

OFFICERS IAS ACADEMY™



# OFFICERS' PULSE



November 2025 (Digest)

CURRENT AFFAIRS  
MONTHLY

The **PULSE** of UPSC at your fingertips.

# Foreword

**Officers Pulse Digest** is a comprehensive monthly current affairs magazine that serves as a complete resource for UPSC CSE Prelims. It includes significant topics from sources like **The Hindu, Indian Express, Business Standard, Yojana, Kurukshetra, Down to Earth**, and more.

Although “**Officers Pulse- Digest**” is primarily oriented towards Prelims, reading “Officers Pulse- In depth” along with it is crucial for effectively tackling the Prelims examination.

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## POLITY & GOVERNANCE

### 1) 53RD CHIEF JUSTICE OF INDIA

#### Why in News?

Justice Surya Kant was sworn in as the **53rd Chief Justice of India (CJI)** on November 24, 2025. The oath of office was administered by the **President of India**.

#### Constitutional Provisions: Appointment of CJI & Judges

- **Article 124(1):** Establishment and Constitution of the Supreme Court(SC) of India.
- **Article 124(2):** The CJI and other Judges of the SC are appointed by the President by **warrant under his hand and seal**.

#### Consultation:

- **For CJI:** The President consults such judges of the Supreme Court and High Courts as he deems necessary.
- **For Other Judges:** The President **must consult the CJI** (Mandatory).

#### Seniority Convention:

- The **senior-most judge** of the Supreme Court, fit to hold the office is appointed as the CJI as per memorandum of procedure of appointment of Supreme Court Judges.

#### Qualifications & Tenure (Article 124)

##### Eligibility (Article 124(3)):

1. Must be a **Citizen of India**.
2. **Experience:**
  - Judge of a High Court for **5 years**; OR
  - Advocate of a High Court for **10 years**; OR
  - **Distinguished Jurist** in the opinion of the President.
  - *(Note: The "Distinguished Jurist" clause applies **only** to the SC, not High Courts. And no person has been appointed under this category yet.)*

#### Tenure:

- Holds office until the age of **65 years**.
- Resignation: addressed to the **President** in writing.
- **Ban on Practice (Art 124(7)):** After retirement, an SC judge **cannot plead or act in any court** or before any authority within India.

#### Key Roles of CJI

- **Master of the Roster:** The CJI has the exclusive prerogative to constitute benches and allocate cases.
- **Administrative Head:** Supervises the administration of the SC.

### 2) 16<sup>TH</sup> PRESIDENTIAL REFERENCE

#### Why in News?

A **5-Judge Constitution Bench** of the Supreme Court delivered its opinion in the **16th Presidential Reference (Article 143)**. The Court held that the **Judiciary cannot impose specific time limits** on the President or Governors to grant assent to Bills under **Articles 200 and 201**.

#### *Power of the President to consult the Supreme Court*

**Article 143(1)** : If at any time it appears to the President that a question of law or fact has arisen, or is likely to arise, which is of such a nature and of such public importance that it is expedient to obtain the opinion of the Supreme Court upon it, he may refer the question to that Court for consideration and the Court may, after such hearing as it thinks fit, report to the President its opinion thereon.

## Governor's Powers (Article 200)

When a Bill passed by the State Legislature is presented to the Governor, they have **four alternatives**:

1. **Grant Assent:** The Bill becomes an Act.
2. **Withhold Assent:**
  - **Effect:** The Bill ends and does not become an Act.
  - **Clarification:** As per the *State of Punjab (2023)* and this 2025 ruling, a Governor **cannot** simply sit on a Bill. If they withhold assent from a non-Money Bill, they **must return it** for reconsideration.
3. **Return the Bill:**
  - **Condition:** Allowed only for **non-Money Bills**.
  - If the Legislature passes the bill again (with or without amendments), the Governor **must give assent** (Suspensive Veto).
4. **Reserve for President:**
  - **Mandatory Reservation:** If the Bill endangers the position of the **State High Court**.
  - **Discretionary Reservation:** If the Bill is against the Constitution, DPSP, or national interest.

## President's Powers (Article 201)

When a Bill is reserved by the Governor for the President, they have three alternatives,

1. **Grant Assent:** The Bill becomes an Act.
2. **Withhold Assent:** The Bill ends (Absolute Veto).
3. **Return for Reconsideration:**
  - The President directs the Governor to return the Bill to the House.
  - The House must reconsider it within **6 months**.

- **Crucial Difference:** If the House passes it again, the President is **NOT bound** to give assent (unlike the Governor).

## Key Highlights of the Judgment

- **Separation of Powers:** Prescribing rigid timelines amounts to **"Judicial Usurpation"** of the executive's constitutional powers. The Court cannot rewrite the Constitution to add time limits where none exist.
- **'Deemed Assent' Rejected:** The Court ruled that **"Deemed Assent"** (assuming a Bill is passed if the Governor sits on it for too long) is **alien to the Constitution**. Assent must be active and expressed.
- **President's Discretion:** The President is **not required** to seek the Supreme Court's advice (under Art. 143) every time a Governor reserves a Bill. The President's "subjective satisfaction" is sufficient.

## Limited Judicial Review:

- **General Rule:** Courts **cannot** review the *merits* of why assent was withheld or reserved.
- **Exception:** Courts can intervene **only** if there is **"glaring, prolonged, and unexplained inaction"** (Malafide intent).
- **Remedy:** Even in such cases, the Court can only issue a **"Limited Mandamus"** requesting a decision, not dictate the outcome.

## 3) TRIBUNALS REFORMS ACT, 2021

### Why in News?

The Supreme Court has struck down specific provisions of the **Tribunals Reforms Act, 2021**. The Court ruled that these provisions were identical to those in the *Tribunals Reforms Ordinance, 2021*, which had already been declared unconstitutional in the **Madras Bar Association case (2021)**.

### Key Provisions Struck Down

The Court invoked the "**Independence of Judiciary**" (a Basic Structure feature) to strike down these clauses.

Provision in Act	Status	SC Ruling / Direction
Minimum Age	Struck Down	The Act mandated a minimum age of <b>50 years</b> for appointment to the tribunal. The SC ruled this violates <b>Article 14</b> (Right to Equality) by arbitrarily excluding young, qualified lawyers.
Tenure	Struck Down	The Act fixed tenure at <b>4 years</b> . The SC restored the <b>5-year tenure</b> to ensure security of service and judicial independence.
Search-cum-Selection Committee (SCSC)	Modified	The SC held that the Executive (government) cannot have a dominant voice in the SCSC, as the government is often a litigant in tribunals. And the <b>CJI's recommendation</b> should be final.

### National Tribunals Commission (NTC)

- **Directive:** The Supreme Court reiterated its direction to the Centre to establish a **National Tribunals Commission (NTC)**.
- **Purpose:** To act as an independent umbrella body to supervise appointments, functioning, and administration of tribunals.

- **Current Status:** Currently, tribunals operate under various parent ministries (e.g., NGT under Ministry of Environment, ITAT under Ministry of Law/Finance), which compromises their independence. The NTC aims to sever this executive control.

### Constitutional Provisions for Tribunals

- **Insertion:** Added by the **42nd Constitutional Amendment Act, 1976** under **Part XIV-A**.
- **Swaran Singh Committee:** Tribunals were established based on the recommendations of this committee.

### Subject Matter

- **Article 323A:** Deals exclusively with **Administrative Tribunals**. It covers disputes related to the recruitment and service conditions of public servants (Government employees).
- **Article 323B:** Deals with **Tribunals for "Other Matters."** It covers a variety of specific subjects such as Taxation, Foreign Exchange, Industrial and Labor disputes, Land Reforms, Ceiling on Urban Property, Elections to Parliament/State Legislatures, Rent and Tenancy rights, and Foodstuffs.

### Authority to Establish

- **Article 323A:** Tribunals can be established **only by the Parliament**. State Legislatures have no power under this article.
- **Article 323B:** Tribunals can be established by **both the Parliament and State Legislatures**, depending on their legislative competence over the subject matter.

## Hierarchy Structure

- **Article 323A:** Provides for the establishment of only **one** Central Administrative Tribunal (CAT) and State Administrative Tribunals (SATs). There is no question of a hierarchy of tribunals under this article.
- **Article 323B:** Permits the establishment of a **hierarchy of tribunals** (e.g., lower-level tribunals and appellate tribunals) for the same subject matter.

## 4) LEGAL SERVICES AUTHORITIES ACT, 1987

### Why in News?

November 9, 2025, marked the **30th anniversary** of the implementation of the Legal Services Authorities Act, 1987.



### Constitutional Basis:

- **Article 39A:** Added by the **42nd Amendment (1976)**. It directs the State to provide **free legal aid** to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities.

### Hierarchy of Legal Services Authorities (Administrative Bodies)

These bodies are responsible for laying down policies, distributing funds, and organizing Lok Adalats at their respective levels.

### National Level: National Legal Services Authority (NALSA)

- **Patron-in-Chief:** The **Chief Justice of India**.
- **Executive Chairman:** A serving or retired Judge of the **Supreme Court**.
- **Appointment:** Nominated by the **President** of India, in consultation with the Chief Justice of India.

### State Level: State Legal Services Authority (SLSA)

- **Patron-in-Chief:** The **Chief Justice of the High Court**.
- **Executive Chairman:** A serving or retired Judge of the **High Court**.
- **Appointment:** Nominated by the **Governor** of the State, in consultation with the Chief Justice of the High Court.

### District Level: District Legal Services Authority (DLSA)

- **Chairman:** The **District Judge** serves as the Ex-officio Chairman..
- **Chairman:** The **Senior Civil Judge** (the senior-most judicial officer operating in the Taluk) serves as the Ex-officio Chairman.

### Court-Specific Committees (Implementation Bodies)

Apart from the administrative "authorities," the Act creates specific "committees". They are:

- Supreme Court Legal Services Committee (SCLSC)
- High Court Legal Services Committee (HCLSC)
- Taluk Legal Services Committee (TLSC)

### Key Distinction: Authorities vs. Committees

- **Authorities (NALSA/SLSA/DLSA):** Their primary function is **policy making and funding**. They decide *how* legal aid should be given and distribute funds to lower levels.

- **Committees (SCLSC/HCLSC):** Their primary function is **implementation**. They appoint lawyers for economically poor litigants.

#### Eligibility for Free Legal Services:

- **Women and Children** (Irrespective of income).
- **SC/ST Members** (Irrespective of income).
- **Industrial Workmen.**
- **Victims** of trafficking (begar) or mass disaster, ethnic violence, caste atrocity, flood, drought, earthquake, or industrial disaster.
- **Persons with Disability** (Blindness, Leprosy, Hearing impairment, etc.).
- **Persons in Custody** (including juvenile homes/psychiatric hospitals).
- **Income Criteria:**
  - **Supreme Court Cases:** Annual income less than **₹5 Lakh**.
  - **Other Courts:** Annual income limit is **decided by State Governments** (typically varies between ₹1 Lakh to ₹3 Lakh).
- **Note:** Senior Citizens' eligibility depends on **State Government Rules** (not automatically eligible under the Central Act).

#### Other Key Initiatives

- **LADCS (Legal Aid Defence Counsel System):** A project by NALSA to provide free legal assistance in **criminal matters** specifically (on the lines of the Public Defender system).
- **DISHA Scheme:** Launched by the Ministry of Law & Justice. It acts as an umbrella scheme for:
  - **Tele-Law:** Legal advice through video conferencing.
  - **Nyaya Bandhu:** Pro-bono legal services.

## 5) DIGITAL PERSONAL DATA PROTECTION (DPDP) RULES, 2025

### Why in News?

The Union government has officially notified the **Digital Personal Data Protection (DPDP) Rules, 2025**. These rules, announced on November 14, 2025, were finalized after extensive nationwide consultations. The rules fully operationalize the **Digital Personal Data Protection Act, 2023**, with provisions scheduled to come into force in January 2026.



### Core Principles of the DPDP Act

The Act is built on a "SARAL" approach (Simple, Accessible, Rational, Actionable) and rests on **seven core principles**:

1. Consent and Transparency
2. Purpose Limitation (use data only for the stated purpose)
3. Data Minimisation (collect only what is necessary)
4. Accuracy
5. Storage Limitation (delete data when a purpose is met)
6. Security Safeguards
7. Accountability

### Key Terms & Provisions of the Act and Rules

- **Data Fiduciary (Companies):** The entity that decides the purpose and means of processing personal data.

- **Data Processor:** Any entity that processes personal data on behalf of the Data Fiduciary.
- **Data Principal (Users):** The individual to whom the data relates. This includes the parent/guardian of a child or the lawful guardian of a person with a disability.

### Rights of Data Principals (Users):

- **Informed Consent:** Users must give clear, informed consent before data collection.
- **Access & Correction:** Users have the right to access, correct, update, or request the erasure of their personal data.
- **Right to Nominate:** A user can nominate another person to exercise their rights on their behalf.
- **Grievance:** Fiduciaries must respond to user requests within a maximum of **ninety days**.

### Obligations of Data Fiduciaries (Companies):

- **Data Security:** Must implement "reasonable security safeguards" to protect data.
- **Breach Notification:** Must inform the Data Protection Board and *all* affected individuals "without delay" in plain language about any data breach.
- **Consent Manager Framework:** The rules establish this system to help users manage their consent across platforms. Consent Managers must be companies based in India.

### Obligations for "Significant Data Fiduciaries":

- These larger firms face stricter duties, including appointing a Data Protection Officer (DPO), conducting **independent audits**, and carrying out **Data Protection Impact Assessments**.
- They must also follow government directions on restricted data, which may include **local storage**.

### Protection for Children:

- Requires **verifiable parental consent** to process a child's data.
- **Exception:** Consent is *not* needed for essential services like healthcare, education, or real-time safety.

### Protection for Persons with Disabilities:

- A lawful guardian must give consent if the person cannot legally do so.

### New Bodies and Enforcement

#### Data Protection Board of India (DPBI):

- The Act establishes the DPBI as the primary adjudicatory body.
- It will be a "**fully digital**" body with four members, handling complaints via an online portal and mobile app.
- **Appellate Tribunal:** Appeals against the Board's decisions will be heard by the **Telecom Disputes Settlement and Appellate Tribunal (TDSAT)**.
- **Phased Implementation:** The rules introduce an **eighteen-month period for phased compliance** to give organizations time to adapt.
- **Penalties:** The Act specifies significant financial penalties for non-compliance.

## 6) CONSTITUTION OF THE 8TH CENTRAL PAY COMMISSION

### Why in News?

The Central Government has constituted the **8th Central Pay Commission (CPC)**.

- **Chairperson:** Retired Justice **Ranjana Prakash Desai**.



### About Pay Commissions

- They are **non-statutory** bodies, set up by an **Executive Order** (Resolution) of the Government of India (Cabinet decision).
- **Frequency:** Usually set up once every **10 years**.
- **First CPC:** Established in **1946** (under the Interim Government).
- **Mandate:** To examine the salary structure, retirement benefits, and service conditions of:
  - Central Government employees.
  - Defence Personnel.
- **Implementation:** The recommendations are **not binding** on the government. The government can accept, reject, or modify them. State governments usually adopt these recommendations later for their own employees.

### Terms of Reference (ToR) for 8th CPC

The ToR for the 8th CPC includes specific focus areas:

- **Fiscal Prudence:** It must consider the economic conditions of the country and the

need for fiscal discipline while making recommendations.

- **Pension Reform:** It is mandated to review the **non-contributory pension schemes** (referring to the demand for Old Pension Scheme) and assess their unfunded liability and cost to the exchequer.
- **Comparison:** It is required to compare the pay structure of the public sector with the **private sector** to attract talent.
- **Timeline:** It will submit its report within **18 months**.

## ECONOMY

### 7) URBAN CO-OPERATIVE BANKS

#### Why in News?

The Government is committed to expanding the urban co-operative credit ecosystem and will set up an **Urban Cooperative Bank in every city** with a **population of over 2 lakhs** within the next five years.

#### About

- Urban Cooperative Banks (UCBs) constitute a segment of the cooperative banking structure that **primarily caters to urban and semi-urban populations**.
- UCBs are registered as cooperative societies either under the respective State Cooperative Societies Acts for single-state operations or under the Multi-State Cooperative Societies Act, 2002 for multi-state functioning.

They operate under a **dual regulatory framework**:

- The **Reserve Bank of India (RBI)** oversees their banking activities under the Banking Regulation Act, 1949; the 2020 amendment further strengthened RBI's supervisory and governance powers.
- The **Registrar of Cooperative Societies (RCS)** of the concerned State or the Central Government exercises control over their administrative and managerial aspects.

#### Significance of Urban Cooperative Banks (UCBs)

- **Financial Inclusion:** UCBs play a vital role in extending credit to small borrowers, lower-income households, and under-served urban populations.
- **Community-Centric Operations:** Their localized presence enables them to understand community needs better and offer customized financial products.

- **Priority Sector Commitment:** UCBs are mandated to allocate **60% of their total loans** to Priority Sector Lending (PSL).

### 8) ELECTRONICS DEVELOPMENT FUND

#### Why in News?

With ₹257.77 crore invested, the fund has supported 128 start-ups nationwide.

#### About

- The Government of India **launched** the Electronics Development Fund (EDF) **on 15 February, 2016**.
- The Fund aims to **promote research, development**, and entrepreneurship in the **fields of electronics, nano-electronics, and information technology**.
- It operates under the **Ministry of Electronics and Information Technology (MeitY)**.

#### Objectives

- **Promote Innovation and R&D:** Encourages market-driven research and innovation in electronics, nano-electronics, and IT.
- **Support Daughter Funds:** Invests in venture and angel funds that finance tech startups.
- **Encourage Product and Technology Development:** Supports firms developing new products, processes, and technologies within the country.
- **Strengthen Domestic Design Capabilities:** Enhances India's indigenous design and development in the Electronics System Design and Manufacturing (ESDM) sector.
- **Build a National IP Resource Pool:** Expands India's intellectual property base in critical technology areas.

- **Facilitate Strategic Acquisitions:** Helps acquire key foreign technologies to reduce import dependence and boost self-reliance.

## 9) EXPORT PROMOTION MISSION

### Why in News?

Amid mounting pressure on Indian goods exports to the U.S., following the imposition of a 50% tariff, the Union Cabinet has cleared a six-year Export Promotion Mission with a financial outlay of ₹25,060 crore.

### About

- The Union Budget 2025–26 introduced a six-year **Export Promotion Mission (EPM)** aimed at strengthening India's export ecosystem.
- The mission seeks to **improve access to export credit, support MSMEs in meeting non-tariff compliance requirements**, and provide cross-border factoring mechanisms.
- The initiative will be jointly steered by the **Ministry of Commerce and Industry**, the **MSME Ministry**, and the **Ministry of Finance**, with the Directorate General of Foreign Trade (DGFT) as the nodal implementing agency.
- All approvals, applications, and disbursements will be executed through a dedicated digital platform integrated with existing trade systems.
- Priority support under EPM will be extended to sectors affected by recent tariff increases, including **textiles, leather, gems and jewellery, engineering goods, and marine products**.

### Key Components

#### Niryat Protsahan (Financial Support):

- It focuses on improving access to affordable trade finance for MSMEs through a range of instruments such as interest subvention, export factoring, collateral guarantees, credit cards for e-commerce exporters, and credit enhancement support for diversification into new markets.

#### Niryat Disha (Non-Financial Support):

- It focuses on non-financial enablers that enhance market readiness and competitiveness, including export quality and compliance support, assistance for international branding, packaging, and participation in trade fairs, export warehousing and logistics, inland transport reimbursements, and trade intelligence and capacity-building initiatives.

### Expected Outcomes

- Improved and affordable trade finance access for MSMEs.
- Better compliance capacity for global regulatory standards.
- Wider market outreach and export diversification.
- Strengthened exports from non-traditional districts.
- Higher employment generation across manufacturing, logistics, and associated sectors.

## 10) LABOUR CODES

### Why in News?

The Union Government has officially notified the four Labour Codes passed by Parliament in 2020, thereby bringing them into effect.

## About

The four new Labour Codes consolidate **29 earlier central labour laws** into a unified framework, making labour governance more **streamlined, consistent, and equitable**.

## Objectives Behind Overhauling Labour Laws

- To attract investment and stimulate industrial growth.
- To safeguard existing jobs and enable creation of new employment opportunities.
- To enhance transparency in administrative processes.
- To increase state revenue.
- To improve the **ease of doing business** for investors.

## Code on wages

- **Universal Minimum Wages:** The Code guarantees a statutory minimum wage for all employees in both organized and unorganized sectors.
- **Floor Wage Provision:** The Government will set a floor wage based on basic living standards, with room for regional differences. States cannot set minimum wages below this level, ensuring nationwide consistency and adequacy.
- **Gender Equality:** Employers are prohibited from gender-based discrimination including against transgender persons in hiring, wages, or working conditions for similar work.
- **Overtime Pay:** Any work beyond normal hours must be compensated at no less than twice the regular wage rate.

## Industrial Relations Code

- **Fixed Term Employment (FTE):** Enables direct, time-bound hiring with full wage

and benefit parity, plus gratuity after one year.

- **Trade Union Recognition:** A union with 51% membership is recognized as the Negotiating Union; otherwise, a Negotiating Council is formed from unions with at least 20% membership.
- **Women's Representation:** Mandates proportional representation of women on grievance committees for gender-sensitive dispute resolution.
- **Work-from-Home:** Allowed in service sectors by mutual agreement.

## Occupational Safety, Health & Working Conditions Code

- **Unified Registration:** A uniform threshold of 10 employees is set for electronic registration. A single registration replaces six separate registrations under earlier laws, enabling a centralized database and improving ease of doing business.
- **Extension to Hazardous Work:** The Government may apply the Code to any establishment with even one employee if the work is hazardous or life-threatening.
- **Health and Formalization:** Free annual health check-ups for employees.

## Code on Social Security

- **Expanded ESIC Coverage:** Employee State Insurance Corporation (ESIC) coverage now applies nationwide, removing the "notified areas" requirement. Establishments with fewer than 10 workers can voluntarily join with mutual consent, while coverage is compulsory for hazardous jobs and extended to plantation workers.
- **Gig and Platform Worker Inclusion:** New definitions of "aggregator," "gig worker,"

and “platform worker” enable their social security coverage. Aggregators must contribute 1–2% of annual turnover, capped at 5% of payments to these workers.

- **Commuting Accident Coverage:** Travel-related accidents between home and workplace are treated as employment-related for compensation.
- **Gratuity for Fixed-Term Workers:** Fixed-term employees become eligible for gratuity after one year of continuous service, instead of the earlier five-year requirement.

## 11) UNIVERSAL BASIC INCOME (UBI)

### Why in News?

Universal Basic Income (UBI) is being reconsidered as a practical way to provide basic income security and reduce inequality.

### About

The idea of introducing Universal Basic Income (UBI) in India has become prominent due to growing income inequality, job losses from automation, and loopholes in current welfare schemes.

### What is UBI?

Universal Basic Income is a system where the government gives **regular, unconditional cash transfers to all individuals**, regardless of their income level or job status. Its main goals are to **reduce poverty, narrow income gaps, and ensure economic security**, especially as technology and automation disrupt jobs.

## 12) MULE ACCOUNTS

### Why in News?

An eight-member gang, including a private bank official, was arrested in Hyderabad for creating over 120 mule accounts and supplying them to cyber fraudsters operating from outside the State.

### About Mule Accounts

- Mule accounts are bank accounts used by criminals **to receive, transfer, or launder illegally obtained funds**, often **without the knowledge of the account holder**.
- These accounts help fraudsters **hide their identity and the source of funds**.
- A **money mule** is someone who transfers or moves illegally acquired money on behalf of someone else.
- Common methods of illegal money activities include depositing money from **fake loan apps, OTP frauds, online job scams**, and layering funds through multiple accounts to evade detection.

### Government Measures & Key Features

- **RBI MuleHunter.AI** – AI-based tool for real-time detection and monitoring of mule accounts.
- **I4C Suspect Registry** – Tracks mule accounts; **so far, 24.67 lakh Layer-1 accounts flagged, ₹8,031 crore of suspicious transactions blocked**.
- Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS) & National Cyber Crime Reporting Portal (NCRP) portal with Helpline 1930 – Enables immediate reporting of financial frauds; **₹7,130 crore saved from 23.02 lakh complaints**.
- **Operation Chakra-V** – Coordinated crackdown on cyber fraud networks by CBI and other agencies.

## Significance

- It prevents financial losses and money laundering.
- It strengthens coordination among banks, telecoms, IT intermediaries, and law enforcement agencies.
- It improves tracking, prosecution, and preventive measures against cybercriminals.

## 13) IMF Flags Gaps in India's GDP Estimation

### Why in News?

The IMF has highlighted that India's national accounts and inflation data **do not adequately capture key elements of the economy**, particularly the **informal sector** and **changing household spending patterns**. This has raised concerns about the accuracy and modern relevance of India's GDP and price statistics.

### About

The **International Monetary Fund (IMF)**, in its annual review of member countries' data quality, has given **India's National Accounts Statistics (NAS)** a '**C**' grade. NAS covers key indicators such as GDP, GVA, consumption, savings, and investment. Although India's overall data quality was rated '**B**', the '**C**' grade highlights concern about the methodology and reliability of GDP-related data. Importantly, this assessment is not a comment on India's economic performance, but a critique of the statistical methods and systems used to estimate national income.

### What the IMF 'C' Grade Means

IMF applies four grades - **A, B, C, D**.

- **A:** Fully reliable and comprehensive
- **B:** Good but with some limitations
- **C:** *Multiple shortcomings that hinder accuracy*

- **D:** Major deficiencies

### Key Issues Highlighted by the IMF

#### 1. Outdated Base Year (2011-12)

- GDP and CPI continue to rely on an old consumption and production structure.
- Does not reflect the **digital economy**, **platform-based services**, and new consumption patterns.

#### 2. Inadequate Deflators

- Reliance on **Wholesale Price Index (WPI)** instead of a full **Producer Price Index (PPI)**.
- Leads to **less accurate real GDP estimation**, particularly for service sectors.

#### 3. Production-Expenditure Discrepancies

- IMF flagged "**sizeable discrepancies**" between GDP calculated through the production method and expenditure method.

#### 4. Limited Seasonal Adjustment

- Quarterly GDP figures lack robust seasonal adjustments.
- Makes trend interpretation and policy analysis less reliable.

#### 5. Need for Better Statistical Techniques

- Insufficient **granularity** in sectoral data
- Outdated modelling tools
- Need for better coverage of Gross Fixed Capital Formation (GFCF) and quarterly estimates

## GEOGRAPHY

### 14) MEKEDATU RESERVOIR

#### Why in News?

The Supreme Court has rejected Tamil Nadu's plea against the **Mekedatu dam Detailed Project Report (DPR)**, terming the concerns as 'premature' until the Cauvery Water Management Authority (CWMA) takes a final decision.

#### About

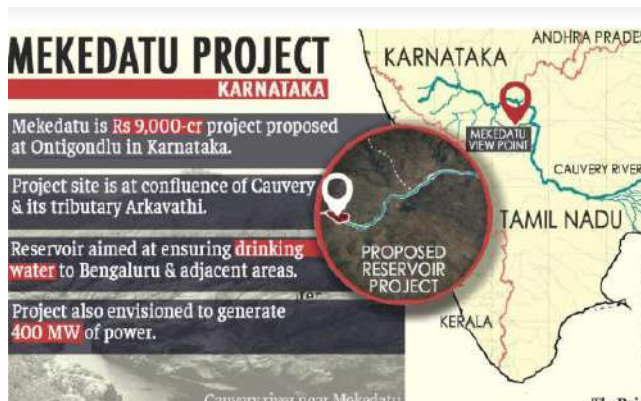
It is a multi-purpose project (drinking water and power) proposed by the Karnataka government.

#### Location of the dam:

- Situated at the confluence of the Cauvery River and its tributary, the Arkavathi.
- Located near Kanakapura in Ramanagara district, Karnataka (~90 km from Bengaluru and 4 km from the Tamil Nadu border).

#### Key Specifications:

- Structure: A 99-metre-high and 735-metre-long concrete gravity dam.
- Storage Capacity: 67.16 TMC (Thousand Million Cubic feet).
- Power Generation: It includes an underground powerhouse with a capacity of 400 MW.



#### Objectives

- **Drinking Water:** To supply 4.75 TMC of water annually to **Bengaluru city** and surrounding areas to meet drinking water needs.
- **Balancing Reservoir:** To store **surplus monsoon water** that currently flows into the sea, allowing Karnataka to regulate releases to Tamil Nadu during distress years.

#### CAUVERY WATER MANAGEMENT AUTHORITY

It is a Statutory-regulatory body established by the government of India in 2018 to oversee the **equitable distribution and management of Cauvery water** among the riparian states of **Karnataka, Tamil Nadu, Kerala and Pondicherry**.

It is established under **Inter-state river water dispute act 1956**.

### 15) CORONAL MASS EJECTION

#### Why in news?

Astronomers have spotted a stellar storm on another star for the first time. A "burping star" located about **130 light-years** from Earth has ejected a massive cloud of electrically charged gas, confirming that **Coronal Mass Ejections (CMEs)** occur on other stars just as they do on our Sun.

#### About CMEs

- **Definition:** These are massive bursts of magnetized plasma and magnetic flux

ejected from the Sun's corona (outer atmosphere) into the heliosphere.

- **Composition:** Unlike the background Solar Wind (which is continuous), a CME is a discrete, explosive cloud of electrons, protons, and heavier ions.

### Formation Mechanism

- **Magnetic Reconnection:** CMEs usually originate from active regions (sunspots) where the Sun's magnetic field lines become twisted and "tangled." When these lines snap and realign (a process called **Magnetic Reconnection**), they release massive energy, launching the plasma outward.
- **Association with Flares:** CMEs are often associated with **Solar Flares** (intense flashes of light), but they are distinct phenomena.



A solar flare is a burst of **light**, so its effects reach Earth in **minutes**, whereas a CME is a cloud of **matter**, so it takes **hours to days** to arrive.

### Key Characteristics

- **Speed:** They travel outward at speeds ranging from slower than **250 km/s** to as fast as **3,000 km/s**.
- **Transit Time:** The fastest Earth-directed CMEs can reach our planet in as little as **15-18 hours**, while slower ones may take days.
- **Expansion:** As they propagate away from the Sun, they expand significantly. By the time a large CME reaches Earth, it can span nearly a quarter of the distance between Earth and the Sun.

- **Solar Cycle:** CMEs are most common during the **Solar Maximum**, the period in the Sun's 11-year cycle (currently **Cycle 25**) when the star is most active.

**Impact on Earth (Space Weather):** When a CME is directed toward Earth, the magnetized cloud interacts with Earth's magnetosphere, causing **Geomagnetic Storms**. This can lead to:

- **Grid Failure:** Disruption of power grids (e.g., Quebec Blackout 1989).
- **Satellite Drag:** Heating of the upper atmosphere increases drag on Low Earth Orbit (LEO) satellites.
- **Communication Blackouts:** Disruption of radio and GPS signals.
- **Auroras:** Intense Northern/Southern Lights visible at lower latitudes.

## 16) LANDSLIDES

### Why in news?

Indonesia intensified search operations after flash floods and landslides in **Sumatra** killed **at least 49 people** (late November 2025), with the toll rising as more areas became accessible.

### About

- A landslide is the sudden and rapid movement of a mass of rock, soil, or debris down a slope under the influence of gravity.
- They are often **triggered by** rainfall, earthquakes, snowmelt, or human activities (like mining and road cutting).
- **Vulnerable areas in India:**
  - Landslides are a major natural hazard affecting at least **15% of India's land area** (approx. **0.49 million km<sup>2</sup>**).

- **High-Risk Zones:** The Himalayas, the **Arakan-Yoma belt** (North-East), the Meghalaya Plateau, the Western Ghats, and the Nilgiri Hills.

### **NATIONAL DISASTER MANAGEMENT AUTHORITY**

- NDMA is the apex statutory body for disaster management in India.
- It was constituted under the Disaster Management Act, 2005.
- **The Chairperson of NDMA is the Prime Minister of India.**

through **imports (primarily from China)**. This scheme aims to break that dependency.

- **Integrated Manufacturing:** The scheme supports the creation of "Mine-to-Magnet" facilities involving the entire value chain:

### **Application**

They are the "heart" of modern technology, vital for:

- Electric Vehicles (EVs): Traction motors.
- Renewable Energy: Wind turbine generators.
- Defence: Guidance systems and radar.
- Electronics: Hard disk drives and speakers.

## **17) SINTERED RARE EARTH PERMANENT MAGNETS (REPM)**

### **Why in news?**

The Union Cabinet has approved a **₹7,280 Crore Scheme** to promote the manufacturing of **Sintered Rare Earth Permanent Magnets (REPM)** in India.

### **About**

- These are high-performance permanent magnets produced by compressing and sintering (heating below the melting point) powders made from rare-earth alloys.
- **Composition:** They are primarily made from alloys of:
  - **Neodymium-Iron-Boron (NdFeB):** Known for the highest magnetic strength.
  - **Samarium-Cobalt (SmCo):** Known for stability at high temperatures.
- **Key Elements:** They rely on critical minerals like Neodymium (Nd), Praseodymium (Pr), and Dysprosium (Dy).

### **Significance of the Scheme**

- **Strategic Autonomy:** Currently, India's demand for REPMs is met almost entirely

## ENVIRONMENT

### 18) Tropical Forest Forever Facility

#### Why in News?

The Tropical Forest Forever Facility (TFFF) was officially **launched at COP30** in Belém, Brazil, on **6 November 2025**. At the launch, **53 countries** endorsed the *TFFF Launch Declaration*.

#### About

- The **Tropical Forest Forever Facility (TFFF)** is a **global financing mechanism** designed to **reward tropical countries for conserving their forests**.
- It seeks to **mobilize up to USD 125 billion**, combining public (sovereign) and private capital.
- It pays countries **annually** based on **verified forest conservation performance**.

#### Objectives

- To **financially incentivize** countries to keep tropical forests standing.
- To ensure **long-term, predictable funding** for forest conservation.
- To put **Global South leadership** at the center of a new global forest agenda.
- To strengthen global efforts against **deforestation, biodiversity loss, and climate change**.

#### Key Features

- **Performance-linked payments:** Countries are rewarded for maintaining/increasing forest cover.
- **Fund structure:** Mix of public (~USD 25Billion) and private (~USD 100Billion) capital.
- **Inclusive:** At least **20%** of funds go to Indigenous Peoples & Local Communities.

- **Environmental filters:** No investment in coal, oil, gas, or deforestation-linked activities.
- **Large scope:** Can support conservation of **1+ billion hectares** across 70+ countries.



#### Institutional Arrangements

- **World Bank** is designated as a trustee and interim host.
- As a connected financing arm, the **Tropical Forest Investment Fund (TFIF)**, will implement investment operations.
- Transparent monitoring via **satellite remote sensing**.

### 19) Gogabeel Lake

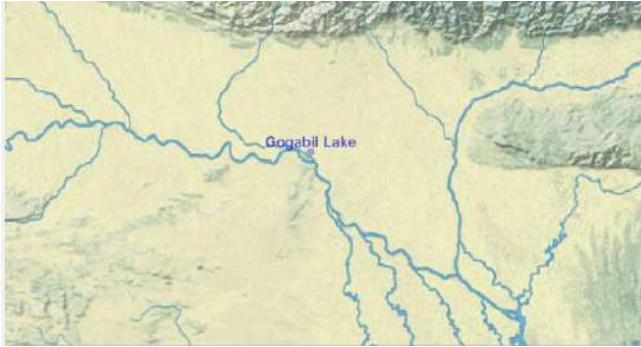
#### Why in News?

In November 2025, **Gogabeel Lake** was declared **Ramsar Convention wetland**, making it **India's 94th Ramsar Site**. With this addition, the state of **Bihar** now has **six Ramsar-designated wetlands**.

#### About

- Gogabeel Lake is a **natural ox-bow wetland** situated in **Katihar district, Bihar**.
- It is situated between the Rivers **Ganga (Ganges) and Mahananda**. During floods, the lake joins the two Rivers.

- The wetland spans roughly **86.6 hectares**.
- It had earlier been declared as a **Community Reserve and Conservation Reserve**, making it the first community-managed wetland reserve in Bihar.



### Ecological Importance

- Major habitat for **migratory birds** (Central Asian Flyway).
- Supports **fish fauna, aquatic plants**, and wetland biodiversity.
- Acts as a **floodplain buffer** and aids **groundwater recharge**.

## 20) Laokhowa Wildlife Sanctuary

### Why in News?

Environmental groups and researchers urged the government to **grant Ramsar Site status** to the **Rowmari–Donduwa Wetland Complex**. This came after the **2025 bird census**, which recorded **very high waterbird populations**, highlighting its ecological importance and need for stronger protection.

### About

#### Rowmari–Donduwa Wetland Complex

- A natural floodplain **wetland system** located inside Laokhowa Wildlife Sanctuary, Assam.
- **Formed by two major beels**: Rowmari Beel and Donduwa Beel.

### Beel

A "beel" is a type of **static, lake-like wetland, often an ox-bow lake or former river meander**, found in the floodplains of Bangladesh and the Indian states of West Bengal and Assam.

### Laokhowa Wildlife Sanctuary

Laokhowa Wildlife Sanctuary is a **protected area located in the Nagaon district of Assam**, forming an important **part of the Laokhowa–Burhachapori ecosystem** on the **floodplains of the Brahmaputra River**.

### Key Features

- **Area:** 70.13 sq. km
- **Location:** Bank of the **Brahmaputra River**, about **25 km from Nagaon town**
- **Landscape includes:**
  - Alluvial grasslands
  - Wetlands & marshes
  - Riverine forests
  - Seasonally inundated floodplains

### Biodiversity

#### Flagship species:

- Indian One-Horned Rhinoceros (reintroduction efforts ongoing)
- Royal Bengal Tiger
- Leopard
- Wild Buffalo
- Hog Deer
- Barking Deer



### Birdlife:

- Rich habitat for **waterfowl, migratory birds, and grassland birds**

### Ecological Importance

- Acts as an important **link in the Kaziranga–Orang–Laokhowa–Burhachapori landscape**, supporting wildlife movement.
- Its wetlands serve as crucial habitats for **migratory birds** in the Brahmaputra valley.
- Supports diverse **aquatic flora and fauna** in the floodplain ecosystem.

## 21) Nauradehi Wildlife Sanctuary

### Why in News?

Nauradehi was officially **approved to become the third habitat for cheetahs in Madhya Pradesh** (after Kuno National Park and Gandhi Sagar Sanctuary). Cheetahs **sourced from Namibia** are slated to be released there under **Project Cheetah**.

### About

#### Project Cheetah

The Government of India has decided to reintroduce the **cheetah**, a large carnivore that became extinct in independent India, by bringing individuals from **Namibia and South Africa**.



#### Nauradehi Wildlife Sanctuary

- Nauradehi Wildlife Sanctuary is located in **Madhya Pradesh**.

- It covers around **1,197 sq km**, making it one of the largest wildlife sanctuaries in the state.
- The landscape consists of **dry deciduous forests, grasslands, scrublands, and riverine areas**.
- It also forms an important **wildlife corridor**, connecting **Panna and Satpura Tiger Reserves**.
- The sanctuary lies across **two major river basins**, about three-fourths falls in the **Yamuna (Ganga) basin** and one-fourth in the **Narmada basin**.
- Watercourses such as the **Kopra, Bamner, and Bearma rivers** traverse the sanctuary, providing key water resources for wildlife and making it ecologically rich and viable.

### Bio-diversity

- Hosts ungulates like **nilgai, chinkara, spotted deer, sambar, blackbuck, chousingha**.
- Carnivores include **tiger, leopard, sloth bear, Indian wolf, dhole (wild dog), hyena, jackal, and fox**.
- Reptiles and aquatic fauna such as monitor lizards, turtles/tortoises, freshwater crocodiles, snakes are present.
- **Birdlife is rich: About 175 species (resident + migratory)**, including owls, vultures, flycatchers, storks, egrets, kingfishers, and many more.
- Invertebrate diversity **includes at least 62 species of butterflies**, reflecting healthy grassland and wetland-stream ecosystems.

## 22) GRAP III to tackle air pollution in Delhi

### Why in News?

In mid-November 2025, **air quality in Delhi-NCR deteriorated sharply: average AQI shot up to ~425**. This triggered the **invocation of**

## GRAP Stage III -“Severe” category, by the CAQM.



### About

- The Graded Response Action Plan (GRAP) is a **predefined emergency system** designed to **control air pollution in Delhi-NCR** by imposing stricter measures as the Air Quality Index (AQI) worsens.
- It was **introduced in 2017 on the directions of the Supreme Court**.
- It is **implemented by the Commission for Air Quality Management (CAQM)**.

It divides pollution control actions into four stages, each corresponding to specific AQI levels:

- **Stage I – Poor (AQI 201–300)**
- **Stage II – Very Poor (AQI 301–400)**
- **Stage III – Severe (AQI 401–450)**
- **Stage IV – Severe+ (AQI > 450)**

Under GRAP III, **heavy restrictions were imposed:** ban on non-essential construction/demolition, closure of stone crushers and dust-generating activities etc.

### CAQM

The **Commission for Air Quality Management (CAQM)** is a **statutory body** set up by the Government of India under the **Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021**.

It was created to provide a **permanent, overarching authority** to tackle air pollution in **Delhi-NCR and adjoining states** (Haryana, Punjab, Rajasthan, Uttar Pradesh).

#### Purpose

- To replace the earlier *ad-hoc* EPCA (Environment Pollution (Prevention and Control) Authority).
- To ensure **coordinated, region-wide management** of air quality across multiple states.
- To supervise **monitoring, planning, and implementation** of pollution-control measures.

## 23) Kovalam Beach – Blue Flag Certification

### Why in News?

Kovalam Beach has been awarded the **International Blue Flag certification for the fifth consecutive year (2025-26)**.

The certification **re-affirms the beach’s compliance with global standards** for cleanliness, safety, infrastructure, environmental management, and sustainable tourism.

### About

- The **Blue Flag certification** is an internationally recognised **“eco-label”** awarded by the **Foundation for Environmental Education (FEE), Denmark** for beaches, marinas and sustainable tourism.

- To qualify, a beach must satisfy **33 stringent criteria** covering aspects such as: water quality; environmental education and information; waste management; safety (lifeguards, first aid); accessibility; environmental management; infrastructure; cleanliness; and sustainable tourism practices.
- **Certification process & Renewal:** **Awarded after inspection;** must be **renewed annually** which ensures ongoing compliance rather than one-time recognition.
- Kovalam Beach became the **first beach in Tamil Nadu** to receive the Blue Flag certification, first awarded in September 2021.

#### **Other Blue Flag certified beached in India:**

- **Gujarat:** Shivrajpur Beach (Dwarka)
- **Diu:** Ghoghla Beach
- **Karnataka:** Kasarkod Beach & Padubidri Beach (Udupi)
- **Kerala:** Kappad Beach (Kozhikode)
- **Andhra Pradesh:** Rushikonda Beach (Visakhapatnam)
- **Odisha:** Golden Beach (Puri)
- **Andaman & Nicobar Islands:** Radhanagar Beach (Havelock)
- **Tamil Nadu:** Kovalam Beach (Chennai)
- **Puducherry:** Eden Beach
- **Lakshadweep:** Minicoy Thundi Beach & Kadmat Beach
- **Maharashtra (New Additions):** Shrivardhan, Nagaon, Parnaka, Guhagar, Ladghar

## SPECIES IN NEWS

### 24) Corpse Plant



#### Inflorescence, not a Single Flower

- It is an arrangement of many small flowers on a central structure called the **spadix**.

#### Why in News?

A Corpse plant was found to have bloomed in the rainforests of Sumatra.

#### About

- **Scientific name:** *Amorphophallus titanum*
- **Family:** Araceae (Arum family)
- **Endemic to:** Sumatra rainforest, Indonesia
- **IUCN Status:** Endangered
- It is known for producing the **largest unbranched inflorescence** in the world.
- It releases a smell resembling **rotting flesh**, which attracts carrion insects like **flesh flies and beetles** for pollination.

#### Special features

##### Corpse-like Smell

- The smell comes from chemicals like **putrescine** and **cadaverine**.

##### Heat Production (Thermogenesis)

- The flower warms up to **human-body temperature**, helping spread the smell farther to attract pollinators.

##### Rare Blooming

- Generally blooms once every **4–10 years**.
- Bloom lasts only **24–48 hours**.

## AGRICULTURE

### 25) Draft Seeds Bill, 2025

#### Why in News?

The **Union Agriculture Ministry** has released the **Draft Seeds Bill, 2025** for public feedback (till **December 11**) to modernise India's six-decade-old seed laws and address emerging challenges in **biotechnology, hybrid seeds, and the growing seed market**.

#### About

- India's seed sector has evolved significantly since the 1960s.
- In 2023-24, **seed availability exceeded national demand**, highlighting the need for stronger quality control.
- The existing Seeds Act, 1966 is considered outdated for today's scientific and commercial landscape.



#### Key Features of the Draft Bill

- Defines farmer, dealer, distributor, and producer for regulatory clarity.
- Establishes **Central and State Seed Committees** to set standards on germination, purity, and traits.
- Mandates registration of seed processing units and creates a **National Seed Variety Register**.
- Strengthens seed-testing labs and grants inspectors enhanced enforcement powers.

## SCIENCE AND TECHNOLOGY

### 26) QUANTUM DIAMOND MICROSCOPE(QDM)

### DIAMOND

#### Why in news?

India has developed its first indigenous Quantum Diamond Microscope (QDM) for dynamic magnetic field imaging.

#### About

IIT Bombay's P-Quest Group developed India's first **indigenous Quantum Diamond Microscope (QDM)** under the National Quantum Mission (NQM) of the DST (Department of Science and Technology).

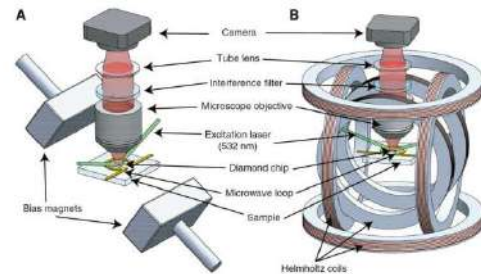
- India has secured its **first patent** in quantum diamond microscopy for this innovation.
- Based on **nitrogen-vacancy (NV) centers in diamond**, this technology provides a powerful platform for **three-dimensional, nanoscale magnetic field imaging**.



- QDM enables direct, high-resolution three-dimensional magnetic mapping of **integrated circuits, batteries, and other microelectronic devices**.

**Objective:** To build a quantum imaging platform that **combines Quantum Diamond Microscopy (QDM) with AI/ML-driven computational imaging** for applications in

diagnostics, biological imaging, and geological magnetization studies.



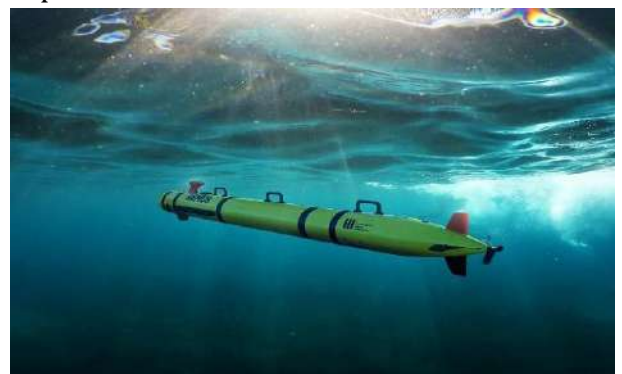
### 27) MAN-PORTABLE AUTONOMOUS UNDERWATER VEHICLES

#### Why in news?

The Defence Research and Development Organisation (DRDO) has successfully developed a new generation of Man-portable Autonomous Underwater Vehicles (MP-AUVs).

#### About

- These **compact, lightweight AUVs are designed for rapid deployment and autonomous operation**, reducing risk to naval personnel.
- Developed by the **Naval Science & Technological Laboratory (NSTL) in Visakhapatnam**, the system is engineered to enhance India's underwater defence capabilities.



### Key Features and Capabilities

- The primary role of the MP-AUVs is to autonomously detect and classify **underwater mines and mine-like objects** (MLOs).
- Each AUV is equipped with a suite of sensors, including **Side Scan Sonar** for high-resolution seabed imaging and underwater cameras for visual confirmation.
- The vehicles use **deep learning-based target recognition algorithms** to autonomously classify MLOs, significantly reducing operator workload and mission time.
- The system incorporates a robust underwater acoustic communication capability, allowing **multiple AUVs to exchange data and coordinate** their operations as a group to cover larger areas more efficiently.
- Their compact and lightweight design makes them man-portable, allowing for quick deployment from various platforms, including smaller vessels or shore.

## 28) INDIA-BASED NEUTRINO OBSERVATORY

### Why in news?

India's Neutrino Observatory (INO) remains stalled after years of delays.

### About

#### What are neutrinos?

- Neutrinos are elementary subatomic particles with no electric charge and an extremely small mass, belonging to the lepton family of the Standard Model of particle physics.
- They interact only via the weak nuclear force and gravity, making them highly

penetrative and elusive, as trillions pass through the human body unnoticed every second.

- There are three types of neutrinos: **electron neutrino, muon neutrino, and tau neutrino**, and they can oscillate between these variants as they travel.

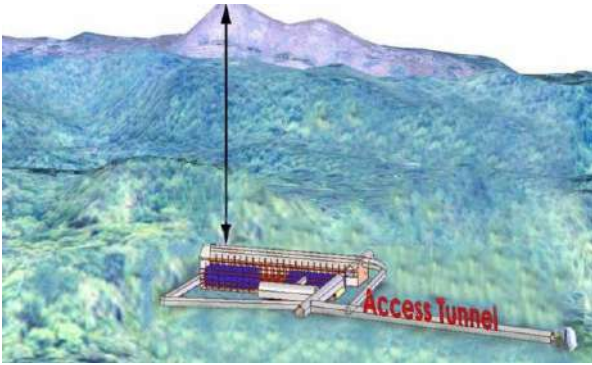


### Key properties:

- Negligible mass, though not exactly zero
- No electric charge, leading to minimal interactions with matter
- Travels close to the speed of light
- Interaction only through weak nuclear and gravitational forces
- Function as messengers, conveying information from cosmic events like supernovas and nuclear reactions in the Sun or Earth.
- Neutrinos are important because they offer insights into the universe's early stages, help study the nature of dark matter and dark energy, and have potential applications in medical imaging technologies.

### About the observatory

- The India-based Neutrino Observatory (INO) is planned in **Theni district, Tamil Nadu**, underground inside a **mountain to shield it naturally from cosmic rays for accurate neutrino detection.**



- The observatory will employ a **50-kiloton Iron Calorimeter (ICAL) detector, designed to study atmospheric neutrinos and determine the neutrino mass hierarchy.**
- Funded jointly by **the Department of Atomic Energy and the Department of Science & Technology.**
- China's Jiangmen Underground Neutrino Observatory (JUNO) is a larger facility that has recently completed and begun releasing research findings, marking a critical advancement in neutrino physics, while INO remains stalled due to various challenges.

## 29) RANDOM FOREST

### About

- Random Forest is **an ensemble machine learning algorithm.**
- Constructs multiple decision trees using random subsets of data and features, and then aggregates their predictions via majority voting for classification or averaging for regression to produce a final, more accurate output.

### Applications

Random Forest excels in **classification (e.g., spam detection) and regression tasks (e.g., stock prediction)**, performing well on large, complex data without needing extensive pre-processing.

## 30) DRISHTI

### Why in news?

Indian Railways has recently announced the introduction of an **AI-based Locking Monitoring System called 'DRISHTI'** to improve the security of freight trains.

### About

- **DRISHTI** is an AI-driven system designed **to monitor the locking condition of freight wagon doors in real time.** The system will automatically detect tampered or unlocked wagon doors, helping prevent theft, pilferage, and safety breaches.
- It has been jointly developed by the **Northeast Frontier Railway (NFR)** and the **IIT Guwahati Technology Innovation and Development Foundation (IITG TIDF).**
- The system addresses long-standing operational challenges in detecting **unlocked, open, or tampered** wagon doors during train movement.
- It provides **real-time surveillance**, identifies anomalies in door-locking mechanisms, and generates alerts automatically **without halting train operations.**
- DRISHTI uses **AI-enabled cameras and sensors** installed on wagons to continuously capture and assess door position and locking status.
- The detection process relies on **advanced computer vision and machine learning algorithms** for high accuracy.
- The system is expected to significantly enhance **freight security**, improve **wagon sealing integrity**, and reduce dependence on **manual inspections.**

## SPACE

### 31) ODD RADIO CIRCLES (ORCs)

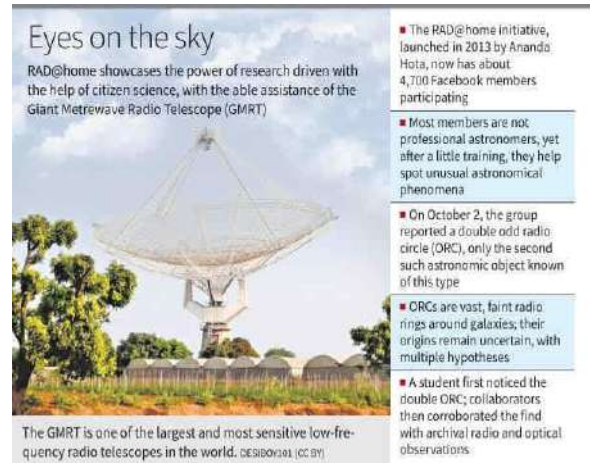
#### Why in news?

A citizen-science team with trained volunteers to classify radio galaxies has now identified a rare, highly energetic **double odd radio circle** using **LOFAR** observations. It **significantly boosts India's capabilities and public participation in radio astronomy**.



#### About

- **ORCs are giant, circular astronomical structures** visible *only* in radio wavelengths, with no optical, X-ray, or infrared emission.
- First discovered in **2019** using the **ASKAP** telescope in Australia; later studied through **LOFAR** and **India's GMRT** (Giant Metrewave Radio Telescope).
- Believed to originate from **extreme galactic events** such as black hole outbursts, galaxy mergers, or intergalactic shockwaves.
- **Enormous in scale**, spanning **millions of light-years**, making them among the largest known cosmic radio structures.
- Display a **ring or bubble-like morphology**, often brighter along the edges due to shockwave compression.
- May or may not have a **central host galaxy**, adding to their mystery.



#### Low frequency Array of Radio Antennas – LOFAR

- It observes the Universe at low radio frequencies, close to the FM radio band, from 90 to 200 MHz.
- It was developed by the Dutch Institute for Radio Astronomy (ASTRON) with the goal of exploring the early, distant universe, solar activity, and the terrestrial atmosphere.
- LOFAR can observe in several directions simultaneously, which allows for a multi-user operation.

## HEALTH

### 32) RIFT VALLEY FEVER (RVF)

#### Why in news?

The World Health Organization (WHO) has recently confirmed a Rift Valley Fever (RVF) outbreak impacting the West African nations of Mauritania and Senegal.

#### About

Rift Valley Fever is a **zoonotic viral disease** that mainly affects livestock such as sheep, goats, cattle, and camels.

Recognized by WHO as a **notifiable animal disease** due to its potential for rapid spread.

Listed as a **priority pathogen** under WHO's R&D Blueprint because of its capacity to cause epidemics.

**Historical Background** :First identified in the **Rift Valley of Kenya in the 1930s**.



### Transmission & Clinical Features

- Caused by a **Phlebovirus** belonging to the **Phenuiviridae** family.
- Humans contract the infection primarily through **mosquito bites** or **direct contact with infected animals or their tissues**.
- **Incubation period**: 2–6 days.
- **Symptoms**: Sudden onset of high fever, headache, muscle and joint pain, weakness, and occasionally nausea.
- **Severe manifestations**: Ocular complications, Meningoencephalitis, and Haemorrhagic fever.

### Diagnosis & Treatment

- Laboratory confirmation is done through **molecular tests (RT-PCR)** or **serology (ELISA)**.
- There is **no specific antiviral drug** available; treatment is largely supportive.
- No licensed vaccine exists for humans, although **experimental vaccines** are available for high-risk occupational groups.

## 33) ColoNoX WOUND DRESSING

### Why in news?

Department of Atomic Energy (DAE) via its research arm Bhabha Atomic Research Centre (BARC) has introduced *ColoNoX*, the first Nitric-oxide (NO) releasing wound dressing made in India, specially intended for diabetic foot ulcers (DFU).



### About

- In partnership with Cologenesis Pvt. Ltd., the Bhabha Atomic Research Centre (BARC) has created **ColoNoX**.
- ColoNoX is a **wound dressing that releases therapeutic Nitric oxide (NOx)** directly at the wound site.
- The dressing combines **NO release with a collagen-based hydrogel matrix**. The collagen hydrogel helps absorb exudate (wound fluid), reduce pain, and support tissue regeneration while **NO** provides **antimicrobial, anti-biofilm, and tissue-healing (regenerative)** benefits.
- This creates a favourable wound-healing environment controlling infection, reducing microbial load, promoting healing and tissue repair, and possibly reducing risk of severe complications like amputation.
- ColoNoX represents a **home-grown, Make-in-India medical-technology innovation**, helping reduce dependency on imported advanced dressings or devices.

### 34) AURAMINE O

#### Why in news?

Recent tests shows that Auramine O an industrial dye banned from use in food has again been found in food items in India, such as roasted chana and brightly coloured sweets/snacks.



#### About

- Auramine O is a **synthetic diarylmethane-based yellow dye** used in industrial applications and microbiological staining, banned for food use under India's Food Safety and Standards Act, 2006.

#### Applications of Auramine:

- Used as a colouring and fluorescent agent in **textile, leather, printing, paper, and ink industries**.
- Employed in **microbiological staining**, especially for detecting **acid-fast bacteria** such as *Mycobacterium tuberculosis* (**Auramine-Rhodamine staining**).
- Acts as a **laboratory reagent**, serving as a fluorescent alternative to the **Schiff reagent**.

- Illegally added by vendors to **mimic turmeric/saffron in sweets, roasted chana, and street foods due to low cost**; sourced from unregulated chemical markets.
- Cheap industrial dyes attractive to informal food vendors, shows trade-offs between economic incentives and health risks in unorganised food markets.
- **Primary Toxicity Effects:** Auramine O induces **liver damage** via centrilobular necrosis, **kidney toxicity**, **spleen enlargement** (splenomegaly), and **mutagenic effects** causing DNA damage in liver, kidney, and bone marrow.
- **Carcinogenic Classification:** IARC Group 2B (possibly carcinogenic to humans); associated with bladder cancer and lymphatic cancers in humans.
- **Acute Exposure Symptoms:** Skin/eye irritation ingestion causes vomiting, epigastric pain, neurological effects like convulsions, respiratory depression, and coma.
- **Chronic Risks:** Organ lesions at low doses, endocrine disruption, cognitive impairment, anxiety-like behaviors, reproductive damage, and long-term genetic/metabolic disorders.
- **Vulnerable Groups:** Children at higher risk due to developing nervous systems, exacerbated by exposure via festival sweets and snacks.

## DEFENCE

### 35) Framework for the U.S.-India Major Defence Partnership

#### Why in News?

India and the United States have signed a landmark **10-year defence framework**, titled the “Framework for the U.S.-India Major Defence Partnership,” during the 12th **ASEAN Defence Ministers’ Meeting-Plus (ADMM-Plus)** in Kuala Lumpur.



#### About

This 10-year framework provides a **unified vision** and **policy direction** to deepen defence cooperation between the two countries over the next decade for **regional stability**.

#### Significance

- The partnership is focused on ensuring a **free, open, and rules-based Indo-Pacific region**, safeguarding maritime security and the free flow of commerce
- It enhances **interoperability** and coordination through **joint readiness, information sharing, and responses to common security threats**.
- The framework also promotes defence industry innovation and advanced technology partnerships.

#### The framework aims to institutionalize long-term collaboration in

1. Defence manufacturing
2. Joint technology development
3. Strategic collaboration and intelligence sharing
4. Military exercises
5. Surveillance and reconnaissance
6. Electronic warfare
7. Cyberwarfare operations

#### U.S. Approves Sale of Missiles to India

- The U.S. State Department has approved a potential sale of **Javelin missiles** and **Excalibur projectiles** to India, along with associated equipment, at an estimated cost of **\$92.8 million**.
- The approval is part of the **Foreign Military Sales (FMS)** process, overseen by the **U.S. Defense Security Cooperation Agency (DSCA)**.

#### Key Terms:

**Javelin Missile:** Portable anti-tank missile system with “fire-and-forget” capability.

**Excalibur Projectile:** Precision-guided artillery shell for long-range targeting.

**Foreign Military Sales (FMS):** U.S. government program facilitating arms sales to allied countries.

**DSCA:** Defense Security Cooperation Agency; coordinates U.S. arms transfers and military assistance programs.

### 36) EXERCISE TRISHUL

#### Why in News?

Tri-Services Exercise (TSE-2025) 'Trishul' was conducted by the **Indian Navy as the lead service** jointly with the Indian Army and Indian Air Force, in early Nov 2025.



#### About

- **Participating Formations:** TSE-2025 was led by the **Western Naval Command** of the Indian Navy, along with the **Southern Command** of the Indian Army and the **South Western Air Command** of the Indian Air Force as the principal participating formations.
- **Operational Area:** The exercise featured large-scale operations across the **Creek and desert sectors of Rajasthan and Gujarat**, and in the maritime domain, including amphibious operations in the **North Arabian Sea**.
- **Inter-Agency Participation:** The **Indian Coast Guard, Border Security Force (BSF)**, and other central agencies also participated, reinforcing inter-agency coordination and integrated operations.

The exercise also validated **joint Intelligence, Surveillance and Reconnaissance (ISR) procedures, Electronic Warfare (EW) and Cyber Warfare plans**.

### 37) IKSHAK

#### Why in News?

The Indian Navy's indigenously built Survey Vessel (Large), **INS Ikshak**, was commissioned at **Naval Base Kochi** on 06 Nov 2025.



#### About

- **Meaning:** The name '**Ikshak**', meaning '**Guide**' in Sanskrit, aptly defines the ship's role as a sentinel of precision and purpose.
- **Primary Role:** The vessel is designed to undertake full-scale coastal and deep-water **hydrographic surveys** of ports, harbours, and **navigational channels**.
- **Impact:** The data generated will be vital for ensuring safe navigation at sea, strengthening India's maritime safety framework.

#### Significance

- **Fleet Modernization:** The Indian Navy is set to boost its hydrographic survey capabilities with the commissioning of INS Ikshak, the **third vessel** of the Survey Vessel (Large) [SVL] class.
- **Strategic Deployment:** Ikshak is the **first SVL ship to be stationed at the Southern Naval Command**.
- **Indigenous Construction:** The vessel has been constructed by **Garden Reach Shipbuilders and Engineers (GRSE) Ltd., Kolkata**. It showcases India's

increasing self-reliance in shipbuilding, with **over 80% indigenous content**.

**Advanced Outfitting** The ship is outfitted with advanced hydrographic and oceanographic systems, including:

1. High-resolution multibeam echo sounder.
2. Autonomous Underwater Vehicle (AUV).
3. Remotely Operated Vehicle (ROV).
4. Four Survey Motor Boats (SMBs).

### Survey Vessel (Large) [SVL] Class

- **Objective:** The Survey Vessel (Large) [SVL] class project was launched to **modernise India's hydrographic survey fleet** and replace ageing **Sandhayak-class** vessels.
- **Fleet Composition:** A total of **four ships** is part of this class:
  1. INS Sandhayak
  2. INS Nirdeshak
  3. INS Ikshak
  4. INS Sanshodhak (Under construction)
- **Builder:** These vessels are being built by **GRSE, Kolkata** under the **Aatmanirbhar Bharat** initiative.
- **Capabilities:** They are designed to conduct hydrographic, oceanographic, and cartographic surveys to produce navigational charts and support both civil and defence maritime operations.

### 38) 15th India-Vietnam Defence Policy Dialogue

#### Why in News?

The 15th India-Vietnam Defence Policy Dialogue (DPD) was held in Hanoi on November 10, 2025. It was co-chaired by the

Indian Defence Secretary and Vietnam's Deputy Minister of National Defence.

#### Key Outcomes:

Both sides expressed satisfaction with the progress in hydrography cooperation, capacity building, UN Peacekeeping Operations, and niche domains such as **Artificial Intelligence** and **shipyard upgradation**.

#### Two major agreements were signed during the dialogue:

1. **MoA on Submarine Rescue:** A Memorandum of Agreement (MoA) for **Mutual Submarine Search, Rescue Support and Cooperation** was signed.
2. **LoI on Defence Industry:** A **Letter of Intent (LoI) on Defence Industry Cooperation** was signed to promote the transfer of technology, prioritize high-tech/core-technology domains, and foster joint research and ventures.



### 39) India Fortifies Siliguri Corridor

#### Why in News?

India has established **three new Army garrisons** near the India-Bangladesh border to strengthen defence of the **Siliguri Corridor** amid shifting regional dynamics in

Bangladesh and growing Chinese presence in the neighbourhood.



### Strategic importance

The Siliguri Corridor is a narrow land strip that connects India's northeastern states to the rest of the country, making it a critical and vulnerable chokepoint.

### New Garrison Establishments:

The Indian Army has reinforced the eastern frontier by operationalizing three new garrison locations near the India-Bangladesh border:

1. **Lachit Borphukan Military Station:** Located in **Dhubri district (Assam)**, named after the legendary Ahom general.

2. **Forward Bases:** Established at **Kishanganj (Bihar)** and **Chopra (West Bengal)**.

### Key Objectives

- **Operational Readiness:** To enhance surveillance and ensure rapid deployment of troops.
- **Coordination:** To strengthen real-time coordination with the **Border Security Force (BSF)**, which guards the international border.

### Strategic Context:

The developments come amid:

- **Regional Shifts:** The recent **regime change in Bangladesh** and subsequent anti-India sentiments.
- **Chinese Encirclement:** Concerns over China's growing presence, including **trilateral consultations among China, Pakistan, and Bangladesh** (without India's participation), and infrastructure expansion along the **LAC in Arunachal Pradesh**.
- **Internal Security:** Rising concerns over **illegal immigration** and demographic changes in border districts.

### MILITARY EXERCISES:

**Exercise Poorvi Prachand Prahar** conducted near the LAC in Arunachal Pradesh.

**Participants:** Indian Army, Special Forces, MARCOS, Garud, and Arunachal Scouts.

**Objective:** Enhance readiness, surveillance, and joint operations in the northeastern region.

## 40) Coastal Security & CISF as Regulator

### Why in News?

The Government has designated **CISF** as the **Recognised Security Organisation** and main security regulator for about 250 Indian seaports under **the ISPS Code**, starting with around **80 EXIM ports**.

### About the Decision

- Authority: The designation was formalized by the Ministry of Ports, Shipping and Waterways (MoPSW) in November 2025.
- Phased Implementation:
  - Phase 1: Applies immediately to around 80 EXIM (Export-Import) ports.
  - Phase 2: Will expand to cover all 250 seaports (Major and Non-Major) in phases.

### Significance: A Paradigm Shift

As the RSO, CISF will:

1. Conduct Port Facility Security Assessments (PFSA).
2. Prepare and approve Port Facility Security Plans (PFSP).
3. Oversee compliance with global security standards (ISPS Code) to prevent threats like terrorism, smuggling, and sabotage.

### The Hybrid Security Model

To balance security with cost-effectiveness, a new multi-layered model has been adopted:

- **CISF (Core Duties):** Will handle sensitive roles such as access control, anti-sabotage checks, perimeter patrolling, and cargo screening.
- **State Police / SISF / Private Security (Non-Core Duties):** Will handle traffic management, gate operations, and administrative security.

- **CISF's Regulatory Role:** Crucially, CISF will train, certify, and audit these private/state personnel to ensure they meet national standards.

### Key Framework and Organisation

**International Ship and Port Facility Security (ISPS) Code:** India's port security measures are largely compliant with the mandatory ISPS Code, a global framework established after 9/11 to safeguard ships and port facilities from terrorism and other threats.

## 41) Colombo Security Conclave

### Why in News?

The 7th National Security Adviser (NSA) level meeting of the **Colombo Security Conclave (CSC)** was held in New Delhi, India on 20 November 2025.

### About Colombo Security Conclave (CSC)

#### Evolution:

- **2011:** Began as a **Trilateral Maritime Security Cooperation** grouping (India, Sri Lanka, Maldives).
- **2020:** Revived and re-constituted as the "Colombo Security Conclave" with a broader scope beyond just maritime security.
- **2024-25:** Expanded to include **Mauritius, Bangladesh,** and now **Seychelles**.
- **Secretariat:** A **Permanent Secretariat** has been established in **Colombo** to coordinate activities and implement NSA-level decisions.
- **Objective:** To strengthen regional security and interoperability in the Indian Ocean Region (IOR), vital for trade and energy security.

## Five Pillars of Cooperation

1. Maritime Safety and Security.
2. Countering Terrorism and Radicalisation.
3. Combating Trafficking and Transnational Organised Crime.
4. Cyber Security and Protection of Critical Infrastructure.
5. Humanitarian Assistance and Disaster Relief (HADR).

### Membership of CSC

1. India
2. Maldives
3. Mauritius
4. Sri Lanka
5. Bangladesh (recently upgraded from observer)
6. Seychelles (new entrant)

## Significance of 7<sup>th</sup> NSA level meeting and key updates

**Institutional Review:** The **First Secretary General** of the CSC (appointed by India) presented a comprehensive review of the activities undertaken since the 6th NSA meeting (Mauritius, Dec 2023).

**New Member: Seychelles** has been officially admitted as the **6th full member** of the CSC.

**New Guest: Malaysia** participated as a **Guest** for the first time, marking the conclave's expanding reach towards Southeast Asia.

**Leadership:** The decision was taken during the meeting hosted by India's National Security Adviser (NSA)

## 42) Operation Sagar Bandhu

### Why in News?

India launched **Operation Sagar Bandhu** to provide urgent humanitarian assistance to **cyclone-hit Sri Lanka** after Cyclone *Ditwah*.

### Key highlights

- **Mission:** India's humanitarian mission to assist Sri Lanka after Cyclone Ditwah caused severe flooding and landslides.
- **First Responder:** Represents India's rapid **HADR (Humanitarian Assistance and Disaster Relief)** response in the Indian Ocean Region.
- **Naval Assets:** The first tranche of relief materials and rescue assistance was provided via:
  - **INS Vikrant** (India's first indigenous aircraft carrier)
  - **INS Udaygiri** (Indigenous stealth frigate)
  - *Note: Both ships were already in Colombo for the **International Fleet Review (IFR)** and were swiftly re-tasked for relief operations.*

### Policies & Vision Frameworks Involved

- **Neighbourhood First Policy:** Prioritizes immediate neighbours for diplomacy, development, defence, and disaster relief.
- **Vision MAHASAGAR:**
  - **Full Form: Mutual and And Holistic Advancement for Security and Growth Across Regions.**
  - **Context:** Announced by PM Modi in **Mauritius (March 2025)**.
  - **Aim:** It elevates the earlier SAGAR vision to guide India's engagement with the **Global South** and the broader maritime domain.

- **SAGAR:** The operation is consistent with India's foundational policy of Security and Growth for All in the Region.

### Naval Platforms Involved

#### INS Vikrant:

- India's **FIRST** indigenous aircraft carrier.
- Sri Lankan authorities specifically requested the use of its onboard **helicopters** for aerial rescue operations in cut-off areas.

#### INS Udaygiri:

- A newly built **Project 17A** indigenous stealth frigate.
- Participated in relief support while attending the **International Fleet Review (IFR)** in Sri Lanka.

## 43) CSIR-NAL

### Why in news?

The **CSIR-National Aerospace Laboratories (NAL)**, Bengaluru, launched the **production version of the indigenous Hansa-3(NG) trainer aircraft**. The government also highlighted progress on the indigenous **SARAS Mk-2 Light Transport Aircraft**.

### Key highlights

#### 1. Hansa-3(NG) Trainer Aircraft

Features:

- Type: **Two-seater ab-initio trainer aircraft**
- Purpose: Training for **PPL (Private Pilot Licence)** and **CPL (Commercial Pilot Licence)**.
- Airframe: **All-composite construction** (lightweight, corrosion-free).

- Background: Hansa-3 originally developed in early **1990s**; NG version has significant upgrades.

Significance:

- Supports India's estimated need for **~30,000 pilots in next 15-20 years**.
- Reduces reliance on **foreign trainer aircraft**.
- Boosts **indigenous aviation ecosystem**.

#### 2. SARAS Mk-2 Light Transport Aircraft

- Type: **19-seater Light Transport Aircraft (LTA)**
- Use: Both **civilian** and **military** operations.
- Features:
  - **Pressurised cabin**
  - **Digital avionics** and **Glass cockpit**
  - **Autopilot**
  - **Command-by-wire flight controls**
  - Significant Weight & drag reduction for better efficiency
- Significance:
  - Supports **regional connectivity**
  - Meets India's **short-haul passenger aircraft** requirements
  - Advances indigenous aircraft manufacturing

#### 3. Iron Bird Facility (SARAS Mk-2)

- A newly inaugurated **ground-based integration rig**.
- **Purpose:** It allows full-system integration, testing, and validation of aircraft subsystems (hydraulics, avionics, flight controls) on the ground before actual flight.

**Importance:** It is a mandatory and essential stage for the **certification** of new aircraft, ensuring safety and reliability

## INTERNATIONAL RELATIONS

### 44) IBSA (India-Brazil-South Africa) Dialogue Forum

#### Why in News?

PM Modi stated at the IBSA Leaders' Meeting, that UNSC reforms are no longer optional but a global necessity to ensure effective and representative multilateralism.

#### IBSA

- **IBSA is a trilateral dialogue forum** that brings together **India, Brazil, and South Africa**.
- It was **established on 6 June 2003** through the **Brasilia Declaration**, signed by the Foreign Ministers of the three countries India, Brazil, and South Africa.
- IBSA has **no permanent headquarters** and functions through a **rotating Chair**, which is currently held by **South Africa**
- IBSA's **mandate** is to promote cooperation among the three countries and support South-South development through joint action and the **IBSA Fund**.
- It links **three major democracies** from **Asia, Africa, and South America**, with shared developmental challenges.

#### India's National Interest in IBSA

- Seeks stronger support from Brazil and South Africa for UN Security Council reform and its bid for a permanent seat.
- Aims to deepen South-South cooperation and expand economic and strategic partnerships with both countries through IBSA.

### 45) NATO

#### Why in News?

**Former U.S. President** Trump designated Saudi Arabia as a Major Non-NATO Ally **and**

accorded Crown Prince Mohammed bin Salman state-visit-level privileges during official engagements, underscoring closer U.S.-Saudi strategic ties.

#### About

- **NATO is a political and military alliance** of **32 North American and European countries**.
- It was **established in 1949** through the **Washington Treaty** to **safeguard freedom, security, and democratic values**.
- Its **headquarters is in Brussels, Belgium**.
- NATO's core principle is **collective defense** under **Article 5**, which states that an attack on one member is considered an attack on all.
- **Article 4** of the treaty ensures consultation among members on **security matters of common interest**.
- NATO promotes **democratic values** and supports the **peaceful resolution of disputes**.
- It undertakes **crisis-management operations** either independently or under a **UN mandate**.
- The alliance addresses traditional and emerging threats, including **terrorism, cyber-attacks, and piracy**.
- NATO provides security support to global partners, including the **European Union, United Nations, and African Union**.
- **India is not a member** but engages as a **partner** in selected dialogues and exercises.

#### India's Implication

Stronger **U.S. - Saudi ties** do not affect India negatively, as **India-Saudi relations remain**

**strong in energy, trade, and diaspora support.**

### India's Advantage

Closer U.S.–Saudi cooperation may create more tech, investment, and job opportunities for Indian skilled workers and tech talent, especially under **Saudi Vision 2030**.

### 46) K visa

#### Why in news?

**China has introduced a new K-visa** aimed at attracting global science and technology talent, creating fresh job opportunities for foreign professionals and intensifying its competition with the U.S. in the global tech talent race.

#### About

- China introduced the **K Visa** to attract **young global science and technology (S&T) talent**.
- It allows **flexible entry, participation in multiple research or tech-related activities, and does not require employer sponsorship**.
- The visa is designed to support China's goal of becoming a leading **global innovation and high-tech hub**, competing with countries like the **US** for skilled professionals.
- Targeted at young foreign scientific and technological talent, including **researchers, innovators, and high-skilled STEM professionals**.

#### Possible Advantages for India

- **Opportunity for Indian STEM talent:** Indian young professionals and graduates from reputed institutions may find new job and research openings in China's growing tech ecosystem.

- **Global exposure:** Enables Indian researchers to gain international experience, especially in AI, robotics, and advanced manufacturing.
- **Academic & research collaboration:** Can enhance India–China academic exchanges in STEM through joint projects, conferences, and innovation programs.
- **Reduced dependency on U.S. pathways:** Offers an alternative destination for Indian tech professionals facing long visa backlogs in the U.S.
- **Strengthens India's global talent competitiveness:** Encourages India to further upgrade its own talent policies to retain skilled workers.

### 47) G20 SUMMIT

#### Why in News?

The **U.S. boycotted the G-20 Summit in Johannesburg**, highlighting tensions within the grouping and affecting global economic and geopolitical discussions.

#### About

- The G20 is the premier forum for international economic cooperation, shaping **global governance on major economic issues**.
- It was **founded in 1999** after the **Asian financial crisis** as a platform for **Finance Ministers and Central Bank Governors** to discuss global economic and financial matters.
- In **2008**, it was **elevated to the Heads of State / Government level** and designated as the **“premier forum for international economic cooperation”**.
- G20 aims to promote international financial stability, sustainable and inclusive growth, and address trade,

climate, energy, health, agriculture, environment, and anti-corruption.

- G20 has **no permanent secretariat**; **Summits are held annually** and hosted by the country holding the **rotating Presidency**.
- India is a **full member** of the G20 and previously held the **Presidency from 1 Dec 2022 to 30 Nov 2023**.
- The G20 comprises **19 countries and 2 regional bodies** – Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, UK, USA, **European Union**, and **African Union** (added in 2023).
- This Summit is the **fourth consecutive G20 meeting hosted in the Global South**.

#### 48) IRIGC-M&MTC

##### Why in News?

India and Russia's Defence Ministers are set to meet, with **India's potential acquisition of Russia's next-generation S-500 air defence system** on the agenda.

##### About IRIGC-M&MTC

- The **India–Russia Inter-Governmental Commission on Military & Military-Technical Cooperation (IRIGC-M&MTC)** was established, following the **India–Russia Strategic Partnership (2000)**.
- It functions as a **bilateral, annual mechanism** to enhance military-technical cooperation.
- The commission has **no permanent headquarters**, and meetings are held **alternately in India and Russia**.
- Its mandate includes **coordinating military-technical cooperation**,

**overseeing joint production, R&D, maintenance, and training.**

- The commission also **reviews major defence projects** such as S-400, ships, helicopters, and aircraft upgrades.
- Future opportunities discussed include **advanced systems like the S-500**.

##### Key Highlights

- Both sides **reaffirmed their ties** based on **trust, mutual respect, and a long-term strategic partnership**.
- Russia **invited India to co-chair the 23rd session** of the IRIGC-M&MTC in **2026**.
- They also **inspected the Tri-Service Guard of Honour**.
- The **Protocol of the 22nd IRIGC-M&MTC** was signed to **formalize ongoing and future defence cooperation**.

## PLACES IN NEWS

### 49) Yonaguni Island

#### Why in News?

Yonaguni Island, Japan is currently in the news due to its extreme proximity to **Taiwan** (only about 110 kilometers away) and the resulting **military buildup** by Japan amid heightened tensions between China and Japan/US forces.

#### About

- Yonaguni island is the **westernmost point of Japan**
- It is a part of the **Ryukyu Island chain** (also called the **Nansei island**).
- Marine Borders
  - West – **Taiwan**
  - Northwest – **The East China Sea**
  - South – **The Philippine Sea**
  - East – **Pacific Ocean**.
- A part of Japan's **first island chain defence strategy**, used with the U.S. to monitor and contain Chinese military expansion.
- Located near the **high-tension zone between China and Taiwan**; serves as **Japan's primary military outpost** in the region.
- Famous for the **Yonaguni Monument**, a mysterious underwater rock formation resembling ancient ruins.
- A world-class **diving spot** with sightings of large **hammerhead shark groups**.
- Home to the **Yonaguni horse** and the **Atlas moth** (world's largest moth).
- Yonaguni has a **small indigenous population** of local Okinawan people with distinct traditions.



### 50) Gaza strip

#### Why in News?

UNCTAD reports Gaza's economy shrank by 83% in 2024, its worst-ever decline, leaving nearly all 2.3 million residents in poverty and prompting urgent calls for aid and reconstruction.

#### About

- Gaza, a **Palestinian territory in Asia**, is a **narrow coastal strip** along the **eastern Mediterranean Sea**.
- The State of Palestine (which includes Gaza) holds non-member observer status at the UN, and more than 100 UN member states have recognised Palestine as a state.
- Borders
  - **Israel – north and east**
  - **Egypt – south (via the Rafah Crossing)**
  - **Mediterranean Sea – west**
- Rafah Crossing (Egypt): Gateway for humanitarian supplies and people, but often closed.
- Erez Crossing (Israel): Restricted movement of people.
- Kerem Shalom Crossing (Israel): Main entry for goods.



## 51) Senkaku Island

### Why in News?

China's Coast Guard ships entered waters near Japan-administered Senkaku Islands, raising tensions amid China's sovereignty claims over the islands and Taiwan.

### About

- The **Senkaku Islands**, located in **Asia** in the **East China Sea**, are a group of uninhabited islands administered by Japan through **Ishigaki City** in Okinawa Prefecture.
- They lie **west of Okinawa, northeast of Taiwan**, and **east of China**, falling within overlapping **EEZ (Exclusive Economic Zone) claims** of Japan, China, and Taiwan.
- The islands hold major **maritime importance** due to rich fisheries, possible **oil and gas reserves**, and their position along key **East China Sea shipping lanes**.
- Since the islands are **uninhabited**, they have **no tribes or indigenous population**.
- They remain strategically significant as a major flashpoint in **Japan-China-Taiwan tensions**.



## 52) Crimea, Luhansk, Donetsk

### Why in News?

Crimea, Donetsk, and Luhansk are in the news due to ongoing military conflict in eastern Ukraine and recent international diplomatic discussions concerning their political status.



### About

#### Crimea

- Crimea lies on a peninsula stretching out from the **south of Ukraine between the Black Sea and the Sea of Azov**.
- It is separated from Russia to the **east** by the narrow **Kerch Strait**.
- It is surrounded by the Black Sea and the Sea of Azov.
- Capital: **Simferopol**
- It hosts the strategic Russian naval base at **Sevastopol**.

### Luhansk

- Luhansk is a **landlocked** eastern Ukrainian region bordering Russia to the east and other Ukrainian oblasts on all sides.
- It forms part of the Donbas industrial belt, has no maritime boundary.
- It has been under separatist/Russian control since 2014.

### Donetsk

- Donetsk lies in eastern Ukraine.
- It is bordering
  - Russia to the east and
  - Ukrainian regions to the north and west,
  - **Sea of Azov coastline** to the south
- It is a major industrial hub with coal mining and steel production, contains frontline cities.
- Its Azov coast provides a crucial land corridor linking Russia to Crimea through Mariupol.

## ORGANISATIONS

### 53) COAL INDIA LTD.

#### Why in News?

Coal India Limited (CIL), a **Maharatna Public Sector Undertaking** under the Ministry of Coal, completed 50 years of its establishment.

#### About

- CIL is the **single largest coal producer in the world**, contributing around **80% of India's domestic coal production** and commanding roughly **three-quarters of the Indian coal market**.
- It operates across multiple states through dozens of **mining areas** and hundreds of **underground and opencast mines**, and manages supporting facilities such as **workshops and hospitals**.
- The company also has an **overseas subsidiary in Mozambique** (Coal India Africana Limitada) for exploration and development of coal assets.
- Coal India supplies coal to **power, steel, cement and other core industries**, feeding the vast majority of coal based **thermal power plants** in India and meeting a large share of the country's primary commercial energy needs.

### 54) INTERNATIONAL MARITIME ORGANISATION

#### Why in News?

India has been re-elected to the International Maritime Organization (IMO) Council for 2026–27.

#### About

- The International Maritime Organization (IMO) is a **United Nations specialized agency** responsible for the safety, security,

and environmental performance of **international shipping**.

- The IMO is governed by a biennially convened Assembly of all member states, a **40-member Council** elected across different categories (**India was re-elected in 2025 under Category B**, representing major seaborne trading nations), and five principal committees..
- It develops regulations on:
  - **maritime safety** (e.g., SOLAS (Safety of Life at Sea) Convention for ship safety standards);
  - **pollution prevention** (e.g., MARPOL for oil, garbage, and air emissions; Ballast Water Management);
  - **seafarer training & certification** (Standards of Training, Certification and Watchkeeping for Seafarers (STCW) Convention);
  - **Greenhouse gas reduction** strategy (2023) aiming for net-zero by 2050; and
  - Also addresses **piracy, wreck removal, and port state control**.
- This election is significant as it reflects **India's growing influence in international maritime governance** and its role in shaping global shipping regulations, including maritime safety, environmental protection, and sustainable shipping practices.

### 55) SERIOUS FRAUD INVESTIGATION OFFICE

#### Why in News?

The Serious Fraud Investigation Office (SFIO) has been in the news recently due to ongoing high-profile investigations into major

corporate frauds, court directives, and recruitment drives.

### About

- The Serious Fraud Investigation Office (SFIO) is a **statutory agency** in India under the **Ministry of Corporate Affairs** responsible for investigating and prosecuting complex corporate frauds.
- SFIO was initially set up in 2003 based on recommendations from the **Naresh Chandra Committee** on corporate governance under the **Companies Act, 2013**.
- Its headquarters are in **New Delhi**, with regional offices in **Mumbai, Chennai, Hyderabad, and Kolkata**.
- The agency investigates serious fraud cases **referred** by central / state government departments.
- It doesn't investigate fraud or criminal charges against any type of individual ones.
- The SFIO's **key functions** include conducting detailed investigations into corporate fraud, examining shell companies, scrutinizing fraud monitoring reports, coordinating with other agencies, and recommending prosecution or taking legal action to uphold corporate governance and protect public interest.

## 56) INTERNATIONAL INSTITUTE FOR DEMOCRACY AND ELECTORAL ASSISTANCE (INTERNATIONAL IDEA)

### Why in News?

India's **Chief Election Commissioner** Gyanesh Kumar is set to assume the role of the **Chairperson** of the 35-nation International Institute for Democracy and Electoral Assistance (International IDEA) for the year 2026.

### About

- International IDEA, is a **global intergovernmental organization** dedicated to **strengthening democracy** worldwide, established in 1995,.
- As of 2025, International IDEA has 35 member countries, including **India as a founding member**, along with observer status for the United States and Japan.
- The headquarters is in Stockholm, Sweden, with regional offices in over 20 countries, including locations in Europe, Africa, Asia-Pacific, and the Americas.
- Its mission is to advance, promote, and protect sustainable democracy by **providing policy-relevant knowledge, capacity development, advocacy, and dialogues on democratic reform**.

## REPORTS AND INDICES

### 57) Global Inequality Report 2025

#### Why in News?

The 2025 G20-Extraordinary Committee of Independent Experts on Global Inequality recently released a report.

#### About

The committee was commissioned by the **South African Presidency of the G20** to provide a report on the state of knowledge about global inequality.

#### Highlights of the Report

- Global inequality has reached emergency levels threatening democracy, social cohesion, and economic progress.

#### Core concerns:

- 83% of countries exhibit **high income inequality** (representing 90% of the world's population).
- Income inequality between individuals has fallen since 2000 - mainly due to China's economic growth - but remains high, with a Gini coefficient of 0.61.

#### Gini Coefficient

The **Gini coefficient** is a statistical measure used for measuring income inequality within a country. Its value ranges from 0 to 1.

For example, a country having a Gini Coefficient of 0.28 has relatively equal income distribution whereas a value of 0.65 means there is high income inequality in that country.

- **Wealth inequality** is even more severe: since 2000, the richest 1% captured 41% of

new wealth, while the poorest half gained just 1%.

- **Food insecurity** has risen sharply, with 2.3 billion people (1 in 4 globally) facing moderate or severe food insecurity

### 58) International Migration Outlook 2025

#### Why in News?

India is among the top three countries of origin for migrants to multiple OECD nations as per the report published by the Organisation for Economic Co-operation and Development (OECD).

#### About

The International Migration Outlook report is an **annual** publication that analyses recent developments in migration movements and the labour market inclusion of immigrants in OECD countries.

#### OECD

OECD is an intergovernmental organization founded in 1961, composed of 38 member countries committed to democracy and market-based economies.

Its main objective is to promote policies that foster sustainable economic growth, financial stability, higher employment, and improved standards of living among its members. while contributing to sound economic expansion globally and expanding world trade.

#### Highlights of the Report

- In 2023 alone, around 600,000 Indian citizens migrated to OECD nations - marking an 8% rise from the previous year and securing India's position as the top

origin country for migration to advanced economies.

### Indian Context

- India consistently ranks in top 3-4 countries for labour migration to Australia, Canada, and UK.
- Significant presence of Indian doctors, nurses, and other skilled professionals in OECD countries.
- **Labour Arbitrage:** India remains a major source of skilled migration, reflecting skill gaps in India and high demand in developed economies.
- **Asylum Shift:** Significant increase in Indian asylum applications (especially to Canada and Australia).
- **Demographic Context:** India's young population, combined with limited domestic job opportunities in high-skill sectors, drive sustained emigration.

## 59) State of the World's Children (SoWC) Report 2025

### Why in News?

UNICEF's flagship report, The State of the World's Children 2025: Ending Child Poverty – Our Shared Imperative was released on World Children's Day (November 20, 2025).

### About

The report draws on data from over 130 low- and middle-income countries and looks beyond income to assess “multidimensional” poverty among children. It measures severe deprivations in six areas essential for child well-being: education, health, housing, nutrition, water, and sanitation.

### Highlights of the Report

- Around **one in five children** worldwide (over 19%) live in **extreme monetary poverty**, surviving on under about US\$3 a

day. Child poverty is most concentrated in **Sub-Saharan Africa and South Asia**.

- In low- and middle-income countries, more than one in five children (roughly 400 million) suffer **severe deprivation** in at least two key dimensions such as education, health, or basic services.
- **Sanitation** is the most widespread severe deprivation, with 65% children lacking access to toilets and thus facing greater disease risks.
- The **youngest children**, those with **disabilities**, and children living in **conflict zones or climate-crisis-affected areas** face the highest risk and deepest deprivations.

### Indian Context

- UNICEF notes “appreciable progress” in India, where **national multidimensional poverty has fallen sharply** between 2013–14 and 2022–23, aided by expanded social security coverage.
- However, about **206 million children** in India still **face at least one deprivation** and around 62 million face two or more, with sanitation remaining a major challenge.

## 60) World Urbanisation Prospects report 2025

### Why in News?

The World Urbanization Prospects 2025 report was recently released by the United Nations Department of Economic and Social Affairs (UN DESA).

### About

The report presents the official United Nations estimates and projections of urbanization for 237 countries and areas of the world.

### Highlights of the Report

- The world's urban population has grown significantly since 1950, when only 20% of 2.5 billion people lived in cities.
- By 2025, **cities** host the largest share (45%) of people globally, and by 2050, two-thirds of population growth is expected to occur in cities, with **towns** absorbing most of the remainder.
- **Small and medium-sized cities** are now home to more people than megacities and are growing especially quickly in Africa and Asia.
- **Megacities** (urban areas with over 10 million inhabitants) have quadrupled in number since 1975, with most located in Asia.
- The total number of cities worldwide more than doubled between 1975 and 2025.

### 61) Financial Sector Assessment Report

#### Why in News?

World Bank's recent FSA report highlights that India's financial system has become more resilient, diversified, and inclusive since 2017.

#### About

- The Financial Sector Assessment (FSA) report is a comprehensive evaluation conducted jointly by the World Bank and IMF under the Financial Sector Assessment Program (FSAP).
- It delivers comprehensive evaluations of a country's financial sector resilience, regulatory quality, and crisis management capabilities.

### Highlights of the Report

- The report has acknowledged that India's 'world class' digital public infrastructure and government programmes have

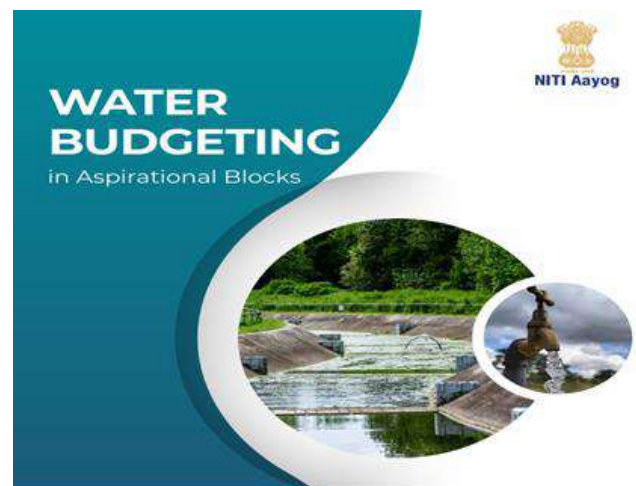
significantly **improved access to a wider range of financial services** for all.

- **India's Capital Markets** (equity, government and corporate bonds) have increased from 144 percent to about 175 percent of GDP since the last FSAP.

### 62) NITI Aayog's Report on Water Budgeting in Aspirational Blocks

#### About

The report is a diagnostic study that develops a block-level, data-driven framework to match water demand and supply and guide local water security planning in selected aspirational blocks under the Aspirational Blocks Programme.



#### Key Highlights

- The report shows that 18 Aspirational Blocks across 11 States and 8 agro-climatic zones face very different water situations, so each requires a customised strategy for water security.
- It uses a **block-level water budget**, prepared through the **Varuni web platform**, as a diagnostic tool to map demand-supply balances, pinpoint challenges and hotspots, and suggest measures for efficient and equitable water use before stress becomes critical.

- The report integrates **multiple supply sources** like **surface water** (ponds, tanks, reservoirs), **groundwater** (IN-GRES data), and **inter-basin transfers** (canals, drinking water grids).
- **Highest Deficits blocks:** Namchi (94%), Gangiri (60%), Baldeogarh (53%), Andimadam (42%).
- Himalayan Blocks (Nirmand, Rupsho) show surplus water due to abundant glacier/spring-fed sources but limited irrigated area.

## SCHEMES & INITIATIVES

### 63) PM-DevINE

#### Why in News?

Union Minister for Communications & Development of North-Eastern Region (MDoNER), has laid down the foundation stone for the “**Integrated Sohra Tourism Circuit**” under the PM-DevINE scheme in Meghalaya.

#### About

- Prime Minister’s Development Initiative for North Eastern Region (PM-DevINE) was announced in the Union Budget 2022-23.
- It is a **central sector scheme**, with 100% central government funding.
- “PM-DevINE” **will cover all the eight states of the North Eastern Region of India**, viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

#### Objectives

Its major focuses are to:

- i. **Fund infrastructure** convergently, in the spirit of PM GatiShakti;
- ii. Support **social development** projects based on felt needs of the NER;
- iii. Enable **livelihood activities** for youth and women; and
- iv. **Fill the development gaps** in various sectors.

#### Other Features

- MDoNER will administer the PM-DevINE scheme by **selection, sanction and monitoring** of projects, **in consultation with the State Governments, North**

**Eastern Council (NEC)** and Central Ministries concerned.

- However, the scheme will be implemented through North Eastern Council (NEC) or relevant Central Ministries / agencies.
- This scheme additional to existing central/state development schemes, not meant to replace them.
- It also focuses on convergent, GatiShakti-aligned infrastructure development to streamline integrated planning and reduce logistical and connectivity bottlenecks.

### 64) NATIONAL SOCIAL ASSISTANCE PROGRAMME (NSAP)

#### Why in News?

The Government has publicised a budget outlay of about ₹9,652 crore for NSAP for 2025–26.

#### About

- Introduced in 1995, NSAP is a fully funded **Centrally Sponsored Scheme** that extends **financial support** to individuals **living below poverty line (BPL)**.
- Implemented by the **Ministry of Rural Development**, the programme operates across **both rural and urban areas**.
- Its main objective is to provide basic level of social security assistance to most vulnerable category of citizens, such as elderly, widow and divyangajan (disable person).

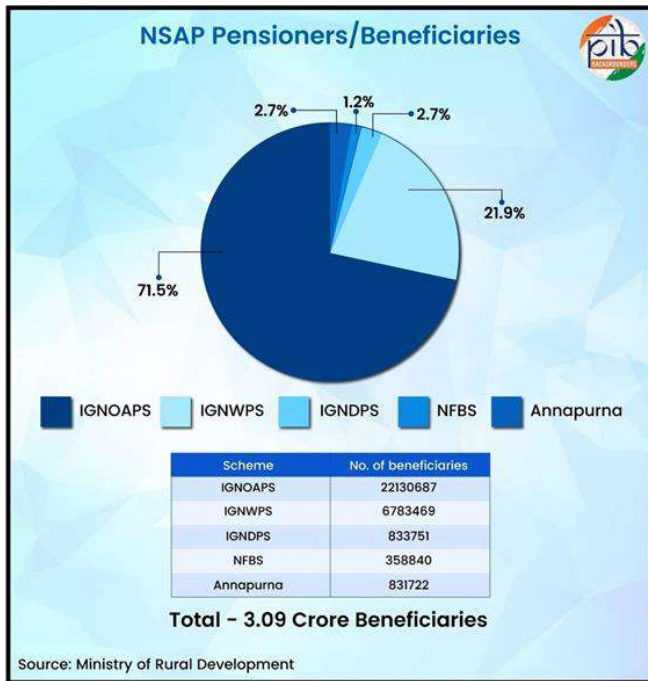
#### Key Features

- **Selection & Identification:** Eligible beneficiaries are identified at the local level **via Gram Panchayats (rural) and Municipalities (urban)**.

- **Disbursement:** Nearly 94% of pensions are disbursed **through Direct Benefit Transfer (DBT)** into beneficiaries' bank or post-office accounts. In exceptional cases (e.g. beneficiary unable to travel), cash-at-doorstep or postal money orders are allowed.
- **Monitoring & Accountability:** Each State/UT **must appoint a Nodal Secretary to coordinate implementation**, and submit quarterly progress reports by 15th of the month following each quarter.

Sub Schemes	Who is Eligible	What it Provides
<b>Indira Gandhi National Old Age Pension Scheme (IGNOAPS)</b>	Elderly citizens 60+ years from BPL families.	Individuals between 60 and 79 years of age receive Rs.200 per month from the C.G, while those aged 80 years and above are provided Rs.500 per month. States/UTs can contributing an equivalent or higher top-up amount.
<b>Indira Gandhi National Widow Pension Scheme (IGNWPS)</b>	Widows aged 40+ years, from BPL families.	Beneficiary in the age group between 40 – 79 receives Rs.300 per month as central assistance. For widows who are 80 years and above, the

		amount Rs.500 per month, providing essential financial support to help meet their basic needs.
<b>Indira Gandhi National Disability Pension Scheme (IGNDPS)</b>	Persons with severe/multiple disabilities aged 18+ years from BPL families.	Individuals between 18 - 79 years are eligible for central assistance of Rs.300 per month. Beneficiaries who are 80 years and above receive Rs.500 per month, ensuring continued financial support to help them manage their daily needs with dignity.
<b>National Family Benefit Scheme (NFBS)</b>	BPL household where the primary bread-winner aged between 18-59 years dies.	One-time lump-sum of financial assistance of ₹20,000 to help the family manage immediate financial distress.
<b>Annapurna Scheme</b>	Senior citizens eligible for IGNOAPS but not receiving pension.	10 kg of free of cost food grains per month to ensure minimum food security.



## 65) NATIONAL BEE KEEPING AND HONEY MISSION

### Why in News?

India's honey exports rose to 1.07 lakh metric tonnes worth USD 177.52 million in FY 2023-24, **making India the second-largest honey exporter globally, after China**; as the mission enters its extended period (from FY 2023-24 to FY 2025-26).

### About

- NBHM (National Bee Keeping and Honey Mission) is a **Central Sector Scheme implemented by the National Bee Board (NBB)**.
- The diverse climate of India supports large-scale beekeeping, which has prompted the Government of India to launch the NBHM under the **"Sweet Revolution"**.
- Beekeeping, an **agro-based activity** undertaken by farmers and landless labourers in rural areas, forms an integral part of the **Integrated Farming System**.

### INTEGRATED FARMING

It is a commonly and broadly used word to explain a more integrated approach to farming as compared to existing monoculture approaches. It refers to agricultural systems that integrate livestock, fisheries, crop production, horticulture, etc.

### Key Features

- NBHM is implemented through **three Mini-Missions**:
  - **Mini Mission I: Boost productivity and pollination**
  - **Mini Mission II: Improve post-harvest management.**
  - **Mini Mission III: Strengthen research and technology**
- It works on **setting up of state-of-the-art Quality Control Labs for testing of honey & other beehive products at regional levels.**
- Major honey-producing states include **Uttar Pradesh, West Bengal, Punjab, Bihar, and Rajasthan.**
- The scheme also supports branding and **GI tagging** of honey products, such as **"Kupwara Organic Honey" in Jammu & Kashmir**, to enhance market value, traceability via the **Madhukranti Portal**, and export potential.

## 66) JAL SANCHAY JAN BHAGIDRI

### Why in News?

The Ministry of Jal Shakti has announced the awards for outstanding performers under the Jal Sanchay Jan Bhagidari initiative.

### About

- The Jal Sanchay Jan Bhagidari (JSJB) initiative was launched in 2024.
- This initiative promotes **community participation** with government, NGOs,

industries, and stakeholders to conserve every drop using a **whole-of-society and whole-of-government approach**.

- The JSJB initiative promotes **groundwater recharge** through **rainwater harvesting, borewell recharge, and recharge shafts**. It utilizes rooftop collection, pits, restored wells, stepwells, and repurposed abandoned borewells and mines, **ensuring sustainable water management and a water-secure future**.
- The JSJB initiative focuses on **constructing one million recharge structures**, including check dams, percolation tanks, and recharge wells.
- The JSJB initiative outlines a **mission-mode approach** for implementation:
  - Each district ensures **at least five recharge structures per village**.
  - **Municipal corporations** are encouraged to establish a **minimum of 10,000 recharge structures**.
  - Central ministries and departments are to **integrate JSJB into their existing schemes and establish self-targets**.
- A **dedicated JSJB sub-portal** under Jal Shakti Abhiyan: Catch the Rain (JSA: CTR) will **capture real-time data on artificial recharge structures nationwide**.

## 67) RESEARCH DEVELOPMENT AND INNOVATION SCHEME

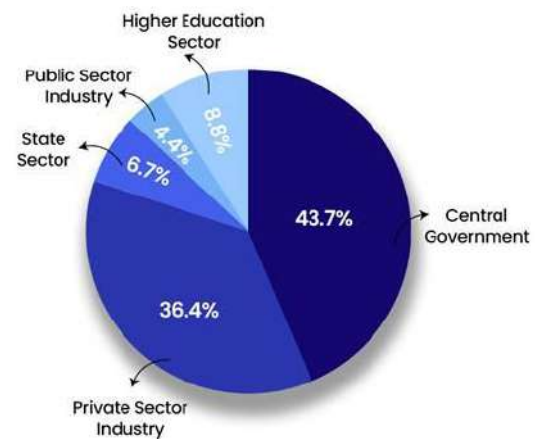
### Why in News?

Prime Minister has launched a ₹1 lakh crore Research, Development and Innovation (RDI) Scheme during the Emerging Science, Technology and Innovation Conclave (ESTIC 2025).

### About

- The RDI Scheme aims to accelerate translation of research into marketable technologies by **enabling private-sector participation** especially in “sunrise and strategic sectors.”

Sector-wise Share in India's National R&D Expenditure (2020-21)



Source – Department of Science & Technology

- The key objectives of the RDI Scheme are to:
  - Encourage **private sector participation**;
  - **Finance transformative projects** at higher levels of Technology Readiness Levels (TRL);
  - Support acquisition **of critical/high strategic importance technologies**;
  - Facilitate setting up of a **Deep-Tech Fund of Funds**.
- The scheme also focuses on **addressing existing challenges in funding** private research by offering growth and risk capital.

### Key Features

- The Scheme **provides long-term financing or refinancing support** with extended tenors at low or nil interest rates.

- The scheme uses a **two-tier funding model** to channel resources efficiently and fairly:
  - **Special Purpose Fund (SPF)**, set up under the Anusandhan National Research Foundation (ANRF) will act as the primary custodian of the ₹1 lakh crore corpus.
  - SPF funds will be routed to **Second-Level Fund Managers (SLFMs)**, which could include Alternate Investment Funds, Development Finance Institutions, Non-Banking Finance Companies, or specialized research agencies. These entities after due diligence (via investment committees) **will then finance specific R&D and innovation projects.**
- The financing **excludes next-generation R&D labs, RDI financing for government entities, and short-term loans.**
- The **Department of Science & Technology** is the nodal ministry of the scheme.
- **The Governing Board of ANRF, chaired by the Prime Minister,** will provide overarching strategic direction to the RDI Scheme.

## 68) DIGITAL INITIATIVES IN FOOD STORAGE AND DISTRIBUTION

### Why in News?

The **Ministry of Consumer Affairs** has **launched** a set of digital and infrastructure reforms aimed at modernising India's warehousing, logistics, and Public Distribution System (PDS).

### About

These initiatives aim to **strengthen transparency, efficiency, and real-time**

**monitoring** across the Central Warehousing Corporation (CWC), Food Corporation of India (FCI), and the Department of Food & Public Distribution (DFPD).

### 1. BHANDARAN 360 PLATFORM

- It is an (Enterprise Resource Planning) **ERP system for CWC**, aim at integrating 41 modules spanning from HR, finance, marketing, warehouse management, contract management, and project monitoring.
- The platform **connects with 35 external systems**, enabling seamless digital connectivity across the food storage ecosystem.

### 2. SMART EXIM WAREHOUSE SYSTEM

It is an **AI and IoT-enabled systems under CWC** for container freight stations and warehouses, including:

- Gate Automation System integrated with port and rail networks;
- Yard Management with Digital Twin for real-time tracking;
- Smart Inventory Management.

### 3. ANNA DARPAN PLATFORM

- A mobile-first, **microservices-based system** replacing Depot Online System **launched by FCI.**
- It **integrates** procurement, storage, movement, sales, quality checks, labour management, and contract monitoring, **providing a single source of truth for supply chain operations.**

### 4. ASHA

- DFPF introduced ASHA (Anna Sahayata Holistic AI Solution) to **enable beneficiaries to share feedback on ration distribution** via AI-enabled calls in multiple languages.

## 69) E-JAGRITI

### Why in News?

Ministry of Consumer Affairs, Food & Public Distribution has announced that the newly launched e-Jagriti portal has rapidly become a nationwide flagship platform.

### About

e-Jagriti portal provides simple, fast and a more cost-effective **consumer disputes redressal** software solution at all levels.

It is envisaged to integrate consumer grievance platforms, namely, Online Case Monitoring System (OCMS), E-Daakhil, NCDRC Case Monitoring System, CONFONET website, mediation application, **in a single platform.**

### Key Features

- **Online complaint filing:** Consumers can lodge grievances online via portal or app.
- **Digital fee payment:** Integrates payment gateways (e.g. Bharat Kosh and PayGov) to enable online or offline fee transactions.
- **Real-time status tracking:** Users can track progress of their case online (status updates, hearing dates, documents, judgments).
- **Virtual hearings / remote access:** Enables hearings remotely (video/virtual courts), which is especially helpful for NRIs or people from remote areas.
- **AI-powered tools & accessibility:** smart search of complaints/judgments, voice-to-text support, and inclusive multilingual/chatbot interfaces.

## ART & CULTURE

### 70) UNESCO: CREATIVE CITIES

#### Why in News?

**Lucknow** has been named a UNESCO Creative City of Gastronomy. The announcement celebrates Lucknow's rich **culinary heritage and centuries-old food traditions** that continue to thrive through innovation, community participation and sustainable practice.

#### About

- The **Creative Cities Network** was launched by **UNESCO in 2004** to support cities that leverage culture and creativity as drivers of development.
- The network covers **seven creative fields**: Crafts and Folk Art, Design, Film, Gastronomy, Literature, Media Arts, and Music.
- Member cities are recognized for **promoting local culture**, supporting creative professionals, and involving residents in cultural initiatives, which **helps boost local economies and social cohesion**.

### 71) GURU TEGH BAHADUR

#### Why in News?

The **President of India** paid tribute to Guru Tegh Bahadur on his 350<sup>th</sup> Martyrdom Day.

#### About

Guru Tegh Bahadur is the 9th Sikh Guru, remembered for his teachings, valour, and supreme martyrdom.

#### Early Life and Lineage

- Born on **1<sup>st</sup> April 1621** in Amritsar.
- Son of **Guru Hargobind (6th Guru)** and **Mata Nanaki**.

- Originally named **Tyag Mal**, symbolising detachment and ascetic nature.

#### Education and Martial Training

- Received spiritual training from **Bhai Gurdas(II)**.
- Trained in martial arts and warfare under **Baba Budha Ji** and his father, **Guru Hargobind Ji**.
- Developed into a scholar, poet, and warrior.

#### Contributions as Guru

- Became Guru in **1664**.
- Contributed **116 hymns** to the **Guru Granth Sahib**.
- Travelled extensively across northern and eastern India to spread Sikh philosophy.
- Founded **Chak-Nanki**(village settlement), which was later developed into **Anandpur Sahib** by Guru Gobind Singh

#### Martyrdom

- Arrested and executed in **1675** in Delhi under Mughal Emperor **Aurangzeb**.
- Sacrificed his life defending **religious freedom and dharma**, particularly protecting Kashmiri Pandits from forced conversions.

#### Legacy

- Revered as "**Hind di Chadar**" (Shield of India) for his ultimate defence of human rights and religious liberty.
- His martyrdom marks a turning point in Sikh history, inspiring a stronger militarisation under his son, **Guru Gobind Singh**.

## 72) VRINDAVANI VASTRA

### Why in News?

Assam government inks pact with British Museum to borrow **16th-century silk textile** themed on Lord Krishna.



### About

- Vrindavani Vastra magnificent silk was created under the guidance of Assamese cultural icon **Srimanta Sankardeva** (the central figure of Assam Vaishnavite/Ekasarana movement) under the patronage of **Koch King Nara Narayan**.
- The textile is nine-and-a-half metres long (937 cm x 231 cm) and was **originally woven as 15 separate silk panels**, later assembled into a single piece.
- It depicts scenes of Lord Krishna Life in Vrindavan and other Mythological motifs.

### Features

- Silk weaving with vibrant motifs
- Represent fusion of spirituality and artistry

## 73) "GIFT OF PEACE" AT GLOBAL PEACE PRAYER FESTIVAL (GPPF)

### Why in News?

India sent Piprahwa relics of Lord Buddha to Bhutan as a "**Goodwill gift**" for the **Global Peace Prayer Festival (GPPF)** in Thimpu.

For free learning, visit [www.officerspulse.com](http://www.officerspulse.com)

### About

- The Global Peace Prayer Festival is a **spiritual gathering** hosted by the **Royal Government of Bhutan**, with support from the **Centre for Bhutan and Gross National Happiness Studies**, the Central Monastic Body, and others
- **Theme: Peace, Prosperity, and Happiness through Compassion**".
- Promote inter-faith dialogue, sustainable development, and spiritual harmony.
- **Participants:** Buddhist monks, scholars, and spiritual leaders from many nations.
- To celebrate Buddha's message of peace, harmony, and compassion; **mark the Bhutan's Fourth King's 70th birth anniversary.**

### The Piprahwa Relics

- The Piprahwa Relics, **include bone fragments, soapstone and crystal caskets**, a sandstone coffer and offerings, such as gold ornaments and gemstones.
- An inscription in the **Brahmi script** on one of the caskets confirms these as relics of the Buddha, deposited by the **Shakya clan**.
- It was discovered by British archaeologist **William Claxton Peppe in 1898**.
- The Piprahwa relics were excavated from a stupa, which is believed to mark the site of ancient Kapilavastu, the capital of the Shakya clan (Lord Buddha's Family).

## 74) BANGLAR MATI, BANGLAR JOL

### Why in News?

West Bengal schools are mandated to begin the day with State song i.e. Banglar Mati, Banglar Jol.

### About

- This song was written by **Rabindranath Tagore** in **1905** in response to **Lord Curzon's partition of Bengal**, which was a colonial strategy to weaken the nationalist movement.
- Tagore was critic of partition and expressed his support for nationalism through his songs and poem "**Banglar Mati, Banglar Jol** ", a call for the unity of the people of Bengal.

### 75) SIRPUR ARCHAEOLOGICAL SITE

#### Why in news?

The Chhattisgarh government, is actively preparing the Sirpur archaeological site for UNESCO World Heritage nomination. It is being developed with visitor amenities, digital interpretation, 3D exhibitions and conservation measures



### About

- It was a **multi-religious urban centre from 5th–12th century**, discovered in **1882** by **Alexander Cunningham**.
- It is located in Chhattisgarh near **Raipur on the banks of river Mahanadhi**.

#### Notable structures

- **Lakshmana Temple (7th-century)**, known for its **brick shikhara**, sculpted door jambs and Vaishnava panels.

- **Surang Tila complex** with its high stepped terrace, **panchayatana** layout and distinct **Shiva lingams**.
- **Tivaradeva Buddha Vihara** (6th-8th century) noted for its Buddha statue and blended Buddhist–Hindu iconography.
- Other remains include palace complexes, markets, residences, stupas, Meditation cells, water systems, etc.

#### Cultural Significance

- It was the **capital of Dakshina Kosala** under the **Panduvanshi and Somavamshi Kings**.
- Displays **early-medieval urban planning** blending religious, civic, and commercial spaces.
- Represents a **riverine cultural landscape** aligning with UNESCO's "**combined work of nature and humankind**" concept.
- Important centre of **Buddhist learning**, Shaiva and Vaishnava worship, and Jain traditions.

### 76) LACHIT BORPHUKAN

#### Why in News?

PM Modi and Home Minister Amit Shah honoured Lachit Borphukan on Lachit Diwas.

### About

- Lachit Borphukan was born on **24th November 1622 in Charaideo, Assam**.
- **Lachit Borphukan** is revered in Assam as the commander who **defeated the Mughal forces** (led by Raja Ram Singh) in the **Battle of Saraighat (1671)**.
- **Military Leadership:** Served as the **commander of the Ahom armies** during the Battle of Saraighat fought on the **Brahmaputra River in Guwahati**.

- **Position in the Ahom Admin:** Appointed as a Borphukan by King Chakradhwaj Singha.
- **Borphukans** held administrative, judicial and military authority in kingdom.
- They effectively acted as **viceroys for the Ahom King** in the **western part of the kingdom**.

### About the Ahom Kingdom

- The Ahom kingdom was **established by Sukaphaa**, a Shan prince from the **Mong Mao region (Myanmar)**, who entered **present-day Assam in 1228 CE**.
- The kingdom ruled large parts of present-day **Assam for nearly 600 years (13th-19th century)**.
- **Conflicts with the Mughals:** Fought multiple clashes with the Mughal Empire between 1615-1682 from Jahangir to Aurangazeb.
- The Battle of Saraighat remains as the **most defining victory against Mughal expansion** in the Northeast.