclusive policy design and collaborative governance, paving the way for India's transition to a high-growth, innovation-led economy.

India Overtakes Japan to Become World's 4th Largest Economy: NITI Aayog CEO

India has surpassed Japan to become the world's fourth-largest economy, according to Shri B.V.R. Subrahmanyam, CEO of **NITI Aayog**. The announcement, made around May 25-26, 2025, and citing data from the **International Monetary Fund (IMF)**, marks a significant moment in India's journey towards becoming a global economic powerhouse. India's economy is now estimated to be around **$4.19 trillion** in nominal GDP terms.

The Economic Milestone: India at Number 4

- **New Global Ranking:** India has moved up to the **4th position** in the global ranking of economies by nominal Gross Domestic Product (GDP).
- **Overtaking Japan:** Japan, a long-standing economic giant, has now moved to the **5th position**.
- **India's Economic Size:** India's economy has crossed the **$4 trillion mark**, with IMF data projecting its GDP at approximately **$4.19 trillion** for 2025. Japan's GDP is marginally lower at around $4.186 trillion.
- **Economies Ahead:** The only economies now larger than India are the **United States (around $30.5 trillion), China (around $19.2 trillion), and Germany (around $4.7 trillion)**.

NITI Aayog CEO Shri Subrahmanyam stated, "We are the fourth largest economy as I speak. We are a USD 4 trillion economy as I speak. This is not my data—it's IMF data. India today is larger than Japan."

Future Projections: Eyeing the No. 3 Spot

India's ascent is not expected to stop here.

- **Targeting Germany:** Shri Subrahmanyam expressed confidence that if India maintains its current growth trajectory and sticks to its planned economic strategies, it could overtake **Germany to become the world's third-largest economy within the next 2.5 to 3 years**.

- **Fastest Growing Major Economy:** The IMF has consistently projected India as the **world's fastest-growing major economy**, with an expected growth rate of around **6.2% for 2025-26**.
- **Towards $5.5 Trillion:** By 2028, the IMF projects India's GDP to reach approximately **$5.5 trillion**.

Factors Fueling India's Economic Engine

Several key factors have contributed to India's remarkable economic growth and its rise in global rankings:

- **Strong Domestic Demand:** Robust private consumption, particularly in urban and increasingly in rural areas, has been a primary driver.
- **Government Reforms and Policy Stability:** Initiatives like **"Make in India," "Digital India," the Production Linked Incentive (PLI) schemes**, and continuous efforts to improve the **Ease of Doing Business** have created a favorable investment climate.
- **Infrastructure Development:** Significant government spending on infrastructure projects (roads, railways, ports, digital infrastructure) has boosted economic activity.
- **Growing Services Sector:** India's services sector, especially IT and software services, continues to be a strong performer and a major contributor to exports.
- **Stable Macroeconomic Fundamentals:** Prudent fiscal management and proactive monetary policy by the Reserve Bank of India (RBI) have helped maintain stability.
- **Demographic Dividend:** A young and growing working-age population offers a significant advantage.
- **Increasing Investor Confidence:** Both domestic and foreign investors have shown growing confidence in the Indian economy's prospects.

The Big Picture: Significance and the Path Ahead

India's elevation to the world's fourth-largest economy is a moment of national pride and has several implications:

- **Shifting Global Economic Order:** It underscores the increasing role of emerging economies in the global landscape.
- **Increased Global Influence:** A larger economy gives India greater leverage in international forums and trade negotiations.
- **Attracting Investment:** This achievement can further boost investor confidence and attract more foreign investment.
- **Challenges Remain:** While the overall GDP is impressive, India's **per capita income (around $2,880 - $2,934 in 2025)** is still low compared to developed nations. Bridging this gap and ensuring inclusive growth remains a key challenge. Job creation for the large youth population is another critical area.
- **"Viksit Bharat @ 2047":** This milestone is a significant step towards India's ambitious goal of becoming a **"Viksit Bharat" (Developed India) by 2047**, its 100th year of independence, with a target of becoming a **$30 trillion economy**.

Government Restores Key Export Benefit (RoDTEP) for SEZs, EOUs, and Advance Authorisation Holders

Central Government has announced the **restoration of benefits under the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme** for exports made by units in **Special Economic Zones (SEZs), Export Oriented Units (EOUs), and holders of Advance Authorisation (AA)**. This crucial support, which had lapsed earlier, will be effective from **June 1, 2025**. The decision aims to enhance India's export competitiveness and provide a level playing field for all categories of exporters.

What Does This Mean for Exporters?

- **Reinstatement of Benefits:** Exporters operating as SEZs, EOUs, or under the Advance Authorisation scheme will once again be eligible to claim refunds on various embedded Central, State, and local duties and taxes that are incurred during the manufacturing of export products but are not otherwise rebated.
- **Effective Date:** The restoration of these benefits will apply to all eligible exports made from **June 1, 2025, onwards**.
- **Addressing a Key Demand:** This move addresses a long-standing demand from these significant exporting sectors, which were seeking parity with other exporters after the RoDTEP benefits for them had expired earlier (some reports indicate February 2025).
- **Notification:** The **Directorate General of Foreign Trade (DGFT)**, under the Ministry of Commerce and Industry, has issued a notification to this effect (e.g., Notification No. 11/2025-26 dated May 26, 2025).

Why This Move is Significant:

The restoration of RoDTEP benefits for these categories is expected to have several positive impacts:

- **Boosting Export Competitiveness:** By refunding unremitted taxes and duties, the scheme helps reduce the cost of export products, making Indian goods more competitive in international markets. This is crucial at a time when exporters are facing intense global competition and uncertain demand.
- **Providing a Level Playing Field:** The decision ensures that exporters operating under schemes like AA, SEZ, and EOU are not at a disadvantage compared to other exporters in the Domestic Tariff Area (DTA) who were already availing RoDTEP.
- **WTO Compliance:** The RoDTEP scheme is designed to be **compliant with World Trade Organization (WTO) norms**, as it only remits taxes and duties that are actually incurred and not otherwise refunded. This is important because India's previous export incentive scheme, the Merchandise Exports from India Scheme (MEIS), had faced challenges at the WTO.
- **Supporting Key Export Segments:** SEZs, EOUs, and AA holders are significant contributors to India's export basket, particularly in value-added sectors. Supporting them is vital for achieving national export targets.
- **Encouraging Value Addition:** Schemes like Advance Authorisation encourage domestic value addition by allowing duty-free import of inputs for export production. RoDTEP benefits further incentivize this.
- **Financial Allocation:** For the fiscal year 2025-26, the government has allocated **₹18,233 crore** for the RoDTEP scheme, covering a wide range of export products (HS lines) for both DTA and AA/EOU/SEZ exports.

A Quick Look at the RoDTEP Scheme:

- **Objective:** The **Remission of Duties and Taxes on Exported Products (RoDTEP)** scheme was introduced on **January 1, 2021**. Its primary aim is to refund various embedded (hidden) Central, State, and local duties and taxes that are levied on inputs used in the production and distribution of exported products. These are taxes that are not currently being reimbursed under any other mechanism like GST refund or duty drawback.
- **Examples of Taxes Remitted:** These can include VAT on fuel used in transportation, mandi tax, duty on electricity used in manufacturing, stamp duty on export documents, etc.
- **Mechanism:** The refund is issued to exporters in the form of **transferable electronic scrips (e-scrips)**. These e-scrips can be used to pay Basic Customs Duty on the import of goods or can be sold to other importers.
- **Digital Platform:** The scheme is implemented through a fully digital platform, ensuring transparency and ease of access for exporters via the ICEGATE portal.

India Cuts Coal Imports by 7.9% in FY25, Saves $7.93 Billion in Forex

India achieved a significant **7.9% reduction in its coal imports** during the financial year **2024-25 (April 2024 - March 2025)**, leading to substantial **foreign exchange savings of approximately $7.93 billion (around ₹60,682 crore)**. This development, announced by the Ministry of Coal around May 27, 2025, underscores the country's concerted efforts towards increasing domestic coal production and enhancing energy security, aligning with the broader vision of **'Atmanirbhar Bharat' (Self-reliant India)**.

The Numbers Game: Coal Imports Down, Forex Saved

- **Import Reduction:** India's total coal imports stood at **243.62 million tonnes (MT)** in FY 2024-25, down from 264.53 MT in the previous fiscal year (FY 2023-24). This marks a **7.9% decline**.
- **Foreign Exchange Savings:** This reduction in import dependency translated into significant savings of **$7.93 billion** in valuable foreign exchange.
- **Domestic Production Boost:** The decline in imports was largely driven by a **5% growth in domestic coal production** during FY 2024-25 compared to the previous year. India's overall coal production crossed the **1 billion tonne mark**, reaching approximately 1,047.57 MT in FY25.

Why the Decline? Factors Driving Self-Reliance

Several factors have contributed to this positive trend:

- **Increased Domestic Coal Production:** The primary driver has been the consistent rise in coal output from domestic mines. Initiatives like **commercial coal mining** (auctioning blocks to private players) and **Mission Coking Coal** have played a crucial role in augmenting local production.
- **Improved Supply to Power Sector:** Despite a **3.04% growth in coal-based power generation** in FY25, the **imports of coal for blending by thermal power**

plants sharply decreased by 41.4%. This indicates better availability and supply of domestic coal to power plants.

- **Reduced Imports by Non-Regulated Sector:** The non-regulated sector (industries like cement, sponge iron, and captive power plants, excluding public power utilities) also saw a significant **drop of 8.95% year-on-year** in coal imports.
- **Strategic Government Measures:** The Ministry of Coal has been implementing various strategic interventions to strengthen domestic production capabilities and ensure a secure supply of coal to key industries.

Impact on Different Types of Coal:

While the overall imports have declined, India still relies on imports for certain types of coal:

- **Non-Coking Coal (Thermal Coal):** Imports of non-coking coal, primarily used in thermal power plants and other industries, have seen a notable reduction due to increased domestic availability. The focus is to achieve **zero import of substitutable thermal coal**.
- **Coking Coal (Metallurgical Coal):** India has limited reserves of high-quality coking coal, which is essential for the iron and steel industry. Therefore, a significant portion of coking coal demand continues to be met through imports. However, initiatives under "Mission Coking Coal" aim to enhance domestic coking coal production and reduce this dependency over time.

Youth Power Digital India: NSS Survey Shows Sky-High UPI Adoption & Smartphone Use

A recent survey by the **National Statistical Office (NSO)** under the **Ministry of Statistics and Programme Implementation (MoSPI)** has painted a vibrant picture of India's digital transformation, especially among its youth. The findings from the **Comprehensive Modular Survey: Telecom (CMS:T)**, conducted as part of the 80th round of the National Sample Survey (NSS) between January and March 2025, highlight the near-universal adoption of **Unified Payments Interface (UPI)** among young Indians who perform online banking and widespread smartphone possession across households.

The survey underscores the remarkable success of the **Digital India** initiative and the deep penetration of digital payment systems, signalling a significant shift towards a digital economy and enhanced financial inclusion.

Findings from the Survey:

- **Near-Universal UPI Usage Among Youth:** A staggering **99.5%** of persons in the **15-29 age group** who reported the ability to perform online banking transactions are using UPI. This indicates that UPI has become the de facto mode of digital payment for the young, tech-savvy generation.
- **High Smartphone Penetration:** Approximately **85.5% of Indian households** now possess at least one smartphone, forming the backbone of this digital revolution.
- **Mobile Phone & Internet Usage (15-29 age group):**

  - Around **97.1%** of individuals in this age group reported using a mobile phone (including smartphones) in the last three months.
  - In rural areas, mobile phone usage stood at **96.8%**, while in urban areas, it was slightly higher at **97.6%**.
  - Among those in this age group owning a mobile phone, smartphone ownership was **95.5% in rural areas** and **97.6% in urban areas**.
  - Internet usage was reported by **92.7%** of this age group in rural areas and **95.7%** in urban areas in the last three months.

- **Internet Access in Households:** Around **86.3% of households** in India have access to the internet within their premises.

Understanding Unified Payments Interface (UPI):

- **What it is:** UPI is an **instant real-time payment system** developed by the **National Payments Corporation of India (NPCI)**. It facilitates inter-bank transactions by allowing users to transfer funds between bank accounts using a mobile platform.
- **How it Works:**

  - Users can create a **Virtual Payment Address (VPA)** (e.g., yourname@bank).
  - They can link multiple bank accounts to a single mobile application.
  - Transactions can be initiated using the VPA or by scanning a **QR code**.
  - It allows for both **Person-to-Person (P2P)** and **Person-to-Merchant (P2M)** payments.

- **Key Features:**

  - **Instant fund transfer:** Available 24x7, 365 days.
  - **Interoperability:** Works across different banks and UPI apps.
  - **Security:** Uses multiple levels of authentication, including a UPI PIN.
  - **Simplicity:** Easy to use even for those new to digital payments.
  - **Low Cost:** Transaction costs are minimal or often zero for users.

Role of Digital India Initiative:

Launched in 2015, the **Digital India** programme aims to transform India by focusing on three key vision areas:

1. **Digital Infrastructure as a Core Utility to Every Citizen:** Providing high-speed internet, mobile connectivity.
2. **Governance and Services on Demand:** Making government services digitally accessible.
3. **Digital Empowerment of Citizens:** Enhancing digital literacy and providing universal access to digital resources. The proliferation of UPI and smartphones directly aligns with these objectives.

Science & Technology

India's Science Journey: DST's 55 Years and the Path Ahead

The **Department of Science and Technology (DST)** recently marked its **55th Foundation Day** on **May 3, 2025**. This occasion highlighted India's significant progress in science and technology and outlined ambitious plans for the future.

DST's Role and India's Growth:

- Established in **1971**, DST has played a crucial role in transforming India from an agrarian society into a nation with strong scientific capabilities.
- Union Minister Dr. Jitendra Singh noted that DST has acted as a link between scientific research and government policies, translating visions into tangible results.

India's Scientific Achievements (2015-2024):

Dr. Singh presented impressive statistics showing India's improved global standing in science and innovation:

- **Global Innovation Index:** India climbed significantly from 81st position in 2015 to **39th in 2024**.
- **Start-up Ecosystem:** India is now ranked **3rd globally** in the number of startups.
- **PhD Output:** India is the **3rd largest producer of PhDs** in science and engineering.
- **Research Publications:** The country holds the **3rd rank globally**.
- **Intellectual Property (IP) filings:** India is now **6th worldwide**.

These achievements are attributed to focused initiatives like the **National Supercomputing Mission, Cyber-Physical Systems**, and the **National Quantum Mission**.

Focus on Industry and Innovation:

- A major theme is the push for greater **industry engagement** in research and development (R&D).
- The focus is shifting towards **"industry-led innovation ecosystems"** and **"market-determined innovation"**, where the private sector plays a bigger role in funding and driving research. This is seen as key for India to compete with top scientific nations.

Anusandhan National Research Foundation (ANRF):

- A significant development is the establishment of the **Anusandhan National Research Foundation (ANRF)**, a statutory body.
- ANRF aims to **democratise research funding**, promoting university-led innovation and extending research opportunities beyond premier institutions.
- It oversees major funds like the ₹1 lakh crore **Research, Development and Innovation Fund** and the **National Geospatial Mission**.

Bridging Technology and Society:

- The widespread adoption of digital technology, even among semi-literate populations, signals a "digitalisation of the Indian mind," creating new avenues for innovation.
- DST is also working on grassroots programmes specifically designed for **women, children, and marginalized communities** to ensure inclusive growth in the science and technology sector.

Encouraging Indian Talent Abroad:

- A call has been made for Indian scientists and researchers working overseas to consider returning to India, citing improved infrastructure, support, and opportunities. This aims to build a **"reverse pipeline for global talent."**

Breakthrough: Indian Scientists Create Metal-Free Catalyst for Green Hydrogen Production

In a major scientific achievement with significant implications for clean energy, researchers in India have developed a novel, **metal-free catalyst** capable of producing **hydrogen (H_2) fuel** efficiently using **mechanical energy**. This groundbreaking work, led by scientists at the **Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru**, offers a cost-effective and sustainable alternative to traditional methods, boosting India's push towards green energy solutions.

Context: The Importance of Green Hydrogen

- **Green Hydrogen** refers to hydrogen produced using renewable energy sources, making it a clean fuel as its usage (e.g., in fuel cells) only produces water as a byproduct.
- It is considered crucial for decarbonizing various sectors and combating climate change.
- Recognizing its potential, the Government of India launched the **National Green Hydrogen Mission**, aiming to make India a global hub for green hydrogen production and export.

The Innovation: Piezocatalysis using Organic Frameworks

- The researchers developed a catalyst that uses **piezocatalysis**. This process converts **mechanical energy** (like vibrations or pressure) directly into chemical energy to split water (H_2O) into hydrogen (H_2) and oxygen (O_2).
- Traditionally, piezocatalysis relied on expensive, metal-based materials (ferroelectrics). This new catalyst is different:
  - It is **completely metal-free** and organic.
  - It is a **Covalent Organic Framework (COF)** – a porous material built from organic molecules linked by strong covalent bonds.
  - Specifically, it uses readily available organic molecules: tris(4-aminophenyl)amine (**TAPA**) and pyromellitic dianhydride (**PDA**).
- **Unique Property:** This TAPA-PDA COF exhibits **Ferrielectric (FiE) ordering**. This specific arrangement of electric dipoles within the material's structure is key to its high efficiency.
- **Mechanism:** When mechanical stress is applied, the FiE nature and porous, sponge-like structure of the COF generate and separate electrical charges (electron-hole pairs) very effectively within the material. These charges then drive the water-splitting reaction, producing hydrogen with **ultra-high yields** – reportedly surpassing known inorganic piezocatalysts.

Collaboration and Publication

- The research was led by **Prof. Tapas K. Maji** and involved theoretical contributions from **Prof. Umesh V. Waghmare**, both at **JNCASR**.
- It included collaborations with researchers from the **Indian Institute of Science Education and Research (IISER), Pune,** and Wrocław University of Science and Technology, Poland.
- The findings have been published in the prestigious scientific journal *Advanced Functional Materials*.

to simulate human functions and test system performance in space.
- **Astronaut Training:** The four astronaut-designates, Indian Air Force pilots Group Captain Prasanth Balakrishnan Nair, Group Captain Ajit Krishnan, Group Captain Angad Pratap, and Wing Commander Shubhanshu1 Shukla, have completed their generic spaceflight training in Russia and are currently undergoing mission-specific training in India at ISRO's facilities.

Gaganyaan Mission in Final Stretch: India Eyes First Human Spaceflight by Early 2027

India's ambitious **Gaganyaan mission**, the country's maiden human spaceflight program, has entered its crucial final phase, with the **Indian Space Research Organisation (ISRO)** targeting the **first quarter of 2027** for launching Indian astronauts into orbit. This was confirmed by ISRO Chairman S. Somanath and Union Minister Dr. Jitendra Singh, highlighting significant progress in this prestigious national endeavour.

About the Gaganyaan Mission:

- **Objective:** The primary goal of Gaganyaan is to demonstrate India's capability to send a human crew of up to three members to a **Low Earth Orbit (LEO)** of 400 km for a mission lasting up to three days, and then safely bring them back to Earth, landing in Indian sea waters.
- **Key Technologies:** The mission involves several critical indigenous technologies, including:
  - A **human-rated LVM3 (Launch Vehicle Mark 3)**, which is ISRO's heavy-lift rocket, modified for human safety standards.
  - An **Orbital Module** comprising a **Crew Module (CM)** where the astronauts will be housed, and a **Service Module (SM)** providing necessary support.
  - A reliable **Crew Escape System (CES)** to ensure astronaut safety in case of any launch anomalies.
  - Advanced **Environmental Control and Life Support Systems (ECLSS)** to maintain habitable conditions within the Crew Module.

Current Status and Preparations:

- **Final Phase:** The mission is currently in its final leg of preparations, with various systems undergoing rigorous testing and integration.
- **Test Flights are Key:** Before the actual human flight (H1 mission), ISRO is conducting a series of uncrewed test flights to validate all systems.
  - The **Test Vehicle Demonstration 1 (TV-D1)** mission, an uncrewed test flight for the Crew Escape System, was successfully conducted earlier this year.
  - The **second Test Vehicle mission (TV-D2)** is slated for later in 2025.
  - These will be followed by **uncrewed Gaganyaan orbital flights** (like G1 and G2). One of these uncrewed missions will carry **'Vyommitra'**, a female half-humanoid robot developed by ISRO,

India Leaps into Future of Chip Technology with First 3nm Design Centres

India has marked a significant milestone in its ambition to become a global semiconductor hub with the inauguration of its **first 3-nanometer (3nm) chip design centres**. These state-of-the-art facilities, launched in **Noida (Uttar Pradesh)** and **Bengaluru (Karnataka)** by Union Minister for Electronics and IT, Ashwini Vaishnaw, signify a major stride in India's technological capabilities and its journey towards self-reliance in critical electronics.

The new centres are facilities of **Renesas Electronics India Private Limited**, a subsidiary of the Japanese semiconductor giant. This development places India among a select group of nations capable of designing chips at such an advanced technology node.

What is 3nm Chip Technology?

- **Cutting-Edge Miniaturization:** In semiconductor manufacturing, the "nm" (nanometer) refers to the size of the transistors, the fundamental building blocks of a chip. A smaller nanometer value means that more transistors can be packed onto a single chip.
- **Enhanced Performance:** 3nm chip technology represents the next generation after 5nm and 7nm. Chips built on this technology offer:
  - **Higher processing power:** More transistors lead to faster calculations.
  - **Improved energy efficiency:** They consume less power for the same performance, leading to longer battery life in devices.
  - **Smaller chip size:** Allowing for more compact and sleeker electronic devices.
- **Key Applications:** These advanced chips are crucial for a wide range of modern and future technologies, including:
  - High-end **smartphones** and **laptops**.
  - **Artificial Intelligence (AI)** and **Machine Learning (ML)** applications.
  - **High-Performance Computing (HPC)** and data centres.
  - Advanced **automotive systems**, including autonomous driving.
  - Sophisticated **medical devices** and **defence equipment**.

Role of India Semiconductor Mission (ISM) and C-DAC:

This development is a significant step under the **India Semiconductor Mission (ISM)**.

- **ISM Objectives:** Launched in 2021, ISM is a comprehensive government initiative with an outlay of ₹76,000 crore aimed at developing a sustainable

semiconductor and display manufacturing ecosystem in India. It seeks to support companies engaged in silicon semiconductor fabs, display fabs, design, ATMP (Assembly, Testing, Marking, and Packaging), and compound semiconductors.

- **C-DAC's Contribution:** The **Centre for Development of Advanced Computing (C-DAC)**, an autonomous scientific society under the Ministry of Electronics and Information Technology (MeitY),1 plays a crucial role in implementing schemes like the **Design Linked Incentive (DLI)**. The DLI scheme aims to nurture domestic companies and startups in semiconductor design by providing financial incentives and design infrastructure support. Renesas has also signed MoUs with C-DAC and under the Chips to Startup (C2S) programme to support local startups and enhance industry-academia collaboration.
- **Skill Development:** The government is also focusing on talent development, with initiatives like providing advanced Electronic Design Automation (EDA) software tools and hardware kits to over 270 academic institutions to create industry-ready engineers.

Semiconductor Value Chain Explained:

The semiconductor industry involves several key stages:

1. **Design:** This is where the chip's architecture and functionality are conceptualized and designed using sophisticated software tools. The new 3nm centres in Noida and Bengaluru will focus on this crucial stage.
2. **Fabrication (Fab):** This is the manufacturing process where the designed chip is physically produced on silicon wafers in highly specialized and capital-intensive factories called "fabs." India is actively working to attract investments for setting up fabs.
3. **ATMP (Assembly, Testing, Marking, and Packaging):** After fabrication, the chips are assembled into protective packages, tested for quality and functionality, marked, and then prepared for integration into electronic devices.

India Boosts 'Aatmanirbhar' Chip Dream: 6th Semiconductor Unit Approved for Jewar, UP

The Union Cabinet has approved the establishment of **India's sixth semiconductor unit**. The facility, a joint venture between Indian tech giant **HCL** and Taiwanese electronics manufacturing behemoth **Foxconn**, will be set up in **Jewar, Uttar Pradesh**, near the upcoming international airport. This development is a major boost to the **India Semiconductor Mission (ISM)** and the overarching **'Aatmanirbhar Bharat' (self-reliant India)** vision.

The plant, which is expected to attract an investment of approximately **₹3,700 crore (USD 444 million)**, will specialize in manufacturing crucial **display driver chips**.

Key Details of the Jewar Semiconductor Unit:

- **Joint Venture:** The project will be executed by a partnership between **HCL** and **Foxconn**, leveraging HCL's expertise in technology and software, and Foxconn's globally renowned prowess in electronics manufacturing and supply chain management.
- **Investment and Incentives:** The total investment is around ₹3,700 crore, with the project receiving significant

fiscal support under the India Semiconductor Mission, which typically includes a 50% subsidy from the central government and additional incentives from the state government.

- **Product Focus: Display Driver Chips:** The facility will focus on producing **display driver integrated circuits (ICs)**. These chips are essential components that control the quality and format of content displayed on screens of various electronic devices, including:
  - Mobile phones
  - Laptops
  - Automobiles (infotainment systems, dashboards)
  - Personal computers and monitors
- **Production Capacity:** The plant is designed to have a capacity of **20,000 wafers per month**, with an estimated output of around **3.6 crore (36 million) chips per month**.
- **Timeline:** Production at the Jewar facility is expected to commence in **2027**.
- **Employment Generation:** The project is anticipated to create approximately **2,000 direct jobs**, besides fostering indirect employment in the region.

India Semiconductor Mission (ISM) in Context:

The **India Semiconductor Mission (ISM)**, launched in December 2021 with an outlay of **₹76,000 crore (USD 10 billion)**, is the cornerstone of India's strategy to become a global hub for semiconductor and display manufacturing.

- **Objectives:** The mission aims to provide financial support to companies investing in silicon semiconductor fabs, display fabs, compound semiconductors/silicon photonics/sensors fabs, semiconductor packaging (ATMP/OSAT), and semiconductor design.
- **Progress:** The HCL-Foxconn unit in Jewar is the **sixth semiconductor project** approved under ISM. Other significant projects are already in advanced stages of construction in states like Gujarat (Tata-PSMC fab in Dholera, Micron ATMP unit in Sanand, CG Power-Renesas-Stars Microelectronics OSAT in Sanand, Kaynes Semicon OSAT in Sanand) and Assam (Tata Electronics ATMP unit in Morigaon). The first made-in-India chips from these facilities are expected later this year.

What are Display Driver Chips?

Display Driver ICs are semiconductor chips that act as an interface between a microprocessor or graphics controller and a display panel (like LCD or OLED). Their primary functions include:

- Receiving image data.
- Formatting the data appropriately for the specific display technology.
- Controlling the individual pixels on the screen to produce the desired image.
- Managing power to the display. They are indispensable in any device that has a screen.

India Among Top 6 Nations in 6G Patent Filings, Launches New Testing Scheme

India has firmly positioned itself among the global frontrunners in the development of future communication technologies, now ranking among the **top six countries in**

filing patents for 6G technology. This significant achievement was announced by the Union Minister of State for Communications, Dr. Chandra Sekhar Pemmasani, at the BHARAT 6G 2025 conference in New Delhi. To further bolster the indigenous telecom ecosystem, the **"Bharat 6G Alliance (B6GA) Sanchar EMI & EMC Conformance Testing Scheme"** for telecom products was also launched. This progress underscores India's commitment to becoming a key player in the next generation of wireless technology, moving beyond being a consumer to a contributor and innovator. Indian entities have already filed **over 350 patents** related to 6G, backed by government funding of over ₹**300 crore for more than 111 research projects**.

Understanding the Leap: What is 6G Technology?

6G, or the sixth generation of wireless communication technology, is poised to be a monumental leap from the current 5G networks. While still in the research and development phase globally, 6G is envisioned to offer:

- **Ultra-High Speeds:** Potentially reaching speeds of up to 1 Terabit per second (Tbps), which is about 100 times faster than 5G.
- **Extremely Low Latency:** Reducing communication delays to microseconds, enabling real-time interactions like never before.
- **Pervasive AI Integration:** 6G networks are expected to be AI-native, meaning artificial intelligence will be deeply embedded in the network's core for optimized performance, self-healing capabilities, and intelligent resource allocation.
- **New Spectrum Bands:** Likely to utilize higher frequency bands, including **Terahertz (THz) frequencies**, to achieve massive bandwidth.
- **Ubiquitous Connectivity:** Aiming for seamless connectivity across diverse environments, from underwater to aerospace, creating a truly connected world.
- **Advanced Applications:** Enabling futuristic applications such as:
  - **Holographic communication** and immersive extended reality (XR) experiences.
  - **Connected robotics and autonomous systems.**
  - **Highly accurate digital twins** for various industries.
  - **Advanced remote healthcare** and telesurgery.
  - Hyper-intelligent **smart cities** and infrastructure.
  - The **Tactile Internet**, allowing for the transmission of touch and haptic sensations.

Government Initiatives Powering 6G Advancement:

1. **Bharat 6G Alliance (B6GA):**
   - Launched in July 2023, B6GA is a collaborative platform bringing together domestic industry, academia, national research institutions (like C-DOT), and standards organizations.
   - **Objective:** To spearhead India's 6G innovation, contribute to global 6G standards, develop intellectual property, create pre-standardization frameworks, and build synergies with international 6G alliances.
   - It plays a crucial role in operationalizing the **"Bharat 6G Vision."**

2. **"Bharat 6G Vision" Document:**
   - Released in March 2023 by the Prime Minister, this document outlines India's ambition to be a frontline contributor to the design, development, and deployment of 6G technologies by 2030.
   - It is based on the principles of **affordability, sustainability, and ubiquity.**

3. **Sanchar EMI & EMC Conformance Testing Scheme:**
   - Launched under the B6GA, this scheme is crucial for ensuring the quality and safety of telecom products manufactured in India.
   - **EMI (Electromagnetic Interference):** Refers to the undesirable electromagnetic energy emitted by electronic devices that can disrupt the functioning of other nearby devices.
   - **EMC (Electromagnetic Compatibility):** Is the ability of an electronic device to function correctly in its intended electromagnetic environment without generating or being affected by excessive EMI.
   - **Importance of the Scheme:**
     - **Ensures Product Quality & Safety:** Verifies that telecom equipment meets prescribed EMI/EMC standards, preventing health hazards and ensuring device reliability.
     - **Prevents Interference:** Minimizes the chances of telecom devices interfering with each other or with other critical electronic systems.
     - **Boosts 'Make in India':** Provides domestic manufacturers with accessible and affordable conformance testing facilities, reducing their dependence on overseas labs and enhancing the global competitiveness of Indian telecom products.
     - **Standardization:** Aligns Indian products with national and international standards.

DRDO Develops Advanced Indigenous Membrane for Seawater Desalination

The **Defence Research and Development Organisation (DRDO)** has successfully developed an indigenous **advanced polymeric membrane** for **seawater desalination**. This high-pressure, nanoporous multilayered membrane, specifically designed to produce potable water from seawater, is a product of DRDO's Kanpur-based laboratory, the **Defence Materials and Stores Research and Development Establishment (DMSRDE)**.

The development, achieved in a record time of eight months, is particularly tailored to meet the operational requirements of **Indian Coast Guard (ICG) ships**, addressing the challenge of membrane stability when exposed to chloride ions in saline water. This innovation is a notable step under the **'Aatmanirbhar Bharat' (self-reliant India)** initiative.

Key Features and Advancements:

- **Indigenous Technology:** The entire membrane technology is developed domestically, reducing dependence on imported desalination components.
- **High-Pressure Application:** Designed for high-pressure reverse osmosis (RO) processes, which are efficient for seawater desalination.
- **Nanoporous Multilayered Structure:** This advanced structure likely contributes to:
    - **Excellent salt rejection:** Effectively separating dissolved salts from seawater.
    - **Good water flux:** Allowing a high flow rate of purified water.
    - **Enhanced durability:** Capable of withstanding harsh marine conditions and high operational pressures.
    - **Improved stability:** Specifically designed to resist degradation from chloride ions present in saline water.
- **Rapid Development:** The technology was developed by DMSRDE in a remarkably short span of eight months.
- **Initial Success in Trials:** DMSRDE, in collaboration with the Indian Coast Guard, has successfully conducted initial technical trials of the polymeric membrane in the existing desalination plant of an Offshore Patrolling Vessel (OPV). The initial safety and performance trials were found to be "fully satisfactory."
- **Operational Clearance Pending:** The ICG is expected to grant final operational clearance after the membrane undergoes 500 hours of operational testing on an OPV.

Understanding Desalination and Reverse Osmosis (RO):

- **Desalination:** This is the process of removing dissolved salts and other minerals from saline water (like seawater or brackish water) to produce fresh, potable water suitable for drinking or irrigation.
- **Reverse Osmosis (RO):** A widely used and highly effective desalination method. It works by applying external pressure to the saline water, forcing it through a **semi-permeable membrane**. These specialized membranes allow water molecules to pass through while blocking larger salt molecules and other impurities, thus separating fresh water from the concentrated salt solution (brine). The "high-pressure" aspect of the DRDO membrane is characteristic of RO systems used for seawater, which has high salt content.

Significance of DRDO's Indigenous Development:

This technological breakthrough holds considerable importance for India:

1. **Aatmanirbhar Bharat in Defence & Water Security:** This development is a prime example of self-reliance in a critical technology that has dual-use (defence and civilian) applications. It reduces India's dependence on foreign suppliers for essential desalination components.
2. **Strategic Edge for Armed Forces:**
    - Ensures a reliable source of potable water for **naval ships, submarines, and Indian Coast Guard vessels**, enhancing their operational endurance, especially during long deployments.
    - Crucial for **coastal defence establishments** and troops operating in arid coastal regions or islands where fresh water is scarce.

3. **Cost-Effectiveness:** Indigenous manufacturing of these advanced membranes is expected to be more **cost-effective** than importing similar technologies, potentially lowering the overall cost of desalination projects.
4. **Wider Civilian Applications & Water Security:**
    - With modifications, this membrane technology can be a "boon for desalination of seawater in **coastal areas**," helping to address drinking water scarcity faced by many Indian states.
    - It can play a vital role in **disaster relief operations** by enabling the quick deployment of mobile desalination units to provide emergency drinking water.
    - Contributes to India's overall **water security** by diversifying water sources beyond traditional rain-fed rivers and groundwater.
5. **Technological Advancement:** The development showcases India's growing research and development capabilities in advanced material science, polymer chemistry, and membrane technology. DMSRDE is known for its work in non-metallic materials and related technologies for the military.

Challenges in Seawater Desalination:

While desalination is a promising solution to water scarcity, it comes with its own set of challenges:

- **High Energy Consumption:** RO desalination is an energy-intensive process, contributing to operational costs and carbon footprint if non-renewable energy sources are used.
- **Brine Management:** The disposal of the highly concentrated salt solution (brine) produced during desalination is a major environmental concern. Improper disposal can harm marine ecosystems.
- **Membrane Fouling & Scaling:** Over time, RO membranes can get clogged by suspended solids, microorganisms, or mineral scaling, which reduces their efficiency and lifespan, requiring regular cleaning or replacement. DRDO's focus on stability against chloride ions aims to address one aspect of membrane degradation.
- **Capital Costs:** The initial investment for setting up large-scale desalination plants is substantial.

Moon's Two Faces: New Gravity Study Unlocks Ancient Mystery

Why does the Moon show us one familiar face, while hiding a dramatically different, rugged far side? This question has puzzled scientists for decades. Now, a new **gravity study** using data from **NASA's GRAIL mission** offers fresh insights, revealing that the differences aren't just skin deep but extend deep into the Moon's interior.

The **near side** of the Moon, the one we always see from Earth, is characterized by vast, dark plains called **'maria'** (Latin for seas). These are actually ancient volcanic lava flows. In stark contrast, the **far side**, first glimpsed by the Soviet Luna 3 spacecraft in 1959, is more heavily cratered, mountainous, and has a significantly thicker crust.

Key Findings from the New Gravity Study:

- **Internal Heat Imbalance:** The study, published in the journal *Nature Geoscience*, reveals that the Moon's **near**

side is internally warmer than its far side. The mantle (the layer beneath the crust) on the near side is estimated to be **100-200 degrees Celsius hotter**.

- **Softer Near Side:** Because it's warmer, the near side's mantle is "softer" and **flexes more** under Earth's gravitational pull. This flexing is known as **tidal deformation**. The GRAIL spacecraft meticulously mapped these subtle gravitational changes.
- **Legacy of Ancient Volcanism:** This temperature difference is linked to **intense volcanic activity** that occurred on the Moon's near side billions of years ago. This ancient volcanism helped shape the surface features we see today.
- **Concentration of Heat-Producing Elements:** The intense volcanism is believed to have caused **radioactive, heat-producing elements** – notably **thorium** and **potassium**, which are part of a geochemical signature known as **KREEP** (K for potassium, REE for Rare Earth Elements, P for phosphorus) – to become concentrated in the mantle beneath the near side. These elements have sustained the higher temperatures for billions of years.
- **Crustal Asymmetry Explained:** This long-lasting internal heat imbalance is now seen as a primary reason for the **asymmetry in crustal thickness**. The more active near side developed a thinner crust, allowing magma to erupt and form the maria. The cooler far side developed a thicker, more rigid crust with fewer volcanic plains.

Understanding the Moon's Dichotomy:

- **Lunar Maria:** These are large, dark, basaltic plains on the Moon, formed by ancient volcanic eruptions. They are predominantly found on the near side.
- **Lunar Highlands:** These are the older, brighter, heavily cratered parts of the Moon's surface, primarily composed of **anorthositic rocks**. The far side is dominated by highlands.
- **Anorthositic Crust:** The Moon's primary crust is believed to have formed from the crystallization and flotation of a mineral called **plagioclase feldspar** from a global **"magma ocean"** in its early history. This formed the light-colored anorthositic rock of the highlands. The far side has a thicker layer of this ancient crust.
- **KREEP Terrane:** This refers to areas on the Moon rich in potassium (K), rare-earth elements (REE), and phosphorus (P). These elements, particularly the radioactive ones like thorium, are associated with prolonged volcanic activity and heat production. The **Procellarum KREEP Terrane** on the near side is the largest such feature and coincides with extensive maria.
- **South Pole-Aitken (SPA) Basin:** Located on the far side, this is the **largest and oldest impact basin on the Moon** (and one of the largest in the Solar System). Some theories suggest this massive impact may have played a role in the Moon's overall asymmetry, possibly influencing the distribution of KREEP materials and contributing to the differences between the two sides.

Previous Theories on Lunar Asymmetry:

Scientists had proposed several theories before this new understanding:

- **Giant Impact Aftermath:** One idea was that after the Moon's formation (likely from a Mars-sized object hitting Earth), the Earth was still extremely hot. This intense heat kept the Moon's near side molten for longer, causing volatile elements to vaporize and re-condense on the cooler far side, making its crust thicker.
- **Companion Moon Collision:** Another hypothesis suggested Earth might have initially had two moons. These moons eventually collided slowly, with the smaller one plastering itself onto what is now the far side of the larger moon, creating a thicker crust.

India to Conduct First Biological Experiments on ISS, Eyeing Sustainable Human Space Life

India is poised to conduct its **first-ever biological experiments aboard the International Space Station (ISS)**, a landmark initiative aimed at studying the sustainability of human life in space. Union Minister of State for Science & Technology, Dr. Jitendra Singh, announced this significant step, highlighting its connection to India's ambitious human spaceflight program, **Gaganyaan**, and the recently launched **BioE3 (Biotechnology for Economy, Environment & Employment) policy**.

The experiments are a collaborative effort between the **Indian Space Research Organisation (ISRO)** and the **Department of Biotechnology (DBT)**. They are scheduled to be carried out during the upcoming **AXIOM-4 (Ax-4) mission to the ISS**, with Indian Air Force **Group Captain Shubhanshu Shukla** slated to be a crew member, marking a milestone for Indian participation in space biology research on the international platform. The Ax-4 mission is expected to launch around June 8, 2025, from NASA's Kennedy Space Center in Florida.

Focus of the Experiments:

Two key biological experiments are planned:

1. **Microalgae Growth in Space:**
   - **Objective:** To examine the effects of **microgravity and space radiation** on the growth of edible microalgae.
   - **Significance:** Microalgae are nutrient-rich (high in protein, lipids, and bioactive compounds) and are considered a potential **sustainable food source** for long-duration space missions. They also exhibit high photosynthetic efficiency, meaning they can effectively absorb carbon dioxide and produce oxygen – vital for life support systems in closed environments like spacecraft. Their short growth cycle makes them promising for in-space food and air regeneration.
   - **Methodology:** The experiment will analyze key growth parameters and changes in the transcriptomes, proteomes, and metabolomes of different algal species in space compared to Earth-based controls. This will help identify the most suitable microalgal species for use in space.

2. **Cyanobacteria (Spirulina and Synechococcus) Response to Microgravity:**
   - **Objective:** To investigate the growth and proteomic responses of cyanobacteria, specifically *Spirulina* and *Synechococcus*, in microgravity using both urea- and nitrate-based nutrient media.

- **Significance:**
  - *Spirulina* is often termed a **"space superfood"** due to its high protein and vitamin content.
  - Cyanobacteria have the potential to **recycle carbon and nitrogen from human waste**, which is crucial for developing closed-loop life support systems for long-term missions and future extraterrestrial colonies.
- **Methodology:** The study will compare the growth of these cyanobacteria in different nutrient environments and analyze the effects of space conditions on their metabolic profiles.

These experiments are being developed in association with scientists from the **International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi**, under the broader ISRO-DBT research partnership.

Challenges of Human Life in Space:

Sustaining human life during long-duration space missions presents numerous challenges that these experiments aim to address indirectly:

- **Microgravity Effects:** Prolonged exposure to microgravity affects the human body in various ways, including bone density loss, muscle atrophy, cardiovascular changes, and neuro-vestibular disturbances.
- **Space Radiation:** Astronauts are exposed to higher levels of cosmic and solar radiation, increasing health risks.
- **Resource Scarcity:** Generating food, water, and breathable air within the confines of a spacecraft or space habitat is a major hurdle.
- **Waste Management:** Efficiently recycling and managing waste is crucial for self-sufficiency.
- **Psychological Stress:** Isolation and confinement can also impact astronaut health and performance.

Dawn of Data-Rich Barcodes: Global Shift to New-Generation Codes by 2027

Get ready for a significant change in how product information is accessed and managed globally. By **2027**, the world is set to embrace **new-generation barcodes**, such as **QR codes powered by GS1** and **GS1 DataMatrix codes**, capable of holding vastly more information than the traditional linear barcodes we see on products today. This global transition, spearheaded by the international standards organization **GS1** under its **"Sunrise 2027"** initiative, aims to enhance consumer experience, improve supply chain efficiency, and bolster product safety and traceability.

From Simple Lines to Smart Squares: The Barcode Evolution

- **Traditional Barcodes (1D/Linear):**
  - For the past 50 years, the familiar **linear barcodes (like EAN/UPC)**, consisting of vertical lines and spaces, have been a retail staple.
  - Their primary function is to carry a **Global Trade Item Number (GTIN)**, which identifies the product at the point of sale for price lookup.
  - **Limitation:** They can only hold a small amount of data.

- **New-Generation Barcodes (2D):**
  - These are typically square-shaped codes (like **QR codes** and **GS1 DataMatrix**) composed of small individual squares or dots.
  - **Massive Data Capacity:** They can store significantly more information beyond just the GTIN. This includes:
    - **Expiry dates**
    - **Batch/lot numbers**
    - **Serial numbers**
    - **Sourcing data/Origin information**
    - **Sustainability details (e.g., recycling instructions)**
    - **Allergen information**
    - **Links to websites (URLs) for richer content (via GS1 Digital Link)**
    - **Recall notices**
  - **Accessibility:** Many 2D codes, especially QR codes, can be easily scanned by consumers using their **smartphones**, providing instant access to this wealth of information.

The "Sunrise 2027" Initiative by GS1:

- **GS1** (Global Standards 1) is a neutral, not-for-profit global organization that develops and maintains the most widely used supply chain standards, including barcodes. GS1 operates in 118 countries, supporting over 2 million businesses, with its barcodes scanned more than 10 billion times daily.
- **The "Sunrise 2027" initiative** is a global push by GS1 aiming for retailers worldwide to be **capable of scanning and processing 2D barcodes at point-of-sale (POS) systems by the end of 2027**.
- **Coexistence, Not Immediate Replacement:** This initiative doesn't mean traditional 1D barcodes will disappear overnight. For a transition period (at least through 2027), many products will likely feature **dual labelling** – both the old linear barcode and the new 2D code. The goal is to ensure POS systems can read the GTIN from 2D codes, eventually also processing additional data like expiry dates and batch numbers encoded within them using GS1 application identifiers.
- **Global Effort:** Pilots and preparations for this transition are already underway in numerous countries, representing a significant portion of global GDP. GS1 India is actively working with the government and private sector to facilitate this shift in India.

Benefits of Transitioning to New-Generation Barcodes:

This shift promises a multitude of advantages for various stakeholders:

- **For Consumers:**
  - **Enhanced Transparency:** Access to detailed product information, including origin, ingredients, nutritional facts, allergens, sustainability practices, and certifications, enabling more informed purchasing decisions.
  - **Improved Safety:** Easy access to recall information, expiry dates, and authenticity verification.
  - **Interactive Experience:** Links to how-to guides, promotions, brand stories, and other engaging digital content.

- **For Retailers:**
  - **Improved Inventory Management:** Better tracking of products, including expiry dates (crucial for reducing food waste – some studies show up to 40% reduction) and batch/lot numbers for efficient recalls.
  - **Enhanced Point-of-Sale Efficiency:** Ability to capture more data with a single scan.
  - **Reduced Shrinkage and Fraud:** Better traceability can help combat counterfeiting and manage returns more effectively.
- **For Brands and Manufacturers:**
  - **Enhanced Supply Chain Visibility:** End-to-end traceability from raw materials to the consumer.
  - **Better Product Recall Management:** Quick identification and tracking of affected batches.
  - **Direct Consumer Engagement:** Opportunity to connect directly with consumers through QR codes linking to brand websites and value-added information.
  - **Regulatory Compliance:** Easier adherence to growing regulatory demands for product information and traceability (e.g., in pharmaceuticals, food).
- **For the Environment:**
  - **Reduced Food Waste:** Better management of perishable goods by tracking expiry dates.
  - **Sustainable Practices Information:** Consumers can access information on a product's environmental impact and recycling instructions.

Tech Giants Lock Horns in Multi-Million Dollar Battle for "Superstar" AI Talent

A fierce global "talent war" is raging in the world of **Artificial Intelligence (AI)**, with tech behemoths like **OpenAI (creator of ChatGPT), Google (DeepMind), and Elon Musk's xAI** engaged in an intense competition to hire and retain a small pool of "superstar" AI researchers and engineers. These companies are reportedly "shelling out millions" in salaries, bonuses, and stock options, highlighting the critical role that top human intellect plays in the race to develop next-generation AI and potentially **Artificial General Intelligence (AGI)**. This global tussle for talent has significant implications for the tech industry, academia, and countries like India, which are aspiring to be major AI players.

The "AI Gold Rush": Who's Competing and What's on Offer?

The demand for elite AI talent has reached unprecedented levels, with companies pulling out all stops:

- **Key Players:** The most prominent players include **OpenAI, Google DeepMind, xAI, Meta, Anthropic**, and even new ventures started by former top researchers from these established labs.
- **Talent in Focus:** The battle is primarily for a very select group of AI researchers and engineers—often described as **"10,000x" contributors**—who possess the rare skills and vision to create groundbreaking AI models. Estimates suggest there are only a few dozen to perhaps a thousand such individuals globally.
- **Sky-High Compensation:**

  - Annual compensation packages for these top-tier researchers are reportedly ranging from **$10 million to over $20 million**, including salary, hefty bonuses, and substantial equity stakes.
  - Companies are offering massive **retention bonuses (often $1 million to $2 million or more)** and significant additional stock options to prevent their star researchers from defecting to competitors.
  - Some firms, like Google DeepMind, are reportedly reducing stock vesting periods (e.g., from four years to three) to make offers more attractive.
- **Beyond Money:** Besides financial incentives, companies are also offering:
  - Access to vast **computing resources** (essential for training large AI models).
  - The opportunity to work on cutting-edge, impactful projects.
  - Significant research autonomy and the chance to lead teams.
  - Personalized recruitment efforts from top executives, including founders like Elon Musk or Sergey Brin.

Why the Mad Dash for AI Gurus?
Several factors are fueling this intense competition:
- **Race for AI Supremacy:** The primary driver is the global race to achieve breakthroughs in AI, particularly in areas like Large Language Models (LLMs), Generative AI, and the long-term goal of AGI. Companies believe that a handful of brilliant minds can provide a decisive competitive advantage.
- **Transformative Potential:** AI is seen as a transformative technology with the potential to reshape industries, economies, and societies. Securing top talent is viewed as crucial for unlocking this potential.
- **Scarcity of Elite Expertise:** Truly exceptional AI researchers with a proven track record of innovation are incredibly rare.
- **Post-ChatGPT Boom:** The launch and explosive popularity of ChatGPT in late 2022 significantly amplified the urgency and investment in the AI field, further escalating the demand for talent.

Impact on the Tech Ecosystem and Beyond
This high-stakes talent war has several ripple effects:
- **Wage Inflation:** It is driving up salaries for AI professionals across the board, though the most astronomical figures are reserved for the very top tier.
- **Challenges for Smaller Players:** Startups and smaller companies find it increasingly difficult to compete with the financial muscle of tech giants for top talent, potentially stifling innovation in smaller settings.
- **Brain Drain from Academia:** Universities are struggling to retain their top AI professors and researchers, who are lured by a lucrative industry offers. This raises concerns about the pipeline for training the next generation of AI experts.
- **Concentration of Talent:** A significant portion of top AI talent is becoming concentrated within a few large corporations, which could influence the direction and control of AI development.

India in the Global AI Talent Arena: Strengths, Hurdles, and the Way Forward

India has a significant role to play in the global AI landscape, possessing both strengths and challenges:

- **India's Strengths:**
    - Ranks **1st globally in AI skill penetration** and has seen a massive 263% growth in its AI talent pool since 2016 (Stanford AI Index 2024).
    - A large base of engineers and IT professionals who are increasingly upskilling in AI.
    - A burgeoning AI startup ecosystem and significant contributions to global open-source AI projects (ranking 2nd in AI-related GitHub projects in 2024).

- **Hurdles for India:**
    - A shortage of highly specialized AI *researchers* capable of deep-tech innovation (most professionals are currently in service-based AI roles).
    - Lagging in private investment in AI research, patent output, and the creation of globally recognized foundational AI models.
    - Dependence on foreign-made AI hardware (like GPUs) and limited domestic manufacturing capabilities.

- **The Way Forward for India:**
    - **Investing in Research and Development:** Strengthening the R&D ecosystem and fostering an environment for cutting-edge AI research.
    - **Nurturing Top-Tier Talent:** Focusing on creating high-quality postgraduate and doctoral programs in AI to develop world-class researchers.
    - **Government Initiatives:** Leveraging programs like the **IndiaAI Mission** (with an outlay of over ₹10,300 crore) to build AI computing infrastructure, promote AI skilling (IndiaAI FutureSkills), create datasets platforms (IndiaAI Datasets Platform), and establish Centres of Excellence.
    - **Fostering Indigenous Innovation:** Supporting the development of India-specific AI models and solutions.
    - **Strategic Global Collaboration:** Engaging in international partnerships while safeguarding national interests.
    - **Addressing Brain Drain:** Creating attractive opportunities within India to retain and attract top AI talent.

The global AI talent war underscores the strategic importance of human capital in the 21st century. For India to achieve its ambition of becoming a leading AI nation, a concerted effort to nurture, attract, and retain "superstar" AI talent will be indispensable.

Google's "AI Matryoshka": Layered Intelligence Transforms Services Amidst Rising Privacy Concerns

Google is undergoing a profound transformation, re-architecting its entire suite of products and services around **Artificial Intelligence (AI)**. This ambitious strategy, often described as an **"AI Matryoshka"** (like Russian nesting dolls), aims to embed sophisticated AI capabilities, powered by its advanced **Gemini models**, at every level of its ecosystem. While this promises a future of highly personalized, intuitive, and "agentic" experiences for users, it has also amplified concerns regarding **data privacy, user consent, and the ethical implications** of such deep AI integration.

Google's AI Transformation: The "Matryoshka" Approach

The "AI Matryoshka" model refers to Google's strategy of creating a multi-layered AI ecosystem:

- **Core AI (Innermost Layer):** At the heart are Google's powerful foundational AI models, particularly the **Gemini family (like Gemini 2.5 Pro and Flash)**, which excel in reasoning, coding, and multimodal (text, image, audio, video) understanding. This core is supported by advanced hardware like Google's 7th-gen **Tensor Processing Units (TPUs) called "Ironwood."**
- **Developer Platforms (Middle Layer):** This layer includes tools like the **Gemini API and Vertex AI**, enabling developers to build their own AI-powered applications and services leveraging Google's core models.
- **User Applications (Outermost Layer):** This is where users directly experience AI. Google is infusing AI deeply into its popular products:
    - **Search:** Introducing an "AI Mode" with **AI Overviews** (AI-generated summaries for queries), "Deep Search" for comprehensive, cited answers, and "Agentic Search" capabilities like virtual try-ons and even automated checkout for online shopping.
    - **Gemini App (Personal AI Assistant):** Enhanced with "Live mode" for real-time conversational interactions (using camera and screen sharing), and "Deep Research" features that can access and analyze user's documents and images (with permission) to provide contextual help.
    - **Android & Wearables:** Integrating Gemini into Android operating systems, including a new **Android XR platform** for immersive headsets and smart glasses.
    - **Workspace Apps (Gmail, Docs, etc.):** Embedding generative AI features to help with writing, summarizing, and creating content.
    - **Generative Media:** Tools like **Imagen 4** for advanced image generation and **Veo 3** for video generation with accompanying audio.

The goal is to create a cohesive, intelligent ecosystem where AI can perform tasks more autonomously and offer highly personalized and context-aware assistance, moving beyond simple information retrieval to "intelligence."

The Privacy Puzzle: Growing Concerns in the Age of AI Matryoshka

While these AI advancements offer exciting possibilities, they have also triggered significant discussions around data privacy:

- **Vast Data Access:** The "AI Matryoshka" model thrives on data. Features like personalized AI assistants and deeply integrated search require access to an extensive range of user data from across Google's services (Search history,

Gmail, YouTube, Maps, Drive, photos). This raises concerns about the sheer volume of personal information being processed.

- **Data for Training Models:** Questions persist about how user data, including publicly available web content, is used to train these powerful AI models. Issues of **consent, user control over their digital footprints, and the ethics of data scraping** are paramount.
- **Intrusive Profiling:** The creation of highly detailed user profiles to deliver hyper-personalized AI experiences can be perceived as intrusive. Such profiles could also be vulnerable if accounts are hacked or data leaks occur.
- **Transparency and Opt-Outs:** Critics often point to the need for greater transparency from tech companies about how AI systems use data and the provision of clear, simple, and effective opt-out mechanisms for users who do not wish their data to be used in certain ways. For example, AI Overviews in Search reportedly save queries, AI responses, location, and device info for up to 18 months by default.
- **"Privacy Premium" Concerns:** The introduction of tiered access models, like a "Google AI Ultra Tier" for the most advanced AI tools, has led to speculation about a potential "privacy premium," where stronger privacy safeguards might be linked to paid subscriptions, raising equity concerns.
- **Copyright and Fair Use:** The use of vast datasets, which may include copyrighted material, for training generative AI models also brings up complex issues of fair use and compensation for creators. Google is using tools like **SynthID** to watermark and detect AI-generated content, partly to address these concerns.
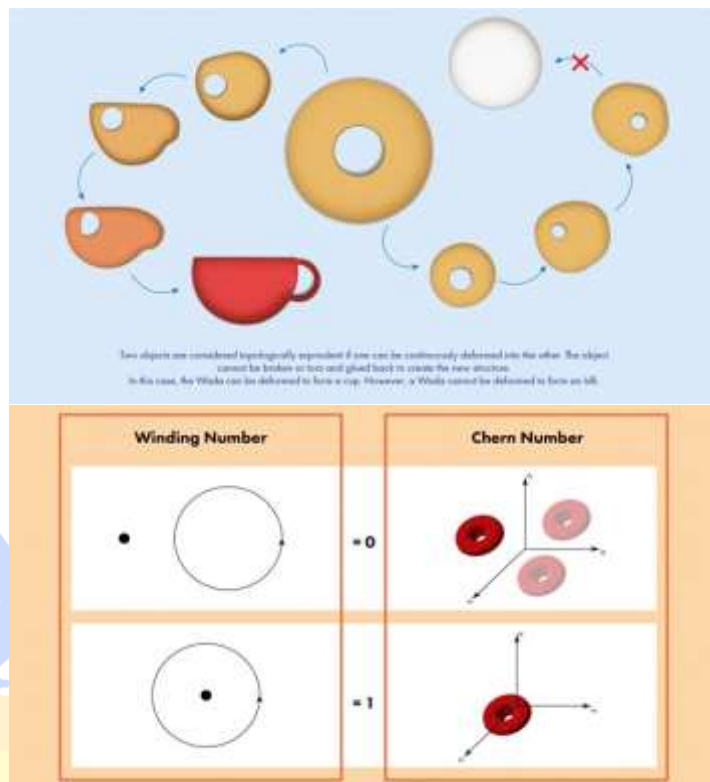
Balancing Innovation with User Trust

Google has stated its commitment to user consent and data security, emphasizing that users can often opt-in to personalization features and that enterprise-grade security applies to its Workspace AI tools. For some processes, like human review of Gemini App conversations to improve quality, Google says it takes steps to protect privacy, such as disconnecting conversations from user accounts before review.

However, the rapid pace of AI integration and the increasing reliance on personal data mean that the debate around balancing technological innovation with robust privacy protections and ethical AI deployment will continue to be a critical challenge for Google and the tech industry at large.

Indian Scientists Develop New "Code-Breaker" to Uncover Secrets of Exotic Materials

Scientists at the **Raman Research Institute (RRI), Bengaluru**, have developed a groundbreaking new method to detect **hidden quantum properties** in **exotic materials**, particularly **topological materials**. This innovative technique utilizes a concept known as the **spectral function** to identify crucial "topological invariants" – fundamental characteristics that define how these materials behave at a quantum level. This breakthrough, published in the journal "Physical Review B," promises to accelerate research in next-generation technologies like **quantum computing, advanced electronics, and energy-efficient systems**.

Two objects are considered topologically equivalent if one can be continuously deformed into the other. The object cannot be broken in two and glued back to create the new structure. In this case, the Vhada can be deformed to form a cup. However, a Vhada cannot be deformed to form an Idli.

Unveiling the "Hidden Code": What is the New Method?

Many exotic materials, especially topological materials, possess unique properties that are not apparent from their physical appearance but are determined by deeper, intrinsic quantum mechanical "shapes" or topology. These "hidden codes" are quantified by **topological invariants** (like winding numbers in one-dimensional systems and Chern numbers in two-dimensional systems).

- **The Breakthrough:** The RRI team, led by **Professor Dibyendu Roy** and PhD scholar **Kiran Babasaheb Estake**, discovered that the **momentum-space spectral function (SPSF)** of a material acts like a "quantum fingerprint" and contains distinct signatures of these hidden topological invariants.
- **Spectral Function Reimagined:** The spectral function has long been used experimentally (often with techniques like Angle-Resolved Photoemission Spectroscopy - ARPES) to study electron behavior, such as the density of states and how energy varies with momentum (dispersion relation). However, it was not previously seen as a direct tool to probe the *topology* of an electronic system.
- **A Simpler Approach:** This new method offers a potentially more accessible and equally powerful way to "see" and classify the topological nature of materials without always resorting to more complex experimental setups traditionally required.

Understanding Exotic Materials and Their Secrets

- **Exotic Materials (Topological Materials):** These are materials at the forefront of condensed matter physics and materials science. Examples include **topological insulators, topological superconductors, and Weyl semimetals**.
  - **Unique Electronic Properties:** They exhibit unusual behavior of electrons, especially on their surfaces or edges. For instance, a topological insulator can be an insulator in its bulk but conduct electricity on its surface due to special electronic states protected by topology.

- **Topological Invariance:** This is a concept from mathematics where certain properties of a structure (like the number of holes) remain unchanged even if the structure is continuously deformed (stretched, bent, but not torn or glued).
  - A common analogy is a **donut (or a 'vada') and a coffee cup**, which are topologically equivalent because both have one hole. An idli, with no holes, is topologically different.
  - In materials, these "topological invariants" dictate how electrons or other quantum particles navigate through them, leading to their exotic properties. Detecting these invariants has traditionally been a challenging task.

The Minds Behind the Method: Raman Research Institute's Contribution

This significant advancement comes from the **Raman Research Institute (RRI)** in Bengaluru, an autonomous research institute funded by the **Department of Science and Technology (DST)**, Government of India. RRI has a rich legacy in fundamental physics research, founded by Nobel laureate Sir C.V. Raman. This work showcases India's growing capabilities in cutting-edge theoretical and computational physics.

Kashmir University Develops India's First Gene-Edited Sheep 🐑

In a groundbreaking achievement for Indian biotechnology and livestock development, scientists at the **Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-Kashmir)** have successfully developed **India's first gene-edited sheep**. This marks a significant milestone in the country's efforts to enhance livestock productivity and quality through advanced genetic techniques.

The research, spearheaded by a team of scientists at SKUAST-Kashmir's **Department of Animal Biotechnology, Faculty of Veterinary Sciences and Animal Husbandry**, employed the cutting-edge **CRISPR-Cas9 gene-editing technology**. The primary aim of this project was to edit a specific gene responsible for wool quality and quantity, potentially leading to sheep that produce finer and more abundant wool.

Key Highlights of the Achievement:

- **Pioneering Effort:** This is the first reported instance of producing gene-edited sheep in India, placing the country among a select group of nations with this capability.
- **Technology Used:** The scientists utilized the **CRISPR-Cas9 (Clustered Regularly Interspaced Short Palindromic Repeats and CRISPR-associated protein 9)** tool. This technology acts like a "molecular scissors," allowing scientists to make precise changes to an organism's DNA.
- **Targeted Gene:** The research focused on modifying a gene that influences wool characteristics. The goal is to improve traits like fibre diameter, crimp (waviness), and overall yield, which are crucial for the wool industry.
- **Potential Benefits:**
  - **Enhanced Wool Quality & Yield:** Producing sheep that yield superior quality wool in greater quantities can significantly boost the income of sheep farmers and make the Indian wool industry more competitive globally.
  - **Improved Livestock Productivity:** Gene editing can be used to enhance other desirable traits in livestock, such as disease resistance, meat quality, and milk production.
  - **Economic Upliftment:** Better livestock breeds can contribute to rural economic development and improve the livelihoods of farmers, particularly in regions like Jammu and Kashmir where sheep rearing is a vital occupation.
- **Birth of Gene-Edited Lambs:** The project has successfully resulted in the birth of gene-edited lambs, which will now be monitored to assess the expression of the targeted traits.

What is CRISPR-Cas9 Gene Editing?

CRISPR-Cas9 is a revolutionary gene-editing tool that has made it easier, faster, and cheaper to modify DNA than ever before. Here's a simplified explanation:

- **CRISPR part:** This is a sequence of DNA that acts like a guide. It can be programmed to find a specific target sequence in the DNA of an organism.
- **Cas9 protein:** This is an enzyme that acts like a pair of molecular scissors. Once the CRISPR guide RNA finds the target DNA sequence, the Cas9 protein cuts the DNA at that specific location.
- **Cell's Repair Mechanism:** After the DNA is cut, the cell's natural repair mechanisms kick in. Scientists can use these repair mechanisms to:
  - **Disable a gene:** By making a small cut, the gene can be rendered non-functional.
  - **Edit a gene:** A small piece of DNA can be altered.
  - **Insert a new gene:** A new DNA sequence can be inserted at the cut site.

Applications of Gene Editing in Livestock:

- **Disease Resistance:** Editing genes to make animals resistant to common diseases (e.g., mastitis in cattle, swine flu in pigs).
- **Improved Productivity:** Enhancing milk yield, meat quality (e.g., leaner meat), or wool production.
- **Adaptation to Climate Change:** Developing breeds that are more tolerant to heat stress or drought conditions.
- **Reduced Environmental Impact:** Engineering animals that produce less methane (a potent greenhouse gas) or require less feed.
- **Welfare Traits:** Removing horns in cattle (dehorning is a painful procedure) or making animals less susceptible to certain painful conditions.

ISRO Releases Space Health Report Card: ISSAR 2024 Highlights India's Vigilance in Orbit

The **Indian Space Research Organisation (ISRO)** has released its annual **Indian Space Situational Assessment Report (ISSAR) for 2024**, providing a comprehensive overview of the space object environment, India's space assets, and the efforts undertaken to ensure their safety and sustainability. This critical report is compiled by the **ISRO System for Safe and Sustainable Space Operations**

Management (IS4OM), showcasing India's growing prowess in **Space Situational Awareness (SSA)**.

The ISSAR 2024 underscores the increasing congestion and complexities in Earth's orbits, driven by a record number of global launches, and highlights ISRO's proactive measures in collision avoidance, space debris mitigation, and maintaining the operational integrity of its space assets.

Highlights from ISSAR 2024:

- **Record Global Launches:** The year 2024 witnessed the highest number of launch attempts since the beginning of the space age, with **261 launch attempts globally**, of which **254 were successful**. These launches resulted in the addition of **2,578 operational satellites** and a total of **2,963 objects** placed in orbit.
- **Space Debris Concerns:** The report notes **three major on-orbit break-up events** in 2024. A significant fragmentation of a Chinese Long March rocket stage (CZ-6A) alone reportedly added around **650 catalogued objects** to the space debris environment. This led to a net addition of **702 fragmented objects** to the population of space debris by the end of 2024, a substantial increase compared to previous years.
- **India's Orbital Fleet:** As of the end of 2024, India had a total of **136 Indian spacecraft** in Earth orbit, including those from governmental, private, and academic initiatives. The Indian government operated **22 satellites in Low Earth Orbit (LEO)** and **31 in Geosynchronous Earth Orbit (GEO)**.
- **Active Deep Space Missions:** India's key deep space missions, including the **Chandrayaan-2 Orbiter** and the **Aditya-L1** solar observatory at the Sun-Earth Lagrange point L1, continue to be active and operational.
- **Collision Avoidance (COLA) and Manoeuvres (CAMs):**
  - ISRO meticulously conducted **Collision Avoidance Analysis (COLA)** for all its launches to ensure safe lift-off. For instance, the lift-off of **PSLV-C60/SPADEX** was slightly delayed based on COLA analysis to avoid potential close approaches.
  - ISRO performed **10 Collision Avoidance Manoeuvres (CAMs)** in 2024 (6 in LEO and 4 in GEO) to safeguard its operational satellites from potential collisions with other space objects. This number was lower than in 2023, attributed to improved close approach analysis methodology and integration of avoidance within regular orbit maintenance manoeuvres.
- **Atmospheric Re-entries and Decommissioning:**
  - A total of **31 Indian satellites** have re-entered the Earth's atmosphere till the end of 2024, with **9 re-entries occurring in 2024 alone**.
  - Notably, **Cartosat-2** was successfully de-orbited in February 2024, marking the first LEO satellite of ISRO to be proactively de-orbited at its end-of-life to reduce its post-mission orbital presence significantly.
  - Other satellites like **Scatsat-1, INS-2B, and EOS-7** were also decommissioned and re-entered.
  - ISRO also ensured the de-orbiting of its **PSLV Orbital Experimental Modules (POEM-3 and POEM-4)** to a lower altitude (around 350 km) to limit their orbital lifetime.

- **India's Launches in 2024:** India conducted **five successful launches** from Sriharikota: PSLV-C58/XPoSat, PSLV-C59/PROBA-3, PSLV-C60/SPADEX, GSLV-F14/INSAT-3DS, and SSLV-D3/EOS-08. Additionally, ISRO's GSAT-20 and TSAT-1A were launched by SpaceX's Falcon-9.
- **Commitment to Debris-Free Space:** The report reiterates India's commitment to achieving a **Debris Free Space Mission (DFSM) by 2030**, aiming for all Indian space actors (governmental and non-governmental) to comply with post-mission disposal guidelines.

What is Space Debris?

- Space debris, also known as **space junk**, encompasses defunct artificial objects in space, such as old satellites, spent rocket stages, and fragments from explosions or collisions.
- These objects orbit the Earth at very high speeds (tens of thousands of kilometers per hour), posing a collision risk to operational satellites and spacecraft. Even small debris can cause significant damage.
- **Kessler Syndrome:** A theoretical scenario where the density of objects in LEO becomes high enough that collisions between objects cause a cascade, where each collision generates more debris, increasing the likelihood of further collisions.

ISRO's Initiatives for Space Safety and Sustainability:

- **ISRO System for Safe and Sustainable Space Operations Management (IS4OM):** Established in Bengaluru, IS4OM is ISRO's dedicated facility for SSA activities. It performs functions like close approach assessment, prediction of atmospheric re-entry, and monitoring space object populations.
- **Project NETRA (NEtwork for space object TRacking and Analysis):** An initiative to build indigenous capability in SSA by deploying radars, optical telescopes, and a control centre to track and monitor space objects.
- **De-orbiting and Passivation:** ISRO is increasingly focusing on de-orbiting its satellites at the end of their operational life and passivating spent rocket stages (removing leftover fuel to prevent explosions).
- **International Collaboration:** Actively engaging with international bodies to develop and implement space debris mitigation guidelines.

India's First AI SEZ in Chhattisgarh: A New Hub for Tech Innovation

In a landmark move set to bolster India's position in the global Artificial Intelligence (AI) landscape, **India's first AI-focused Special Economic Zone (SEZ)** is being established in **Nava Raipur, Chhattisgarh**. This pioneering project, spearheaded by Indore-based **RackBank Data Centers Pvt. Ltd.**, involves an investment of **₹1,000 crore** and aims to create a dedicated ecosystem for AI research, development, and deployment. The AI SEZ, envisioned as a digital nerve centre, will feature state-of-the-art infrastructure, including a **1.5 lakh square foot data centre** and a combined capacity of **80 megawatts** across four high-density data centres. This initiative is expected to attract leading global technology companies like Google, OpenAI, Microsoft, and Meta,

transforming Chhattisgarh into a key player in the digital economy.

The AI SEZ Project:

- **Focused Infrastructure:** The SEZ will provide advanced servers and systems specifically designed to power AI technologies and large-scale digital operations.
- **Investment and Scale:** With an investment of ₹1000 crore, the project will be spread across six acres.
- **Attracting Global Players:** The SEZ aims to create an enabling environment for both global and domestic firms to conduct cutting-edge AI development and data-driven innovation.
- **Economic and Social Impact:**
  - The project is anticipated to generate significant **employment opportunities**, particularly for youth from Chhattisgarh, including those from remote districts.
  - It aims to reduce the need for skilled individuals to migrate to larger metropolitan cities for world-class jobs in AI and digital technology.
  - RackBank also plans to collaborate with ITIs, polytechnics, and engineering colleges in Chhattisgarh to offer tailored training programs, ensuring a skilled local workforce.
- **SEZ Benefits:** The AI SEZ will leverage the benefits of the **SEZ framework**, including tax exemptions and regulatory relaxations, to foster growth and investment.
- **Carbon-Neutral Focus:** RackBank is known as a carbon-neutral data centre company, suggesting an emphasis on sustainable operations for the new SEZ.

Understanding the Core Concepts:

- **Artificial Intelligence (AI):**
  - AI refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.
  - It encompasses various sub-fields like machine learning, deep learning, natural language processing, and computer vision.
  - **Applications:** AI is transforming industries like healthcare, finance, agriculture, transportation, education, and entertainment.
- **Special Economic Zones (SEZs):**
  - SEZs are geographically demarcated areas within a country that have more liberal economic laws than the country's typical economic laws.
  - **Objectives (as per SEZ Act, 2005 in India):**
    - Generation of additional economic activity.
    - Promotion of exports of goods and services.
    - Promotion of investment from domestic and foreign sources.
    - Creation of employment opportunities.
    - Development of infrastructure facilities.
  - **Benefits for units in SEZs:** Typically include tax incentives (like income tax exemptions for a certain period), duty-free import/procurement of goods for operations, simplified procedures, and single-window clearances.
- **Data Centers:**
  - These are dedicated physical facilities that organizations use to house their critical applications and data.
  - They provide the necessary infrastructure, including computing resources (servers), storage, networking equipment, power, cooling, and physical security.
  - **Importance:** Data centers are the backbone of the digital economy, supporting cloud computing, big data analytics, AI model training and deployment, e-commerce, and all online services.

India's National AI Ambitions:

This AI SEZ aligns with India's broader strategy to become a global leader in Artificial Intelligence. Key government initiatives include:

- **National Mission on Artificial Intelligence / IndiaAI Mission:** Launched to create a robust AI ecosystem in the country. Its pillars include:
  - **IndiaAI Compute:** Building scalable AI computing infrastructure.
  - **IndiaAI Innovation Centre (IAIC):** To drive research and development of foundational AI models.
  - **IndiaAI Datasets Platform (AI Kosh):** To improve access to public data for AI research.
  - **IndiaAI FutureSkills:** Focusing on AI skilling and talent development.
  - **IndiaAI Startup Financing:** Providing financial support to AI startups.
  - **Safe & Trusted AI:** Developing frameworks for ethical and responsible AI deployment.
- **Digital India Program:** Aims to transform India into a digitally empowered society and knowledge economy, with AI playing a crucial role.

Agriculture

India Launches World's First Genome-Edited Rice Varieties

India has achieved a significant global milestone in agricultural science by becoming the **first country in the world** to develop and launch **genome-edited rice varieties**. Union Agriculture Minister **Shivraj Singh Chouhan** announced this achievement in New Delhi.

The Achievement:

- Two new genome-edited rice varieties, developed by the Indian Council of Agricultural Research (**ICAR**), were launched.
- These varieties are seen as a major step towards **climate-resilient agriculture** and boosting food production.
- The Minister hailed this as a "historic milestone" contributing to the vision of **Viksit Bharat**.

Understanding Genome Editing:

- These rice varieties were developed using **genome editing** technology, specifically **CRISPR-Cas** based tools.

- Genome editing involves making precise changes to an organism's existing genetic material (DNA) *without* introducing **foreign DNA**.
- **Crucial Distinction:** This is different from traditional Genetically Modified Organisms (GMOs), which often involve inserting genes from other species.
- **Regulatory Aspect:** Because no foreign DNA is involved, these varieties fall under India's biosafety guidelines for **SDN 1 and SDN 2** (Site-Directed Nuclease) categories. This means they are often regulated similar to conventionally bred crop varieties, bypassing the stringent regulations typically applied to GMOs.

Details of the New Varieties:

1. **DRR Dhan 100 Kamala (or DRR Rice 100 Kamala):**
   - Developed by: ICAR-Indian Rice Research Institute (IIRR), Hyderabad.
   - Derived from: Popular variety **Samba Mahsuri**.
   - Key Benefits:
     - Matures 15-20 days **earlier** (around 130 days total).
     - Yields **25% higher** production (approx.).
     - Saves irrigation water and fertilizer due to shorter duration.
     - Reduces **methane emissions** (a greenhouse gas).
     - Has strong stalks and retains the grain quality of Samba Mahsuri.

2. **Pusa DST Rice 1:**
   - Developed by: ICAR-Indian Agricultural Research Institute (IARI), New Delhi.
   - Derived from: Popular variety **MTU 1010**.
   - Key Benefits:
     - Tolerant to **salinity and alkalinity** (thrives in salty/alkaline soils).
     - Yields **30% higher** production under saline conditions (potential for up to 20% higher yields in challenging environments).

Significance and Potential Impact:

- **Higher Yields:** Cultivation on the recommended 5 million hectares could produce an additional 4.5 million tonnes of paddy.
- **Climate Resilience:** Addresses challenges like soil salinity and helps adapt to changing climate patterns.
- **Resource Efficiency:** Early maturation saves water and fertilizers.
- **Environmental Benefits:** Reduced water usage and lower greenhouse gas emissions.
- **Farmer Welfare:** Lower production costs and increased yields can contribute to doubling farmers' income.
- **Food Security:** Helps meet the nutritional demands of India's growing population.
- **Second Green Revolution:** ICAR believes these varieties could play a key role in ushering in a new era of agricultural productivity.

Government Strategy & Vision:

- The Agriculture Minister introduced the "**Minus 5 and Plus 10**" formula:
  - Aim: Reduce the area under rice cultivation by 5 million hectares.
  - Simultaneously: Increase total rice production by 10 million tonnes (using high-yield varieties like these).
  - Objective: Free up land for cultivating essential **pulses and oilseeds**, thereby enhancing nutritional security and reducing India's import dependency.
- This aligns with the goal of making India **Atmanirbhar** (self-reliant) in agriculture and potentially the "food basket of the world".

Target States:

- These varieties are recommended for cultivation across a wide range of states, including **Odisha**, Andhra Pradesh, Bihar, Uttar Pradesh, Telangana, Karnataka, Tamil Nadu, Chhattisgarh, Maharashtra, West Bengal, Madhya Pradesh, Kerala, and Jharkhand.

Boosting Farms, Empowering Farmers: Govt to Launch "Viksit Krishi Sankalp Abhiyan"

The Central Government is set to launch a major nationwide campaign called **"Viksit Krishi Sankalp Abhiyan"** from **May 29th to June 12th, 2025**. This initiative aims to directly connect with farmers across the country, apprising them of **modern agricultural technologies** and new, improved **varieties of seeds**. The campaign is strategically timed with the upcoming **Kharif sowing season**.

Key Objectives and Features of the Abhiyan:

- **Reaching Farmers:** The ambitious 15-day program targets reaching **1 to 1.5 crore farmers** across approximately **700 districts** of India.
- **Awareness and Education:** The core aim is to educate farmers about:
  - **Latest farming techniques** to enhance crop output.
  - Availability and benefits of **new and climate-resilient seed varieties**, with a special focus on practices like **Direct Seeded Rice (DSR)** in paddy-growing areas.
  - Information on **fertilizer availability** and **monsoon forecasts**.
  - Benefits of existing **government welfare schemes** for agriculturists.
- **Implementation Strategy:**
  - Around **2,000 teams** will be formed, comprising **agricultural scientists, state government officials, and progressive farmers**.
  - These teams will conduct multiple meetings daily at the district level, aiming to interact with **10 to 12 lakh farmers each day**.
- **Focus on Productivity and Income:** The ultimate goal is to **boost crop productivity and production**, thereby **increasing farmers' income** and contributing to the nation's food security.
- **Soil Health:** The campaign will also re-emphasize the importance of **soil health cards** for promoting the **balanced use of fertilizers**, crucial for sustainable agriculture.

- **Feedback Mechanism:** Farmers will be encouraged to provide **feedback** on their experiences and learnings during the campaign.

"Viksit Krishi Sankalp Abhiyan" Set for Nationwide Launch on May 29 to Transform Indian Agriculture

The Union Ministry of Agriculture and Farmers Welfare is gearing up to launch a major nationwide campaign, the **"Viksit Krishi Sankalp Abhiyan,"** starting from **May 29, 2025, and running until June 12, 2025**. This ambitious 15-day initiative aims to revolutionize Indian agriculture by empowering farmers with modern agricultural technologies, advanced knowledge of new seed varieties, and information about various government welfare schemes. The campaign is a collaborative effort between the Central and State Governments, with a strong focus on leveraging technology and scientific advancements to uplift the farming community.

Core Objectives and Vision:

The "Viksit Krishi Sankalp Abhiyan" (Developed Agriculture Resolve Campaign) is designed with a multi-faceted approach:

- **Empowering Farmers with Technology and Knowledge:** The primary goal is to bridge the gap between agricultural research institutions ("lab to land") and farming communities. This involves disseminating information about:
    - **Modern Agricultural Technologies:** Including precision farming techniques, use of drones for spraying and monitoring, and digital tools for crop management.
    - **Advanced and Climate-Resilient Seed Varieties:** Educating farmers about new high-yielding seed varieties that are resistant to pests, diseases, and can withstand climatic stresses like drought or floods.
    - **Sustainable Farming Practices:** Promoting methods like natural farming, organic farming, integrated nutrient management, and water conservation techniques to ensure long-term agricultural sustainability and soil health.
- **Enhancing Agricultural Extension Services:** Strengthening the outreach of agricultural advice and innovations to farmers at the grassroots level.
- **Boosting Productivity and Farmer Income:** The ultimate aim is to improve crop yields, reduce input costs, and ensure better returns for farmers, thereby enhancing their livelihoods and economic well-being.
- **Aligning with 'Viksit Bharat @ 2047':** The campaign is a significant step towards realizing Prime Minister Narendra Modi's vision of a developed India by 2047, with a prosperous and self-reliant agricultural sector as a key pillar.
- **Two-Way Interaction:** The campaign is not just about disseminating information but also about creating a dialogue. Farmers will be encouraged to share their challenges, field-level problems (like pest infestations or climate anomalies), and grassroots innovations, which will, in turn, inform future research and policy.

Implementation Strategy:

- **Nationwide Reach:** The Abhiyan will cover over **700 districts** across all states and union territories, aiming to directly engage with approximately **1.5 crore farmers**. Some reports indicate a target of reaching 10-12 lakh farmers daily during the campaign.
- **Expert Teams:** Around **2,000 multi-disciplinary teams** will be formed. These teams will comprise:
    - Farm scientists from the **Indian Council of Agricultural Research (ICAR)** institutes and **Krishi Vigyan Kendras (KVKs)**.
    - Officials from State Agriculture Departments and agricultural universities.
    - Progressive farmers who can share best practices.
- **Intensive Outreach:** Each team is expected to conduct multiple meetings daily at the district and village/gram panchayat levels. For instance, in Delhi, the campaign plans to cover 87 villages through 36 programs.
- **Focus on Kharif Season:** The timing of the campaign is crucial, coinciding with the preparations for the **Kharif sowing season**, ensuring that farmers receive timely information. The campaign is planned to be conducted biannually, before both Kharif and Rabi crop sowings.
- **Key Information Dissemination:** The teams will:
    - Assess local agro-climatic conditions, soil nutrient profiles (using **Soil Health Cards**), water availability, and rainfall patterns.
    - Recommend appropriate crops, high-yield seed varieties, ideal sowing techniques, and balanced fertilizer use.
    - Provide information on **monsoon forecasts**.
    - Raise awareness about existing central and state government **welfare schemes** for farmers (e.g., PM-KISAN, PM Fasal Bima Yojana, subsidies, MSP).
    - Promote seed traceability to ensure quality and curb the sale of spurious seeds. The government is also reportedly considering amendments to the Seeds Act, 1966.
- **On-the-Spot Services:** Initiatives like **mobile soil testing labs** may accompany the teams to provide immediate soil assessments.

Cabinet Hikes MSP for 14 Kharif Crops for 2025-26 Season, Focus on Pulses & Oilseeds

The Union Cabinet, chaired by Prime Minister Narendra Modi, on Wednesday, May 28, 2025, approved a significant increase in the **Minimum Support Price (MSP)** for **14 Kharif (summer-sown) crops** for the **Marketing Season 2025-26**. This decision aims to ensure **remunerative prices** for farmers for their produce and encourage **crop diversification** towards oilseeds, pulses, and millets (Shree Anna). The government stated that the approved MSPs provide a return of at least 50% over the all-India weighted average cost of production, fulfilling the commitment made in the Union Budget 2018-19.

Details of the MSP Hike (Kharif Marketing Season 2025-26):

The government has ensured a fair margin for farmers, with the expected return over the cost of production being highest for Bajra, followed by Tur, Soyabean, and Urad.

Here are the MSPs for some key Kharif crops for 2025-26, compared to 2024-25:

- **Paddy (Common):** Increased by ₹125 to **₹2,430 per quintal**.
- **Paddy (Grade A):** Increased by ₹125 to **₹2,455 per quintal**.
- **Tur (Arhar):** Significant hike of ₹500 to **₹8,000 per quintal**.
- **Moong:** Increased by ₹141 to **₹8,941 per quintal**.
- **Urad:** Increased by ₹400 to **₹7,800 per quintal**.
- **Groundnut:** Hiked by ₹360 to **₹6,730 per quintal**.
- **Soyabean (Yellow):** Increased by ₹322 to **₹4,942 per quintal**.
- **Sunflower Seed:** Increased by ₹400 to **₹7,280 per quintal**.
- **Sesamum:** Hiked by ₹693 to **₹9,943 per quintal**.
- **Nigerseed:** Saw the highest absolute increase of ₹870 to **₹9,180 per quintal**.
- **Cotton (Medium Staple):** Increased by ₹500 to **₹7,120 per quintal**.
- **Cotton (Long Staple):** Increased by ₹510 to **₹7,530 per quintal**.
- **Jowar (Hybrid):** Hiked by ₹145 to **₹3,495 per quintal**.
- **Bajra:** Increased by ₹135 to **₹2,660 per quintal**. (Expected margin over cost: 70%)
- **Ragi:** Increased by ₹380 to **₹4,290 per quintal**.
- **Maize:** Hiked by ₹145 to **₹2,240 per quintal**.

Objectives Behind the Hike:

The government has outlined several key objectives for this MSP revision:

- **Ensuring Remunerative Prices:** To provide fair and profitable returns to farmers, thereby improving their income and livelihood. The MSP is set to ensure a margin of at least 50% over the cost of production.
- **Promoting Crop Diversification:** The relatively higher increases for pulses (like Tur, Urad), oilseeds (like Soyabean, Groundnut, Sunflower, Sesamum, Nigerseed), and nutri-cereals/millets (Shree Anna like Jowar, Bajra, Ragi) are intended to encourage farmers to shift from traditional cereal crops like paddy and wheat. This aims to:
  - Address demand-supply imbalances, particularly reducing import dependence on oilseeds and pulses.
  - Enhance soil health and promote climate-resilient agriculture.
  - Improve nutritional security.
- **Boosting Agricultural Investment:** Assured remunerative prices are expected to encourage farmers to invest more in agricultural inputs and modern farming technologies.
- **Farmer-First Approach:** The decision reflects the government's continued focus on farmer welfare and its commitment to doubling farmers' income (a previously stated goal).
- **Food Security:** The MSP for paddy, a staple food grain, is crucial for maintaining adequate buffer stocks for the

Public Distribution System (PDS) and ensuring national food security.

Cabinet Extends 1.5% Interest Subvention on Short-Term Agri Loans for FY 2025-26

The Union Cabinet, chaired by Prime Minister Narendra Modi, on Wednesday, May 28, 2025, approved the continuation of the **Modified Interest Subvention Scheme (MISS)** for **short-term agriculture and allied activities loans** for the financial year **2025-26**. Under this scheme, the government will continue to provide an **interest subvention of 1.5% per annum** to lending institutions on these loans. This decision aims to ensure the availability of **affordable credit** to farmers, thereby supporting agricultural productivity and the rural economy.

Understanding the Scheme: Affordable Credit for Farmers

- **Scheme Name:** Modified Interest Subvention Scheme (MISS).
- **Interest Subvention Rate:** The government will provide a **1.5% interest subvention** per annum to lending institutions (banks). This subvention allows banks to provide short-term credit to farmers at a reduced interest rate.
- **Loan Limit & Purpose:** The scheme applies to **short-term agricultural loans up to ₹3 lakh** availed by farmers through **Kisan Credit Cards (KCC)**. These loans are typically for meeting working capital needs for crop production and other allied activities.
- **Covered Activities:** Besides crop cultivation, the scheme also supports allied activities such as **animal husbandry, dairy, fisheries, and bee-keeping**.
- **Objective:** The primary goal is to make **short-term credit available to farmers at an affordable interest rate**, reducing their dependence on expensive informal credit sources and enabling them to invest in necessary agricultural inputs.

How Farmers Benefit:

While the 1.5% subvention is provided to the lending institutions, the ultimate benefit is passed on to the farmers in the form of lower interest rates.

- **Concessional Interest Rate:** Banks generally provide short-term agri-loans at an interest rate of around 9%. The 1.5% subvention from the government helps banks to offer these loans at a more concessional rate.
- **Prompt Repayment Incentive:** Crucially, farmers who **repay their loans promptly** (within the due date) are eligible for an **additional interest subvention of 3% per annum**.
- **Effective Interest Rate:** For farmers who ensure timely repayment, the effective interest rate on these short-term agri-loans comes down to a very affordable **4% per annum**.

Lending Institutions and Government's Financial Commitment:

- **Eligible Lending Institutions:** The scheme is implemented through a wide network of financial institutions, including:
  - **Public Sector Banks (PSBs)**

- o **Private Sector Banks (PvSBs)**
- o **Small Finance Banks (SFBs)**
- o **Regional Rural Banks (RRBs)**
- o **Co-operative Banks** (both rural and urban)
- **Budgetary Outlay:** For the financial year 2025-26, the government has allocated **₹25,583 crore** for the implementation of this interest subvention scheme.
- **Implementing Agencies:** The scheme is operationalized by the **National Bank for Agriculture and Rural Development (NABARD)** and the **Reserve Bank of India (RBI)**.

Defence

IAF Tests India's First Night-Capable Expressway Airstrip on Ganga Expressway

The **Indian Air Force (IAF)** recently conducted a significant exercise involving fighter jets and transport aircraft on a newly constructed airstrip section of the **Ganga Expressway** in **Shahjahanpur, Uttar Pradesh**. This drill highlights advancements in India's defence infrastructure and operational capabilities.

Key Highlights of the Exercise:

- **Location:** A **3.5-kilometre-long airstrip** built on the under-construction Ganga Expressway near Piru village in the Jalalabad region of Shahjahanpur district.
- **Aircraft Involved:** A diverse range of IAF assets participated, including fighter jets like **Rafale, Sukhoi-30 MKI, Mirage-2000, MiG-29, and Jaguar,** along with transport aircraft like the **C-130J Super Hercules and AN-32**, and **Mi-17 V5 helicopters**.
- **Activities:** The exercise included low fly-pasts, landings, and take-offs ("land and go" drills) by various aircraft.
- **Unique Capability:** This airstrip is **India's first on an expressway designed for both day and night operations** by fighter aircraft. Previous expressway airstrips (like on Lucknow-Agra, Purvanchal, and Bundelkhand Expressways) were limited to daytime operations only.
- **Technical Features:**
  - o The airstrip uses **reinforced pavement** strong enough for heavy military aircraft.
  - o It features advanced **precision approach lighting** and a **CAT II Instrument Landing System (ILS)**. The CAT II ILS is crucial as it allows aircraft landings in significantly reduced visibility conditions (like fog or night) compared to basic CAT I systems, requiring a Decision Height (DH) as low as 100 feet and Runway Visual Range (RVR) down to 300-350 meters.
- **Security:** Over **250 CCTV cameras** were installed for surveillance and security during the exercise, managed in coordination with the **Uttar Pradesh Expressways Industrial Development Authority (UPEIDA)**.

Significance for India:

- **Enhanced Defence Preparedness:** This demonstrates the IAF's ability to use civilian infrastructure like expressways as **alternative runways** during wartime,

national emergencies, or when primary airbases might be unusable. This adds strategic depth and flexibility.
- **24/7 Operational Capability:** The night-landing capability significantly boosts the IAF's ability to conduct operations round-the-clock, a crucial factor in modern warfare and emergency response scenarios.
- **Dual-Use Infrastructure:** This is a prime example of creating **dual-use infrastructure**, where assets primarily built for civilian connectivity also serve critical defence needs. This aligns with efficient resource utilization.
- **Strategic Location:** While specific strategic advantages weren't detailed in all reports, the development of such facilities enhances the military's reach and response time across different regions. One report mentioned its potential advantage due to relative proximity to the western border.
- **Disaster Response:** Such airstrips can be invaluable during **Humanitarian Assistance and Disaster Relief (HADR)** operations, enabling faster deployment of aid and personnel to affected areas.
- **Technological Advancement:** The use of **CAT II ILS** on an expressway airstrip showcases the integration of advanced aviation technology into strategic infrastructure projects.

About the Ganga Expressway:

- It is a **594-kilometre-long, 6-lane (expandable to 8)** access-controlled expressway currently under construction in Uttar Pradesh.
- It connects **Meerut** in Western UP to **Prayagraj** in Eastern UP, passing through 12 districts.
- The project is being executed by **UPEIDA** under a **Public-Private Partnership (PPP)** model (DBFOT - Design, Build, Finance, Operate, Transfer).
- The estimated cost was around **₹36,230 crore**.
- While facing some delays, the UP government aims to make it operational, potentially before the **Maha Kumbh Mela in Prayagraj in 2025**.
- This will be Uttar Pradesh's **fourth expressway** featuring an emergency airstrip, but the first with night-landing capabilities.

DRDO Successfully Tests Stratospheric Airship for Enhanced Surveillance

ndia's Defence Research and Development Organisation (**DRDO**) has successfully conducted the **maiden flight trial** of its indigenous **Stratospheric Airship Platform**, marking a significant advancement in the country's surveillance technology.

The Event:

- The first flight test took place on May 3, 2025, at the Sheopur trial site in Madhya Pradesh.
- The airship was developed by DRDO's Aerial Delivery Research and Development Establishment (**ADRDE**), located in Agra, Uttar Pradesh.
- During the trial, the airship carried an instrumental payload and reached an altitude of approximately **17 kilometers**, well into the Earth's **stratosphere**.
- The flight lasted for about 62 minutes.

What is a Stratospheric Airship?

- An **airship** is a **lighter-than-air** aircraft that uses buoyant gas (like helium) to float and can be steered and propelled. Think of it as a steerable balloon.
- The **stratosphere** is a layer of Earth's atmosphere extending roughly from 10 km to 50 km altitude. It lies above the troposphere (where weather occurs) and most commercial air traffic.
- A **Stratospheric Airship Platform** is designed to operate at these high altitudes for **very long endurance** periods (potentially days or weeks).
- **Advantages:** Operating in the stratosphere provides a stable environment (above weather) and a high vantage point, making it ideal for persistent observation and surveillance over large areas.

Details of the Trial:

- **Data Collection:** Sensors onboard collected data during the flight, which will be used to develop better simulation models for future high-altitude missions.
- **Systems Tested:** Key systems like **envelope pressure control** and **emergency deflation** mechanisms were successfully tested during the flight.
- **Recovery:** The trial team successfully recovered the airship after the flight for further analysis.

Significance and Strategic Importance:

- **Enhanced Capabilities:** This platform is expected to significantly boost India's capabilities in:
  - **Earth Observation**.
  - **Intelligence, Surveillance, and Reconnaissance (ISR)** for defence purposes.
- **Indigenous Achievement:** This successful trial places India among a **select group of countries** possessing such advanced, **indigenous** high-altitude airship technology.
- **Long Endurance Surveillance:** The key benefit lies in its potential to stay airborne for extended durations, providing continuous monitoring capabilities unlike traditional aircraft or drones which have limited flight times.
- **National Security:** Development of such platforms enhances India's strategic autonomy and situational awareness.

What is a Multi-Influence Ground Mine (MIGM)?

- A **ground mine** is an underwater explosive weapon that is placed on the seabed in strategically important areas like enemy harbours, approaches to naval bases, or critical sea routes.
- It is designed to detect and destroy enemy naval assets such as **submarines and ships**.
- The "Multi-Influence" aspect is key to its advanced nature. This means the mine is equipped with multiple sophisticated sensors that can detect various **signatures** or characteristics of a passing vessel. These can include:
  - **Acoustic signature:** The noise generated by a ship's propellers and machinery.
  - **Magnetic signature:** The metallic hull of a vessel creates a magnetic disturbance.
  - **Pressure signature:** A vessel passing overhead causes changes in water pressure.
  - It may also include sensors for other influences like UEP/ELFE (Underwater Electric Potential/Extra Low-Frequency Electromagnetic) signatures.
- By using multiple triggers, MIGMs are **more difficult to counter or sweep** compared to older generation mines that might rely on a single trigger (like direct contact). They offer **enhanced stealth, precision, and autonomous response**.

Key Details of the Test and Development:

- The successful test firing validated the mine's effectiveness in a simulated combat scenario.
- The MIGM has been **designed and developed by DRDO**, with the **Naval Science & Technological Laboratory (NSTL)** in Visakhapatnam being the lead laboratory. Other DRDO labs like the High Energy Materials Research Laboratory (HEMRL), Pune, and Terminal Ballistics Research Laboratory (TBRL), Chandigarh, also contributed.
- Production partners for the system include **Bharat Dynamics Limited (BDL), Visakhapatnam, and Apollo Microsystems Limited, Hyderabad**, showcasing a collaborative effort between public and private sector industries.

Boost to Naval Might: India Successfully Tests Indigenous Underwater Mine

In a significant demonstration of its growing indigenous defence capabilities, India has successfully conducted a **combat firing trial** of an **indigenously designed and developed underwater Multi-Influence Ground Mine (MIGM)**. The test was jointly carried out by the **Indian Navy** and the **Defence Research and Development Organisation (DRDO)**.
This successful trial marks a crucial step towards **Aatmanirbhar Bharat (self-reliant India)** in the critical area of underwater defence technology and significantly enhances the **Indian Navy's underwater combat capabilities** and operational preparedness.

Operation Sindoor: India's Decisive Strike Against Cross-Border Terrorism

In a strong message against terrorism, the **Indian Armed Forces** successfully conducted **'Operation Sindoor'** in the early hours of **May 7, 2025**. This operation involved **precision strikes** against multiple **terrorist camps and infrastructure** located across the Line of Control (LoC) in Pakistan-occupied Kashmir (PoK) and some parts of Pakistan. The operation is a direct response to the horrific **Pahalgam terror attack on April 22, 2025**, where 26 innocent civilians, mostly tourists, lost their lives.

Key Highlights of 'Operation Sindoor':

- **Coordinated Action:** 'Operation Sindoor' was a swift and coordinated **tri-services operation**, involving elements from the Indian Army, Navy, and Air Force. It was executed between approximately 1:05 AM and 1:30 AM on May 7.

- **Precision Strikes:** The Indian government has emphasized that these were **precision strikes** using "niche technology weapons" aimed specifically at **terrorist infrastructure**. The objective was to neutralize these launch pads and training facilities with minimal collateral damage.
- **Targeted Locations:** According to official sources, **nine key terrorist sites** were targeted. These included camps and facilities associated with terror groups like **Jaish-e-Mohammed (JeM)**, **Lashkar-e-Taiba (LeT)**, and **Hizbul Mujahideen (HM)**. Locations reportedly included Bahawalpur (JeM's headquarters), Muridke, and sites in Muzaffarabad, Kotli, and Sialkot sectors.
- **Official Stance:** India has stated that its actions were **"focused, measured, and non-escalatory."** It was clarified that **no Pakistani military installations were targeted**. The operation aimed to pre-empt further terrorist attacks planned against India from these locations.
- **Retaliation for Pahalgam Attack:** The primary trigger for 'Operation Sindoor' was the brutal **Pahalgam terror attack on April 22, 2025**, which claimed 26 civilian lives (25 Indians and one Nepali citizen). The government stated that this operation fulfills India's commitment to hold those responsible for the attack accountable. The **Resistance Front (TRF)**, believed to be a front for LeT, had claimed responsibility for the Pahalgam attack.

Impact and Outcomes:

- **Terrorist Casualties:** Initial reports from Indian government sources suggest that **over 70 terrorists were killed** and more than 60 were injured in the strikes, significantly degrading the operational capabilities of the targeted terror outfits.
- **JeM Chief's Family Affected:** Significantly, reports indicate that **Jaish-e-Mohammed (JeM) chief Masood Azhar** admitted to losing ten members of his family, including his sister, nephew, and mother, along with close associates, in the strike on the JeM headquarters in Bahawalpur.
- **Pakistan's Reaction:** Pakistan has condemned the Indian action, terming it an "act of war" and stated it reserves the right to respond. Following the operation, there were reports of cross-border shelling by Pakistan in the Kupwara sector of Jammu and Kashmir, to which Indian forces retaliated. Pakistan also temporarily closed parts of its airspace.
- **Domestic Measures:** In India, precautionary measures were taken, including the temporary shutdown of some airports in northern India and the conducting of civil defence mock drills and blackouts in certain cities. The Indian government also convened an all-party meeting to brief political leaders on the situation.

India's Standpoint:

- The Indian government, including the **Raksha Mantri (Defence Minister) Shri Rajnath Singh** and the **Ministry of External Affairs**, has firmly stated that 'Operation Sindoor' was an exercise of India's **"right to respond"** to acts of terror and to **pre-empt** further attacks emanating from soil under Pakistan's control.
- It was highlighted that despite a fortnight passing since the Pahalgam attack, Pakistan had not taken any "demonstrable step" against the terrorist infrastructure on its territory.

International Response:

- The international community has largely called for **restraint and de-escalation** from both India and Pakistan.
- Nations and organisations including the **United Nations (UN)**, the **United States (US)**, **China**, **Russia**, and the **United Kingdom (UK)** have urged dialogue to resolve issues.
- Notably, countries like **France** stated they "understand India's desire to protect itself against terrorism," while **Israel** explicitly supported India's right to self-defence.
- India's External Affairs Minister, Dr. S. Jaishankar, has engaged with his counterparts from several nations to convey India's position and its **"zero tolerance" policy towards terrorism**.

India-Pakistan Tensions: Operation Sindoor, Air Defence, and Information Warfare

Recent days have seen a significant escalation in tensions between India and Pakistan, marked by **military actions**, **retaliatory strikes**, and a notable **information warfare campaign**.

Key Developments:

Operation Sindoor:

- Following a deadly **terror attack in Pahalgam, Jammu and Kashmir**, which claimed 26 lives, India launched **"Operation Sindoor"**.
- This operation involved **precision strikes** by the Indian Armed Forces targeting **nine key terror sites** linked to outfits like Jaish-e-Mohammed (JeM), Lashkar-e-Taiba (LeT), and Hizbul Mujahideen within Pakistani territory and Pakistan-occupied Kashmir (PoK).
- India described this operation as **"focused, measured, and non-escalatory"**, emphasizing that Pakistani military establishments were not the primary targets. The aim was to dismantle terrorist infrastructure.

Pakistan's Attempted Retaliation and Indian Counter-Measures:

- On the night of May 7-8, 2025, Pakistan attempted to strike several **Indian military targets** across Northern and Western India, including locations like Awantipura, Srinagar, Jammu, Pathankot, Amritsar, and Bhuj, using **drones and missiles**.
- These attacks were successfully **neutralised by India's robust Integrated Counter Unmanned Aircraft Systems (UAS) Grid and Air Defence systems**. Debris from the downed threats has been recovered, confirming the attempted strikes.
- **Integrated Counter UAS Grid:** This is a sophisticated, multi-layered defence architecture designed to detect, track, identify, and neutralize hostile drones and missiles. It employs various technologies like radar, radio-frequency sensors, and optical cameras, and can use countermeasures such as signal jamming, GPS spoofing, or kinetic interceptors (like missiles). India's air defence

capabilities include advanced systems like the S-400, Akash, and Spyder.

India's Measured Retaliatory Strikes:

- In a swift and measured response to Pakistan's aggression, Indian forces carried out **precision strikes on Pakistani air defence radars and systems** at multiple locations.
- Reports indicate that an **air defence installation in Lahore** was among the targets successfully neutralised. Sources also suggest significant damage to Pakistan's **HQ-9 missile launch systems**, possibly due to the deployment of specialized munitions by India.
- India stated its response was **"in the same domain with the same intensity"** as Pakistan's initial actions.

Escalation along the Line of Control (LoC):

- Pakistan significantly increased **unprovoked mortar and heavy artillery shelling** across the LoC, targeting civilian areas in sectors like Kupwara, Baramulla, Uri, Poonch, Mendhar, and Rajouri in Jammu and Kashmir.
- This tragic escalation resulted in the **loss of sixteen innocent civilian lives**, including women and children.
- India was compelled to **respond with retaliatory fire** to silence Pakistani artillery and protect its citizens.

The Misinformation War:

- A prominent feature of this conflict has been an intense **misinformation and propaganda campaign** launched by Pakistan, particularly on social media.
- This involved circulating **outdated visuals, mislabelled old footage, and entirely fabricated narratives** to distort the reality on the ground and downplay the impact of India's operations.
- Examples include false claims of downing several Indian aircraft (including Rafale jets) and attacking an Indian military base in Amritsar.
- India's **Press Information Bureau (PIB) Fact Check unit** has been actively debunking these false claims, highlighting them as "Pakistan Propaganda."
- The reliance on unverified social media content by Pakistani officials, even in international interviews, has been noted, potentially undermining their credibility.

Lucknow Gets BrahMos Missile Unit, Boosting India's Defence Self-Reliance

In a major push for India's indigenous defence manufacturing capabilities, a new **BrahMos missile manufacturing unit** set to inaugurate in **Lucknow, Uttar Pradesh, on May 11**. This facility is set to produce **80 to 100 BrahMos supersonic cruise missiles annually** and is a key component of the **Uttar Pradesh Defence Industrial Corridor (UPDIC)**.
This development marks a significant step towards achieving **'Aatmanirbhar Bharat' (self-reliant India)** in the defence sector and strengthens the nation's strategic deterrence.

About the BrahMos Missile:

- **Joint Venture:** A product of **BrahMos Aerospace**, an Indo-Russian joint venture between India's **Defence Research and Development Organisation (DRDO)** and Russia's **NPO Mashinostroyeniya**. The name "BrahMos"

is derived from India's Brahmaputra river and Russia's Moskva river.

- **Supersonic Speed:** It is one of the fastest supersonic cruise missiles in the world, capable of flying at speeds of **Mach 2.8 to Mach 3.0** (nearly three times the speed of sound).
- **Capabilities:**
  - **Multi-Platform Launch:** Can be launched from land, air, sea (ships and submarines).
  - **Range:** Original range of 290 km, with newer variants having extended ranges of up to 400-500 km. Advanced versions with even longer ranges (up to 800 km) are under development. The Lucknow unit will also focus on the **BrahMos-NG (Next Generation)**, a lighter and smaller variant with enhanced stealth and an expected range of over 300 km.
  - **Precision:** Operates on a **'fire and forget' principle**, known for its high precision and ability to hit targets with accuracy.
  - **Stealth Features:** Designed with a low radar cross-section to evade enemy detection.
  - **Warhead:** Carries a conventional warhead weighing 200-300 kg.
- **Strategic Importance:** Forms a crucial part of India's tactical strike capabilities and acts as a significant deterrent.

The Lucknow Manufacturing Unit:

- **Production Capacity:** Aimed at producing **80-100 missiles per year**, including the BrahMos-NG.
- **Investment:** The unit has been established with an investment of **Rs 300 crore**.
- **Land Area:** Approximately 80 acres have been allocated for the BrahMos unit within a larger complex.
- **Employment:** Expected to generate significant direct and indirect employment opportunities (around 500 direct jobs and thousands more indirectly).

Uttar Pradesh Defence Industrial Corridor (UPDIC):

- **Vision:** The BrahMos facility is a cornerstone of the UPDIC, announced by Prime Minister Narendra Modi in 2018 during a global investors' summit.
- **Nodal Agency:** Uttar Pradesh Expressways Industrial Development Authority (UPIEDA).
- **Six Nodes:** The corridor spans six nodes: **Lucknow, Kanpur, Aligarh, Agra, Jhansi, and Chitrakoot**.
- **Objectives:**
  - To promote indigenous defence manufacturing.
  - Attract domestic and foreign investment in the defence sector.
  - Reduce reliance on defence imports.
  - Foster ancillary industries, including MSMEs.
  - Create employment and boost regional economic development.
- **Progress:**
  - Significant land allotment has been made across nodes, with the Lucknow, Kanpur, and Aligarh nodes seeing substantial allocation.
  - Investment proposals worth over **Rs 28,000 crore** (some reports suggest up to Rs 34,000 crore proposed with Rs 4,000 crore already invested) have been received for various nodes.

- o Major companies like **Bharat Dynamics Ltd., Adani Defence Systems & Technologies, and Aerolloy Technologies** are investing in the UPDIC.
- **R&D Support:** IIT Kanpur and IIT BHU (Varanasi) are roped in as centres of excellence for research and development needs.

Andhra Pradesh Waives Property Tax for Serving Defence Personnel

The **Andhra Pradesh government** has announced a significant welfare measure by deciding to **exempt serving defence personnel** from paying **property tax** on their residential houses. This move is a gesture of gratitude for their invaluable service to the nation and aims to provide them with financial relief.

Key Details of the Decision:
Based on reports regarding the announcement, including details shared by Deputy Chief Minister Pawan Kalyan:

- **Beneficiaries:** The exemption will apply to **all active/serving personnel** of the Indian **Army, Navy, and Air Force**. Some reports indicate this may also extend to personnel of central paramilitary forces.
- **Scope of Exemption:** The waiver will be applicable for **one residential house** owned by the serving personnel or their spouse, or jointly owned, specifically within **gram panchayat limits** in the state.
- **Expansion of Benefit:** This decision marks an expansion of previous property tax exemptions in the state, which were often limited to retired personnel or those serving in specific border areas.
- **Purpose:** The primary aim is to **honour the dedication and sacrifice** of defence personnel and reduce their financial burden.

Significance of the Measure:
- **Acknowledging Service:** Such initiatives play a vital role in formally acknowledging the challenging conditions under which armed forces personnel serve the country.
- **Boosting Morale:** These welfare measures contribute to boosting the morale of the soldiers and their families.
- **Tangible Financial Relief:** The exemption provides direct financial benefit to the personnel, contributing to their economic well-being.

Operation Sindoor: India Reports Major Counter-Terrorism Success

In a significant development concerning India's national security, top officials have announced the successful completion of **"Operation Sindoor,"** a major counter-terrorism operation. According to reports , the operation targeted terror hubs and resulted in substantial casualties among terrorists, along with losses to the Pakistani military. Prime Minister Narendra Modi and the Director General of Military Operations (DGMO), Lt Gen Raieev Ghai, have highlighted the bravery of the armed forces and the strategic gains from this operation.

Key Highlights of "Operation Sindoor":
- **Objective:** To decisively act against **terrorist infrastructure** and groups operating from across the border. PM Modi stated the operation was a crucial step in the fight against terrorism.
- **Execution:** The operation involved courageous actions by the Indian armed forces to achieve its objectives.

Reported Outcomes and Achievements:
- **Terrorist Casualties:** The DGMO, Lt Gen Raieev Ghai, announced that **over 100 terrorists were killed** in Pakistan at identified terror hubs during Operation Sindoor.
- **Pakistani Army Losses:** In a special briefing, the DGMO also stated that the **Pakistan Army lost 35-40 personnel** as a consequence of Indian strikes during the operation.
- **Foiled Air Attacks:** A crucial aspect of India's defensive success was the role of a **multi-layered counter-drone air defence grid shield**. The DGMO confirmed that this shield effectively foiled air attacks from Pakistan.
- **Strategic Message:** Prime Minister Modi hailed the bravery of the armed forces and issued a stern warning to terror groups, asserting that they would face dire consequences. He emphasized India's resolve in tackling terrorism.

Technological Defence Prowess:
- The success in neutralizing enemy air intrusions, particularly through drones or other aerial means, was attributed to India's sophisticated **multi-layered counter-drone air defence system**. This highlights the increasing role of advanced technology in modern warfare and defence strategies.

India Successfully Tests Indigenous 'Bhargavastra' Counter-Drone System

In a significant boost to its indigenous defence capabilities, India has successfully test-fired **'Bhargavastra'**, a domestically developed **counter-swarm drone system**. The tests, conducted in a desert in Rajasthan (some reports also mention Gopalpur, Odisha, for earlier or component tests), demonstrated the system's ability to detect, track, and neutralize hostile drones, particularly in coordinated swarm attacks.

This development is a major step towards achieving **'Aatmanirbhar Bharat' (self-reliant India)** in advanced defence technologies and addressing the evolving threats posed by unmanned aerial vehicles (UAVs) in modern warfare.

What is Bhargavastra?
- **Indigenous Counter-Drone System:** Bhargavastra is a sophisticated system designed to provide a comprehensive solution against hostile drones, especially those operating in swarms.
- **Developer:** The system has been primarily developed by **Solar Defence and Aerospace Limited (SDAL)**, a Nagpur-based private firm. Some reports also indicate collaboration or technological support from Defence Research and Development Organisation (DRDO) entities in its broader development journey.

- **Key Capabilities:**
  - **Multi-Layered Defence:** Bhargavastra employs a two-tiered "hard-kill" approach:
    - **First Layer (Anti-Swarm):** Utilizes **unguided micro-rockets** designed for saturation strikes against dense drone swarms. These rockets have a reported lethal radius of 20 meters and can neutralize targets up to 2.5 km away. The system can fire multiple rockets in a salvo (e.g., two rockets within two seconds, with some configurations potentially launching up to 64 micro-rockets).
    - **Second Layer (Precision Targeting):** Employs **precision-guided micro-missiles** for accurately engaging specific or high-value drone targets.
  - **Detection and Tracking:** The system integrates a suite of sensors:
    - **Radar:** Capable of detecting small drones at ranges of 6-10 km and larger UAVs at greater distances.
    - **Electro-Optical/Infrared (EO/IR) Sensors:** For precise tracking, identification, and targeting of drones, including those with low radar cross-sections (LRCS).
  - **Command and Control (C4I):** Features a state-of-the-art Command, Control, Communications, Computers, and Intelligence (C4I) centre, enabling real-time situational awareness and the ability to engage multiple targets (over 64 reported) simultaneously.
  - **Soft-Kill Potential:** The system is modular and can be integrated with "soft-kill" mechanisms like **RF jammers** (to disrupt communication and navigation up to 7 km) and **spoofing systems**.
  - **Mobility and Versatility:** Bhargavastra is **truck-mounted**, allowing for rapid deployment across diverse terrains, including high-altitude areas (above 5,000 meters). It is designed for use by all branches of the Indian armed forces.
  - **Network Centricity:** Engineered for seamless integration with existing network-centric warfare infrastructure.
- **Targets:** It can counter various types of aerial threats, including **First Person View (FPV) drones, reconnaissance drones, and loitering munitions (kamikaze drones).**

Understanding Drone Swarms and Their Threat:

- **Coordinated Attack:** A **drone swarm** involves multiple unmanned aerial vehicles operating collaboratively, often using artificial intelligence, to overwhelm an adversary's defences or achieve a common objective.
- **Evolving Threat:**
  - They are relatively **low-cost** compared to traditional manned aircraft or missiles.
  - Can be used for **surveillance, reconnaissance, and direct attacks** (e.g., carrying explosives).

  - Their numbers can **saturate conventional air defence systems**, making them difficult to counter effectively.
  - Pose a significant risk to **critical infrastructure, military installations, forward posts, and civilian areas.**

How Counter-Drone Systems Generally Work:

Counter-UAS (Unmanned Aerial System) technologies typically follow a kill chain:

1. **Detect:** Identifying the presence of a drone using various sensors like radar, RF scanners, acoustic sensors, or optical systems.
2. **Track:** Continuously monitoring the drone's flight path and position.
3. **Identify:** Confirming whether the detected object is indeed a hostile drone.
4. **Neutralize/Intercept:** Taking action to stop the drone. This can be:
   - **Soft Kill:** Disrupting the drone's operation without physical destruction (e.g., jamming its control signals or GPS, spoofing its navigation, cyber-attacks).
   - **Hard Kill:** Physically destroying the drone (e.g., using projectiles/guns, missiles, lasers, nets, or even other interceptor drones). Bhargavastra focuses on **hard-kill** methods with its micro-rockets and missiles, with provisions for integrating soft-kill options.

Major Blow to Maoists: 31 Cadres Killed in Karregutta Hills Operation, Says Home Minister

In a significant victory for security forces battling Left-Wing Extremism (LWE), **31 Maoists, including 16 female cadres, were eliminated** during a sustained 21-day operation in the challenging terrain of **Karregutta Hills**. This area, straddling the border of Chhattisgarh's Kanker and Bijapur districts and Maharashtra's Gadchiroli district, has long been considered a Maoist stronghold.

Union Home Minister Amit Shah lauded the operation, termed **'Operation Black Forest'** by some reports, as a "historic breakthrough" in India's resolve to achieve a "Naxal-free Bharat." He emphasized that the Karregutta Hills, once a unified headquarters for major Naxal outfits, now proudly flies the tricolour. The Home Minister also highlighted that the operation was completed **without any casualties to the security forces**, which is a testament to their bravery and meticulous planning.

Details of the Operation:

- **Location:** The operation targeted the Karregutta Hills, a rugged and forested area spanning approximately 1,200 sq km at the tri-junction of Kanker and Narayanpur districts in Chhattisgarh and Gadchiroli district in Maharashtra. This region served as a crucial operational and training base for Maoist outfits like the People's Liberation Guerrilla Army (PLGA) Battalion 1, Dandakaranya Special Zonal Committee (DKSZC), Telangana State Committee (TSC), and Central Regional Committee (CRC).

- **Duration:** The intensive operation lasted for **21 days**, commencing around April 21, 2025, and concluding in early May.
- **Forces Involved:** It was a well-coordinated joint operation involving:
  - **Central Reserve Police Force (CRPF)**, including its elite **CoBRA (Commando Battalion for Resolute Action)** units.
  - **District Reserve Guard (DRG)** of the Chhattisgarh Police.
  - **Special Task Force (STF)** of the Chhattisgarh Police.
- **Outcome:**
  - **31 Maoists neutralized**, with 28 identified so far. The eliminated cadres collectively carried rewards amounting to ₹1.72 crore.
  - Significant recovery of **35 weapons**, including SLRs and other semi-automatic firearms.
  - Destruction of **214 Maoist hideouts and bunkers**.
  - Seizure of approximately **450 Improvised Explosive Devices (IEDs)**, along with a large cache of explosives, detonators, and around 12,000 kg of ration supplies.
  - Four Maoist technical units used for manufacturing weapons and IEDs were also reportedly dismantled.
- **Intelligence-Driven:** The success of the operation is attributed to precise intelligence gathering and meticulous planning, enabling security forces to navigate the challenging terrain and preempt Maoist tactics. Despite extreme weather conditions (temperatures exceeding 45 degrees Celsius) and difficult geography, the forces maintained high morale. While there were no fatalities among security personnel, 18 were reportedly injured by IEDs but are out of danger.

Understanding Left-Wing Extremism (LWE) in India:

- **Ideology and Aims:** LWE, also known as Naxalism or Maoism, is an ideology that seeks to overthrow the existing democratic state structure through armed struggle. They often claim to fight for the rights of the landless, poor, and tribal communities.
- **Affected Regions:** While the geographical spread of LWE has significantly shrunk over the years, it continues to affect parts of Chhattisgarh, Jharkhand, Odisha, Maharashtra, Bihar, Andhra Pradesh, and Telangana. Tri-junction areas like the one targeted in Karregutta are often critical for their movement and operations.
- **Root Causes:** The problem is complex, with socio-economic factors like poverty, unemployment, land alienation, displacement, lack of access to resources, and governance deficits often cited as contributing factors.
- **Threats Posed:** LWE groups engage in violence against security forces and civilians, disrupt development projects, run extortion rackets, and attempt to establish parallel governance structures.

Government's Multi-Pronged Strategy to Counter LWE:

India has adopted a holistic approach to tackle LWE, which includes:

1. **Security Measures:**
   - Strengthening and modernizing state police forces and central armed police forces (CAPFs) like CRPF and its CoBRA units.
   - Intelligence-based, targeted operations.
   - Promoting inter-state coordination.
   - Utilizing technology for surveillance and operations.
   - The **SAMADHAN doctrine** is a key framework:
     - **S**mart leadership
     - **A**ggressive strategy
     - **M**otivation and training
     - **A**ctionable intelligence
     - **D**ashboard Based KPIs and KRAIs
     - **H**arnessing technology
     - **A**ction plan for each theatre
     - **N**o access to financing.
2. **Development Initiatives:**
   - Focused infrastructure development (roads, bridges, mobile towers) in LWE-affected areas to improve connectivity and administrative reach. Key schemes include Road Requirement Plan-I (RRP-I) and Road Connectivity Project for LWE affected areas (RCPLWE).
   - Implementation of schemes like **Special Central Assistance (SCA)** to fill critical gaps in public infrastructure and services in the most affected districts.
   - Emphasis on education (e.g., Eklavya Model Residential Schools), healthcare, and skill development.
   - Financial inclusion through opening bank branches, ATMs, and post offices.
3. **Ensuring Rights and Entitlements:**
   - Better implementation of protective legislations like the Forest Rights Act (FRA), 2006, and the Panchayats (Extension to Scheduled Areas) Act (PESA), 1996.
4. **Perception Management:**
   - Countering Maoist propaganda and winning the trust of the local population through civic action programs and ensuring transparent governance.
5. **Surrender and Rehabilitation Policies:**
   - Encouraging Maoist cadres to renounce violence and rejoin the mainstream.

Three LeT Terrorists Neutralised in "Operation Nader" in Tral, J&K

Three terrorists affiliated with the **Lashkar-e-Taiba (LeT)** outfit were neutralized by security forces in **"Operation Nader"** conducted in the Tral area of Pulwama district in South Kashmir on Thursday, May 15, 2025. The operation, based on specific intelligence inputs, was a coordinated effort by the **Indian Army, Jammu and Kashmir Police (JKP), and the Central Reserve Police Force (CRPF)**.

This successful engagement marks another step in the relentless efforts of security forces to curb terrorism in the Union Territory and came as the second major encounter in the Tral-Awantipora belt within a short span, following a similar operation in Shopian earlier in the week.

Key Details of Operation Nader:

- **Location:** The gunfight took place in the Nader area of Tral, Awantipora, in the Pulwama district, a region that has historically been a hotbed of terrorist activity.
- **Intelligence-Led:** The operation was launched following precise intelligence regarding the presence of terrorists in the area.
- **Joint Operation:** It was a classic example of seamless synergy between the Indian Army (Chinar Corps), J&K Police, and CRPF.
- **Outcome:**
  - **Three "hardcore" LeT terrorists were killed.** They were later identified as Asif Ahmed Sheikh, Amir Nazir Wani, and Yawar Ahmed Bhat.
  - A significant cache of **arms and ammunition** was recovered from the site, including **three AK-series rifles, 12 magazines, three grenades, and other war-like stores**.
- **Chronology:** Security forces established a cordon around the suspected area. When challenged, the hiding terrorists opened heavy fire on the joint search party, leading to a fierce gunfight in which the three terrorists were eliminated.

Understanding the Context: Terrorism in Jammu and Kashmir

- **Persistent Challenge:** Jammu and Kashmir has been grappling with Pakistan-sponsored terrorism for decades. Terrorist groups like Lashkar-e-Taiba (LeT), Jaish-e-Mohammed (JeM), Hizbul Mujahideen (HM), and their proxy outfits like The Resistance Front (TRF) continue to pose a threat.
- **Methods of Operation:** Terrorist tactics include attempts at infiltration across the Line of Control (LoC), attacks on security forces and civilians, targeting of political workers and minority communities, and efforts to radicalize local youth.
- **South Kashmir as a Focus Area:** Regions in South Kashmir, including Pulwama (where Tral is located) and Shopian, have often been focal points of terrorist activity due to their terrain and historical factors.

India's Multi-Pronged Counter-Terrorism Strategy in J&K:

The Indian government and security forces have adopted a comprehensive approach to counter terrorism in Jammu and Kashmir, which includes:

1. **Proactive Security Operations:** Conducting intelligence-based, targeted operations like "Operation Nader" to neutralize terrorists and dismantle their networks. This involves synergized efforts among the Army, CAPFs (like CRPF), and J&K Police.
2. **Strengthening the Security Grid:** Enhancing surveillance along the LoC and International Border to curb infiltration, and strengthening police stations and security camps.
3. **Action Against Overground Workers (OGWs):** Identifying and neutralizing the OGW network that provides logistical, financial, and ideological support to terrorist groups.
4. **Development and Outreach:** Focusing on accelerated economic development, infrastructure building, employment generation, and good governance to address grievances and win the hearts and minds of the local population.

5. **Mainstreaming the Youth:** Implementing various initiatives to engage the youth constructively and prevent them from falling prey to radicalization and terrorist propaganda.
6. **International Pressure:** Exerting diplomatic pressure on Pakistan to stop sponsoring cross-border terrorism.

Challenges in Counter-Terrorism:

Countering terrorism in J&K presents unique challenges:

- **Difficult Terrain:** The rugged, mountainous, and often densely forested terrain provides cover for terrorists and makes operations difficult.
- **Cross-Border Support:** Continued support, training, and infiltration from across the border remain major challenges.
- **Risk to Civilians:** Terrorists often hide in populated areas, necessitating extreme caution by security forces to avoid collateral damage during operations.
- **Propaganda and Misinformation:** Adversaries actively use propaganda and social media to incite violence and mislead the youth.

Akashteer: Indian Army's Indigenous "Invisible Shield" for Air Defence

The Indian Army has significantly bolstered its air defence capabilities with the induction of **'Project Akashteer'**, an indigenous **automated Air Defence Control and Reporting System (ADCRS)**. This cutting-edge system, described as an "invisible shield," is designed to enhance situational awareness and automate the entire process of detecting, tracking, and engaging aerial threats, marking a major leap in India's new-generation air defence.

Developed by **Bharat Electronics Limited (BEL)**, Akashteer aims to provide a seamless and unified network for the Army's air defence units, enabling swift and coordinated responses to hostile aircraft, drones, and missiles. The phased induction of these systems commenced in 2024, with the first batch of control centres flagged off from BEL Ghaziabad.

What is Akashteer?

- **Automated Command and Control:** Akashteer is a state-of-the-art system that digitizes and automates the air defence control and reporting processes. It moves away from manual data entry and decision-making, thereby drastically reducing reaction times.
- **Integrated Air Picture:** It integrates various sensors, including different types of radars (like Tactical Control Radar, Low-Level Lightweight Radars, and radars of the Akash Weapon System) and communication systems, into a single operational framework. This creates a comprehensive, real-time air situation picture accessible to all relevant units, from ground troops to control rooms.
- **Network-Centric Operations:** Akashteer is a crucial component of **network-centric warfare (NCW)** capabilities. It connects Army Air Defence (AAD) assets and is designed for interoperability with the Indian Air Force's **Integrated Air Command and Control System (IACCS)** and the Indian Navy's maritime domain awareness system, **Trigun**. This tri-service integration is vital for a unified response to aerial threats.

- **Indigenous Development:** The system is a product of indigenous efforts, aligning with the 'Atmanirbhar Bharat' vision in critical defence technologies. The contract for Akashteer, valued at nearly ₹2,000 crore, was signed with BEL in March 2023.

Key Features and Capabilities of Akashteer:

- **Comprehensive Sensor Fusion:** Akashteer achieves "bottoms-up" sensor fusion, integrating data from various Army Air Defence and even Air Force sensors to create a unified air picture for operational units.
- **Automated Operations for Faster Response:** By automating detection, tracking, and engagement processes, it significantly cuts down the decision-to-action loop, which is critical when dealing with high-speed aerial threats.
- **Decentralized Engagement Authority:** While providing a common operational picture, the system allows for decentralized engagement decisions at the unit level, empowering frontline commanders to react swiftly while incorporating necessary safeguards to prevent friendly fire.
- **Enhanced Situational Awareness:** Provides an unprecedented level of real-time understanding of the airspace, enabling better strategic planning and immediate tactical responses.
- **Mobility and Resilience:** The control centres are vehicle-based and mobile, designed to maintain operational capabilities even in challenging terrains and communication-disrupted environments.
- **Scalability and Future-Proofing:** Designed with software and hardware upgrade capabilities to adapt to evolving threats and technological advancements.
- **Monitoring Low-Level Airspace:** Particularly crucial for monitoring low-level airspace in battle zones, which is often exploited by enemy drones and low-flying aircraft.

India Powers Up 'AMCA' Project: Indigenous 5th-Gen Stealth Fighter Jet Takes Flight

India has formally approved the **"execution model"** for its ambitious **Advanced Medium Combat Aircraft (AMCA)** program. Defence Minister Shri Rajnath Singh announced this pivotal decision around May 27, 2025, paving the way for the development and production of India's first indigenous **fifth-generation stealth fighter jet**. This project is critical for the Indian Air Force (IAF) to maintain a technological edge in an increasingly complex geopolitical landscape, especially with adversaries like China and Pakistan bolstering their air power.

What is the AMCA Project?

The AMCA is envisioned as a **twin-engine, medium-weight, multi-role fighter aircraft** packed with cutting-edge fifth-generation technologies. It is designed to be a potent platform capable of undertaking a variety of missions, including:

- **Air superiority and air defence.**
- **Deep penetration strikes** into enemy territory.
- **Suppression of enemy air defences (SEAD).**
- **Precision ground attacks.**
- **Electronic warfare and reconnaissance.**

The project aims to place India in an elite club of nations capable of designing, developing, and manufacturing such advanced combat aircraft.

Key Features of AMCA (A True 5th-Generation Marvel):

The AMCA is being designed to incorporate a host of advanced features characteristic of fifth-generation fighter jets:

- **Stealth Technology:** This is a cornerstone of the AMCA design. It will feature a **stealthy airframe shape (serpentine air intakes, internal weapons bay)** and will use **radar-absorbent materials** to significantly reduce its radar cross-section (RCS), making it very difficult for enemy radars to detect and track.
- **Supercruise Capability:** The ability to sustain **supersonic flight (fly faster than the speed of sound) without using fuel-guzzling afterburners**, allowing for greater range, faster engagement, and energy conservation.
- **Advanced Avionics and Sensor Fusion:** Equipped with a state-of-the-art **Active Electronically Scanned Array (AESA) radar**, advanced electronic warfare (EW) suites, an electro-optical targeting system (EOTS), and **sensor fusion** technology. Sensor fusion will integrate data from various onboard and offboard sensors to provide the pilot with a comprehensive and unified situational awareness.
- **Network-Centric Warfare Capabilities:** Designed to operate in a networked environment, sharing data seamlessly with other friendly aircraft, ground stations, and unmanned systems.
- **Internal Weapons Bay:** To maintain its stealth profile, the AMCA will carry its primary weapons (missiles and bombs) inside an **internal weapons bay**. It will also have external hardpoints for carrying additional ordnance when stealth is not a primary concern.
- **AI-Assisted Operations:** Artificial Intelligence will be integrated for advanced decision-making support for the pilot and for managing complex mission systems.
- **Manned-Unmanned Teaming (MUM-T):** The AMCA is expected to have the capability to operate in conjunction with and control unmanned aerial vehicles (UAVs) or "loyal wingmen."

Development and Timeline:

- **Lead Agencies:**
    - The **Aeronautical Development Agency (ADA)**, under the **Defence Research and Development Organisation (DRDO)**, is the nodal agency for designing and developing the AMCA.
    - **Hindustan Aeronautics Limited (HAL)** is expected to be the lead integrator and manufacturer, with significant participation from India's private sector.
- **Execution Model:** The recently approved "execution model" emphasizes a **competitive framework**, allowing both public and private Indian companies to bid for various aspects of the project, either independently or as joint ventures/consortia. This is intended to foster a robust domestic aerospace ecosystem.
- **Funding:** The Cabinet Committee on Security (CCS) had approved the project in March 2024, with an initial allocation of around **₹15,000 crore** for the design and development of prototypes.

- **Phased Development:**
  - **AMCA Mk1:** The initial version will be powered by the US-made **General Electric F-414 engine** (which will also power the Tejas Mk2 and be license-produced in India by HAL).
  - **AMCA Mk2:** This more advanced version is planned to be equipped with a **more powerful indigenous engine**, expected to be co-developed with an international partner (France's Safran and UK's Rolls-Royce are potential collaborators). The Mk2 will also feature enhanced stealth and potentially 5.5 or 6th-generation technologies.
- **Projected Timelines (Indicative):**
  - Rollout of the first prototype: Around 2027-2028.
  - First flight: Approximately 2028-2029.
  - Induction into the IAF: Expected to begin around 2035. (Timelines for such complex projects are challenging and subject to revisions).
  - The IAF is expected to induct at least seven squadrons (around 120-140 aircraft) of the AMCA.

  The AMCA project is not just about building a fighter jet; it's about creating an entire ecosystem for advanced aerospace research, development, and manufacturing in India.

Fighter Jet Generations:

- **1st Gen (Late 1940s-Early 1950s):** Subsonic, basic avionics (e.g., MiG-15, F-86 Sabre).
- **2nd Gen (Mid 1950s-Early 1960s):** Supersonic capability, early air-to-air missiles, basic radar (e.g., MiG-21, F-104 Starfighter).
- **3rd Gen (Mid 1960s-1970s):** Improved avionics, multi-role capabilities, more advanced missiles (e.g., MiG-23, Mirage III).
- **4th Gen (1970s-1990s):** Fly-by-wire, pulse-Doppler radars, look-down/shoot-down capability, high maneuverability (e.g., Su-30MKI, Mirage 2000, F-16).
- **4.5 Gen (1990s-2000s):** Advanced avionics, AESA radar, some stealth features, data links (e.g., Rafale, Eurofighter Typhoon, Tejas Mk1A).
- **5th Gen (2005-Present):** All-aspect stealth, supercruise, high-integrated avionics (sensor fusion), network-centric capabilities (e.g., F-22 Raptor, F-35 Lightning II, Su-57, J-20).
- **6th Gen (Under Development):** Expected to feature optionally manned capabilities, advanced AI, hypersonic weapons, directed energy weapons, enhanced stealth, and cyber warfare capabilities.

DRDO Boosts India's Defence with New Quantum Tech Centre

In a significant step towards Aatmanirbhar Bharat (self-reliant India) in defence technologies, the **Defence Research and Development Organisation (DRDO)** has inaugurated a new **Quantum Technology Research Centre (QTRC)** at Metcalfe House in Delhi. The facility, inaugurated on May 27, 2025, by Dr. Samir V Kamat, Secretary, Department of Defence R&D and Chairman, DRDO, aims to accelerate indigenous research and development in the critical domain of quantum technology for strategic and defence applications.

This move is expected to strengthen India's capabilities in **secure communication, quantum sensing, post-quantum cryptography, and precision timekeeping**, all of which are vital for modern warfare and national security.

Key Highlights of the Quantum Technology Research Centre (QTRC):

- **Focus Areas:** The QTRC will concentrate on developing cutting-edge quantum technologies with direct defence and strategic implications.
- **Advanced Infrastructure:** The centre is equipped with state-of-the-art experimental setups. This includes:
  - Characterisation tools for **Vertical-Cavity Surface-Emitting Lasers (VCSELs)** and **Distributed Feedback (DFB) Lasers**, which are crucial components in quantum communication and sensing.
  - Testbeds for evaluating **single-photon sources**, essential for secure quantum communication.
  - Setups for characterising **Micro Fabricated Alkali Vapor Cells**, used in highly sensitive magnetometers and atomic clocks.
  - Experimental platforms to develop and validate **Quantum Key Distribution (QKD)** techniques, ensuring ultra-secure communication channels.
- **Indigenous Development:** The research efforts will be spearheaded by DRDO's **Scientific Analysis Group (SAG)** and the **Solid State Physics Laboratory (SSPL)**.
- **Specific Technologies under Development:**
  - An **Ultra-Small Atomic Clock** based on Coherent Population Trapping, designed for precise timekeeping even in environments where Global Navigation Satellite Systems (GNSS) are denied (e.g., GPS-denied zones).
  - An **Atomic Magnetometer** leveraging optically pumped magnetometry for highly sensitive detection of magnetic fields, useful in areas like submarine detection and medical diagnostics.
  - Development of cutting-edge **solid-state quantum devices and materials**.

What is Quantum Technology?

Simply put, quantum technology leverages the principles of **quantum mechanics**, the physics of sub-atomic particles, to create new kinds of devices and applications. Unlike classical physics which describes the macroscopic world, quantum mechanics deals with the strange and wonderful behaviour of matter and energy at the atomic and subatomic levels. Key quantum phenomena exploited include:

- **Superposition:** Quantum particles (like electrons or photons) can exist in multiple states simultaneously (e.g., both 0 and 1 at the same time, in the case of a quantum bit or 'qubit'). This allows quantum computers to perform many calculations at once.
- **Entanglement:** Two or more quantum particles can become linked in such a way that their fates are intertwined, regardless of the distance separating them. Measuring the state of one particle instantly influences the state of the other(s). This is key for quantum communication and computation.

Applications of Quantum Technology:

- **Quantum Computing:** Developing computers that can solve complex problems currently intractable for even the most powerful supercomputers. This has implications for drug discovery, materials science, financial modelling, and cryptography.
- **Quantum Communication:** Creating ultra-secure communication networks.
- **Quantum Sensing and Metrology:** Building highly sensitive sensors for precise measurements of time, gravity, magnetic fields, etc.
- **Quantum Materials:** Designing and discovering new materials with unique quantum properties.

Unified Command: Centre Activates Inter-Services Organisations Act with New Rules

In a major reform aimed at strengthening **jointness, integration, and operational efficiency** within the Indian Armed Forces, the Central Government has notified the rules under the **Inter-Services Organisations (Command, Control and Discipline) Act, 2023**. This significant development paves the way for more effective command and control within organisations that comprise personnel from the Army, Navy, and Air Force.

This move is seen as a crucial step towards the eventual creation of **Integrated Theatre Commands,** a long-pending defence reform.

Notified Rules and the Act:

- **Empowering Commanders of Inter-Services Organisations (ISOs):** The **Commanders-in-Chief and Officers-in-Command** of ISOs are now legally empowered to exercise full disciplinary and administrative powers over all personnel serving under them, irrespective of which service (Army, Navy, or Air Force) they belong to.
  - Previously, officers from one service did not have disciplinary powers over personnel from another service within an ISO. This often led to delays and complexities in maintaining discipline and operational control.
- **Streamlined Disciplinary Action:** The new rules will enable the **expeditious disposal of disciplinary cases** and help avoid the duplication of proceedings, as personnel will now be governed by the rules of the ISO they are serving in for disciplinary matters, under the command of the ISO head.
- **Maintaining Unique Service Conditions:** Importantly, the Act and the notified rules achieve this enhanced joint command and control **without altering the unique service conditions, pay, and allowances** applicable to personnel of each of the three services (Army Act 1950, Navy Act 1957, and Air Force Act 1950).
- **Clear Chain of Command:** The rules establish a comprehensive framework for discipline, administrative control, and operational synergy. They also clarify the line of command in the absence of the designated Commander-in-Chief or Officer-in-Command of an ISO.
- **Legal Backing for Existing and Future ISOs:** The Act provides a legal framework for existing ISOs such as the **Andaman and Nicobar Command (ANC)**, the **Defence Space Agency**, and the **National Defence Academy (NDA)**. It also allows the Central Government to constitute new ISOs as needed.
- **Act's Journey:** The Inter-Services Organisations (Command, Control and Discipline) Bill was passed by both Houses of Parliament during the Monsoon Session of 2023. It received the President's assent on August 15, 2023, and the Act came into force on May 10, 2024. The ISOs themselves were notified on December 27, 2024. The notification of these rules marks the final step in making the Act fully operational.

What are Inter-Services Organisations (ISOs)?

- ISOs are military bodies or formations that consist of personnel drawn from **at least two of the three services**: the Indian Army, the Indian Navy, and the Indian Air Force.
- They are created to achieve **synergy and jointness** in specific operational, training, logistical, or support functions.
- Examples include:
  - **Andaman and Nicobar Command (ANC):** India's first and currently only tri-service theatre command.
  - **Defence Space Agency:** Tasked with developing capabilities to protect India's interests in outer space.
  - **Defence Cyber Agency:** Focused on cyber warfare.
  - **National Defence Academy (NDA):** A premier joint training institution.
  - **Strategic Forces Command (SFC):** Manages the country's nuclear arsenal.

What are Integrated Theatre Commands?

- An Integrated Theatre Command (ITC) is a unified command under which all resources of the Army, Navy, and Air Force in a specific **geographical theatre of operations** are placed under a single commander.
- This commander is responsible for all military operations within that theatre.
- The aim is to ensure a **cohesive and well-coordinated response** to any security challenge, leveraging the strengths of all three services optimally.
- India has been moving towards the creation of ITCs to enhance its war-fighting capabilities and resource optimization. The creation of the post of **Chief of Defence Staff (CDS)** was a major step in this direction.

Boost to Defence Production: Three DPSUs Accorded Miniratna Status

In a significant move to enhance operational efficiency and autonomy within India's defence manufacturing sector, **Defence Minister Rajnath Singh** has approved the grant of **Miniratna (Category-I) status** to three Defence Public Sector Undertakings (DPSUs). The newly designated Miniratna firms are:

- **Munitions India Limited (MIL), Pune**
- **Armoured Vehicles Nigam Limited (AVNL), Chennai**
- **Advanced Weapons and Equipment India Limited (AWEIL), Kanpur**

These three companies were among the seven DPSUs formed as part of the historic corporatization of the erstwhile **Ordnance Factory Board (OFB)**, which came into effect on October 1, 2021. The grant of Miniratna status is expected to provide these entities with greater financial and operational freedom, empowering them to make quicker decisions, form joint ventures, and set up subsidiary companies, thereby accelerating their growth and contribution to India's defence self-reliance.

Key Highlights:

- **Enhanced Autonomy:** The Miniratna status will provide these DPSUs with enhanced delegation of financial powers to incur capital expenditure without prior government approval up to a certain limit.
- **Improved Performance:** The Defence Ministry noted that these companies have shown positive growth and performance since their corporatization from the OFB structure. The Miniratna status is a recognition of their potential and performance.
- **Strategic Importance:** All three PSUs are crucial for the production of ammunition, armoured vehicles, and weaponry for the Indian Armed Forces, playing a vital role in the **Aatmanirbhar Bharat** (self-reliant India) initiative in the defence sector.
- **Post-Corporatization Success:** The transformation from a departmental setup (OFB) to corporate entities was aimed at improving efficiency, accountability, and competitiveness. The grant of Miniratna status within a few years of their formation underscores the positive impact of this reform.

Understanding 'Ratna' Status for PSUs:

The Indian government grants 'Ratna' status (Maharatna, Navratna, and Miniratna) to select **Central Public Sector Enterprises (CPSEs)** based on their operational and financial performance. This status accords them greater autonomy to compete in the global market.

- **Miniratna Status:** This category is further divided into Category-I and Category-II.
  - **Miniratna Category-I:** To be eligible, a CPSE should have made a profit in the last three years continuously, with a pre-tax profit of ₹30 crore or more in at least one of these three years, and have a positive net worth.
    - **Benefits for Category-I:** They can incur capital expenditure on new projects, modernization, purchase of equipment, etc., without government approval up to ₹500 crore or equal to their net worth, whichever is lower. They can also enter into joint ventures, set up subsidiaries, and overseas offices subject to certain conditions.
  - **Miniratna Category-II:** To be eligible, a CPSE should have made a profit for the last three years continuously and should have a positive net worth.
    - **Benefits for Category-II:** They have autonomy to incur capital expenditure without government approval up to ₹300 crore or up to 50% of their net worth, whichever is lower.

- **Navratna Status:** Granted to Miniratna Category-I, Schedule 'A' CPSEs that have obtained an 'excellent' or 'very good' MoU rating in three of the last five years and have a composite score of 60 or above in six selected performance parameters. Navratnas have even greater financial autonomy.
- **Maharatna Status:** The highest status, granted to Navratna CPSEs that meet more stringent criteria related to turnover, net worth, and net profit, and are listed on Indian stock exchanges. Maharatnas have the most extensive financial and operational autonomy.

Brief Profiles of the Newly Designated Miniratna DPSUs:

These three DPSUs were carved out of the Ordnance Factory Board in 2021:

1. **Munitions India Limited (MIL):**
   - **Headquarters:** Pune, Maharashtra.
   - **Products:** Manufactures a wide range of ammunition (small, medium, and high calibre), mortars, rockets, hand grenades, and explosives for the armed forces and paramilitary forces. It plays a critical role in ensuring the ammunition security of the nation.
2. **Armoured Vehicles Nigam Limited (AVNL):**
   - **Headquarters:** Chennai, Tamil Nadu.
   - **Products:** Engaged in the manufacturing of armoured fighting vehicles (AFVs) like tanks (e.g., T-90, T-72, Arjun), infantry combat vehicles (ICVs), and their variants, along with engines and other sub-systems. It is central to India's land warfare capabilities.
3. **Advanced Weapons and Equipment India Limited (AWEIL):**
   - **Headquarters:** Kanpur, Uttar Pradesh.
   - **Products:** Specializes in the production of small arms, artillery guns, naval guns, and other weapon systems for the Indian Armed Forces, police forces, and for export markets.

The Corporatization of Ordnance Factory Board (OFB):

- The OFB, with its origins dating back over 200 years, was a departmentally run organization under the Ministry of Defence.
- In **October 2021**, the 41 ordnance factories under OFB were restructured and corporatized into **seven new 100% government-owned DPSUs** to improve autonomy, accountability, efficiency, and competitiveness.
- The seven new DPSUs are:
  1. Munitions India Limited (MIL)
  2. Armoured Vehicles Nigam Limited (AVNL)
  3. Advanced Weapons and Equipment India Limited (AWEIL)
  4. Troop Comforts Limited (TCL)
  5. Yantra India Limited (YIL)
  6. India Optel Limited (IOL)
  7. Gliders India Limited (GIL)

Important Days

International Labour Day: History, Significance, and India

What is it?

International Labour Day, also known as May Day or International Workers' Day, is celebrated globally on May 1st every year.

- **Purpose:** The day honours the contributions of the **working class** and promotes their **rights**. It serves as a reminder of the historical struggles workers faced to secure better **working conditions**, **fair wages**, and social justice.
- It's a platform to raise awareness about ongoing labour issues and advocate for workers' welfare.

Historical Background:

- **Origins:** The day traces its roots back to the **19th-century labour union movement** in the United States. During industrialisation, workers often faced harsh conditions, including working up to 15 hours a day.
- **The 8-Hour Day Movement:** Workers began demanding an **eight-hour workday**. A major turning point was a nationwide strike that began on May 1, 1886, in the US.
- **Haymarket Affair (Chicago, 1886):** A peaceful rally in Chicago's Haymarket Square on May 4, 1886, held in support of the 8-hour day strike, turned violent when a **bomb** was thrown at the police. This tragic event, which led to deaths on both sides, became a powerful symbol of the workers' rights struggle.
- **Formal Recognition:** In 1889, the **Second International**, a global federation of socialist and labour parties, declared May 1st as International Workers' Day to commemorate the Haymarket Affair1 and support the struggle for workers' rights, particularly the eight-hour workday.

International Labour Day in India:

- **First Celebration:** India observed its first Labour Day (**May Day**) on **May 1, 1923**, in **Chennai** (then Madras).
- **Key Organiser:** The celebration was organised by **Malayapuram Singaravelu Chettiar**, a prominent communist and labour leader, under the banner of the **Labour Kisan Party of Hindustan**.
- **First Use of Red Flag:** This event also marked the **first time the red flag**, a symbol associated with the labour movement, was used in India.
- **Holiday Status:** May 1st is a **public holiday** in many Indian states and for various services like banks, government offices, and schools in those regions. It coincides with **Maharashtra Day** and **Gujarat Day**.
- **Regional Names:** In India, it's also known by various names like **Kamgar Din** (Hindi), **Kamgar Divas** (Marathi), **Thozhilali Dinam** (Malayalam), **Uzhaipalar Dhinam** (Tamil), and **Shromik Dibosh** (Bengali).

Key Facts:

- **Date:** May 1st

- **Origin Event:** Commemorates the **Haymarket Affair** (Chicago, 1886) and the struggle for an 8-hour workday.
- **First Indian Celebration:** May 1, 1923, in Chennai by the **Labour Kisan Party of Hindustan** led by **M. Singaravelu Chettiar**.
- **Global Observance:** Celebrated in over 80 countries (though the US and Canada observe Labour Day in September).
- **Core Issues:** Workers' rights, fair wages, safe conditions, social justice.

Understanding World Press Freedom Day 2025: A Key Pillar of Democracy

Every year on **May 3**, the world observes **World Press Freedom Day**. This day is crucial for reminding everyone, especially in democracies like India, about the vital role media plays in keeping the public informed and holding power accountable.

Why is this day important?

- **Recognising Media's Role:** The media is often called the fourth pillar of democracy (after the Legislature, Executive, and Judiciary). A free and independent press is essential for a healthy democratic society.
- **Highlighting Challenges:** The day brings attention to the many difficulties journalists face globally, including threats, harassment, violence, censorship, and even loss of life, just for doing their job of reporting the truth.
- **Promoting Transparency and Accountability:** A free press ensures that information flows freely, helping citizens make informed decisions and keeping governments and other institutions transparent and accountable.

History and Background:

- **Origin:** World Press Freedom Day was proclaimed by the **United Nations General Assembly** in 1993.
- **Inspiration:** This followed a recommendation from the **UNESCO** General Conference in 1991. The date, May 3, was specifically chosen to commemorate the **Windhoek Declaration**.
- **Windhoek Declaration (1991):** This landmark declaration was adopted by African journalists in Windhoek, Namibia. It strongly emphasised the need for a **free, independent, and pluralistic press** as a cornerstone for the development and maintenance of democracy.

Key Aspects:

- **Freedom of Expression (Article 19):** The concept of press freedom is closely linked to the fundamental right to freedom of speech and expression. In India, this is guaranteed under **Article 19(1)(a)** of the Constitution. While press freedom is not explicitly mentioned as a separate right, it is considered implicit in the freedom of speech and expression. Understanding the reasonable restrictions under Article 19(2) is also important.
- **Role in Governance:** A free press acts as a watchdog, exposing corruption, inefficiencies, and human rights violations, which is crucial for good governance.

Theme for 2025:

- The theme for World Press Freedom Day 2025 was **"Reporting in the Brave New World – The Impact Of Artificial Intelligence On Press Freedom And The Media."**
- This theme highlights how new technologies like AI are changing journalism, presenting both opportunities (e.g., for data analysis) and risks (e.g., spreading fake news, algorithmic bias, potential for increased surveillance). It underscores the need to ensure technology supports, rather than undermines, press freedom and democratic discourse.

World Asthma Day 2025: Focusing on Accessible Inhaled Treatments for All

World Asthma Day is observed globally every year on the **second Tuesday of May**. In 2025, it falls on **May 6th**. The day is dedicated to raising awareness about asthma, a long-term respiratory condition that affects millions worldwide, and highlighting the need for better care and control. The **theme for World Asthma Day 2025**, chosen by the **Global Initiative for Asthma (GINA)**, is "**Make inhaled treatments accessible for ALL**". This theme underscores the critical importance of ensuring that everyone diagnosed with asthma has access to essential inhaled medications. These medications are vital for both managing the disease daily and treating sudden asthma attacks.

Understanding Asthma:

- Asthma is a **chronic (long-term) respiratory disease**.
- It causes **inflammation and narrowing of the airways** in the lungs.
- The airways can also swell and produce **extra mucus**.
- This makes it **difficult to breathe**, leading to symptoms like **wheezing, coughing, chest tightness, and shortness of breath**.
- While asthma is manageable with proper treatment, it can significantly impact quality of life and can even be fatal if not controlled.

Global Burden of Asthma:

- According to the World Health Organisation (WHO) and GINA, asthma affects **over 260 million people globally**.
- In 2019 alone, asthma was responsible for an estimated **455,000 deaths** worldwide.
- A significant portion of these deaths are preventable with proper management and access to treatment.
- Asthma is one of the most common **chronic non-communicable diseases (NCDs)**.

History and Significance of World Asthma Day:

- The **first World Asthma Day** was observed in **1998**.
- It was an initiative by the **Global Initiative for Asthma (GINA)** in conjunction with the first World Asthma Meeting in Barcelona, Spain, and was celebrated in over 35 countries.
- Since then, participation has grown significantly, making it one of the most important global asthma awareness and education events.
- **Significance of the Day:**
  - **Raises public awareness** about asthma, its triggers, prevention, and management.

  - **Advocates for better government and healthcare policies** to improve access to essential asthma medicines and care.
  - **Promotes community engagement** through various activities like free screening clinics, educational programs in schools, and awareness campaigns.
  - **Empowers patients** with knowledge to manage their condition effectively.

The 2025 Theme: "Make Inhaled Treatments Accessible for ALL"

This year's theme is particularly relevant as access to essential inhaled medicines remains a major challenge globally:

- **Inhaled corticosteroids (ICS)** are crucial for controlling the underlying inflammation in asthma and preventing attacks.
- **Reliever medications** are necessary for treating acute asthma attacks.
- **Disparities in Access:**
  - In **low- and middle-income countries (LMICs)**, the lack of availability or high cost of inhaled medicines (especially ICS-containing inhalers) is a major factor contributing to the high burden of asthma-related deaths. GINA notes that **96% of global asthma deaths occur in these countries**.
  - Even in **high-income countries**, high costs can limit access for many individuals, leading to poorly controlled asthma and preventable deaths.
- **Call to Action:** GINA calls upon **policymakers, governments, healthcare payers, pharmaceutical manufacturers, and suppliers** to increase efforts to make these essential inhaled treatments available and affordable for everyone with asthma, irrespective of their geographical location or socio-economic status.

Relevance for India:

- India faces a significant burden of asthma and other chronic respiratory diseases. Studies have indicated that India contributes substantially to global asthma cases and deaths.
- Challenges in India include underdiagnosis, inappropriate treatment, lack of awareness, social stigma associated with asthma and inhaler use, and issues with accessibility and affordability of sustained medication.
- The theme of accessible treatment is crucial for India to reduce its asthma-related morbidity and mortality, aligning with national health goals to tackle NCDs.

Celebrating Fitness and Youth: World Athletics Day 2025

World Athletics Day was observed globally on **May 7, 2025**, to promote the importance of sports and athletics, particularly among young people. This annual event encourages active participation in athletic activities, highlighting their positive impact on both **physical and mental health** and instilling values like discipline and perseverance.

A Glimpse into its History:

- The concept of World Athletics Day was introduced in **1996** by the **International Amateur Athletic Federation (IAAF)**, which is now known as **World Athletics**.
- The IAAF itself was founded on July 17, 1912, in Stockholm, Sweden. It was officially rebranded as **World Athletics** in 2019.
- The inaugural World Athletics Day was celebrated on May 15, 1996, under the initiative of the late **Primo Nebiolo**, who was the President of the IAAF at the time.
- Today, **May 7** is consistently observed each year as World Athletics Day.

Why World Athletics Day is Significant:

- **Promoting Youth Participation:** A primary goal is to encourage **children and young people** to take up athletics and make sports a part of their daily lives.
- **Health Benefits:** The day emphasizes how sports contribute to a **healthy lifestyle**, combating issues like obesity and inactivity, especially in an increasingly digital world.
- **Holistic Development:** Athletics, encompassing track and field events like running, jumping, and throwing, helps in building **strength, stamina, discipline, and teamwork skills**.
- **Inclusivity and Accessibility:** It aims to highlight sports as a universally accessible activity, promoting **inclusivity and diversity**, regardless of an individual's background or abilities.
- **"Athletics for a Better World":** The day is part of a broader vision by World Athletics to use sports as a tool for positive social change.

Key Facts about World Athletics Day:

- It was established in 1996 by World Athletics (formerly IAAF).
- The day is dedicated to promoting athletics and its numerous benefits.
- It encourages sports participation among individuals of all ages and skill levels.
- It serves as a reminder of the importance of an active lifestyle for overall well-being.

World Red Cross Day: A Tribute to Humanity and Selfless Service

World Red Cross and Red Crescent Day is observed globally on **May 8th** each year. This day serves as a powerful reminder of the spirit of compassion and commemorates the dedication of millions of volunteers and staff who provide humanitarian aid worldwide.

Significance:

- The date, **May 8th**, marks the birth anniversary of **Henry Dunant**, the visionary founder of the **International Committee of the Red Cross (ICRC)**. Dunant was also the recipient of the **first Nobel Peace Prize in 1901**.
- The day honours the incredible efforts of volunteers who work tirelessly during disasters, conflicts, and in hard-to-reach areas, assisting and protecting vulnerable populations.
- It aims to promote the humanitarian beliefs and activities of the **Red Cross and Red Crescent Movement**, one of the world's largest humanitarian networks.

Theme for 2025:

- The theme for this year is **'Keeping Humanity Alive'**.
- This theme aptly honours individuals who dedicate their time, energy, and sometimes their lives, to alleviate the suffering of others and protect their inherent human dignity, often in the face of grave danger.
- It also serves as a sombre acknowledgment of the enormous risks faced by humanitarian workers. The **International Federation of Red Cross and Red Crescent Societies (IFRC)** reported that since September 2023, **28 Red Cross and Red Crescent staff members and volunteers have lost their lives** in the line of duty.

Historical Background:

- The inspiration for the Red Cross movement came to Henry Dunant after he witnessed the aftermath of the **Battle of Solferino in 1859**, a brutal conflict with a massive number of casualties. He documented his experiences in his book, **"A Memory of Solferino."**
- The idea for an annual observance gained traction after **World War I**, recognizing the immense peace-promoting efforts of the Red Cross. The **"Red Cross Truce"** report at the 15th International Conference in Tokyo (1934) outlined principles for protecting the wounded during wartime.
- The day was officially established after **World War II**, with the first official celebration in 1948.
- In **1984**, the name was officially changed to **'World Red Cross and Red Crescent Day'** to be more inclusive of national societies using the Red Crescent emblem.

Motto:

- The movement's motto, **'Per Humanitatem ad Pacem,'** translates from Latin to **'With humanity, towards peace,'** encapsulating its core mission.
- **The Seven Fundamental Principles of the Red Cross and Red Crescent Movement:** These principles are the bedrock of the movement's operations and are crucial from an exam perspective:
  1. **Humanity:** The primary aim is to protect life and health and ensure respect for every human being. It fosters mutual understanding, friendship, cooperation, and lasting peace amongst all peoples.
  2. **Impartiality:** Aid is provided without discrimination based on nationality, race, religious beliefs, class, or political opinions. Efforts are focused on individuals solely based on their needs, with priority given to the most urgent cases of distress.
  3. **Neutrality:** To maintain the trust of all, the Movement does not take sides in hostilities or engage at any time in controversies of a political, racial, religious, or ideological nature.
  4. **Independence:** The Movement is independent. National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that

they may be able at all times to act in accordance with the principles of the Movement. **Voluntary Service:** It is a voluntary relief movement not prompted in any manner by desire for gain.

5. **Unity:** There can be only one Red Cross or one Red Crescent Society in any one country. It must be open to all and carry on its humanitarian work throughout its territory.

6. **Universality:** The Red Cross and Red Crescent Movement, in which all Societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.

Understanding Thalassemia: World Thalassemia Day 2025 Highlights

World Thalassemia Day is observed globally every year on **May 8th**. The day is dedicated to raising public awareness about **Thalassemia**, an inherited blood disorder, and to show support for patients and their families.

What is Thalassemia?

- Thalassemia is a **genetic blood disorder** passed from parents to children through genes.
- In this condition, the body produces an **insufficient amount of hemoglobin**, the protein in red blood cells responsible for carrying oxygen.
- This deficiency leads to **anemia** (lack of healthy red blood cells or hemoglobin), causing fatigue, weakness, and in severe cases, organ complications and life-threatening conditions if not managed properly.
- Regular medical care, often including **blood transfusions** and **iron chelation therapy** (to remove excess iron from the blood due to frequent transfusions), is crucial for managing severe forms of Thalassemia.
- The disorder is most common in regions like the **Mediterranean, South Asia (including India), the Middle East, and Africa**.

World Thalassemia Day 2025: Key Focus

- **Date of Observance:** May 8, 2025.
- **Themes for 2025:**
  - *"Together for Thalassemia: Uniting Communities, Prioritising Patients."* This theme highlights the importance of community collaboration in raising awareness and fostering community-led efforts to improve care, treatment, and support for those affected.
- **Significance of the Day:**
  - To **increase public knowledge** about Thalassemia, its symptoms, and the importance of prevention.
  - To **support individuals and families** affected by this lifelong condition.
  - To **advocate for better healthcare policies**, improved treatment facilities, and robust public health strategies.
  - To promote **early detection through screening and genetic counseling**, which can help reduce the global burden of the disease.

  - According to the **World Health Organisation (WHO)**, haemoglobinopathies, which include Thalassemia and sickle-cell anemia, are common inherited disorders.
  - Approximately **5% of the global population are carriers** of a potentially pathological haemoglobin gene, and each year, around **300,000 infants are born** with these conditions, predominantly sickle-cell anemia.

- **Origin and History:**
  - World Thalassemia Day was established in **1994** by the **Thalassaemia International Federation (TIF)**.
  - It was initiated in memory of **George Englezos**, the son of TIF founder **Panos Englezos**, who succumbed to the disease.
  - Since its inception, the day has evolved into a global call to action, with activities like educational seminars, blood donation drives, and awareness campaigns.

Broader Implications for Public Health:

- **Genetic Counseling and Screening:** Awareness days like this underscore the importance of genetic counseling for couples, especially in regions with a higher prevalence of Thalassemia carriers, to understand the risks and make informed decisions. Prenatal screening can also help in early diagnosis.
- **Blood Safety and Availability:** Patients with severe Thalassemia require regular blood transfusions. This highlights the critical need for safe and adequate blood supplies through voluntary blood donation.
- **Healthcare Infrastructure:** Managing Thalassemia requires a multidisciplinary approach involving hematologists, pediatricians, cardiologists, and other specialists, emphasizing the need for strong healthcare infrastructure.
- **Research and Development:** Continuous research for better treatment options, including gene therapy, offers hope for improving the quality of life and potentially finding a cure for Thalassemia.

World Lupus Day 2025: Making the "Invisible Disease" Visible

World Lupus Day was observed globally on **May 10, 2025**, to raise awareness about **Lupus**, a complex and often misunderstood autoimmune disease. The theme for this year, **"Let's Make Lupus Visible Together,"** calls for increased public understanding, support for patients, and more funding for research into this challenging condition.

This day serves as a reminder of the need for greater awareness among the public and healthcare communities, especially in countries like India where a significant number of people are affected.

What is Lupus?

- Lupus is a **chronic autoimmune disease**. In this condition, the body's **immune system**, which normally fights infections, mistakenly attacks its own healthy tissues and organs.

- This attack can cause **inflammation, pain, and damage** to various parts of the body, including joints, skin, kidneys, heart, lungs, and brain.
- There are different types of lupus, with **Systemic Lupus Erythematosus (SLE)** being the most common and serious form. Other types include cutaneous (skin) lupus, drug-induced lupus, and neonatal lupus.

Why is it called an "Invisible Disease"?

- Lupus symptoms can be vague, **fluctuate over time (flare-ups and remissions)**, and often **mimic those of other illnesses** (like fever, joint pain, fatigue, skin rashes).
- This can lead to **delayed diagnosis or misdiagnosis**, making it an "invisible" struggle for many patients.

Key Facts and Figures:

- **Global Impact:** An estimated **5 million (50 lakh) people worldwide** suffer from lupus, with around 68% (34 lakh) having SLE.
- **Who is Affected?** Lupus can affect anyone, but it is most commonly diagnosed in people aged **15 to 44 years**.
- **Gender Disparity: Females are more frequently affected than males**. This is thought to be linked to hormones like **oestrogen**, which can modulate the immune system.
- **Low Public Awareness:** Surveys show a significant lack of public knowledge about lupus, its symptoms, and complications. For example, a 2016 global survey found many were unaware of its impact on joints or even what the disease is, with some wrongly believing it to be an STD or a bacterial infection.

Lupus in India:

- While precise nationwide data may be limited, lupus is a significant health concern in India, affecting a considerable number of people, particularly young women.
- Low awareness, delayed diagnosis, and access to specialised care remain challenges.

History of World Lupus Day:

- Established in **2004 by Lupus Canada** and partner organisations from 12 other countries.
- The aim was to urge governments to increase funding for research, improve patient services, gather more data on lupus incidence, and raise public awareness.

Managing and Controlling Lupus:

- While there is **no cure for lupus**, its symptoms can usually be managed with **early detection and careful medical attention**.
- Treatment focuses on controlling symptoms, preventing flare-ups, and minimising organ damage.
- Lifestyle adjustments play a crucial role:
  - Adhering to prescribed medications (often immunosuppressants, steroids, and pain relievers).
  - Regular exercise.
  - Avoiding smoking and excessive alcohol.
  - Using sun protection (as UV light can trigger flares).
  - Ensuring adequate sleep and rest.
  - Managing stress.

India Marks National Technology Day 2025 with "YANTRA" Theme

India celebrated **National Technology Day** on **May 11, 2025**, a day that stands as a testament to the country's remarkable achievements in science and technology. This year, the day was observed with the theme **"YANTRA – Yugantar for Advancing New Technology, Research & Acceleration"**. "YANTRA" in this context symbolizes the power of systems, collaborative efforts, and scalable technological solutions, while "Yugantar" highlights India's transformative journey towards becoming a global technology leader.

This significant day is observed every year to remember the historic milestones achieved by Indian scientists and engineers, shaping the nation's technological prowess.

Key Historical Milestones of May 11th:

The choice of May 11th as National Technology Day is linked to several momentous events that took place on this date in **1998**:

- **Pokhran-II Nuclear Tests:** India successfully conducted a series of five nuclear tests at the Pokhran Test Range in Rajasthan.
  - These tests, codenamed **Operation Shakti**, showcased India's capability to design and build both fission and thermonuclear devices.
  - Following these tests, India declared itself a **nuclear weapon state**, a significant moment for its national security and international standing.
  - The tests were spearheaded by eminent scientists like Dr. A.P.J. Abdul Kalam (then Scientific Advisor to the Defence Minister and DRDO Chief) and Dr. R. Chidambaram (then Chairman of the Atomic Energy Commission).
- **First Flight of Hansa-3:** On the same day, India's first indigenously developed light transport aircraft, **Hansa-3**, made its successful maiden flight in Bengaluru. This was a major achievement for Indian aviation.
- **Successful Test of Trishul Missile:** The **Trishul missile**, a short-range, quick-reaction, surface-to-air missile developed by the **Defence Research and Development Organisation (DRDO)**, was also successfully test-fired.

Recognizing these achievements, the then Prime Minister, **Shri Atal Bihari Vajpayee**, declared May 11th as National Technology Day in 1999.

Significance of National Technology Day:

- **Honouring Scientific Excellence:** The day serves as an occasion to honour the contributions and dedication of India's scientists, engineers, and innovators.
- **Promoting Innovation:** It aims to foster a culture of scientific inquiry and innovation, encouraging the youth to pursue careers in science, technology, engineering, and mathematics (STEM).
- **Showcasing Indigenous Capabilities:** It highlights India's journey towards self-reliance (**Atmanirbhar Bharat**) in critical technological domains.
- **Role of Technology Development Board (TDB):** The **Technology Development Board**, a statutory body under the **Department of Science and Technology (DST)**, plays a crucial role in the celebrations. TDB promotes the commercialization of indigenous technologies and the adaptation of imported

technologies for wider domestic application by providing financial assistance.

Broader Context:

- **India's Nuclear Doctrine:** The Pokhran-II tests led to the formal articulation of India's nuclear doctrine, which is characterized by:
  - **No First Use (NFU):** A pledge not to be the first to use nuclear weapons in a conflict.
  - **Credible Minimum Deterrence:** Maintaining a sufficient and survivable nuclear arsenal to deter an adversary, without engaging in an arms race.
  - **Civilian Political Control:** The decision to use nuclear weapons rests with the civilian political leadership through the Nuclear Command Authority (NCA).
- **Science & Technology in National Development:** Technological advancement is crucial for India's economic growth, societal progress, and addressing challenges in areas like healthcare, agriculture, energy security, and environmental protection.
- **Key Institutions:** Apart from DRDO and DAE (Department of Atomic Energy), institutions like the Council of Scientific and Industrial Research (CSIR), Indian Space Research Organisation (ISRO), and various academic bodies are pivotal in India's S&T landscape.
- **Atmanirbhar Bharat in Technology:** The spirit of National Technology Day aligns with the larger national goal of achieving self-reliance in key technologies, reducing import dependence, and boosting domestic innovation and manufacturing.

Honouring Our Healers: International Nurses Day 2025 and the Future of Care

International Nurses Day is observed every year on **May 12th** to celebrate the invaluable contributions of nurses to society. This day also marks the birth anniversary of **Florence Nightingale**, the founder of modern nursing.

The theme for International Nurses Day 2025 is **"Our Nurses. Our Future. Caring for nurses strengthens economies."** This theme highlights the critical importance of investing in the well-being and professional development of nurses not just for a robust healthcare system, but also for overall economic prosperity.

Key Aspects of International Nurses Day and Nursing:

- **Historical Significance:** The day honours Florence Nightingale (1820-1910), often called "The Lady with the Lamp." Her work during the **Crimean War** revolutionized nursing practices.
  - She emphasised **sanitation, hygiene, and patient observation**, drastically reducing mortality rates.
  - Nightingale established the **first professional nursing school** at St. Thomas' Hospital in London, elevating nursing to a respected profession.
  - Her **"Notes on Nursing"** remains a foundational text.

- **Significance in Healthcare:** Nurses are the **backbone of any healthcare system**.
  - They provide **direct patient care**, administer medication, and assist in medical procedures.
  - They play a vital role in **patient advocacy, education, and emotional support**.
  - Their round-the-clock presence is crucial for **monitoring patient conditions** and ensuring timely interventions.
  - The **COVID-19 pandemic** further underscored the relentless dedication and bravery of nurses globally.
- **Role in Achieving Health Goals:** A strong nursing workforce is essential for achieving national and international health targets, including the **Sustainable Development Goals (SDGs)**, particularly **SDG 3 (Good Health and Well-being)**. This includes:
  - Reducing maternal and child mortality.
  - Combating communicable and non-communicable diseases.
  - Achieving **Universal Health Coverage (UHC)**.

Challenges Faced by Nurses in India:

Despite their critical role, nurses in India face numerous challenges:

- **Shortage of Nursing Staff:** India has a significant shortfall of nurses compared to the **World Health Organization (WHO) norm** (which recommends 3 nurses per 1000 population; India is estimated to have around 1.7 nurses per 1000 population). This leads to high patient-to-nurse ratios.
- **Workforce Burnout:** Long working hours, heavy workloads, and inadequate staffing contribute to stress and burnout among nurses.
- **Inadequate Remuneration and Working Conditions:** Issues of low pay, especially in the private sector, lack of proper infrastructure, and sometimes workplace violence affect morale and retention.
- **Need for Skill Enhancement:** Continuous training and skill development opportunities are essential to keep pace with advancements in medical science and technology.
- **Social Status and Recognition:** Despite their crucial role, the nursing profession sometimes lacks the social recognition it deserves.

Government Initiatives for Strengthening Nursing in India:

The Indian government has undertaken several initiatives to improve the nursing sector:

- **Increasing Nursing Education Institutions:** Efforts to establish more nursing schools and colleges to increase the number of qualified nurses.
- **Development of National Nursing and Midwifery Commission Bill:** This aims to repeal the Indian Nursing Council Act and set up a more robust regulatory framework. (Candidates should track the latest status of this Bill).
- **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY):** Aims to correct regional imbalances in the availability of affordable/reliable tertiary healthcare services and also to augment facilities for quality medical education in the country, which includes nursing education.

- **Skill India Mission:** While not specific to nursing, it broadly supports skill development across sectors, which can include upskilling initiatives for healthcare workers.
- **National Health Policy (NHP):** The NHP often outlines strategies for human resources in health, including nurses. The NHP 2017, for instance, emphasized strengthening the nursing cadre.
- **Financial allocations under the National Health Mission (NHM)** also support the engagement of nurses at various levels of healthcare delivery.

National Dengue Day 2025: "Act Early, Prevent Dengue: Clean Surroundings, Healthy Living"

India observed **National Dengue Day** on **May 16, 2025**, with a focus on intensifying efforts to control and prevent this mosquito-borne viral infection. The theme for this year, **"Act Early, Prevent Dengue: Clean Surroundings, Healthy Living,"** underscores the critical roles of timely intervention, community participation, and environmental hygiene in combating the disease. This annual observance, an initiative of the **Union Ministry of Health and Family Welfare,** aims to raise public awareness and preparedness, especially before the monsoon season when dengue cases typically surge.

Understanding Dengue:

- **What it is:** Dengue is a viral infection transmitted to humans through the bite of infected **Aedes aegypti mosquitoes**. These mosquitoes typically bite during the daytime.
- **Symptoms:** Common symptoms include:
  - Sudden high fever
  - Severe headache
  - Pain behind the eyes (Retro-orbital pain)
  - Severe joint and muscle pain (often called "breakbone fever")
  - Fatigue and weakness
  - Skin rash
  - Nausea and vomiting
  - Mild bleeding (from gums or nose) in some cases.
- **Severe Dengue:** In some cases, dengue can progress to a more severe form, known as **Dengue Hemorrhagic Fever (DHF)** or **Dengue Shock Syndrome (DSS)**. These conditions are1 life-threatening and characterized by:
  - Severe abdominal pain
  - Persistent vomiting (sometimes with blood)
  - Bleeding from nose or gums
  - Rapid breathing
  - Fatigue, restlessness
  - A significant drop in platelet count, which can lead to internal bleeding and organ damage.
- **Treatment:** There is **no specific antiviral treatment** for dengue. Treatment primarily involves supportive care to manage symptoms, such as:
  - Rest
  - Adequate fluid intake to prevent dehydration
  - Paracetamol for fever and pain (avoid aspirin and NSAIDs like ibuprofen as they can increase bleeding risk).
  - Close monitoring for warning signs of severe dengue is crucial. Hospitalization is often required for severe cases.

History and Significance of National Dengue Day:

- **Initiation:** National Dengue Day was established by the Ministry of Health and Family Welfare in **2010**.
- **Objective:** The primary goal is to enhance public awareness about dengue, its symptoms, methods of prevention, and the importance of early detection and treatment. It aims to sensitize communities and encourage proactive measures to control mosquito breeding before the peak transmission season (usually June to September).
- **Why it Matters:**
  - **Public Health Burden:** Dengue remains a significant public health concern in India, with widespread outbreaks occurring annually, especially during and after the monsoon.
  - **Global Threat:** The World Health Organization (WHO) highlights dengue as a rapidly spreading mosquito-borne disease, with billions of people at risk globally, particularly in tropical and subtropical regions.
  - **Economic Impact:** Dengue outbreaks strain healthcare systems and can lead to loss of productivity due to illness.
  - **Preventable Disease:** Since dengue is largely preventable through vector control and community action, awareness days play a vital role in mobilizing efforts.

Theme for 2025: "Act Early, Prevent Dengue: Clean Surroundings, Healthy Living"

This year's theme emphasizes three key pillars:

1. **Act Early:** Prompt recognition of symptoms and seeking timely medical care can significantly reduce complications and mortality associated with severe dengue.
2. **Prevent Dengue through Clean Surroundings:** This highlights the importance of eliminating mosquito breeding sites. Aedes mosquitoes breed in clean, stagnant water found in and around homes.
3. **Healthy Living:** Adopting personal protective measures and maintaining overall community hygiene contribute to reducing the risk of infection.

Prevention and Control of Dengue: The "SEARCH" and "DESTROY" Approach

Effective dengue control relies heavily on preventing mosquito breeding and protecting individuals from mosquito bites. Key strategies include:

- **Source Reduction (Eliminating Breeding Sites):**
  - Regularly empty, dry, and scrub containers that can hold water, such as flower pots, coolers, discarded tires, buckets, pet dishes, and water storage tanks.
  - Ensure water storage containers are tightly covered.
  - Prevent water stagnation on rooftops, in drains, and in construction sites.
  - Observe a **"dry day"** once a week, where all water-holding containers are emptied and cleaned.

- **Personal Protection:**
  - Wear **long-sleeved shirts and long pants** to minimize skin exposure, especially during the day.
  - Use **mosquito repellents** containing DEET, picaridin, or oil of lemon eucalyptus on exposed skin.
  - Use **mosquito nets** (insecticide-treated nets are more effective), especially for infants, young children, pregnant women, and elderly individuals who may rest during the day.
  - Install **screens on windows and doors** to prevent mosquitoes from entering homes.
- **Community Participation:**
  - Active involvement of communities in cleanliness drives and source reduction activities is crucial.
  - Raising awareness among neighbours and participating in local vector control programs.
- **Biological and Chemical Control (usually by health authorities):**
  - Using **larvicides** (like Temephos) in water storage containers that cannot be emptied.
  - Introducing **larvivorous fish** (like Gambusia) in ornamental tanks or ponds.
  - **Fogging** with insecticides during outbreaks to kill adult mosquitoes (this is a temporary measure and less effective than source reduction).

Government Initiatives for Dengue Control:

- **National Vector Borne Disease Control Program (NVBDCP):**
  - This is an umbrella program under the Ministry of Health and Family Welfare for the prevention and control of six vector-borne diseases: Malaria, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis, Dengue, and Chikungunya.
  - **Strategies for Dengue under NVBDCP include:**
    - Disease surveillance and outbreak response.
    - Integrated Vector Management (IVM), which includes source reduction, biological control, and judicious use of chemical larvicides and adulticides.
    - Case management and capacity building of healthcare personnel.
    - Behaviour Change Communication (BCC) and Information, Education, and Communication (IEC) activities to promote awareness and community participation.
    - Inter-sectoral collaboration with other departments like Urban Development, Panchayati Raj, and Education.
- **Sentinel Surveillance Sites:** A network of hospitals and laboratories is established for early detection of dengue cases and monitoring trends.
- **Research and Development:** Efforts are ongoing in areas like developing effective dengue vaccines and novel vector control tools.

Celebrating Species Conservation: Endangered Species Day 2025

Endangered Species Day was observed on **May 16, 2025** (the third Friday in May annually). This day serves as a crucial reminder of the intrinsic value of biodiversity and the urgent need to protect animal and plant species facing the threat of extinction. The theme for National Endangered Species Day 2025 is **"Celebrating the Conservation of Species,"** focusing on success stories where dedicated efforts have brought species back from the brink and emphasizing the continued need for such actions.

Understanding "Endangered"

When we talk about endangered species, we are referring to plants and animals whose populations have dwindled to such low numbers that they are at a very high risk of disappearing forever from the face of the Earth if immediate conservation measures are not taken.

- The **International Union for Conservation of Nature (IUCN)** maintains a comprehensive global inventory of the conservation status of biological species, known as the **IUCN Red List of Threatened Species**. This list categorizes species based on their risk of extinction:
  - **Extinct (EX):** No known individuals remaining.
  - **Extinct in the Wild (EW):** Known only to survive in cultivation, in captivity, or as a naturalized population well outside the past range.
  - **Critically Endangered (CR):** Extremely high risk of extinction in the wild.
  - **Endangered (EN):** Very high risk of extinction in the wild.
  - **Vulnerable (VU):** High risk of extinction in the wild.
  - **Near Threatened (NT):** Likely to become endangered in the near future.
  - **Least Concern (LC):** Lowest risk; does not qualify for a more at-risk category.
  - **Data Deficient (DD):** Not enough data to make an assessment of its risk of extinction.
  - **Not Evaluated (NE):** Has not yet been evaluated against the criteria.

Why Do Species Become Endangered?

The primary drivers of species endangerment, often interlinked, are largely due to human activities:

- **Habitat Loss and Degradation:** This is the leading cause. Deforestation for agriculture, urbanization, industrial development, and infrastructure projects destroy or fragment natural habitats, leaving species with insufficient space and resources to survive.
- **Climate Change:** Rising global temperatures, changing precipitation patterns, and extreme weather events alter habitats, disrupt breeding cycles, affect food availability, and can push species beyond their ability to adapt.
- **Pollution:** Chemical pollutants from industries and agriculture, plastic waste, oil spills, and light and noise pollution can contaminate ecosystems, directly harm organisms, and disrupt their life processes.
- **Poaching and Illegal Wildlife Trade:** Many species are hunted illegally for their body parts (e.g., ivory, horns, skins), for traditional medicine, or for the exotic pet trade. This directly reduces their populations.

- **Overexploitation of Resources:** Overfishing, overhunting (for food or sport beyond sustainable levels), and excessive harvesting of plants can deplete species populations faster than they can recover.
- **Invasive Alien Species:** Species introduced (intentionally or accidentally) into new environments where they are not native can outcompete native species for resources, prey on them, or introduce diseases, leading to declines in native populations.
- **Disease:** Emerging infectious diseases, sometimes exacerbated by environmental stressors, can decimate wildlife populations.

The Imperative of Biodiversity Conservation

Protecting endangered species and conserving biodiversity is not just an environmental concern; it's fundamental to human well-being and the planet's health:

- **Ecological Balance:** Every species plays a role in its ecosystem (e.g., as predator, prey, pollinator, seed disperser). The loss of one species can have cascading negative effects on others, destabilizing the entire ecosystem.
- **Ecosystem Services:** Healthy ecosystems, rich in biodiversity, provide essential services like clean air and water, pollination of crops, soil fertility, climate regulation, and disease control.
- **Economic Benefits:** Biodiversity supports many industries, including agriculture, pharmaceuticals (many medicines are derived from natural sources), and tourism (ecotourism relies on wildlife and natural landscapes).
- **Ethical Responsibility:** Many believe that humans have a moral obligation to protect other forms of life and ensure that future generations can also experience the richness of biodiversity.
- **Genetic Resources:** Wild species possess a vast pool of genetic information that can be crucial for improving crop varieties, developing new medicines, and understanding life itself.

India's Conservation Landscape:

India is a **mega-diverse country**, hosting a significant portion of the world's biodiversity. However, many Indian species are threatened.

- **Key Endangered Species in India (Examples):**
  - **Critically Endangered:** Great Indian Bustard, Malabar Civet, Kashmir Stag (Hangul), Pygmy Hog, Ganges Shark, Northern River Terrapin.
  - **Endangered:** Bengal Tiger, Asiatic Lion, Snow Leopard, Lion-Tailed Macaque, Red Panda, Ganges River Dolphin, Nilgiri Tahr, One-horned Rhinoceros.
  - **Vulnerable:** Asian Elephant, Sloth Bear, Gaur, Olive Ridley Turtle.
- **Legislative Framework:**
  - **Wildlife (Protection) Act, 1972:** This is the cornerstone of wildlife protection in India. It provides for the protection of wild animals, birds, and plants; management of their habitats; regulation and control of trade in wildlife and products derived from them. The Act has several schedules that list species with varying degrees of protection, with Schedule I species receiving the highest level of protection. It has been

amended several times to strengthen its provisions.

- **Key Government Institutions:**
  - **Ministry of Environment, Forest and Climate Change (MoEFCC):** The nodal agency for environmental protection and wildlife conservation.
  - **National Board for Wildlife (NBWL):** A statutory body chaired by the Prime Minister, which advises the government on wildlife conservation policies.
  - **Wildlife Institute of India (WII):** An autonomous institution offering training programs, academic courses, and advisory in wildlife research and management.
  - **Zoological Survey of India (ZSI) and Botanical Survey of India (BSI):** Responsible for surveying and documenting the faunal and floral diversity of the country.
  - **National Tiger Conservation Authority (NTCA):** A statutory body responsible for the implementation of Project Tiger.
- **Flagship Conservation Projects:**
  - **Project Tiger (1973):** A highly successful conservation program aimed at protecting the Bengal tiger and its habitats. India now hosts over 70% of the world's wild tiger population.
  - **Project Elephant (1992):** Focused on protecting elephants, their habitats, and corridors, and addressing human-elephant conflict.
  - **Project Snow Leopard (2009):** Aims to conserve the snow leopard and its high-altitude Himalayan ecosystem through community participation.
  - **Other Projects:** Initiatives for the conservation of Gangetic dolphins, Great Indian Bustards, sea turtles, crocodiles, etc.
- **Protected Area Network:** India has a network of National Parks, Wildlife Sanctuaries, Conservation Reserves, and Community Reserves to protect wildlife habitats.

Challenges in Wildlife Conservation in India:

- **Human-Wildlife Conflict:** As human populations expand and encroach upon wildlife habitats, conflicts over resources (crops, livestock) and space increase, often leading to retaliatory killings of animals.
- **Habitat Fragmentation:** Linear infrastructure projects (roads, railways, canals) can cut through habitats, isolating populations.
- **Poaching and Illegal Trade:** Despite laws, poaching for international markets continues to threaten species like tigers, elephants (for ivory), rhinos (for horns), and pangolins.
- **Inadequate Funding and Resources:** Conservation efforts often face financial constraints and a shortage of trained personnel.
- **Lack of Public Awareness and Participation:** Sometimes, there's insufficient public support or involvement in conservation initiatives.
- **Developmental Pressures:** Balancing conservation needs with developmental aspirations (infrastructure, industry, mining) is a constant challenge.

Remembering Sacrifices, Reinforcing Resolve: India Observes National Anti-Terrorism Day

India observed **National Anti-Terrorism Day** on **May 21, 2025**, reaffirming its unwavering commitment to combating terrorism in all its forms and manifestations. The day serves as a solemn occasion to remember the victims of terror attacks and to honour the sacrifices made by security personnel in the line of duty. It also aims to spread awareness about the dangers of terrorism and violence, promoting peace, harmony, and national unity.

Why May 21? The Historical Context

- **Commemorating Rajiv Gandhi:** National Anti-Terrorism Day is observed annually on May 21 to mark the **death anniversary of former Indian Prime Minister Rajiv Gandhi**. He was assassinated on this day in **1991** in Sriperumbudur, Tamil Nadu, by a suicide bomber from the Liberation Tigers of Tamil Eelam (LTTE) during an election campaign.
- **Official Declaration:** Following this tragic event, the V.P. Singh government officially declared May 21 as National Anti-Terrorism Day. The day is dedicated to honouring Rajiv Gandhi's memory and, more broadly, to raising awareness about the devastating impact of terrorism.

Significance and Objectives of the Day:

The observance of National Anti-Terrorism Day is multi-faceted:

- **Spreading Awareness:** To educate people, especially the youth, about the grave threats posed by terrorism and violence, and their detrimental impact on individuals, society, and the nation at large.
- **Promoting Peace and Unity:** To foster a spirit of peace, harmony, humanity, and national integration among citizens, encouraging them to stand united against divisive and violent ideologies.
- **Paying Homage to Victims:** To remember and honour all those who have lost their lives in terrorist attacks and to express solidarity with their families. This includes civilians as well as security personnel who have made the ultimate sacrifice.
- **Reaffirming National Resolve:** To reiterate India's strong commitment and determination to fight terrorism and to support governmental and global initiatives aimed at eliminating this menace.
- **Encouraging Vigilance:** To promote a culture of vigilance among citizens and highlight the crucial role of law enforcement agencies, intelligence services, and armed forces in maintaining internal security.

India's Unwavering Stance Against Terrorism:

India has been a long-standing victim of terrorism, particularly cross-border terrorism, and has adopted a **"zero-tolerance" policy** towards it.

- **Legislative Framework:**
    - **Unlawful Activities (Prevention) Act, 1967 (UAPA):** This is the primary anti-terror law in India. It provides for more effective prevention of certain unlawful activities of individuals and associations and for dealing with terrorist activities. It has been amended several times (e.g., in 2004, 2008, 2012, 2019) to strengthen its provisions, including the power to designate individuals as terrorists.
- **Institutional Mechanisms:**
    - **National Investigation Agency (NIA):** Established in 2008 (after the 26/11 Mumbai attacks) as a central agency to investigate and prosecute offences related to terrorism and other scheduled offences affecting national security.
    - **Multi-Agency Centre (MAC):** For real-time collation and sharing of intelligence among various central and state agencies.
    - **National Intelligence Grid (NATGRID):** An integrated intelligence framework.
    - **National Security Guard (NSG):** An elite federal contingency force for counter-terrorism and anti-hijacking operations.
- **International Cooperation:** India actively engages with the international community to strengthen global counter-terrorism efforts, advocates for a **Comprehensive Convention on International Terrorism (CCIT)** at the UN, and is part of various bilateral and multilateral forums to combat terror financing and cross-border terrorism. Recent reports also indicate a proactive diplomatic outreach, such as sending all-party delegations abroad to reaffirm India's stance.
- **Evolving Doctrine:** Recent statements from high-level government officials suggest a hardening of India's counter-terrorism doctrine, with any significant terror attack on Indian soil potentially being treated as an "act of war," invoking the right to self-defence.

World Turtle Day 2025: "Dancing Turtles Rock!" to Save Ancient Reptiles

May 23rd, 2025, marked the **25th annual World Turtle Day**, a global event dedicated to celebrating and protecting turtles and tortoises around the globe. This year's vibrant theme, **"Dancing Turtles Rock!"**, aimed to inspire joyful action and raise urgent awareness about the critical need to conserve these ancient mariners and land-dwellers, many of whom are facing extinction.

What is World Turtle Day?

- **Origin:** World Turtle Day was founded in the year **2000** by **Susan Tellem and Marshall Thompson** of the **American Tortoise Rescue (ATR)**, a US-based non-profit organization dedicated to the protection of all species of turtles and tortoises.
- **Purpose:** The day encourages people to learn about these remarkable reptiles, the threats they face, and how human actions can help ensure their survival for future generations. It's a call to protect their rapidly disappearing habitats worldwide.

Significance: Why Turtles and Tortoises Matter

Turtles and tortoises are more than just ancient creatures; they are **keystone species** that play a crucial role in their ecosystems:

- **Marine Ecosystem Health:** Sea turtles, for instance, help maintain healthy seagrass beds and coral reefs. Leatherback turtles help manage jellyfish populations.

- **Freshwater Ecosystems:** Freshwater turtles contribute to keeping water bodies clean by scavenging on dead organic matter.
- **Land Ecosystems:** Tortoises aid in seed dispersal, helping to maintain plant diversity.
- **Ancient Survivors:** Having roamed the Earth for over **200 million years** (some estimates say 260 million), even before the dinosaurs, their survival is a testament to their resilience, but today they are under severe threat.

The 2025 Theme: "Dancing Turtles Rock!"

The 25th anniversary theme, **"Dancing Turtles Rock!"**, encourages a celebratory yet urgent approach to conservation. It's a call to:

- **Celebrate** these fascinating creatures.
- **Get active** (like dancing!) in conservation efforts.
- Spread **positivity and awareness** about the need for stronger protection.

Major Threats to Turtle Survival

Despite their long history, more than half of all turtle and tortoise species are now endangered due to human activities:

- **Habitat Destruction and Loss:** Coastal development, deforestation, and changes in land use destroy their nesting and feeding grounds.
- **Pollution:** Plastic pollution is a major killer, with turtles often mistaking plastic bags for jellyfish or getting entangled in discarded fishing nets (ghost nets). Chemical pollutants also affect their health and reproductive success.
- **Illegal Wildlife Trade:** Turtles are illegally trafficked for the pet trade, their meat, eggs, and shells (used for traditional medicine or ornaments).
- **Climate Change:** Rising temperatures affect nesting sites, alter sex ratios of hatchlings (temperature-dependent sex determination), and impact food availability.
- **Accidental Capture (Bycatch):** Many sea turtles are unintentionally caught in fishing gear, leading to injury or drowning.

Turtle Conservation in India: A Special Focus

India, with its vast coastline and diverse ecosystems, is home to a variety of turtle and tortoise species, many of which are endangered.

- **Key Species in India:**
  - **Sea Turtles:** Five species nest on Indian coasts: **Olive Ridley** (Lepidochelys olivacea), **Green Sea Turtle** (Chelonia mydas), **Hawksbill Turtle** (Eretmochelys imbricata), **Leatherback Turtle** (Dermochelys coriacea), and **Loggerhead Turtle** (Caretta caretta1 – rare in India).
  - **Freshwater Turtles & Tortoises:** India has numerous species, including the **Indian Star Tortoise** (Geochelone elegans), **Red-crowned Roofed Turtle** (Batagur kachuga), and various softshell and hardshell turtles. Northeast India is a particular hotspot for turtle diversity.
- **Major Nesting Sites:**
  - **Odisha Coast:** Famous for the **mass nesting (arribada)** of Olive Ridley turtles. **Gahirmatha Marine Sanctuary** is the world's largest known rookery for Olive Ridleys. **Rushikulya river**

mouth and Devi river mouth are other significant sites. Record nesting was observed at Rushikulya in early 2025.

- **Conservation Efforts in India:**
  - **Legal Protection:** All sea turtle species are protected under **Schedule I** of the **Wildlife (Protection) Act, 1972**, granting them the highest degree of protection. Many freshwater species are also listed in various schedules.
  - **Project Sea Turtle:** Launched by the Government of India to conserve sea turtle populations and their habitats.
  - **National Marine Turtle Action Plan:** Provides a roadmap for conservation.
  - **Operation Olivia:** An annual mission by the **Indian Coast Guard** to protect Olive Ridley turtles during their nesting season along the Odisha coast.
  - **Turtle Excluder Devices (TEDs):** Mandatory use of TEDs in fishing trawlers in certain areas to prevent accidental capture of turtles.
  - **Community Participation:** Involvement of local communities in nest protection and conservation awareness.
  - **Role of Institutions:** The **Wildlife Institute of India (WII)**, **Zoological Survey of India (ZSI)**, state forest departments, and numerous NGOs play a vital role in research and conservation.

World Honours "Blue Helmets": International Day of UN Peacekeepers Observed

The global community on **Thursday, May 29, 2025**, observed the **International Day of United Nations Peacekeepers**, paying solemn tribute to the courage, dedication, and sacrifice of over two million uniformed and civilian personnel who have served under the UN flag since 1948. This year's theme, **"The Future of Peacekeeping,"** underscores the evolving nature of peace operations in a rapidly changing world and the need to adapt missions for future challenges. As part of the day's observances at the UN Headquarters in New York, two Indian peacekeepers, **Brigadier General Amitabh Jha** and **Havildar Sanjay Singh**, were among 57 individuals posthumously awarded the prestigious **Dag Hammarskjöld Medal** for making the ultimate sacrifice in the line of duty during 2024. This recognition highlights India's enduring and significant contributions to global peace and security.

Significance of the Day: A Tribute to Service and Sacrifice

The International Day of UN Peacekeepers, established by the UN General Assembly in 2002, serves several crucial purposes:

- **Honouring Fallen Heroes:** It is a day to remember and honour the more than 4,400 peacekeepers who have lost their lives serving the cause of peace since the first UN peacekeeping mission in 1948.
- **Paying Tribute to Serving Personnel:** It acknowledges the professionalism, dedication, and bravery of the tens of thousands of military, police, and civilian peacekeepers currently deployed in challenging conflict zones worldwide.

- **Raising Awareness:** It aims to increase public understanding of the complex and often dangerous work undertaken by "Blue Helmets" in protecting civilians, supporting political processes, and helping countries transition from conflict to peace.
- The date, **May 29th,** was chosen because it marks the day in 1948 when the first UN peacekeeping mission, the **United Nations Truce Supervision Organization (UNTSO)**, began operations in Palestine.

Theme for 2025: "The Future of Peacekeeping"

This year's theme, **"The Future of Peacekeeping,"** reflects the ongoing efforts to ensure that UN peace operations remain effective and fit for purpose in an increasingly complex global security environment. Key aspects include:

- **Adapting to New Challenges:** Peacekeepers today face threats from non-state actors, terrorists, organized crime, and the impacts of climate change, often in situations where there is no clear peace to keep.
- **Modernizing Missions:** This involves integrating new technologies, improving the safety and security of peacekeepers, enhancing their performance, and ensuring missions are adequately resourced.
- **People-Centered Approach:** Focusing on protecting civilians and supporting host communities in building sustainable peace.
- **Political Solutions:** Emphasizing that peacekeeping is a political tool, not an end in itself, and must support broader efforts to find lasting political solutions to conflicts. This aligns with the UN Secretary-General's "Pact for the Future," which includes commitments to adapt peacekeeping.

Honoring India's Bravehearts: Brigadier General Jha and Havildar Singh

The posthumous awarding of the Dag Hammarskjöld Medal to two Indian peacekeepers is a poignant reminder of India's contributions:

- **Brigadier General Amitabh Jha:** Served with the **United Nations Disengagement Observer Force (UNDOF),** which monitors the ceasefire in the Golan Heights between Israel and Syria.
- **Havildar Sanjay Singh:** Was deployed with the **United Nations Stabilisation Mission in the Democratic Republic of Congo (MONUSCO)**, a mission operating in a highly volatile region to protect civilians and support peace efforts.

UN Secretary-General **António Guterres** presided over the medal ceremony and paid tribute to all fallen peacekeepers. In India, the Indian Army commemorated the day with a wreath-laying ceremony at the National War Memorial in New Delhi, honouring the sacrifices of its soldiers.

World No Tobacco Day 2025: "Unmasking the Appeal" to Protect Youth

World No Tobacco Day (WNTD) is observed globally on **May 31** every year. Led by the **World Health Organization (WHO),** this day serves as a crucial platform to raise awareness about the deadly health risks associated with tobacco use and to advocate for effective policies to reduce tobacco consumption worldwide.

For **2025**, the WHO has announced the theme: **"Unmasking the Appeal: Exposing Industry Tactics on Tobacco and Nicotine Products."** This year's campaign will focus on revealing the manipulative strategies employed by the tobacco and nicotine industries to make their harmful products attractive, particularly to young people. The aim is to empower individuals, especially youth, to see through these deceptive tactics and to urge governments to implement stricter regulations that counter industry influence.

Objectives and Significance of WNTD 2025:

- **Expose Deceptive Industry Practices:** The campaign will highlight how tobacco and nicotine industries use appealing flavours (like menthol, fruit, and candy), sleek product designs (e.g., e-cigarettes resembling tech gadgets), and glamorized marketing (especially via social media influencers) to attract new, younger users.
- **Counter Misinformation:** Challenge the false sense of security created by the industry regarding products like e-cigarettes and heated tobacco products, emphasizing that all forms of tobacco and nicotine are addictive and harmful.
- **Empower Youth:** Provide young people with the knowledge and tools to recognize and resist industry manipulation, encouraging them to become advocates for tobacco-free environments.
- **Advocate for Stronger Regulations:** Call on governments to:
  - Ban flavoured tobacco and nicotine products.
  - Implement plain packaging for all tobacco products.
  - Enforce comprehensive bans on tobacco advertising, promotion, and sponsorship (TAPS), including across digital platforms.
  - Increase taxes on tobacco products to make them less affordable and accessible.
  - Strengthen smoke-free public place policies.
- **Promote Quitting:** Encourage current tobacco users to quit by highlighting the benefits of cessation and the availability of support services.

The Devastating Impact of Tobacco:

- **Health Consequences:**
  - **Cancers:** Tobacco is a major cause of cancers of the lung, mouth, throat, esophagus, bladder, kidney, pancreas, stomach, and cervix.
  - **Respiratory Diseases:** Leads to chronic obstructive pulmonary disease (COPD), emphysema, chronic bronchitis, and aggravates asthma.
  - **Cardiovascular Diseases:** Increases the risk of heart attacks, strokes, and peripheral vascular disease.
  - **Reproductive Health Issues:** Affects fertility, pregnancy outcomes, and can lead to low birth weight.
  - **Other Health Problems:** Weakens the immune system, causes dental problems, and contributes to premature aging.
  - **Secondhand Smoke:** Exposure to secondhand smoke also causes serious health problems in non-smokers, especially children.
- **Global and Indian Statistics:**

- o Globally, tobacco kills **more than 8 million people** each year. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke (WHO).
- o India is the **second-largest consumer and producer of tobacco**.
- o Tobacco use kills nearly **1.35 million people** in India annually (WHO India).
- o Smokeless tobacco (like khaini, gutkha, betel quid with tobacco) is a major problem in India, alongside smoking (bidis and cigarettes).

Global and National Tobacco Control Efforts:

- **WHO Framework Convention on Tobacco Control (WHO FCTC):**
  - o The first international treaty negotiated under the auspices of WHO, adopted in 2003.
  - o Provides a comprehensive framework for tobacco control measures to be implemented by signatory countries.
  - o **Key provisions include:** Price and tax measures, protection from exposure to tobacco smoke, regulation of tobacco product contents and disclosures, packaging and labelling (including pictorial warnings), ban on tobacco advertising, promotion and sponsorship, demand reduction measures concerning tobacco dependence and cessation, and controlling illicit trade.
  - o India ratified the FCTC in 2004.
- **India's Tobacco Control Measures:**
  - o **Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act,5 2003 (COTPA):** This is the principal tobacco control law in India. Key provisions include:
    - Prohibition of smoking in public places (Section 4).
    - Prohibition of direct and indirect advertising of tobacco products (Section 5).
    - Prohibition of sale to and by minors (persons below 18 years) and prohibition of sale of tobacco products near educational institutions (Section 6).
    - Mandated pictorial health warnings on tobacco product packages (Section 7).
  - o **National Tobacco Control Programme (NTCP):** Launched in 2007-08 to strengthen the implementation of COTPA, create awareness, and provide cessation facilities.
  - o **Large Pictorial Health Warnings:** India mandates large graphic health warnings covering 85% of the principal display area on both sides of tobacco product packages.
  - o **Taxation:** Increasing taxes on tobacco products is a key strategy to reduce consumption, though challenges remain in taxing all forms of tobacco uniformly and effectively.
  - o **Ban on Electronic Cigarettes:** India banned the production, manufacture, import, export, transport, sale, distribution, storage, and advertisement of e-cigarettes in6 2019 through the Prohibition of Electronic Cigarettes Act, 2019.

State Affairs

Gujarat Foundation Day (Gujarat Sthapana Divas) 2025

What's Happening?
Gujarat celebrated its 65th Foundation Day, also known as Gujarat Sthapana Divas or Gujarat Gaurav Divas, on May 1st, 2025. This day marks the formation of the state of Gujarat back in 1960.

How Gujarat Was Formed:
- **Background:** After India's independence, there were strong demands across the country to reorganise states based on **language**.
- **Bombay State:** At that time, the present-day states of Gujarat and Maharashtra were part of a single, large **bilingual Bombay State**, comprising both Gujarati and Marathi-speaking populations.
- **Linguistic Movements:**
  - o The **Mahagujarat Andolan** (movement) pushed for a separate state for Gujarati speakers. Key leaders included **Indulal Yagnik**, who formed the **Mahagujarat Janata Parishad** to mobilise people.
  - o The idea for a separate Gujarat was first proposed by **K.M. Munshi** in 1937.
  - o Simultaneously, the **Samyukta Maharashtra Samiti** advocated for a Marathi-speaking state.
- **Reorganisation:** Responding to these demands, the Indian Parliament passed the **Bombay Reorganisation Act, 1960**.
- **Formation:** On **May 1, 1960**, the Bombay State was officially divided into two new states:
  - o **Gujarat** (for Gujarati speakers)
  - o **Maharashtra** (for Marathi speakers)
- **Territory:** The new state of Gujarat included the regions of **Saurashtra** and **Kutch**.
- **Capital: Ahmedabad** served as the initial capital, which was later shifted to **Gandhinagar** in 1970.

Significance and Celebrations:
- **Identity:** The day celebrates Gujarat's distinct linguistic and cultural identity.
- **Progress:** It's an occasion to reflect on the state's progress in various fields like trade, industry, and social development. Gujarat is often called the '**Jewel of Western India**'.
- **Contributions:** It honours the efforts of all those who contributed to the formation and development of the state, including leaders like **Mahatma Gandhi** and **Sardar Vallabhbhai Patel**, who were born in Gujarat.
- **2025 Celebrations:**
  - o The main state-level event was held in the **Panchmahal district**.
  - o Development projects worth approximately **₹649.77 crore** were launched.

- o The **Gujarat Garima Award** was presented to six individuals for their significant contributions.
- o Cultural programmes and flag-hoisting ceremonies are common across the state.

Economic Importance:

- Gujarat is a major economic hub in India.
- It contributes significantly to India's **GDP (8.2%)**, **exports (over 30%)**, and **GST revenues (8%)**, despite having only about 5% of the country's population.

Maharashtra Day (Maharashtra Din) 2025

What's the Occasion?

Maharashtra Day, also known as Maharashtra Din or Maharashtra Diwas, is celebrated every year on May 1st. This day marks the formation of the state of Maharashtra in 1960. It coincides with International Labour Day and Gujarat Foundation Day.

The Story Behind Maharashtra's Formation:

- **Post-Independence Context:** After India gained independence, there was a growing demand to reorganise states based on **linguistic lines** (language).
- **The Bilingual Bombay State:** Initially, under the **States Reorganisation Act of 1956**, a large bilingual state of Bombay was formed. This state included areas where people spoke Marathi, Konkani, Gujarati, and Kutchi. It comprised parts of the old Bombay Presidency, Madhya Pradesh, Chhattisgarh, and Karnataka.
- **The Samyukta Maharashtra Movement:** Marathi-speaking people launched a strong movement demanding a separate state. This was known as the **Samyukta Maharashtra movement** (United Maharashtra Movement).
  - o Key organisation: **Samyukta Maharashtra Samiti** led the campaign, organising protests, marches, and demonstrations.
  - o Goal: To create a state where Marathi was the primary language, preserving its distinct **linguistic identity** and **cultural independence**.
- **The Bombay Reorganisation Act, 1960:** Yielding to the demands of both the Samyukta Maharashtra movement and the Mahagujarat Andolan, the Indian Parliament passed this Act.
- **State Formation:** On **May 1, 1960**, the bilingual Bombay State was divided into two states:
  - o **Maharashtra:** For Marathi and Konkani speakers, with **Mumbai** (then Bombay) as its capital.
  - o **Gujarat:** For Gujarati and Kutchi speakers.

Ladakh Domicile: Consensus Reached on 15-Year Residency Rule, Job Safeguards for Locals

A **consensus has been reached between the Union Ministry of Home Affairs (MHA) and Ladakhi leaders** on the criteria for defining a **"Resident of Union Territory of Ladakh."** The agreement, achieved during a **High Powered Committee (HPC)** meeting held in New Delhi around May 27-28, 2025, stipulates a **15-year prospective continuous residency requirement, starting from 2019,** to qualify for

domicile status. This move is seen as a crucial step towards safeguarding land, employment rights, and the unique identity of the region following its reorganisation in 2019.

Defining a "Resident of Ladakh": The New Criteria

The key element of the consensus is the **15-year continuous residency rule** for acquiring domicile status:

- **Prospective Application:** Any Indian citizen who has settled in Ladakh **after its formation as a Union Territory in 2019** will need to have continuously resided there for **15 years** to become eligible for a **Ladakh Resident Certificate (LRC)**. This effectively means such individuals would qualify for domicile status only after 2034.
- **Earlier Demand:** Representatives from Ladakh, including the **Leh Apex Body (LAB)** and the **Kargil Democratic Alliance (KDA)**, had initially pushed for a 30-year residency requirement. While the 15-year prospective rule was agreed upon, the MHA has reportedly assured the Ladakhi leaders that their demand for a 30-year criterion will be referred to the Union Law Ministry for legal review.
- The new policy, once formally notified, will pave the way for issuing **Ladakh Resident Certificates (LRCs)**, similar to the erstwhile State Subject in undivided Jammu and Kashmir.

Safeguarding Local Interests: Focus on Job Reservations

A major concern for the people of Ladakh has been the protection of employment opportunities for locals. The new consensus addresses this through significant job reservations:

- **Non-Gazetted Posts: 100% of all non-gazetted government jobs** in Ladakh will be reserved for individuals holding a valid Ladakh Resident Certificate (LRC).
- **Gazetted Posts: 95% of gazetted posts** will be reserved for local residents. This includes:
  - o 85% for locals under the general category.
  - o 10% for locals from the Economically Weaker Sections (EWS).
  - o Only 5% of gazetted posts will be open to others who may qualify as domiciles under the new rules over time.

Ladakhi leaders have described this agreement on domicile and job reservations as a "major breakthrough" and the "biggest achievement" of the HPC meetings so far, as recruitment to gazetted posts had been stalled since 2019 due to the lack of defined mechanisms.

The Path to Consensus: High Powered Committee and Stakeholder Demands

The consensus was achieved during a meeting of the **High Powered Committee (HPC)**, chaired by Union Minister of State for Home Affairs, Shri Nityanand Rai.

- The HPC was constituted by the MHA in January 2023 to address the various concerns of the people of Ladakh following the abrogation of Article 370 and the region's transition into a Union Territory without a legislature.
- The committee includes representatives from the MHA, the Ladakh administration, and prominent leaders from the **Leh Apex Body (LAB)** and the **Kargil Democratic Alliance (KDA)**, which have been jointly spearheading the movement for constitutional safeguards for Ladakh.

- Talks had previously faced deadlocks, but resumed after significant public agitation and protests, including a prolonged hunger strike by renowned Ladakhi innovator and activist Sonam Wangchuk.

Why This Domicile Policy Matters for Ladakh

The formulation of a domicile policy is crucial for Ladakh due to several reasons:

- **Post-Article 370 Anxieties:** After the abrogation of Article 370 and Article 35A (which provided special rights and privileges to permanent residents of the erstwhile J&K state), there were widespread apprehensions in Ladakh about potential demographic changes, loss of land rights, erosion of unique cultural identity, and limited employment opportunities for locals.
- **Protecting Fragile Ecology and Tribal Culture:** Ladakh is a strategically important region with a fragile ecosystem and a distinct tribal culture. The domicile policy, along with job reservations, is seen as a measure to protect these unique characteristics.
- **Ensuring Local Participation in Governance:** By reserving jobs for locals, the policy aims to ensure greater participation of Ladakhis in the administration and development of the Union Territory.

Goa Celebrates 39th Statehood Day: A Journey of Identity and Progress

Goa, India's smallest state by area but rich in history and culture, celebrated its **39th Statehood Day on May 30, 2025**. This day commemorates the landmark event in **1987** when Goa transitioned from a Union Territory to become the **25th state of the Indian Union**. The day is marked by various official events, cultural programs, and reflections on the state's unique journey from colonial rule to a vibrant, self-governing entity within India.

The celebrations across Goa, often centered in the capital **Panaji**, serve as a reminder of the Goan people's aspirations, their struggle for identity, and the significant progress the state has made over the decades.

Goa's Journey to Statehood:

- **End of Portuguese Rule (1961):** Goa, along with Daman and Diu, was liberated from approximately **450 years of Portuguese colonial rule** on **December 19, 1961,** through **Operation Vijay**, a swift military action by the Indian Armed Forces.
- **Union Territory Status (1962):** Following liberation, Goa, Daman, and Diu were incorporated into the Indian Union as a **Union Territory**. The **Twelfth Amendment** to the Constitution of India in 1962 formally conferred this status.
- **The Opinion Poll (1967):** A significant event in Goa's history was the **Opinion Poll held on January 16, 1967**. This referendum allowed the people of Goa, Daman, and Diu to decide whether they wanted to merge with the neighboring state of Maharashtra or remain a separate entity. The majority voted to maintain their distinct identity, rejecting the merger. This was a crucial step in preserving Goa's unique culture and eventually paving the way for statehood.

- **Demand for Statehood and Language Recognition:** The desire for full statehood grew stronger over the years, coupled with a powerful movement for the recognition of **Konkani** as the official language. The **Konkani language agitation** played a pivotal role in asserting Goan identity.
- **Attainment of Statehood (1987):** On **May 30, 1987**, the **Goa, Daman and Diu Reorganisation Act, 1987**, came into effect. This Act conferred statehood on Goa, while Daman and Diu were separated to continue as a Union Territory. **Konkani** (in the Devanagari script) was recognized as the official language of Goa.

Goa's Identity and Significance:

- **Unique Cultural Heritage:** Goa boasts a rich syncretic culture, evident in its architecture (Churches and Convents of Goa are a **UNESCO World Heritage Site**), music (like Mando and Dulpod), dance, cuisine (a blend of Konkani and Portuguese flavours), and festivals (like Carnival and Shigmo).
- **Linguistic Identity: Konkani** is central to Goan identity. Its inclusion in the **Eighth Schedule of the Constitution** (through the 71st Amendment Act, 1992) was a major achievement for the Konkani-speaking people.
- **Tourist Hub:** Goa is one of India's most popular tourist destinations, known for its pristine beaches, vibrant nightlife, and serene countryside. Tourism is a major contributor to its economy.
- **High Human Development Index:** Goa consistently ranks high among Indian states in terms of per capita income and various human development indicators, including literacy.
- **Environmental Concerns:** While known for its beauty, Goa also faces environmental challenges related to mining, tourism, and coastal development, making sustainable practices crucial.
- **Uniform Civil Code:** Goa is the only state in India that has a **Uniform Civil Code (UCC)**, based on the Portuguese Civil Code of 1867, which continued after its liberation. This is often cited in discussions about the potential implementation of a UCC across India.

Operation Vijay (1961):

- **Background:** After India's independence in 1947, Portugal refused to relinquish its colonial possessions of Goa, Daman, and Diu. Years of diplomatic efforts and peaceful negotiations by India failed to yield results.
- **The Action:** In December 1961, the Indian government, under Prime Minister Jawaharlal Nehru, launched **Operation Vijay**. It was a swift, tri-services military operation.
- **Outcome:** The Portuguese forces surrendered within 36 hours, leading to the liberation of Goa, Daman, and Diu, and their integration into India, ending the last vestiges of European colonialism on the subcontinent.

Constitutional Provisions and Amendments:

- **Article 1 of the Constitution:** Defines the territory of India, which includes acquired territories.
- **The Constitution (Twelfth Amendment) Act, 1962:** Incorporated Goa, Daman, and Diu into the Indian Union as a Union Territory by amending the First Schedule

and Article 240 (power of President to make regulations for certain Union territories).

- **The Goa, Daman and Diu Reorganisation Act, 1987:** Elevated Goa to statehood and separated Daman and Diu as a Union Territory.
- **The Constitution (Fifty-sixth Amendment) Act, 1987:** (Relates to the Reorganisation Act) Provided for the formation of the state of Goa and inserted Article 371-I concerning special provisions for Goa (though largely related to the legislative assembly's composition, it is not a 'special status' in the way Article 370 was for J&K or 371 is for some other states). The Act also aimed to protect the interests of the new state.
- **Konkani in Eighth Schedule:** The 71st Amendment Act, 1992, included Konkani, Manipuri, and Nepali languages in the Eighth Schedule of the Constitution.

About Goa:
- **Capital:** Panaji
- **Smallest State:** By area (3,702 sq km) in India.
- **Major Rivers:** Mandovi, Zuari, Terekhol, Chapora, Sal.
- **Official Language:** Konkani (Devanagari script). Marathi is also widely used for official and other purposes.
- **Economy:** Driven by tourism, pharmaceuticals, mining (though currently facing restrictions), and fishing.
- **Districts:** North Goa and South Goa.
- **Key Personalities in Liberation/Statehood Movement:** Dr. Ram Manohar Lohia (provided impetus to the freedom movement in 1946), Tristão de Bragança Cunha (often referred to as the "Father of Goan Nationalism"), Purushottam Kakodkar, and numerous other freedom fighters and leaders of the language movement and Opinion Poll campaign.

International Relations

US–Ukraine Reinvestment Fund: Strategic Minerals for Reconstruction

What is the Deal?
- Creation of the **United States–Ukraine Reinvestment Fund** to channel profits from new mineral permits into Ukraine's rebuilding.
- **50% of royalties and profits** from future rare-earth and critical-mineral licences will flow into this joint fund.

Key Resources Covered
- **Titanium** (aerospace alloys)
- **Uranium** (nuclear energy, medical isotopes)
- **Lithium**, **Graphite**, **Manganese** (battery technologies)
- Note: **No transfer of existing gas infrastructure** or control over current fields—only **new permits**.

Fund Structure & Governance
- **Equal partnership**: Ukraine and the US share decision-making and contributions.
- **Ten-year horizon**: Fund operates for a decade, with fresh US military aid counting toward the American side.
- Prior assistance **before signing** (February 2025) is **not** counted.

Why Now? Strategic Context
- **Sustaining Aid**: Guarantees continued US support amid concerns over long-term commitment.
- **Geopolitical Signal**: Underscores US resolve to back a **sovereign, prosperous Ukraine** and deter Russian advances.
- **Resource Security**: Secures US access to minerals vital for **defence**, **technology**, and **green energy** supply chains.

Negotiation Highlights
- **February draft stalled** after a heated Oval Office meeting between Presidents Trump and Zelenskyy.
- Ukraine secured amendments to protect its EU-accession path and ensure a **balanced partnership**.
- Final approval by Ukraine's Cabinet; awaiting **Parliament ratification** before coming into effect.

Challenges & Considerations
- **Parliamentary Approval**: Implementation hinges on Ukraine's legislature.
- **Market Fluctuations**: Mineral prices can affect fund revenues.
- **Environmental & Social Safeguards**: Need for transparent, sustainable mining practices to avoid community conflicts.

By aligning **resource access** with a **reconstruction mandate**, this landmark deal offers a replicable model of **win-win economic partnership**—one that sustains a war-torn nation while securing **critical** supplies for strategic industries.

India-Denmark Energy Partnership Renewed

India and Denmark have **renewed** their five-year energy cooperation **MoU**, reaffirming their joint commitment to accelerate the transition to **clean energy** and support India's **net-zero by 2070** target. This renewed pact builds on earlier collaborations in areas such as **offshore wind**, **renewable integration**, and **capacity building**, and introduces new focus areas including **cross-border electricity trading** and **EV charging infrastructure**.

Context
- **Original MoU (2020–2025)**:
  o Signed on **June 5, 2020**, the first MoU under the **India-Denmark Energy Partnership (INDEP)** promoted cooperation in **offshore wind**, **energy modelling**, and grid integration.
  o The pact was set to expire on **June 5, 2025**.
- **Net-Zero Ambition**:
  o At **COP26 (Glasgow 2021)**, India committed to achieving **carbon neutrality by 2070**, alongside five targets under **Panchamrit**.
  o The **net-zero by 2070 pledge** covers key sectors, though details on GHG coverage remain to be clarified.

Key Highlights of the Renewed MoU
- **Broadened Scope**:
  o **Power System Modeling** and **variable renewable energy integration**.
  o **Cross-border Electricity Trading** frameworks to facilitate regional power exchanges.

- o Development of **EV Charging Infrastructure** to support India's growing e-mobility sector.
- **Knowledge Exchange**:
  - o **Joint Training Programs** and **Expert Interactions** between Indian ministries (Power, New & Renewable Energy) and Danish institutions (Danish Energy Agency, DTU).
  - o **Study Tours** for Indian officials to Denmark, leveraging Danish best practices in **offshore wind** and **grid planning**.
- **Institutional Mechanisms**:
  - o Establishment of a **Joint Centre of Excellence** on **offshore wind** and **renewables** in India.
  - o Continuation of the **Energy Policy Dialogue** at ministerial level to monitor progress.

Strategic Importance

- **Denmark's Expertise**:
  - o World leader in **offshore wind technology** and **district heating solutions**.
  - o Proven track record in cost-effective large-scale **renewable deployment**.
- **India's Imperatives**:
  - o Rapidly growing electricity demand driven by **industrialisation** and **urbanisation**
  - o Need to balance **energy security** with **climate commitments**, given coal still fuels over **70%** of power generation.
  - o Scaling up **EV infrastructure** aligns with the **FAME India** scheme and **National E-Mobility Programme**.

Data Points & Dates:

- **June 5, 2020**: Signing of original MoU.
- **June 5, 2025**: Expiry of the original pact.
- **May 2, 2025**: Renewal of the MoU by **Power Secretary Pankaj Agarwal** and **Ambassador Rasmus Kristensen** in New Delhi.

India Restricts Chenab Water Flow Amid IWT Suspension

Following the tragic **Pahalgam terror attack** on April 22, 2025, which resulted in the deaths of 26 civilians (mostly tourists), India has taken several significant steps against Pakistan. One major action involves the **Indus Waters Treaty (IWT)** and the flow of river water.

What has happened?

- India has temporarily stopped or restricted the flow of water to Pakistan from the **Baglihar Dam**, located on the **Chenab River** in the Ramban district of Jammu and Kashmir.
- This was reportedly done by lowering the gates of the sluice spillways.
- Similar measures are also being considered for the **Kishanganga Dam** on the Kishanganga River (a tributary of the **Jhelum River**) in North Kashmir.
- **Reservoir flushing** operations (to remove silt) being conducted at Baglihar and Salal dams (also on Chenab), activities previously restricted under the IWT, signaling

India operating outside the treaty's constraints post-suspension.

Suspension of the Indus Waters Treaty (IWT):

- Crucially, this action follows India's decision announced on April 24, 2025, to hold the **Indus Waters Treaty (IWT)** in **"abeyance"** (temporary suspension).
- India stated this suspension will continue "until Pakistan credibly and irrevocably abjures its support for cross-border terrorism."
- Pakistan has strongly reacted, terming the suspension an "**act of war**" and stating it is exploring legal options.

Understanding the Indus Waters Treaty (IWT):

- **Signed:** 1960, between India and Pakistan.
- **Brokered by:** The **World Bank**.
- **Purpose:** Governs the sharing and utilization of waters from the Indus River system.
- **Key Provisions:**
  - o Allocates the **Eastern Rivers (Sutlej, Beas, Ravi)** to India for unrestricted use.
  - o Allocates the **Western Rivers (Indus, Jhelum, Chenab)** to Pakistan.
  - o India is permitted limited use of Western Rivers for specific purposes like domestic use, agriculture, and **run-of-the-river** hydroelectric projects (like Baglihar and Kishanganga), which have minimal storage capacity as per treaty constraints.
- **Significance:** The IWT has largely held for over 60 years despite conflicts, providing a framework for water sharing. Pakistan is heavily dependent on the Indus system waters allocated to it under the treaty.

Dams in Focus:

- **Baglihar Dam:** A 900 MW run-of-the-river hydroelectric project on the Chenab. Its design and construction were previously contested by Pakistan, leading to World Bank arbitration which largely upheld India's right to build it with some modifications.
- **Kishanganga Dam:** A 330 MW run-of-the-river project on the Kishanganga tributary of the Jhelum. It involves diverting water through a tunnel. This project also faced arbitration sought by Pakistan, with the court largely ruling in India's favour while specifying minimum flow requirements.

Broader Implications & Other Actions:

- Restricting water flow, even temporarily, marks a significant departure from established treaty norms and signals India's hardening stance.
- While India's current infrastructure (run-of-the-river dams) limits its ability to completely halt water flow to Pakistan immediately, the suspension of the IWT potentially allows India to pursue future projects (like building more storage or accelerating stalled projects) without adhering to treaty constraints and notification periods.
- India has also taken other punitive measures against Pakistan since the attack, including:
  - o Banning all **imports** (direct and indirect) from Pakistan.
  - o Prohibiting **Pakistani-flagged ships** from Indian ports and vice-versa.

- o Suspending **postal services**.
- o Closing its **airspace** to Pakistani airlines.
- o Closing the **Attari-Wagah** land border crossing.
- o Revoking **visas** for Pakistani nationals.
- o Diplomatic downgrades.

Quad Enhances Disaster Response with Indo-Pacific Logistics Network Simulation

The **Quadrilateral Security Dialogue (Quad)**, comprising **Australia, India, Japan, and the United States**, recently concluded a significant simulation exercise in Honolulu, Hawaii, aimed at operationalizing the **Quad Indo-Pacific Logistics Network (IPLN)**. This initiative marks a crucial step in strengthening regional cooperation for disaster relief and underscores the Quad's commitment to a **free and open Indo-Pacific**.

Key Highlights of the IPLN Simulation:

- **Event:** A **Tabletop Exercise** (simulation) to launch the Quad Indo-Pacific Logistics Network (IPLN).
- **Dates:** The exercise was held from **April 28th to May 2nd, 2025**.
- **Venue:** The simulation took place at the **Asia-Pacific Centre for Security Studies in Honolulu, Hawaii**.
- **Purpose of IPLN:**
  - o The IPLN is designed to enable Quad partners to **leverage their shared logistics capabilities** across the vast Indo-Pacific region.
  - o Its primary objective is to support a more **rapid and efficient civilian response to natural disasters** in the area. This includes streamlining the delivery of humanitarian aid and assistance.

Strategic Importance and Implications:

- **Practical Cooperation:** The IPLN initiative demonstrates the Quad's focus on **strengthening practical cooperation** among its members to address tangible regional challenges effectively.
- **Commitment to a Free and Open Indo-Pacific:** This logistics network, along with other Quad initiatives like the **Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA)**, reflects the group's dedication to ensuring a stable, secure, and prosperous Indo-Pacific.
- **Humanitarian Assistance and Disaster Relief (HADR):** The IPLN significantly boosts the Quad's collective capacity in HADR, a critical need in a region prone to various natural calamities. By pooling resources and coordinating efforts, the Quad aims to provide timely and effective aid to affected populations.
- **Quad as a 'Force for Good':** Initiatives like the IPLN, and previously hosted events such as the **Quad Workshop on Pandemic Preparedness for the Indo-Pacific Region** (hosted by India in March 2025), showcase the Quad's intent to act as a constructive force, contributing positively to regional resilience and well-being.

India Abstains on IMF Bailout for Pakistan, Cites Misuse of Funds & Terrorism Concerns

India took a significant diplomatic stance by **abstaining from a vote** at the International Monetary Fund (IMF) Executive Board meeting that considered a fresh bailout package for Pakistan. While abstaining, India voiced strong concerns over the **efficacy of IMF programs for Pakistan** given its poor track record, and more critically, flagged the possibility of **misuse of debt financing funds for state-sponsored cross-border terrorism.**

The IMF Board was reviewing Pakistan's existing **Extended Fund Facility (EFF)** of approximately $1 billion and considering a new **Resilience and Sustainability Facility (RSF)** of $1.3 billion. The IMF acknowledged India's statement and its decision to abstain.

India's Stated Concerns:

- **Poor Track Record:** India highlighted Pakistan's history as a "prolonged borrower" from the IMF with a very poor record of implementing program conditions. It pointed out that Pakistan has had **four IMF programs in the last five years (since 2019)**, questioning the effectiveness of these programs in establishing a sound macroeconomic policy environment.
- **Misuse of Funds for Terrorism:** A major concern raised by India was the potential for these funds to be diverted to finance **state-sponsored cross-border terrorism**. India stated that "rewarding continued sponsorship of cross-border terrorism sends a dangerous message to the global community."
- **Reputational Risk for Lenders:** India suggested that funding a country with such a track record exposes funding agencies and donors to "reputational risks" and "makes a mockery of global values."
- **Questioning IMF Program Design for Pakistan:** India questioned the very design, monitoring, and implementation of IMF programs concerning Pakistan, given the repeated need for bailouts.
- **Military's Role in Economy:** India also reportedly flagged concerns about the Pakistani military's entrenched role in economic decision-making, which could lead to policy slippages and reversal of reforms.

IMF's Voting Mechanism:

- It's important to note that the IMF's decision-making, especially on loan approvals, often relies on **consensus**.
- Unlike the UN, where a direct "no" vote can be cast, the IMF board members (Executive Directors representing countries or groups of countries) typically vote "yes" or **abstain**. An abstention, in this context, is a way to formally record dissent or serious reservations when a "no" vote isn't a procedural option or when a country doesn't want to directly block a proposal but wants its concerns on record.

Details of the IMF Facilities for Pakistan:

- **Extended Fund Facility (EFF):** This facility provides financial assistance to countries facing serious medium-term balance of payments problems due to structural weaknesses that require time to address. EFF programs usually involve comprehensive reforms.
- **Resilience and Sustainability Facility (RSF):** The RSF provides affordable long-term financing to low-income

and vulnerable middle-income countries to address longer-term structural challenges, including those related to climate change and pandemic preparedness.

Background on Pakistan and IMF:

- Pakistan has a long history of seeking financial assistance from the IMF, having approached the fund numerous times (over 20 programs) since becoming a member in 1950.
- The country has been grappling with severe economic challenges, including high external debt, low foreign exchange reserves, and a persistent balance of payments crisis.

Significance of India's Stand:

- **Strong Diplomatic Messaging:** India's abstention, coupled with its strong statement, sends a clear message about its security concerns and its disapproval of Pakistan's alleged use of international aid.
- **Highlighting Accountability:** It puts a spotlight on the accountability of both the recipient country and international financial institutions regarding the end-use of funds and the effectiveness of bailout packages.
- **Neighborhood Foreign Policy:** This action is a key element of India's foreign policy towards Pakistan, linking economic assistance to broader security and governance issues.
- **Role in International Fora:** Demonstrates India's willingness to use its voice in multilateral forums to articulate its core concerns.

India & EU Launch Joint Research on Marine Pollution and Green Hydrogen, Bolstering Green Tech Partnership

India and the European Union (EU) have launched joint research and innovation initiatives focusing on two critical environmental areas: **marine pollution (specifically marine plastic litter)** and **waste-to-green hydrogen**. Announced around March 2025, these collaborative projects, with a combined investment of approximately **EUR 4.3 million (around ₹39.1 crore)**, aim to foster innovation and develop sustainable solutions to pressing global challenges.

This collaboration operates under the umbrella of the **India-EU Trade and Technology Council (TTC)**, a strategic platform established in 2022 to deepen bilateral cooperation on trade, technology, and security. The projects will be co-funded by the EU's **Horizon Europe** research and innovation framework program and relevant ministries of the Government of India.

Focus Area 1: Combating Marine Pollution

- **The Challenge:** Marine pollution, particularly from **plastic litter (including microplastics)**, industrial effluents, heavy metals, and persistent organic pollutants, poses a severe threat to marine biodiversity, ecosystems, and human health. It also impacts coastal economies reliant on healthy marine environments.
- **Project Objectives:**
  - Develop advanced tools and methodologies to **monitor, assess, and quantify the cumulative impacts** of various pollutants on marine ecosystems.
  - Innovate solutions for **preventing and reducing marine litter**, especially plastic waste.
  - Contribute to the scientific understanding needed for effective policy-making and action.
- **Indian Ministry Involved:** The **Ministry of Earth Sciences (MoES)** is co-funding this initiative from the Indian side (approx. ₹90 crore / ~EUR 9.3 million).
- **Alignment with Global & National Goals:** This research will support international commitments like the **UN Decade of Ocean Science for Sustainable Development** and contribute to the objectives of the EU's Zero Pollution Action Plan and India's own efforts to tackle marine litter, such as the **National Marine Litter Policy** (if formally adopted and in force) and campaigns like **"Swachh Sagar, Surakshit Sagar."**

Focus Area 2: Advancing Green Hydrogen from Biogenic Wastes

- **The Promise of Green Hydrogen: Green hydrogen**, produced through the electrolysis of water using renewable energy sources, is a clean energy carrier with immense potential to decarbonize hard-to-abate sectors like heavy industry (steel, cement, fertilizers) and transportation. It is a key component of the global transition to a low-carbon economy.
- **Project Objectives (Waste to Green Hydrogen - W2GH):**
  - Develop innovative and sustainable technologies for producing **green hydrogen from biogenic wastes** (such as agricultural residues, municipal solid waste with organic components).
  - Enhance the **affordability, safety, and efficiency** of green hydrogen production from such waste streams.
  - Expand the portfolio of technologies available for a robust green hydrogen ecosystem.
- **Indian Ministry Involved:** Likely to involve the **Ministry of New and Renewable Energy (MNRE)** and the **Office of the Principal Scientific Adviser to the Government of India,**2 aligning with India's ambitious **National Green Hydrogen Mission**.
- **Alignment with National Missions:** This research directly supports India's National Green Hydrogen Mission, which aims to make India a global hub for the production, utilization, and export of green hydrogen and its derivatives. It also aligns with the EU's Hydrogen Strategy.

India Dispatches All-Party Delegations to Reaffirm Global "Zero-Tolerance" Stance on Terrorism

In a significant diplomatic initiative, India is set to dispatch **seven all-party parliamentary delegations** to around 30 countries, including key global capitals and members of the **United Nations Security Council (UNSC)**, starting later this month. This move, announced by the Ministry of Parliamentary Affairs, aims to strongly reaffirm India's unwavering **"zero-tolerance" policy against terrorism** in all its forms and manifestations and to bolster international cooperation in combating this global menace.

Key Objectives of the Diplomatic Outreach:

- **Project National Consensus:** The primary goal is to showcase India's unified political resolve and national consensus against terrorism, transcending domestic political differences.
- **Reinforce "Zero-Tolerance" Policy:** To clearly communicate to the international community India's firm stance that it will not tolerate terrorism in any form.
- **Strengthen International Cooperation:** To enhance global partnerships in counter-terrorism efforts, including intelligence sharing, and to build a united global front against state sponsors of terrorism.
- **Counter Misinformation:** To proactively counter any misinformation campaigns, particularly concerning regions like Jammu and Kashmir, by engaging with foreign governments, media, academia, and opinion-makers.
- **Share India's Perspective:** To articulate India's experiences as a long-standing victim of cross-border terrorism and its approach to dealing with such threats.

Composition and Significance of "All-Party" Delegations:

- The delegations will comprise Members of Parliament (MPs) from across the political spectrum, including both the ruling National Democratic Alliance (NDA) and opposition parties from the INDIA bloc.
- Each delegation is expected to have five to six MPs, with a conscious effort to include minority and women parliamentarians.
- Prominent political figures, senior leaders, and even former diplomats and ministers who are not currently MPs have been invited to be part of these delegations, further emphasizing the broad-based national approach.
- Leaders of these delegations include experienced parliamentarians such as Shashi Tharoor (INC), Ravi Shankar Prasad (BJP), Baijayant Panda (BJP), Supriya Sule (NCP-SP), Kanimozhi Karunanidhi (DMK), Shrikant Shinde (Shiv Sena), and Sanjay Kumar Jha (JD(U)).
- The **"all-party" nature** of these delegations is highly significant as it signals to the international community that on issues of core national security like terrorism, India stands united, irrespective of internal political affiliations. This strengthens India's diplomatic messaging and credibility on the global stage.

India's "Zero-Tolerance" Policy on Terrorism:

India's counter-terrorism policy is firmly rooted in the principle of "zero tolerance." Key tenets include:

- **No Negotiation with Terrorists:** A firm stance against negotiating with terrorist groups.
- **Decisive Action:** A commitment to taking decisive and comprehensive action against perpetrators and sponsors of terrorism. Recent government statements have indicated a shift towards treating any future "act of terror" on Indian soil as an "act of war," potentially invoking self-defence provisions under Article 51 of the UN Charter.
- **International Cooperation:** Actively seeking and promoting global cooperation to combat terrorism, including intelligence sharing, mutual legal assistance, and action against terror financing.
- **Strengthening Domestic Security:** Continuously upgrading domestic security architecture, intelligence gathering capabilities, and legal frameworks to prevent and counter terrorist activities.

- **No Distinction:** The evolving doctrine emphasizes no distinction between terrorists, their leaders, and the states that support or sponsor them.

Domestic and International Counter-Terrorism Framework:

- **Domestic Measures:**
    - **Unlawful Activities (Prevention) Act (UAPA):** The primary anti-terror legislation in India, providing a framework for dealing with terrorist activities and organizations.
    - **National Investigation Agency (NIA):** A specialized central agency to investigate and prosecute offences affecting the sovereignty, security, and integrity of India, including terrorism.
    - **Multi-Agency Centre (MAC):** For real-time collation and sharing of intelligence among various central and state agencies.
    - Specialized forces like the **National Security Guard (NSG)** for counter-terrorism operations.
- **International Cooperation:**
    - India is an active participant in global counter-terrorism efforts at the **United Nations**, including supporting and implementing UNSC resolutions related to terrorism and serving on bodies like the Counter-Terrorism Committee.
    - Membership and engagement with the **Financial Action Task Force (FATF)** to combat terror financing and money laundering.
    - Bilateral and multilateral agreements with various countries for security cooperation, intelligence sharing, and mutual legal assistance in criminal matters.
    - Active participation in regional forums like SAARC, BIMSTEC, and SCO to address regional security challenges, including terrorism.

India Takes Helm of Asian Productivity Organisation for 2025-26

India has officially assumed the **Chairmanship of the Asian Productivity Organisation (APO)** for the term **2025-26**. The transition took place during the **67th Session of the APO Governing Body Meeting (GBM)** held in Jakarta, Indonesia, from May 20 to 22, 2025. The Indian delegation was led by **Shri Amardeep Singh Bhatia, IAS, Secretary of the Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry, who is also the APO Director for India. Shri Bhatia will now steer APO's strategic agenda on behalf of India.

What is the Asian Productivity Organisation (APO)?

- **Inter-governmental Body:** The APO is a **regional inter-governmental organization** established on May 11, **1961**. It is non-political, non-profit, and non-discriminatory.
- **Mission:** To contribute to the **sustainable socio-economic development of Asia and the Pacific through enhancing productivity**.
- **Focus Areas:** APO undertakes initiatives in industry, agriculture, services, and the public sector by promoting

productivity enhancement tools, techniques, and technologies.

- **Membership:** It currently comprises **21 member economies**, including Bangladesh, Cambodia, Republic of China (Taiwan), Fiji, Hong Kong, India, Indonesia, Iran, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Turkiye, and Vietnam.
- **Secretariat:** Its headquarters is located in **Tokyo, Japan**.
- **Governing Body (GBM):** This is the supreme decision-making body of the APO. It meets annually to decide on policy matters concerning APO's programs, budget, finances, and membership.

India and the APO: A Long-standing Partnership

- **Founding Member:** India is one of the **founding members** of the APO and has played a pivotal role in shaping its vision and initiatives over the decades.
- **Nodal Agency in India:** The **National Productivity Council (NPC)**, an autonomous organization under the **DPIIT, Ministry of Commerce and Industry**, is the nodal government agency in India for APO matters. NPC implements APO programs in the country and nominates Indian participants for APO's capacity-building initiatives abroad.
- **Active Participation:** Each year, over 100 Indian professionals participate in APO-led capacity-building programs, contributing significantly to productivity improvements in India's industrial, services, and agricultural sectors. India has also implemented several demonstration projects focusing on areas like **Green Productivity** and **Industry 4.0 applications for MSMEs**.

India's Vision as APO Chair (2025-26):

As Chair of the APO, India has reiterated its commitment to:

- **Advancing APO Vision 2030:** This vision aims to foster inclusive, innovation-led productivity growth and sustainable economic development in the Asia-Pacific region.
- **Expanding Green Productivity 2.0 Framework:** Strengthening this critical initiative that integrates environmental sustainability with productivity enhancement. This includes focusing on areas like resource efficiency, environmental management systems, and climate change mitigation.
- **Driving Regional Collaboration:** Emphasizing the importance of cooperation among member economies to tackle evolving productivity and development challenges through:
  - **Digital Transformation:** Leveraging digital technologies to boost productivity.
  - **Innovation:** Fostering a culture of innovation across sectors.
  - **Sustainability:** Promoting environmentally sustainable productivity practices.
  - **Entrepreneurship:** Encouraging new ventures and business growth.
- **Inclusive and Results-Driven Programs:** Contributing to APO programs that are responsive to the evolving needs of member countries and deliver tangible results.

National Productivity Council (NPC) of India:

- **Establishment:** NPC was established in **1958** as an autonomous body under the Ministry of Commerce and Industry (now under DPIIT).
- **Mandate:** To promote a productivity culture in India by providing training, consultancy, and undertaking research in productivity-related areas across various sectors of the economy.
- **Key Roles:**
  - Acts as a think tank and catalyst for productivity enhancement.
  - Provides specialized services to improve organizational efficiency.
  - Implements APO programs in India and facilitates Indian participation in overseas APO projects.

Pakistan Violated Indus Treaty's Spirit with Wars & Terror: India at UN

India has strongly accused Pakistan of violating the **"spirit of goodwill and friendship"** enshrined in the **Indus Waters Treaty (IWT) of 1960** by inflicting three wars and thousands of terror attacks over the past six and a half decades. Speaking at a **United Nations Security Council (UNSC) Arria Formula meeting** on "Protecting Water in Armed Conflict – Protecting Civilian Lives" around May 23-24, 2025, India's Permanent Representative, Ambassador **Parvathaneni Harish**, asserted that these actions by Pakistan have resulted in the loss of over 20,000 Indian lives in the last four decades alone.

This strong statement comes in the backdrop of India's recent decision to hold the **Indus Waters Treaty in "abeyance"** following the heinous **Pahalgam terror attack on April 22, 2025**, which killed 26 civilians.

What India Said at the UN:

- **Violation of Treaty's Spirit:** Ambassador Harish emphasized that the IWT was concluded "in a spirit of goodwill and friendship," as stated in its Preamble. However, he argued that "throughout these six and a half decades, Pakistan has violated the spirit of that treaty by inflicting three wars and thousands of terror attacks on India."
- **Terrorism as a Key Factor:** India directly linked Pakistan's support for cross-border terrorism to the current stance on the IWT. The Indian envoy stated that the treaty would remain in abeyance until Pakistan, described as a "global epicentre of terror," credibly and irrevocably ends its support for cross-border terrorism.
- **Disinformation by Pakistan:** India's statement was also a rebuttal to what it termed "disinformation" being spread by Pakistan at the UN regarding the IWT and India's actions.
- **India's Responsible Conduct:** Ambassador Harish highlighted that India has always acted as a responsible upper riparian state and has honored the treaty for 65 years despite numerous provocations and a security situation vastly different from when the treaty was signed.
- **Need for Treaty Modernization:** India pointed out that far-reaching fundamental changes have occurred since 1960, including escalating security concerns due to

cross-border terror, growing needs for clean energy, climate change impacts, and demographic shifts. Despite India formally requesting discussions on treaty modifications over the past two years to address these contemporary realities and outdated engineering techniques, Pakistan has reportedly rejected these proposals and consistently blocked permissible changes to ageing water infrastructure, some of which now pose safety concerns.

- **Attacks on Infrastructure:** The Indian envoy also cited instances of terrorist attacks on water infrastructure in India, like the 2012 attack on the Tulbul Navigation Project, as acts endangering civilian lives and projects.

Context: IWT Suspension and Pahalgam Attack

India's decision to put the IWT in "abeyance" (a state of temporary disuse or suspension) was announced on April 23, 2025, a day after the tragic terrorist attack in Pahalgam, Jammu and Kashmir. India has linked the attack to cross-border elements from Pakistan. This suspension marked a significant hardening of India's stance on the decades-old water-sharing pact.

The "Spirit" vs. "Letter" of the Treaty

India's argument focuses on the "spirit" of the IWT. While the treaty's mechanisms for water sharing (the "letter" of the law) have largely been adhered to by India despite conflicts, India contends that Pakistan's persistent hostility and use of terrorism have vitiated the atmosphere of "goodwill and friendship" that is fundamental to any such bilateral agreement. The Preamble of a treaty often outlines its guiding principles and objectives, which India believes Pakistan has fundamentally breached.

International

Pulitzer Prizes 2025: "James" and "Purpose" Win Top Arts Awards

The **2025 Pulitzer Prizes**, highly prestigious awards honouring excellence in U.S. journalism, arts, and letters, were announced on **Monday, May 12, 2025**. This year's winners in the arts categories include novelist **Percival Everett** for "James" and playwright **Branden Jacobs-Jenkins** for "Purpose," both works offering powerful explorations of race and heritage.

The announcement also highlighted concerns over recent funding cutbacks at the **National Endowment for the Arts (NEA)**, an institution that has previously supported Pulitzer laureates.

About the Pulitzer Prizes:

- Established in 1917 by provisions in the will of Joseph Pulitzer, a Hungarian-American newspaper publisher.
- Administered by Columbia University, New York.
- Recognised as the highest national honour in the United States for achievements in print journalism, literary achievement, and musical composition.
- Winners receive a certificate and a cash award (currently $15,000, except for the Public Service prize in journalism, which is a gold medal).

Major Winners in Arts and Letters (2025):

- **Fiction: "James" by Percival Everett**.
  - A radical reimagining of Mark Twain's "The Adventures of Huckleberry Finn," told from the perspective of the enslaved character, Jim.
  - The Pulitzer citation called it an "accomplished reconsideration" that illustrates "the absurdity of racial supremacy and provide a new take on the search for family and freedom."
  - This novel has also won the National Book Award, the Kirkus Prize, and the Carnegie Medal for fiction in 2024. Everett's 2001 novel "Erasure" was adapted into the Oscar-nominated film "American Fiction" (2023).
- **Drama: "Purpose" by Branden Jacobs-Jenkins**.
  - A play about an accomplished Black family grappling with internal conflicts and legacy.
  - Praised as "a skillful blend of drama and comedy that probes how different generations define heritage."
  - Jacobs-Jenkins is a two-time previous Pulitzer finalist and won a Tony Award in 2024 for the revival of his play "Appropriate." "Purpose" also received six Tony Award nominations.
- **History (Two Winners):** Both explore themes of race in U.S. history.
  - **"Combee: Harriet Tubman, The Combahee River Raid, and Black Freedom During the Civil War" by Edda L. Fields-Black.**
  - **"Native Nations: A Millennium in North America" by Kathleen DuVal.**
- **Biography: "Every Living Thing: The Great and Deadly Race to Know All Life" by Jason Roberts.**
- **General Nonfiction: "To the Success of Our Hopeless Cause: The Many Lives of the Soviet Dissident Movement" by Benjamin Nathans.**
- **Poetry: "New and Selected Poems" by Marie Howe.**
- **Music: "Sky Islands" by Susie Ibarra**, an eight-piece ensemble inspired by rainforest habitats in the Philippines.
- **Memoir/Autobiography: "Feeding Ghosts: A Graphic Memoir" by Tessa Hulls**, a multigenerational story and her debut book.

Israel Unveils Strategic Plan for Food Security by 2050 Amid Growing Threats

Faced with escalating regional instability, the impacts of climate change, and global supply chain uncertainties, Israel has launched a **National Food Security Strategy for 2050**. The plan, presented by the Ministry of Agriculture and Food Security in cooperation with other government bodies, aims to ensure a stable and resilient food supply for its growing population by the middle of the century. The initial phase of this long-term strategy is estimated to require an investment of **NIS 2.5 billion to NIS 5 billion (approximately USD 710 million to USD 1.4 billion)**.

Key Drivers Behind Israel's Strategy:

- **Geopolitical Tensions:** Ongoing conflicts, including the "Swords of Iron" war, and threats from regional actors

have highlighted the need for greater self-reliance in food. Officials have stressed that Israel cannot afford to depend on others for its basic needs during times of war or supply chain breakdowns.

- **Climate Change Impacts:** Israel is already experiencing the effects of climate change, including **desertification, water scarcity, and potential reductions in agricultural yields**. The strategy aims to prepare for these climate shocks.
- **Population Growth & Demand:** Israel's population is projected to reach 16.5 million by 2050, leading to an anticipated **65% increase in food demand**.
- **Import Dependency:** The country relies heavily on imports for several essential food categories, such as **97% of sugar and confectionery, 92% of fish, 91% of grains, and 71% of meat**. This makes it vulnerable to global market fluctuations and disruptions.
- **Agricultural Workforce Shortages:** Israel is facing a current deficit of about 5,000 agricultural workers, a number expected to increase significantly in the coming years.
- **Food Loss and Waste:** A significant concern is the **wastage of over 2.6 million tons of food annually**, accounting for more than a third of total local production, with substantial economic costs.

Pillars and Objectives of the National Food Security Plan 2050:

The comprehensive strategy is built upon **four strategic pillars** with specific targets for 2030 and 2040:

1. **Promoting Healthy and Sustainable Diets:** Encouraging food consumption patterns that are both nutritious and environmentally sound.
2. **Ensuring Continuous Food Availability:** Maintaining a steady and reliable supply of food for the population.
3. **Strengthening Production and Import Capacity:** Boosting domestic agricultural output while also strategizing imports for resilience.
4. **Building Long-Term Resilience:** Developing a food system capable of withstanding future shocks and stresses.

Specific actions and goals include:

- **Boosting Local Production:** Expanding domestic output, particularly in **fish, legumes, vegetables, and olive oil**.
- **Fostering Innovation:** Heavily investing in **food-tech and agri-tech**, areas where Israel is a global leader. This includes a strong focus on developing **alternative protein sources** (plant-based and cultivated meat).
- **Managing Food Surpluses:** Creating **digital platforms** for better data management and efficient distribution of surplus food.
- **Reducing Food Loss:** Setting ambitious targets to cut per capita food loss by **20% by 2035 and by 50% by 2050**.
- **Strategic Imports:** Redesigning import strategies to enhance reliability and reduce vulnerabilities.
- **Economic Measures:** Proposing financial incentives and potential taxes to encourage the production and consumption of healthier food options.

Understanding Food Security: A Broader Perspective

The concept of **food security**, as defined by the UN's Food and Agriculture Organization (FAO), exists when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food1 which meets their dietary needs and food preferences for an active and healthy life." It rests on four key pillars:

- **Availability:** The physical existence of food, from production, stocks, and imports.
- **Accessibility:** The ability of people to obtain food, which depends on economic (purchasing power) and physical (infrastructure) factors.
- **Utilization:** The proper biological use of food, requiring a diet that provides adequate energy and nutrients, along with access to clean water and sanitation.
- **Stability:** The reliability of food availability and access over time, even in the face of shocks like climate events or economic crises. This aligns with the **Sustainable Development Goal 2 (SDG 2): "Zero Hunger."**

Baloch Leaders Declare Independence, Seek UN and Indian Recognition

Prominent Baloch nationalist leaders and activists have reportedly **declared independence from Pakistan**, announcing the formation of a "**Democratic Republic of Balochistan**." This declaration, primarily disseminated through social media platforms around early to mid-May 2025, is accompanied by urgent appeals to the **United Nations (UN) and** specifically to **India** for recognition of their proclaimed sovereign state. Some groups have also requested India to facilitate the opening of a Baloch embassy in New Delhi.

This move by exiled Baloch leaders aims to draw international attention to their long-standing struggle for self-determination and to highlight allegations of human rights violations and resource exploitation in Pakistan's largest province.

Key Aspects of the Declaration:

- **Proclamation of Independence:** Various Baloch activists, including figures like Mir Yar Baloch, have made public declarations asserting Balochistan's independence from Pakistani rule.
- **Call for International Recognition:** A central demand is the formal recognition of the "Democratic Republic of Balochistan" by the international community, with a specific appeal directed towards the United Nations and the Government of India.
- **Embassy Request to India:** Some Baloch representatives have reportedly asked India to allow the establishment of an embassy for the "Republic of Balochistan" in New Delhi, a move that would signify strong diplomatic backing.
- **Reasons Cited:** The declaration stems from decades of grievances, including:
  - Persistent allegations of **gross human rights violations** by Pakistani security forces, such as enforced disappearances, extrajudicial killings, and torture.
  - The **economic exploitation** of Balochistan's rich natural resources (gas, minerals, coal) without proportionate benefit to the local Baloch population, leading to underdevelopment and poverty.
  - A sense of **political marginalization** and the denial of the right to self-determination.

- o Historical claims that Balochistan, particularly the Khanate of Kalat, was an independent entity before its **forced annexation by Pakistan in 1948**.
- **Recent Context:** This declaration appears to have gained fresh momentum following recent geopolitical events in the region, with Baloch groups aiming to leverage the international spotlight. Simultaneously, armed outfits like the Balochistan Liberation Army (BLA) have claimed responsibility for recent attacks on Pakistani military and infrastructure targets.
- **Differing Voices:** It's important to note that while the call for independence is a shared goal among many Baloch nationalist groups, there are diverse voices within the movement. For instance, the Baloch National Movement (BNM), a prominent nationalist organization, while asserting the ongoing struggle for freedom since the 1948 annexation, has also cautioned against misleading claims by obscure individuals and emphasized that no single person or entity can unilaterally speak for the entire Baloch nation.

Background of the Balochistan Conflict:

The Balochistan issue is rooted in a complex history and has significant geopolitical implications:

- **Historical Context:** Balochistan consists of several former princely states, with the Khanate of Kalat having declared independence on August 11, 1947, prior to its controversial accession to Pakistan in March 1948, an act many Baloch nationalists have never accepted. This has fueled several insurgencies over the decades.
- **Geostrategic Importance:** Balochistan is Pakistan's largest province by area and is strategically located, bordering Iran and Afghanistan, with a long coastline on the Arabian Sea. It hosts the deep-sea **Gwadar Port**, a key component of the **China-Pakistan Economic Corridor (CPEC)**, which is viewed by Baloch nationalists as a project that further marginalizes them and exploits their resources.
- **Human Rights Concerns:** International human rights organizations have extensively documented alleged abuses in Balochistan, including enforced disappearances (the "missing persons" issue), torture, and suppression of political dissent by Pakistani authorities.
- **Resource Exploitation:** Despite being rich in natural resources like natural gas (Sui gas fields), minerals, and coal, Balochistan remains Pakistan's poorest and least developed province, a major grievance fueling the separatist movement.

International Law and Recognition:

- **State Recognition:** The recognition of a new state is primarily a **political act** by existing sovereign states. There is no centralized international body that "grants" statehood automatically.
- **UN Membership:** Admission to the UN requires a recommendation from the **Security Council** (where permanent members have veto power) and then a **two-thirds majority vote in the General Assembly**. UN membership solidifies a state's international standing.
- **Montevideo Convention (1933):** Often cited, it lays out criteria for statehood: a defined territory, a permanent

population, a government, and the capacity to enter into relations with other states. However, fulfilling these criteria does not guarantee recognition if political will is lacking among other nations.

- **Self-Determination:** The right to self-determination is a recognized principle in international law, though its application, especially when it involves secession, is highly contentious and often overridden by the principle of territorial integrity of existing states.

Global Hunger Crisis Deepens in 2024: 295 Million Face Acute Food Insecurity, Says UN Report

The global battle against hunger suffered another setback in 2024, with an alarming **295 million people across 53 countries experiencing acute food insecurity**, according to a new report. This marks a significant increase of 13.7 million people compared to 2023 and represents the sixth consecutive year the crisis has worsened in the world's most vulnerable regions. The findings were highlighted in the **2025 Global Report on Food Crises (GRFC)**, released by the **Global Network Against Food Crises (GNAFC)**, an international alliance involving the **Food and Agriculture Organization of the United Nations (FAO)**, the **UN World Food Programme (WFP)**, and other partners.

Understanding Acute Food Insecurity

- **Acute food insecurity** is defined by the FAO as food insecurity found in a specified area at a specific point in time and of a severity that threatens lives or livelihoods, or both, regardless of the causes, context, or duration. It is a more severe state than chronic hunger and often requires urgent humanitarian action.
- The report indicates that nearly 1.9 million people faced **catastrophic food insecurity (IPC Phase 5)** in 2024, more than double the 2023 figure and the highest since 2016. Famine was confirmed in parts of Sudan, with catastrophic levels of hunger also recorded in the Gaza Strip, South Sudan, Haiti, and Mali.

Key Drivers of the Worsening Crisis:

The report emphasizes that a combination of factors, often interlinked, is fueling the global hunger crisis:

- **Conflict and Insecurity:** This remains the **primary driver** in many of the worst-hit regions, affecting an estimated 140 million people in 20 countries. Conflicts disrupt food production, displace populations, destroy livelihoods, and hinder humanitarian access.
- **Economic Shocks:** Inflation, currency collapses, and overall economic downturns triggered food insecurity in 15 countries, affecting nearly 60 million people. These shocks limit people's purchasing power and access to food.
- **Extreme Weather Events and Climate Change:** Climate-related disasters such as droughts, floods, and cyclones, often exacerbated by phenomena like El Niño, pushed 18 countries into crisis, impacting over 96 million people. Southern Asia, Southern Africa, and the Horn of Africa were particularly affected.
- **Forced Displacement:** Of the 128 million people forcibly displaced globally in 2024, a staggering 95 million were living in countries already grappling with food crises.

- **Reduced Humanitarian Funding:** The report also flags a dramatic reduction in lifesaving humanitarian funding, compounding the crisis and limiting the ability to respond effectively.

Role of International Organizations:

- **Food and Agriculture Organization (FAO):** A specialized agency of the UN that leads international efforts to defeat hunger and improve nutrition and food security. Its motto is "Fiat Panis" ("Let there be bread"). FAO provides technical assistance, collects and analyzes data, sets international standards for food and agriculture, and implements projects worldwide.
- **World Food Programme (WFP):** The world's largest humanitarian organization addressing hunger and promoting food security. WFP provides food assistance in emergencies and works with communities to improve nutrition and build resilience.
- **Global Network Against Food Crises (GNAFC):** An alliance of humanitarian and development actors working to prevent, prepare for, and respond to food crises and support the Sustainable Development Goal to End Hunger (SDG 2).

Implications for Sustainable Development Goals (SDGs):

This worsening crisis directly impacts the achievement of **SDG 2: Zero Hunger**, which aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030. The current trends indicate that the world is far off track from meeting this crucial goal.

UK Agrees to Transfer Chagos Islands Sovereignty to Mauritius, Secures Diego Garcia Lease

The **United Kingdom has signed a landmark treaty on May 22, 2025, to hand over sovereignty of the Chagos Archipelago to Mauritius**. This agreement ends decades of dispute over the Indian Ocean islands. Crucially for global and regional security, the deal includes provisions for the continued operation of the strategically vital **UK-US military base on Diego Garcia**, which will be leased back by the UK from Mauritius for an initial period of 99 years.

What is the Agreement?

- **Sovereignty Transfer:** The **Chagos Archipelago**, including Diego Garcia, will come under **Mauritian sovereignty**. This marks the completion of Mauritius's decolonization process, which began when it gained independence from Britain in 1968.
- **Diego Garcia Base Lease:** The UK will lease Diego Garcia from Mauritius for **99 years**, with an option to extend for a further 40 years. The UK will pay Mauritius an average of **£101 million annually** for the lease. The US will continue to cover the running costs of the base.
- **Strategic Protections:** The agreement includes a **24-mile buffer zone** around Diego Garcia where no development can occur without UK consent. Foreign military and civilian forces (other than UK/US on Diego Garcia) will be barred from the other islands, with the UK retaining veto power over access.
- **Chagossian Resettlement:** Mauritius will be free to implement a **resettlement programme for Chagossians** on the islands of the

archipelago, **excluding Diego Garcia itself**. A **£40 million trust fund** is also being established by the UK to support the Chagossian community.
- **Legal Context:** This agreement follows years of international legal pressure, notably a **2019 advisory opinion by the International Court of Justice (ICJ)** which found the UK's continued administration of the Chagos Islands unlawful. The **UN General Assembly** also passed a resolution calling on the UK to withdraw.

Historical Background of the Dispute

- **Detachment from Mauritius:** In **1965**, three years before Mauritius gained independence, the UK detached the Chagos Archipelago from Mauritian colonial territory to create the **British Indian Ocean Territory (BIOT)**. This was allegedly done under duress as a condition for Mauritian independence.
- **Establishment of Military Base:** The UK then leased the largest island, **Diego Garcia**, to the **United States** for the establishment of a major military base.
- **Forcible Eviction of Chagossians:** Between **1967 and 1973**, the entire indigenous population of the Chagos Islands, known as **Chagossians** (or Ilois), were **forcibly removed** from their homes and deported to Mauritius and Seychelles, where they faced extreme poverty and discrimination. This act has been widely condemned as a violation of human rights.
- **Long Struggle:** Mauritius has consistently claimed sovereignty over the archipelago, and the Chagossian people have fought for decades for their right to return and for reparations.

The Strategic Importance of Diego Garcia

Diego Garcia's location in the central Indian Ocean makes it an invaluable strategic asset:

- **Power Projection:** It serves as a vital logistics hub and staging post for US and UK military operations across the Middle East, East Africa, South Asia, and the wider Indo-Pacific.
- **Surveillance and Intelligence:** The base hosts advanced communications and surveillance capabilities, including signals intelligence and space tracking facilities.
- **Air and Naval Operations:** It has a long runway capable of handling heavy bombers and a deep-water port suitable for aircraft carriers and submarines.
- **Unimpeded Access:** Until this deal, its status as a BIOT under direct UK control gave the US and UK relatively unimpeded operational freedom. The new lease agreement aims to preserve this operational effectiveness under Mauritian sovereignty.

Two Indian Peacekeepers to Be Honoured Posthumously by UN on Peacekeepers Day

The United Nations will posthumously honour two Indian peacekeepers, **Brigadier General Amitabh Jha** and **Havildar Sanjay Singh**, on Thursday, May 29, 2025, the **International Day of UN Peacekeepers**. They are among 57 military, police, and civilian peacekeepers from around the world who lost their lives serving under the UN flag in 2024 and will be awarded the prestigious **Dag Hammarskjöld Medal** at a solemn ceremony at the UN Headquarters in New York.

The Honoured Indian Heroes:

The two Indian peacekeepers who made the ultimate sacrifice in the line of duty are:

- **Brigadier General Amitabh Jha:** He served with the **United Nations Disengagement Observer Force (UNDOF)**, which operates in the Golan Heights, monitoring the ceasefire between Israel and Syria.
- **Havildar Sanjay Singh:** He was deployed with the **United Nations Stabilisation Mission in the Democratic Republic of Congo (MONUSCO)**, one of the UN's largest and most complex peacekeeping operations, tasked with protecting civilians and supporting peace consolidation efforts.

UN Secretary-General **António Guterres** will preside over the ceremony and lay a wreath at the Peacekeepers Memorial in honour of all fallen peacekeepers. He will also award the Dag Hammarskjöld Medals to the permanent representatives of the concerned member states.

International Day of UN Peacekeepers 2025: "The Future of Peacekeeping"

Observed annually on **May 29th**, the International Day of UN Peacekeepers serves two primary purposes:

- To pay tribute to the professionalism, dedication, and courage of all men and women serving in UN peacekeeping operations.
- To honour the memory of those who have lost their lives in the cause of peace.
- The theme for this year's (2025) observance is **"The Future of Peacekeeping."** This theme emphasizes the need to adapt peacekeeping missions to the evolving nature of global conflicts and security challenges, aligning with initiatives like the UN Secretary-General's "Pact for the Future."

The Dag Hammarskjöld Medal: A Solemn Tribute

- The Dag Hammarskjöld Medal was established in **December 2000** by the UN Security Council.
- It is a **posthumous award** presented to military personnel, police, or civilians who lose their lives while serving in UN peacekeeping operations.
- The medal is named after **Dag Hammarskjöld**, the second UN Secretary-General, who died in a plane crash in 1961 while on a peace mission in Congo.

India's Enduring Commitment to UN Peacekeeping: A Legacy of Service and Sacrifice

India has a long and distinguished history of participation in UN peacekeeping missions, reflecting its commitment to international peace and security.

- **One of the Largest Contributors:** India is consistently among the **top troop and police-contributing countries** to the UN. Currently, it is the **4th largest contributor of uniformed personnel**.
- **Extensive Participation:** Since the 1950s, over **2,90,000 Indian peacekeepers** have served in more than **50 UN missions** across the globe, often in the most challenging and dangerous environments.
- **Supreme Sacrifice:** Nearly **180 Indian peacekeepers** have made the ultimate sacrifice while serving under the UN flag, the highest number from any single troop-contributing country.

- **Current Deployments:** Over **5,000 Indian personnel** are currently deployed in nine active UN peacekeeping missions, including in regions like the Democratic Republic of Congo (MONUSCO), South Sudan (UNMISS), Lebanon (UNIFIL), and the Golan Heights (UNDOF).
- **Beyond Troops:** India's contribution also includes providing medical units, engineering support, and actively participating in capacity building for other nations' peacekeepers. India has also been a pioneer in deploying **all-women peacekeeping contingents**.

France Takes Step Towards Legalising Assisted Dying Amidst Ethical Debate

French lawmakers in the **National Assembly (the lower house of Parliament)** have approved a landmark bill that aims to **legalise "assisted dying"** under strict conditions for terminally ill adults. The vote, which took place on **May 27, 2025**, marks a significant step in a lengthy legislative process and could position France among a growing number of European countries that allow some form of medically assisted end-of-life options.

The bill, backed by President Emmanuel Macron, reflects a shift in a country where end-of-life care has been a subject of intense debate. While it has cleared a crucial hurdle, the legislation will now proceed to the **Senate (the upper house)** for further debate and potential amendments. The final passage of the bill is not yet guaranteed and could take several more months, but opinion polls in France have shown strong public support for such measures.

Provisions of the Proposed French Bill:

- **Strict Eligibility Criteria:** To be eligible for assisted dying, an individual must:
  - Be over 18 years of age.
  - Be a French citizen or a legal and stable resident of France (to prevent "suicide tourism").
  - Suffer from a "serious and incurable" illness that is life-threatening in the short or medium term.
  - Be experiencing "intolerable and untreatable" physical or psychological suffering associated with their condition. (However, psychological suffering alone is not sufficient).
  - Be capable of expressing their free and informed will. Patients with severe psychiatric conditions or neurodegenerative disorders like Alzheimer's that impair judgment will not be eligible.
- **Patient's Request and Confirmation:** The patient must initiate the request and confirm it after a period of reflection.
- **Medical Approval:** A team of medical professionals would need to confirm the patient's condition and eligibility.
- **Administration of Lethal Substance:** The bill primarily provides for the patient to **self-administer** the prescribed lethal medication. In exceptional cases where the patient is physically unable to do so, a trusted third party or a healthcare professional could assist, under strict conditions.
- **Conscience Clause:** Healthcare professionals will have the right to refuse to participate in the assisted dying process based on a conscience clause.

- **Palliative Care Emphasis:** Alongside this bill, French lawmakers also unanimously passed a separate bill to strengthen and guarantee access to **palliative care** for all patients in need.

Understanding Key Terms:

- **Assisted Dying/Physician-Assisted Suicide (PAS):** Generally refers to a practice where a physician provides a terminally ill and mentally competent patient, at their explicit request, with the means (e.g., a prescription for a lethal dose of medication) to end their own life. The patient self-administers the medication.
- **Euthanasia:** Derived from Greek words meaning "good death."
  - **Active Euthanasia:** Involves a third party (usually a physician) directly administering a lethal substance to end a patient's life at their request, to relieve intractable suffering.
  - **Passive Euthanasia:** Involves withdrawing or withholding life-sustaining medical treatment, allowing the patient to die from their underlying condition.
- **Living Will/Advance Medical Directive:** A legal document in which a person specifies what actions should be taken for their health if they are no longer able to make decisions for themselves due to illness or incapacity.

The Global Legal Landscape:

Several countries and jurisdictions have legalised some form of assisted dying or euthanasia, often with strict safeguards. These include:

- **Europe:** Netherlands, Belgium, Luxembourg, Switzerland (which allows assisted suicide by non-physicians under certain conditions and is known for "suicide tourism"), Spain, Austria, and now potentially France.
- **North America:** Canada (Medical Assistance in Dying - MAiD), and several states in the USA (e.g., Oregon, Washington, California).
- **Oceania:** New Zealand and all states in Australia.
- **South America:** Colombia.

The models vary, with differences in eligibility criteria (e.g., terminal illness vs. unbearable suffering), who can administer the lethal dose, and the review processes.

India's Stance on Euthanasia and the Right to Die:

- **Active Euthanasia and Assisted Suicide:** Remain **illegal** in India and are considered offenses under the Indian Penal Code (IPC).
- **Passive Euthanasia:** The Supreme Court of India has recognized the concept of passive euthanasia.
  - **Aruna Shanbaug Case (2011):** In this landmark case involving a nurse who was in a persistent vegetative state for decades, the Supreme Court allowed passive euthanasia under exceptional circumstances, subject to strict judicial scrutiny and approval by a High Court.
  - **Common Cause (A Regd. Society) vs. Union of India (2018):** The Supreme Court further affirmed the legality of passive euthanasia and, significantly, gave legal sanction to **Advance Medical Directives or "Living Wills."**

- The Court held that the **right to die with dignity** is an intrinsic part of the **right to life under Article 21** of the Constitution.
- It laid down detailed guidelines for individuals to execute living wills, specifying that they would not want life-sustaining treatment if they fall into an irreversible coma or terminal illness.
- The implementation of these guidelines faced practical challenges, leading the SC to simplify the process in a subsequent order in **2023**.

- **Law Commission Reports:** The Law Commission of India has, in various reports, examined the issue of euthanasia and end-of-life care, often recommending a legislative framework for passive euthanasia and advance directives.

US Court Challenges Key Trump-Era Tariffs, Citing Overreach

In a significant development with potential implications for international trade, a **United States trade court** has reportedly ruled against certain tariffs imposed during the Trump administration, finding that the executive branch **exceeded its authority** in their application. The ruling, likely from the **U.S. Court of International Trade (USCIT)** around late May 2025, appears to focus on the expansion or specific application of tariffs, possibly those on **derivative products** under **Section 232 of the Trade Expansion Act of 1962**, which were initially justified on national security grounds.

While the full scope and immediate impact are still being analyzed, such a decision underscores the ongoing legal battles and scrutiny surrounding the wide-ranging tariffs implemented by the previous U.S. administration, which had disrupted global supply chains and drawn retaliatory measures from other countries.

Key Aspects of the Potential Ruling:

- **Exceeding Statutory Authority:** The court likely found that the manner in which the tariffs were expanded or applied to certain products (e.g., downstream or derivative goods made from steel and aluminum) went beyond the powers granted to the President under the specific trade law, such as Section 232.
- **Procedural Lapses:** Rulings in such cases can also hinge on whether the administration followed the proper procedures, including timelines and justifications, required by the law when imposing or modifying tariffs.
- **National Security Justification:** The "national security" rationale under Section 232 for imposing tariffs on goods from even allied nations had been a contentious point, both domestically and internationally. The court may have scrutinized the linkage between imports of specific derivative products and genuine national security threats.
- **Impact on Importers:** If upheld, such a ruling could potentially lead to the rollback of these specific tariffs and even refunds for importers who paid the duties. However, government appeals are common in such high-stakes cases.

Background on Trump-Era Tariffs and Section 232:

- **Section 232 of the Trade Expansion Act of 1962:** This U.S. law allows the President to impose tariffs or other trade restrictions if an investigation by the Department of Commerce finds that imports of certain products threaten to impair national security.
- **Trump Administration's Use:** President Trump used Section 232 to impose tariffs of **25% on steel imports and 10% on aluminum imports** in 2018 from most countries, arguing that a strong domestic metals industry was vital for national security.
- **Expansion to Derivatives:** In 2020, these tariffs were expanded to cover certain **derivative articles** of steel and aluminum (e.g., nails, bumpers, body stampings for cars) to prevent circumvention of the original tariffs. It is this expansion, or similar specific applications, that are often subject to legal challenge on grounds of overreach or improper procedure.
- **Other Tariffs:** The Trump administration also used **Section 301 of the Trade Act of 1974** to impose tariffs on billions of dollars worth of goods from China, alleging unfair trade practices and intellectual property theft. More recently, tariffs were also imposed under the **International Emergency Economic Powers Act (IEEPA)**, some of which were recently struck down by the USCIT in a separate ruling in late May 2025 for exceeding presidential authority under IEEPA.

The U.S. Court of International Trade (USCIT):

- The USCIT is a **U.S. federal court** with nationwide jurisdiction over civil actions arising out of the customs and international trade laws of the United States.
- Its primary purpose is to ensure uniformity in the judicial decision-making affecting import transactions.
- Cases before the USCIT often involve disputes over tariffs, customs classification and valuation, anti-dumping and countervailing duties, and other import-related regulations.
- Decisions of the USCIT can be appealed to the U.S. Court of Appeals for the Federal Circuit, and then potentially to the U.S. Supreme Court.

International Scrutiny and WTO:

- Many of the U.S. tariffs imposed under the Trump administration, including the Section 232 steel and aluminum tariffs, were challenged by affected countries at the **World Trade Organization (WTO)**.
- WTO dispute settlement panels have, in some instances, found these U.S. measures to be inconsistent with WTO rules (GATT obligations), particularly questioning the broad invocation of the "national security" exception.
- The U.S., however, has had concerns about the WTO's dispute settlement system, particularly its appellate body.