

OFFICERS IAS ACADEMY™

# OFFICERS' PULSE



JANUARY 2026 (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.

## CONTENTS

### **POLITY ..... 3**

- 1) BAIL IN INDIA..... 3
- 2) PRESIDENT AND GOVERNOR ADDRESS  
.....4
- 3) REMOVAL OF JUDGES ..... 4
- 4) SCHEDULE TRIBE STATUS..... 5
- 5) JURISTIC PERSON ..... 6
- 6) COMPETITION COMMISSION OF INDIA  
.....7
- 7) ARBITRATION COUNCIL OF INDIA ..... 7
- 8) NATIONAL CADET CROPS ..... 8
- 9) CENTRAL BOARD OF FILM  
CERTIFICATE..... 8
- 10) PADMA AWARDS ..... 9
- 11) HATE CRIMES ..... 9
- 12) PREVENTION OF CHILDREN FROM  
SEXUAL OFFENSES..... 10

### **ECONOMY ..... 12**

- 13) CAPITAL EXPENDITURE ..... 12
- 14) HOUSEHOLD DEBT ..... 12
- 15) SPECIAL ECONOMIC ZONES (SEZ)  
.....13
- 16) TECHNICAL TEXTILES..... 14
- 17) WOMEN LABOURERS..... 14
- 18) PENNY DROPS..... 15
- 19) EV BOOM & COPPER CRUNCH ..... 15
- 20) EPFO & ESIC ..... 16
- 21) AMRIT BHARAT EXPRESS  
TRAINS..... 16
- 22) OFFSHORE RESOURCES IN  
ANDAMAN..... 17

- 23) AERONAUTICAL DEVELOPMENT  
AGENCY..... 17
- 24) GEOLOGICAL SURVEY OF INDIA  
(GSI) ..... 18
- 25) ADJUSTED GROSS REVENUE..... 18
- 26) NATIONAL TURMERIC BOARD..... 19
- 27) SILK BOARD..... 19
- 28) SEED SECTOR ..... 20
- 29) INDIA'S RICE EXPORTS..... 21
- 30) AMENDMENTS TO NEW DRUGS AND  
CLINICAL TRIALS..... 22
- 31) DRAFT PESTICIDES MANAGEMENT  
BILL, 2025..... 22

### **ENVIRONMENT ..... 24**

- 32) AMENDED FOREST CONSERVATION  
GUIDELINES 2026 ..... 24
- 33) NEW SOLID WASTE MANAGEMENT  
RULES, 2026..... 24
- 34) INTEGRATED ENVIRONMENTAL  
CONSENT RULES FOR INDUSTRIES ..... 26
- 35) UNFCCC (UN FRAMEWORK  
CONVENTION ON CLIMATE CHANGE)..... 27
- 36) LOSS AND DAMAGE FUND ..... 27
- 37) NO ORGANIC WASTE (NOW) ..... 28
- 38) GLOBAL RISKS REPORT 2026 ..... 28
- 39) RANGELANDS AND CLIMATE  
CHANGE 2026 ..... 29
- 40) BIO-HAPPY DISTRICT (KEYI  
PANYOR, ARUNACHAL PRADESH) ..... 29
- 41) ETHANOL BLENDING..... 30
- 42) GREENSTEEL ..... 30
- 43) KAZIRANGA CORRIDOR..... 31
- 44) BALARAM AMBAJI WILDLIFE  
SANCTUARY ..... 32

45) VULTURE SAFE ZONE.....	32	69) VENEZUELA.....	48
46) Madhav Gadgil.....	33	70) SYRIA.....	49
47) SMOOTH COATED SEA OTTER.....	33	71) CHILE WILDFIRE.....	49
<b>GEOGRAPHY .....</b>	<b>35</b>	72) IRAN.....	50
48) ARAVALLI .....	35	73) UGANDA.....	50
49) MEXICO POPOCATEPETL VOLCANO .....	35	74) CHAGOS ARCHIPELAGO .....	50
50) FLASH FOG.....	36	<b>SCHEMES &amp; INITIATIVES.....</b>	<b>51</b>
<b>SCIENCE &amp; TECHNOLOGY.....</b>	<b>37</b>	75) NPS VATSALYA.....	51
51) BIO-MATERIALS .....	37	76) PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY).....	51
52) ANTIMICROBIAL RESISTANCE(AMR).....	37	77) SAMAGRA SIKSHA ABHIYAN .....	52
53) MITOCHONDRIAL EVOLUTION IN INSECTS.....	38	<b>ART &amp; CULTURE .....</b>	<b>54</b>
54) NIPAH VIRUS.....	38	78) SOMNATH TEMPLE.....	54
55) ASTEROID BENNU .....	39	79) AJMER SHARIF DARGAH.....	54
56) PSLV C62 .....	40	80) BUDDHISM- DIAMOND TRIANGLE .....	55
57) SU- 57.....	42	81) PIPRAWAH .....	55
58) SURYASTRA.....	42	82) JAIPUR PUPPETS (KATHPUTLIS)...	56
59) BHAIKAV BATTALION .....	43	83) THIRUVALLUVAR .....	57
60) OPERATION TRASHI 1 .....	43	84) ADI SHANKARACHARYA .....	57
<b>INTERNATIONAL RELATIONS .....</b>	<b>44</b>	85) NATHAMUNIGAL.....	58
61) UN-DESA .....	44	86) V.O. CHIDAMBARAM PILLAI .....	58
62) INDIA-ARAB FOREIGN MINISTER'S MEETING.....	44	87) 150TH THEOSOPHICAL SOCIETY INTERNATIONAL CONVENTION.....	59
63) IMF EXTENDED FUND FACILITY....	45	88) INDIRA GANDHI PEACE PRIZE .....	59
64) PAX SILICA .....	45	89) MANUSMRITI.....	59
65) CRITICAL MINERALS MINISTERIAL .....	45		
66) INDIA - EU FREE TRADE AGREEMENT (FTA).....	46		
67) SALAL HYDROELECTRIC PROJECT .....	47		
68) CHABAHAR PORT .....	48		

## POLITY

### 1) BAIL IN INDIA

#### Why in News?

Umar Khalid's prolonged incarceration under the **UAPA since 2020**, without trial and with repeated bail denials, underscores the tension between national security laws and **the Article 21 right to bail**.

#### About

Under the **Bharatiya Nagarik Suraksha Sanhita (BNSS)**, **bail** refers to the release of a **person accused or suspected of committing** an offence **from lawful custody**, subject to **conditions imposed by a police officer or a court**, upon the execution of a bond or bail bond by such person.

- The right to bail depends heavily on the classification of the crime:
  - **Bailable Offences:** Bail is a **matter of right**. The police or court **must** grant bail if the accused is ready to furnish the bail bond (e.g., simple hurt, defamation).
  - **Non-Bailable Offences:** Bail is a **matter of judicial discretion**. It is not a right. The court considers the gravity of the offense, evidence, and risk of absconding (e.g., murder, rape).

#### Constitutional Basis

The right to bail is not explicitly mentioned but is interpreted through:

- **Article 21:** The "Right to Life and Personal Liberty." The Supreme Court (SC) holds that "Bail is the Rule, Jail is the Exception" (*State of Rajasthan v. Balchand, 1977*).
- **Article 14:** Ensures equality before the law, preventing arbitrary denial of bail.
- **Article 22:** Provides protection against arbitrary arrest and detention.

#### BNSS 2023: Key Changes

- Under **BNSS Section 479**, a **first-time undertrial** is eligible for bail after serving **one-**

**third** of the maximum sentence, while **other undertrials** become eligible after **half** the maximum period. This relief **excludes offences punishable with death or life imprisonment and cases involving multiple charges**.

#### **Unlawful Activities (Prevention) Act, 1967 (UAPA)**

- **Purpose:** Anti-terror law empowering the State to prevent unlawful and terrorist activities, including designation of individuals as terrorists
- **Jurisdiction:** Entire India
- **Administered by:** Ministry of Home Affairs

#### **Amendments & Scope:**

- Originally enacted to address **secessionist activities**
- Amended to cover **terrorist acts**, strengthen provisions, and include **economic security threats**
- **2019 amendment:**
  - Government can designate **individuals as terrorists**
  - **NIA officers** empowered with enhanced powers, including **property seizure**

#### **Bail & Investigation:**

- **Bail:** Stringent conditions; may be denied if allegations are **prima facie true**; reverses normal principle of "bail is the rule" (legally valid under Article 21)

**Investigation:** Extended police custody; detention up to **180 days** without charge sheet (with court approval); primarily handled by **NIA**

## 2) PRESIDENT AND GOVERNOR ADDRESS

### Why in News?

Lok Sabha passed the Motion of Thanks on the President's address amid Opposition protests, without the PM's customary response.

In states like Karnataka, Tamil Nadu, and Kerala, Governors are refusing or rewriting Assembly addresses prepared by elected governments.

### About

- In the Indian parliamentary system, the **President's Address** (at the Union level) and the **Governor's Address** (at the State level) are mandatory constitutional functions that mark the initiation of legislative business.
- While these addresses are delivered by the constitutional heads, they are **prepared by the elected executive** (the Cabinet), representing the government's policies and legislative agenda.

### Constitutional Mandate

The Constitutional Mandate (Articles 87 & 176)

- **Articles:** Governed by **Article 87** for the President and **Article 176** for the Governor.
- **Mandatory Occasions:** The constitutional head *must* address the legislature on two specific occasions:
  - **Post-Election:** At the commencement of the first session after every general election.
  - **Annual:** At the commencement of the first session of each calendar year (the Budget Session).
- **Requirement:** The **President** addresses a joint sitting of both Houses of Parliament.
  - The **Governor** addresses the Legislative Assembly (or both Houses if the state is bicameral)

### Parliamentary Procedure: The Motion of Thanks

- **Discussion:** After the address, both Houses allot time for a general discussion on the speech.

- **Voting:** The discussion concludes with a **Motion of Thanks** which is passed by **simple majority**.
- **Significance:** The Motion of Thanks **must be passed** by the House.
  - **Defeat = Resignation:** If the Motion of Thanks is defeated in the Lok Sabha (or Legislative Assembly), it is interpreted as a **loss of confidence** in the government, requiring the Prime Minister or Chief Minister to resign.

## 3) REMOVAL OF JUDGES

### Why in News?

**Opposition MPs** have moved an **impeachment motion against Justice G.R. Swaminathan of the Madras High Court**, initiating parliamentary proceedings to examine allegations of misconduct under the constitutional process for removal of judges.

### About

- In India, the removal of a judge of the Supreme Court or a High Court is commonly referred to as **impeachment**, though the Constitution technically uses the term "removal." This process is deliberately rigorous to protect judicial independence from political interference.
- **Constitutional Basis:** Article **124(4)** – Supreme Court Judges; Article **218** – same procedure for High Court Judges.
- **Mode of Removal:** Judges can be removed **only by impeachment by Parliament** (not by executive discretion).
- **Grounds for Removal:** In India, a **Supreme Court or High Court judge** can be removed **only on two constitutional grounds (but, not defined in the constitution):**
  - Proved Misbehaviour & Incapacity

### The Removal Process (Step-by-Step)

Judges (Inquiry) Act, 1968, lays down the procedure for investigating and establishing charges of proven misbehaviour or incapacity.

### Step 1: Initiation of the Motion

A removal motion can be introduced in either House of Parliament:

- **Lok Sabha:** Requires the signatures of at least **100 members**.
- **Rajya Sabha:** Requires the signatures of at least **50 members**.
- The motion is submitted to the **Speaker** (LS) or **Chairman** (RS), who has the discretion to admit or reject it.

### Step 2: The Inquiry Committee

If the motion is admitted, the presiding officer constitutes a **three-member committee** to investigate the charges:

1. A Judge of the Supreme Court.
2. A Chief Justice of a High Court.
3. A distinguished jurist.

### Step 3: Investigation and Report

The committee functions like a trial court. It frames charges, hears evidence, and allows the judge a chance to defend themselves.

- If the committee finds the judge **not guilty**, the process ends.
- If the committee finds the judge **guilty**, the report is tabled in Parliament for a vote.

### Step 4: The Parliamentary Vote (Special Majority)

- The motion must be passed by **both Houses** in the same session by a **Special Majority**:
- This means the motion must be passed by more than 50% of the total membership and also by at least two-thirds of the members present and voting.

### Step 5: Presidential Order

Once passed by both Houses, an address is presented to the **President of India**, who then issues an official order for the removal of the judge.

### Key Historical Context

- **No judge has ever been successfully impeached** in independent India.
- **Justice V. Ramaswami (1993):** The first such case. The inquiry committee found him guilty, but the motion failed in the Lok Sabha because the ruling party abstained from voting.
- **Justice Soumitra Sen (2011):** The Rajya Sabha passed the motion, but he **resigned** before the Lok Sabha could vote on it.
- **Justice Dipak Misra (2018):** For the first time, an impeachment motion was moved against a **Chief Justice of India**, but it was rejected at the preliminary stage by the Rajya Sabha Chairman.

#### *Judges (Inquiry) Act, 1968*

- *The Judges (Inquiry) Act, 1968 regulates the **procedure for removal** of Supreme Court and High Court judges and gives statutory effect to **Articles 124(4) and 217(1)(b)** of the Constitution.*
- *It provides for an **inquiry into proved misbehaviour or incapacity** through a **three-member committee** comprising:*
  - *Supreme Court judge,*
  - *a High Court Chief Justice, and*
  - *a distinguished jurist, vested with civil court powers.*
- *Based on the committee's report, proceedings end if the judge is not guilty, or move to a parliamentary impeachment vote if found guilty.*

### 4) SCHEDULE TRIBE STATUS

#### Why in News?

Assam tribal bodies reject proposal to grant ST status to six communities- Chutia, Koch-Rajbongshi, Matak, Moran, Tai-Ahom, and Tea Tribes (Adivasis)

## About

The **Constitution does not define the term "tribe"** but provides a procedural framework:

- **Article 366 (25):** Defines Scheduled Tribes as communities deemed so under **Article 342**.
- **Article 342 (1):** Empowers the **President** to specify tribes in a State or Union Territory after consultation with the Governor.
- **Article 342 (2):** Grants **Parliament** the power to include or exclude any tribe from the Presidential list.
- **Article 338A:** Established the **National Commission for Scheduled Tribes (NCST)** to safeguard their rights.



### **Lokur Committee (1965) Criteria for ST status**

- *Indications of primitive traits.*
- *Distinctive culture.*
- *Geographical isolation.*
- *Shyness of contact with the community at large.*

## Process of inclusion in the ST list

### Process of Inclusion in ST List



Source: Ministry of Tribal Affairs, Government of India

## 5) JURISTIC PERSON

### Why in News?

The Supreme Court has agreed to **examine** whether the **Enforcement Directorate (ED)** qualifies as a **"juristic person"**, a determination that has implications for its legal status, powers, and accountability.

### About

- A **juristic person** in India is an **artificial legal entity** recognised by law as having a **separate legal personality** distinct from its members, with the capacity to **own property, enter into contracts, and sue or be sued** in its own name.
- **Examples** of juristic persons include companies and corporations registered under the Companies Act, statutory bodies and authorities where the law confers such status, universities, banks, and registered societies, and even deities or idols, which have been recognised as juristic persons by Indian courts.
- A juristic person **has no physical existence** but enjoys **legal rights and duties similar to a natural person**, except for rights that inherently require human attributes, such as marriage.
  - It **functions through natural persons**, namely its officials or authorised agents.
- Importantly, **not all organisations are juristic persons**.
  - Only those **expressly or impliedly recognised by law** possess independent legal personality, and **government departments or investigating agencies are not automatically juristic persons** unless the statute creating them clearly grants such status.



*The Ganga and Yamuna rivers were declared juristic persons by the Uttarakhand High Court in 2017, and not by Parliament; however, this decision was subsequently stayed by the Supreme Court, and therefore the issue of rivers having juristic personality is not settled law in India at present.*

## 6) COMPETITION COMMISSION OF INDIA

### Why in News?

The Competition Commission of India (CCI) has ordered a detailed probe into IndiGo for alleged unfair business practices following the airline's mass flight cancellations.

### About

- The **Competition Commission of India (CCI)** is the statutory body responsible for enforcing the **Competition Act, 2002**. It acts as the "**market watchdog**" to ensure fair play, prevent monopolies, and protect consumer interests in India's rapidly evolving economy.
- **Ministry:** Corporate Affairs and its **HQ is in New Delhi**
- It replaced Monopolies and Restrictive Trade Practices (MRTP) Act, 1969; based on Ragavan Committee recommendations.

### Composition

- Consists of a **Chairperson and 2-6 Members**, appointed by the **Central Government**.
- Members must have **15 years' experience** in fields like **law, economics, commerce, industry, or public affairs**.
- **Tenure:** 5 years or up to **65 years of age**, whichever is earlier.

### Key Functions and Objectives

- **Prohibiting Anti-Competitive Agreements:** Targeting cartels, price-fixing, and bid-rigging (Section 3).

- **Curbing Abuse of Dominant Position:** Preventing large firms from using their market power to crush competitors or exploit consumers (Section 4).
- **Regulating Combinations (Mergers & Acquisitions):** Ensuring that large corporate tie-ups do not result in a monopoly that hurts the market (Sections 5 & 6).
- **Competition Advocacy:** Educating stakeholders and advising the government on competition policy.

As of early 2026, the CCI is at the forefront of regulating the digital economy and large-scale corporate mergers.

## 7) ARBITRATION COUNCIL OF INDIA

### Why in News?

Six years after the 2019 amendments, the Arbitration Council of India (ACI) is yet to be constituted, and on 23 Jan the Supreme Court has asked the government to set it up and frame uniform arbitration guidelines.

### About

- The **Arbitration Council of India (ACI)** is a statutory body established under the **Arbitration and Conciliation (Amendment) Act, 2019**, following the recommendations of the **Justice B.N. Srikrishna Committee (2017)**.
- Functions under the **Ministry of Law & Justice**
- **Headquarters:** New Delhi

### Composition & Appointment

**Chairperson:** Appointed by Central Government in consultation with CJI

- **Eligibility:** Former SC Judge / Former HC Chief Justice / Eminent arbitration expert

It includes full time, part-time members and ex-officio members.

### Functions

- **Frame policies and guidelines** for the promotion and development of

**arbitration, mediation, and conciliation** in India.

- **Grade and accredit arbitral institutions and accredit arbitrators** based on prescribed norms.
- **Maintain a depository** of arbitral awards and arbitral institutions.
- **Promote institutional arbitration** and encourage best practices in alternative dispute resolution (ADR).
- **Conduct training, research, and capacity building** in arbitration and ADR mechanisms.
- **Advise the Central Government** on measures to strengthen and improve arbitration in India.

## 8) NATIONAL CADET CROPS

### Why in News?

Defence Minister Rajnath Singh addressed NCC cadets at the Republic Day Camp, Delhi Cantt, calling the NCC India's "second line of defence."

### About

The National Cadet Corps was established **under the NCC Act, 1948**, functions under the **Ministry of Defence**, has its **headquarters in New Delhi**, and is **headed by a Director General** (three-star military officer), with the motto "*Unity and Discipline*".

### Objectives & Role

The NCC aims to develop **discipline, leadership, character, and national integration among youth** and acts as a trained auxiliary force during disasters and national emergencies, earning it the description of India's "second line of defence."

### Organisation & Enrolment

- It is the **world's largest uniformed youth organisation, comprising Army, Navy, and Air Force wings**, with voluntary enrolment of boys and girls from schools (Class VIII onwards) and colleges/universities.

- **NCC 'C' certificate** holders receive preferences and relaxations in Army, Navy, Air Force, and CAPF recruitment.'

### Other Key Activities

- Participation in Republic Day Camp (RDC), All India Camps, and Youth Exchange Programmes.
- Active involvement in disaster relief, social service, Swachh Bharat Abhiyan, environmental protection, and national integration activities

## 9) CENTRAL BOARD OF FILM CERTIFICATE

### Why in News?

The Madras High Court has reserved its order on a writ appeal filed by the CBFC in the *Jana Nayagan* censorship case, relating to the film's certification and release.

### About

- CBFC is a **statutory body** under the **Ministry of Information & Broadcasting**.
- Established under the **Cinematograph Act, 1952**.
- **Headquarters:** Mumbai
- Regional offices across India for film examination.

### Functions

- **Certifies** films for public exhibition in India
- Ensures films comply with:
  - Sovereignty & integrity of India
  - Security of the State
  - Public order, decency, morality
- Can:
  - Grant certificate
  - Suggest modifications
  - Refuse certification (rare)

#### **Cinematograph (Amendment) Act, 2023**

- *Introduced age-based sub-categories (U/A 7+, U/A 13+, U/A 16+)*
- *Provision to combat film piracy*
- *Allowed re-certification for TV/OTT versions*



The **CBFC** certifies films for public exhibition; **it does not censor or ban films.**

- Censoring powers rest with the judiciary under Article 19(2), including staying release, ordering cuts, or restricting exhibition.
- CBFC cannot impose permanent bans; its decisions are judicially reviewable.
- With Film Certification Appellate Tribunal (FCAT) abolished, appeals against CBFC orders lie with the High Courts.

## 10) PADMA AWARDS

### Why in News?

The President of India conferred the Padma Awards for 2026, with former Kerala Chief Minister **V. S. Achuthanandan** being honoured posthumously with the **Padma Vibhushan**, while renowned actor **Mammootty** was awarded the **Padma Bhushan**.

### About

- **History & Background:**  
Instituted in 1954, the Padma Awards were reorganised in 1955 into Padma Vibhushan, Padma Bhushan, and Padma Shri. They were not awarded during 1978–79 and 1993–97.
- **Categories & Criteria:**
  - Padma Vibhushan is for exceptional and distinguished service,
  - Padma Bhushan for distinguished service of high order, and
  - Padma Shri for distinguished service.
- **Constitutional Position:**  
Padma Awards are not constitutional titles under Article 18(1). In *Balaji Raghavan v. Union of India* (1996), the Supreme Court held that they do not violate Article 18 as they are honours for merit, not hereditary or social titles. The award cannot be used as a prefix or suffix.
- **Eligibility & Fields:**

Open to all citizens; government servants are generally excluded, except doctors and scientists. Awards cover fields such as art, social work, public affairs, science & technology, trade & industry, medicine (including AYUSH), literature & education, civil services, sports, and others.

- **Rules & Limits:**

Awards are normally not posthumous (exceptions allowed). A **5-year gap is required for a higher award**. A maximum of 120 awards (All 3 combined) per year may be given, excluding posthumous and foreign/NRI awards.

- **Nature of Award:**

It is conferred by the **President** of India (March–April) and includes a **Sanad and a Medallion**.

- **Decision-making Body:**

Recommendations are made by the **Padma Awards Committee, chaired by the Cabinet Secretary**, constituted by the Prime Minister, and approved by the President.

## 11) HATE CRIMES

### Why in News?

The killing of a Tripura student has sparked nationwide concern over an alleged hate crime, renewing calls for stronger legal safeguards and formal recognition of hate crimes in India.

### About

In India, while the term “**hate crime**” lacks an **explicit legal definition**, many acts fall under it, such as:

- Mob lynching based on religious identity.
- Caste-based violence
- Targeted attacks on Dalits and minorities
- Gender and sexuality-based assaults

### Constitutional Safeguards

- **Article 19(2):** Allows restrictions on speech threatening public order, morality, or inciting violence, basis for hate speech laws.

- **Article 15:** Prohibits discrimination; implies a state duty to prevent targeted violence.
- **Article 21:** Right to life includes protection from mob violence (*Tehseen Poonawalla, 2018*).
- **Article 14:** Failure to act against hate crimes violates equality before law.
- **Article 17:** Absolute ban on untouchability; foundation of the SC/ST Atrocities Act.

### Legal protection

- The **Bharatiya Nyaya Sanhita (BNS)**, 2023 criminalizes acts threatening national unity (Sec. 152), promoting enmity (Sec. 196), prejudicing national integration, outraging religious feelings, and introduces a landmark offence of mob lynching with stringent punishment (Sec. 103(2)).
- **Special statutes** like the SC/ST (Prevention of Atrocities) Act, 1989, the Protection of Civil Rights Act, 1955, and the Religious Institutions (Prevention of Misuse) Act, 1988 provide targeted protections for marginalized groups.
- Under the **Representation of the People Act, 1951**, promoting enmity can lead to disqualification (Sec. 8), and appeals based on religion or caste are treated as corrupt practices (Sec. 123(3)).

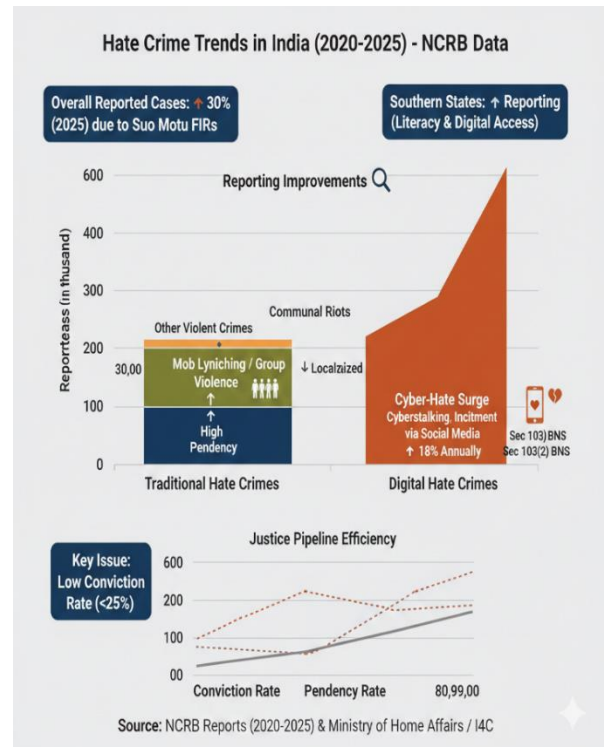
### Judicial intervention

- **Pravasi Bhalai Sangathan (2014):** Hate speech defined as delegitimizing groups; matter referred to Law Commission.
- **Amish Devgan (2020):** Free speech distinguished from hate speech; dignity upheld as a constitutional value.
- **Tehseen S. Poonawalla (2018):** Hate speech seen as precursor to hate crimes; guidelines issued against mob lynching.
- **Shaheen Abdulla (2022–23):** States/UTs directed to register FIRs in hate speech cases *suo motu*.

### Karnataka Hate Speech Bill, 2025

In late 2025, Karnataka made headlines by becoming the first state in India to introduce and pass a dedicated legislation specifically targeting hate speech and hate crimes.

### Recent Trends and Data



## 12) PREVENTION OF CHILDREN FROM SEXUAL OFFENSES

### Why in News?

On January 9, the Supreme Court noted misuse of the POCSO Act by families against young men in consensual relationships, highlighting its weaponisation beyond protecting children.

### About

- Applies to **all children below 18 years of age** and is **gender-neutral**.
- Defines and **penalises** penetrative sexual assault, aggravated penetrative sexual assault, sexual assault, sexual harassment, and use of children for pornographic purposes.

- Prescribes **minimum mandatory punishments**, with **enhanced penalties** for aggravated offences.
- Provides for **child-friendly procedures** during investigation and trial, including in-camera proceedings and assistance of parents/guardians.
- Any person (including doctors/teachers) who **knows or suspects** a sexual offence against a child **must report it**. Failure to report is a punishable offence.
- Establishes **Special Courts** for **speedy trial**, to be completed within **one year as far as possible**.
- Introduces **presumption of guilt** against the accused in specified cases, shifting the burden of proof.
- Strengthened by the **2019 amendment**, which allows **death penalty in extreme cases** of aggravated penetrative sexual assault.
- The NCPCR (National Commission for Protection of Child Rights) and SCPCRs monitor the implementation of the Act. Both are statutory bodies.

#### **JUDICIAL INSIGHTS**

- **"Romeo-Juliet" Clause (Jan 2026):** The Supreme Court recently suggested a "Romeo-Juliet clause" to protect consensual teenage relationships (16-18 years) from being criminalized under POCSO, noting that the law is sometimes misused by families to oppose inter-faith or inter-caste relationships.
- **Skin-to-Skin Doctrine (Rejected):** In *AG vs. Satish Ragde*, the Supreme Court overruled the Bombay HC, clarifying that "sexual intent" is more important than "skin-to-skin contact." Even touching over clothes with sexual intent is sexual assault under POCSO.

## ECONOMY

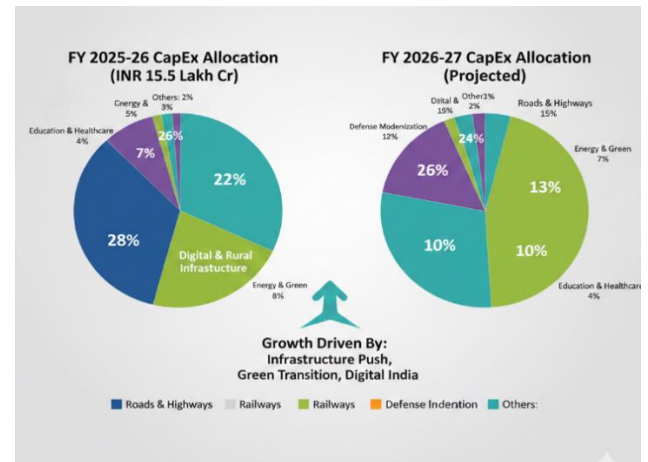
### 13) CAPITAL EXPENDITURE

#### Why in News?

Central govt capex may cross ₹12 lakh crore in upcoming budget for FY27, up 10% YoY: SBI report.

#### About

- **Capital expenditure (CapEx)** refers to government spending on **creation of physical assets** that enhance the economy's productive capacity. E.g: roads, railways, ports, telecom infrastructure.
- Capital expenditure **creates long-term assets** with benefits spread over many years.
- It leads to **capital formation** and is **non-recurring** in nature.
- CapEx is different from **revenue expenditure** (which is regular spending on salaries, subsidies, interest payments, etc.).



### 14) HOUSEHOLD DEBT

#### Why in News?

India's household debt is 41.3% of GDP (2025), rising gradually from 36% in 2021, showing stability with no imminent financial risk.

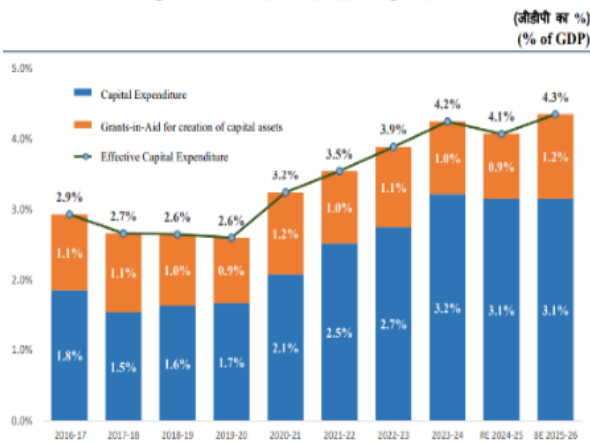
#### About

- Household debt refers to the **total outstanding financial liabilities** of households that arise from borrowing.
- Primarily tracked by RBI in its **Financial Stability Report**.
- It includes loans taken for:
  - Consumption (personal loans, credit cards)
  - Housing (home loans)
  - Education and health
  - Vehicles and other durable goods
- Non-housing retail loans dominate at 55.3%

#### Impacts of rising household debt

1. **Reduced Financial Resilience:** As net savings decline, households have a smaller "safety net," making them more vulnerable to economic shocks, medical emergencies, or job losses.
2. **Debt-Fueled Consumption:** GDP growth is increasingly driven by credit rather than income growth. This creates a risk of a

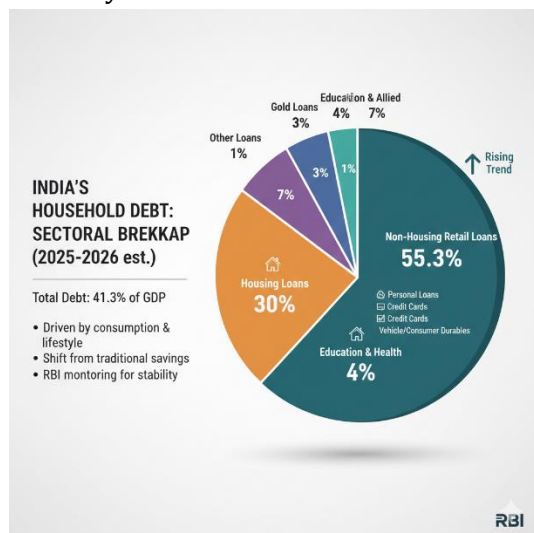
#### पूँजीगत व्यय CAPITAL EXPENDITURE



- India's **capital expenditure** has risen sharply from ₹4.5 lakh crore (2016-17) to ₹15.5 lakh crore (BE 2025-26).
- Capital expenditure as a share of GDP rose from about 2.9% in 2016-17 to 4.3% in BE 2025-26.
- The growth is driven mainly by higher core capital spending, supported by grants for asset creation.

"consumption slowdown" once households reach their borrowing limits.

3. **Banking Sector Stress:** The surge in **unsecured loans** (credit cards, personal loans) increases the risk of defaults, prompting the RBI to tighten lending norms to protect financial stability.
4. **Reduced Productive Spending:** High **EMI burdens** leave less disposable income for long-term investments like education, health, or starting small businesses, potentially slowing future productivity.
5. **Shift to Financial Assets:** On the upside, money is moving from physical assets (gold/cash) into the **stock market**, providing domestic capital that makes Indian markets more resilient to global volatility.



## 15) SPECIAL ECONOMIC ZONES (SEZ)

### Why in News?

The Supreme Court held that **customs duty cannot be imposed on electricity supplied from a Special Economic Zone (SEZ) to the Domestic Tariff Area (DTA).**

- It ruled that any levy of customs duty requires clear statutory authority, and in the absence of such authority, the levy is invalid in law, in line with **Article 265** of the Constitution.

### Article 265

*No tax shall be levied or collected except by authority of law.*

- The Court further observed that electricity is not "goods" capable of being imported or exported in the conventional sense under the Customs Act, and therefore cannot be subjected to customs duty unless expressly provided by law.

### About

SEZ, a duty-free, demarcated area **treated as foreign territory for trade**, created to promote exports, investment and employment; under the SEZ Act, 2005.

### Key Features of SEZs

- Deemed outside customs territory of India
- Duty-free imports of raw materials, capital goods
- Single-window clearance
- Liberal labour and compliance norms
- Separate SEZ authorities

### Trade & Customs Regulations

- Supplies from SEZ to DTA treated as imports
- Supplies from DTA to SEZ treated as exports
- No customs duty unless explicitly provided by law
- SEZ units must be Net Foreign Exchange positive

### Tax Incentives

- Customs duty exemption on imports
- GST exemption on supplies to SEZ (zero-rated supply)
- As of 2026, new units in general SEZs do not receive income tax holidays due to the sunset clause that expired in 2020, though they still enjoy 100% customs duty exemptions and zero-rated GST.



## Overall Trend

As per PLFS annual report 2023-24,

- Female LFPR has **surged to 41.7% in 2023-24**, nearly doubling from 23.3% in 2017-18.
- Female WPR has **also surged to 40.3% in 2023-24** from 22% in 2017-18.
- The surge is primarily **driven by rural women**, with rural female WPR **rising to 39.7%**
- The **employability of female graduates** has **increased to 47.53% in 2024**, up from 42% in 2013.



*The Periodic Labour Force Survey (PLFS) was launched by **National Statistics Office (NSO)** in 2017, under the Ministry of Statistics and Programme Implementation is India's main source of labour market data.*

- *The **PLFS** publishes an **annual report** for rural and urban areas, **quarterly and monthly bulletins** for urban India, covering key **labour and unemployment indicators**.*

## 18) PENNY DROPS

### Why in News?

FIU-IND has mandated penny-drop bank account verification as part of stricter KYC norms for cryptocurrency customers in India

### About

Penny Drop is a **bank account verification method** in which a very small amount (usually ₹1) is electronically transferred to a user's bank account to confirm the authenticity, ownership and operational status of the account. The transaction response (success/failure and account holder's name) is used to verify KYC details.

## 19) EV BOOM & COPPER CRUNCH

### Why in News?

Rapid EV growth is causing copper shortages, threatening electrification and clean energy goals.

### About

### Global Copper Demand-Supply Outlook

Global copper demand is projected to exceed supply by 3-4.5 million tonnes by the late 2020s. The copper deficit could widen to nearly 8 million tonnes by 2030.

### Importance of Copper in Electric Vehicles (EVs)

EVs require significantly more copper than conventional internal combustion engine vehicles due to:

- Very high electrical and thermal conductivity
- Ductility and malleability (easy wiring and shaping)
- Corrosion resistance and durability
- Recyclability without quality loss

### Applications of Copper in EV Ecosystem

Copper is essential for:

- EV batteries and motors
- Charging infrastructure
- Power grids supporting electrification

### Growth in EV-related Copper Demand

Global EV-related copper demand increased from about 27,500 tonnes in 2015 to nearly 1.28 million tonnes in 2024.

### Constraints in Copper Mining Output

Mining output has not kept pace due to:

- Declining ore grades
- Environmental regulations
- Long gestation period for new mines

### China's Dominance in EV and Copper Consumption

- China accounts for around 70% of global EV production.

- China is projected to consume nearly 60% of global EV-related copper by 2025.

### Global Copper Production Scenario

Chile, Peru, the Democratic Republic of Congo, China, and the United States are the top copper-producing countries.

### India's Copper Production and Resource Base

- India is a minor copper producer with less than 2% of global output and remains largely import-dependent.
- India's copper resources are limited and unevenly distributed, mainly concentrated in Rajasthan (Khetri belt), Madhya Pradesh (Malajkhand), and Jharkhand (Singhbhum belt).

## 20) EPFO & ESIC

### Why in News?

Trade unions are pushing for higher wage ceilings on EPF and ESI contributions ahead of Union Budget 2026.

### About

- **Social security** for workers in the **organised sector** in India is primarily ensured through two statutory institutions:
  - Employees' Provident Fund Organisation (EPFO) and
  - Employees' State Insurance Corporation (ESIC).
- Both are established as **statutory** bodies under the **Ministry of Labour & Employment**.

### About EPFO

- It is established under the Employees' Provident Funds & Miscellaneous Provisions Act, 1952.
- It extends to the whole of India **except Jammu & Kashmir**.
- It administers the following schemes:
  - Employees' Provident Fund (EPF) – **retirement savings**

- Employees' Pension Scheme (EPS), 1995 – **pension benefits**
- Employees' Deposit Linked Insurance (EDLI) – **life insurance cover**
- Both **employee and employer** contribute **12% of wages** each
- It allows **partial withdrawals** permitted for **housing, education, medical needs**
- Governed by the **Central Board of Trustees (CBT)**; a tripartite body (government, employers, employees), chaired by the Union Labour Minister

### About ESIC

- It was established under the Employees' State Insurance Act, 1948.
- Provides **comprehensive medical care** to insured persons and dependents
- Here, the **Employee contribution is 0.75% and Employer contribution is 3.25%**
- Covers **employment injury, occupational diseases and maternity**
- Services delivered through ESIC hospitals, dispensaries and empanelled facilities
- Governed by the **Employees' State Insurance Corporation**; a tripartite body with Central/State govt, employers & employees, chaired by the Union Labour Minister.

## 21) AMRIT BHARAT EXPRESS TRAINS

### Why in News?

PM laid the foundation for the **Kaziranga Elevated Corridor** and flagged off **Amrit Bharat Express trains**.

### About

#### Propulsion Technology:

- Amrit Bharat trains uses a "**Push-Pull**" **technology** with two dedicated locomotives (WAP-5) at either end.
- One engine pulls while the other pushes, helping the train pick up speed quickly despite being a traditional locomotive-hauled train.

#### Speed and Travel Time:

- Has a maximum speed of 130 km/h.

- While faster than most regular express trains due to its twin engines, it is slower than the Vande Bharat.

### Vande Bharat Express

- It is a self-propelled trainset, meaning it has no separate engine.
- The traction power is distributed under the coaches (like a Metro), allowing for very fast acceleration and deceleration.
- Designed for a maximum speed of 160–180 km/h (operational at 130–160 km/h).
- It is the fastest train category in India, aimed at cutting travel time significantly between major cities.

## 22) OFFSHORE RESOURCES IN ANDAMAN

### Why in News?

ONGC commences strategic drilling in Andaman offshore, marking milestone in national energy push.

### About

- The **Andaman Basin** has emerged as a major **hydrocarbon frontier**, comparable to basins in Myanmar and Indonesia. In late 2025, Oil India Ltd (OIL) **confirmed a natural gas discovery at the Sri Vijayapuram-2 shallow offshore well.**
- The estimates suggesting the broader Andaman Sea region **could hold up to 22 billion barrels of oil.**
- The **Samudra Manthan mission** targets ultra-deepwater drilling up to 5,000 m to discover Tier-1 oil fields.
- The region is **also rich in offshore critical minerals.**
- In renewable energy, the **islands offer strong offshore wind potential.**



*Offshore Resources refer to the natural wealth found in the seabed and subsoil of the world's oceans, primarily within a country's Exclusive Economic Zone (EEZ).*

- These are broadly categorized into **Energy resources, Mineral resources, Biological and other resources.**

*Offshore resource rights are governed by **UNCLOS (United Nations Convention on the Law of the Sea)**, which divides the ocean into zones:*

- **Territorial Sea (12 Nautical Miles):** Full sovereignty.
- **Contiguous Zone (24 NM):** Limited jurisdiction.
- **Exclusive Economic Zone (200 NM):** Sovereign rights for resource extraction.

## 23) AERONAUTICAL DEVELOPMENT AGENCY

### Why in News?

A two-day national seminar 'Aeronautics 2047', organised by the Aeronautical Development Agency (ADA), commenced at Centre for Airborne Systems (CABS), Bengaluru on January 04, 2026.

### About

- The **Aeronautical Development Agency (ADA)** was established in **1984 as autonomous society registered under SRA Act, 1860** under the **Ministry of Defence.**
- It is headquartered in Bengaluru and functions under the **Defence Research and Development Organisation (DRDO).**
- It is the nodal agency responsible for the **design and development of India's indigenous fighter aircraft.**
- It is responsible for leading major indigenous fighter aircraft programmes, including **LCA Tejas, Tejas Mk-2, Twin Engine Deck-Based Fighter (TEDBF),** and

the **Advanced Medium Combat Aircraft (AMCA)**.

- It works in close collaboration with **Hindustan Aeronautics Limited (HAL)**, various **DRDO laboratories**, **academic institutions**, and **public and private industry partners**.

## 24) GEOLOGICAL SURVEY OF INDIA (GSI)

### Why in News?

The Ministry of Mines directed GSI to intensify exploration of critical and strategic minerals.

### About

- GSI was established in 1851, making it one of the **oldest scientific departments in India**.
- It is the **nodal agency** for geological **mapping** and mineral resource **assessment** in India.
- Plays **advisory role** for Centre and State governments on mineral resources.
- **Conducts** geological, geophysical, geochemical and geo-environmental **surveys**.
- Undertakes geo-hazard studies and **landslide susceptibility mapping**.
- Carries out **offshore mineral exploration** in India's Exclusive Economic Zones
- Also, promotes **geo-tourism** through Geo-heritage sites and monuments

#### **Exclusive Economic Zone (EEZ)**

*It is a sea area extending up to 200 nautical miles from a coastal state's baseline, where the state has sovereign rights to explore, exploit, conserve, and manage marine resources.*

- It **maintains** the **National Geological Data Repository (NGDR)** - a digital platform for storing and sharing India's geoscientific data.

## 25) ADJUSTED GROSS REVENUE

### Why in News?

Vodafone Idea (Vi) is in the spotlight as the Union Cabinet granted relief on Adjusted Gross Revenue (AGR) dues by freezing outstanding liabilities and allowing a five-year moratorium, even as the company faces a separate ₹638-crore GST penalty.

### About

- **Adjusted Gross Revenue (AGR)** is the **total revenue base used by the government to calculate how much telecom companies must pay** as licence fees and spectrum usage charges.
- But the **Telecom operators** continuously placed a demand to **consider revenue from only core telecom services** to calculate AGR.
- In India, **Adjusted Gross Revenue (AGR)** includes **all income earned by a telecom operator**, not just revenue from **core telecom services** like voice calls, data, and messaging. It **also covers non-telecom income**, such as interest earned on bank deposits, rent from leased property, dividend income, and proceeds from the sale of assets.
- The **Supreme Court, in 2019, upheld this interpretation**, making AGR the basis for determining licence fees and spectrum usage charges payable by telecom companies.
- **Licence Fee** is the amount paid by telecom companies to the government for the **legal right to operate telecom services in India**.
- **Spectrum Usage Charge (SUC)** is the fee paid by telecom operators for using **radio frequency spectrum**, a limited and valuable natural resource owned by the government.

The **calculation of licence fee and spectrum charges based on AGR** significantly increased the dues payable by telecom companies like **Vodafone**. To prevent financial distress and possible bankruptcy, the **government has allowed a 5-year moratorium** for payment of these dues.

## 26) NATIONAL TURMERIC BOARD

### Why in News?

Union Minister for Agriculture and Farmers' Welfare, Shivraj Singh Chouhan, announced that a **regional office of the National Turmeric Board (NTB)** will be set up in Erode, Tamil Nadu. The office will **also house an accredited turmeric testing laboratory.**

### About

- The Government of India **notified the establishment of the National Turmeric Board on 4 October 2023.** It is an executive body under the **Ministry of Commerce and Industry**, Government of India.
- It is headquartered in **Nizamabad, Telangana.**

### Objectives

- **Promotes** development, value addition, and **export** of turmeric products
- **Supports research**, innovation, and quality standardisation
- **Strengthens supply chain** and builds capacity of farmers and producers

### Turmeric (*Curcuma longa*)

- Turmeric is an **underground stem** of the *Curcuma longa* plant, which is part of the **ginger family (Zingiberaceae).**
- India is the **largest producer, consumer, and exporter** of turmeric globally. India produces over 70% of global turmeric.
- It is known for its **anti-inflammatory, antioxidant, and antimicrobial benefits.**



*Lakadong turmeric from Meghalaya, Kandhamal turmeric from Odisha, Erode turmeric from Tamil Nadu, and Armoor turmeric from Nizamabad, Telangana, among others, have been granted **Geographical Indication (GI) tags.***

## Major producer states

Telangana, Maharashtra, Karnataka, Tamil Nadu, Odisha are the major turmeric producing states in India.

## 27) SILK BOARD

### Why in News?

The Silk Board has an ambitious target of doubling the country's silk value chain which is currently valued at ₹55,000 crore.

### About

#### Silk Board of India

- It is a Statutory body established under the **Silk Board Act, 1948.**
- **Ministry:** Ministry of Textiles
- **Headquarters:** Bangalore

### Key objectives

- Promote and **develop sericulture** to increase silk production.
- Support farmers and entrepreneurs with training, subsidies, and technical guidance.
- **Enhance quality and export of silk** for domestic and international markets.

### Types of Silk Promoted by the Board:

- **Mulberry Silk** – Karnataka, Andhra Pradesh, Tamil Nadu
- **Tussar Silk** – Jharkhand, Chhattisgarh, Bihar, West Bengal
- **Eri Silk** – Assam, Meghalaya
- **Muga Silk** – Assam

### SILK

1. Silk is a natural protein fiber produced by silkworms, mainly from the cocoon of the *Bombyx mori* moth.
2. It is valued for its **softness, luster, and strength**.
3. **Types of silk:** Mulberry, Tasar, Eri, Muga, and Oak Tasar
4. **Top 3 producers of silk of (Raw) silk in the world:**
  1. China
  2. India
  3. Uzbekistan
5. **Top 3 exporters of Silk products:** China, Italy, India
6. **Karnataka** is the largest producer of silk in India

## 28) SEED SECTOR

### Why in News?

The seed sector is in the news due to the proposed Seed Bill, 2025 to ensure quality seeds and stop fake seeds.

*(Refer Pulse Digest November 2025 edition for details about Seed bill)*

### About

- The seed sector forms the foundation of agricultural productivity, food security, and farmers' income.
- The use of quality seeds can increase crop yields by nearly **20–25%**(ICAR).
- The Green Revolution significantly increased reliance on **high-yielding variety (HYV) seeds**, underscoring the critical role of seed quality in agricultural growth.
- Over time, the sector has expanded through the combined efforts of public institutions such as **ICAR and State Seed Corporations**, along with growing participation from private players.

### Regulatory Framework Governing the Seed Sector

- The **Seeds Act, 1966** provides for quality control of notified seeds at the time of sale. The **Seeds Rules, 1968** lay down standards for labeling and certification.
- The **Seed (Control) Order, 1983** regulates dealer licensing to prevent hoarding and black marketing.
- The **Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001** balances breeders' intellectual property rights with farmers' rights to save, use, and exchange seeds.

### Key Institutions in the Seed Sector

- The **Indian Council of Agricultural Research (ICAR)** is responsible for research and breeder seed production.
- **State Seed Corporations and the National Seeds Corporation (NSC)** handle seed multiplication, certification, and regional distribution.
- The **PPV&FR Authority** oversees variety registration and the enforcement of breeders' and farmers' rights.

#### Recent Government Initiatives:

- The **Krishonnati Yojana**, including the **Sub-Mission on Seeds and Planting Material (SMSP)**, aims to enhance seed production through infrastructure development and the distribution of seed minikits.
- The **National Mission on High-Yielding Seeds** focuses on developing climate-resilient varieties and establishing a new Gene Bank. Additionally, a **200-acre Seed Park in Uttar Pradesh** has been proposed to promote high-yield seed production.

### Types of Seeds in India

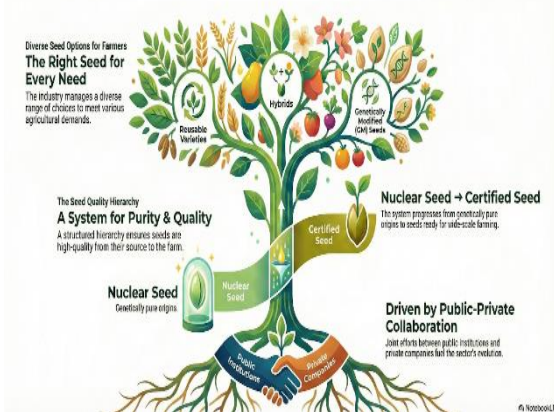
- **Nucleus seeds** are genetically pure seeds that form the base of the seed chain.
- **Breeder seeds** are produced from nucleus seeds under the direct supervision of plant breeders.

- **Foundation seeds** are derived from breeder seeds and act as the parent material for commercial seed production.
- **Certified seeds** are distributed to farmers for cultivation.
- India also uses **HYV and hybrid seeds, open-pollinated varieties (reusable), and GM or bio-fortified seeds**, which are subject to regulatory oversight.

### Emerging Trends in the Seed Sector

- There is a growing shift towards **hybrid seeds** over traditional varieties to improve productivity. India is a **net exporter of seeds**, particularly cotton, vegetables, maize, and hybrid seeds.
- However, the country remains dependent on imports for vegetable seeds, oilseed seeds, and certain pulses due to limited domestic production.
- High-value seeds such as **tomato, capsicum, sunflower, and mustard** are largely imported.

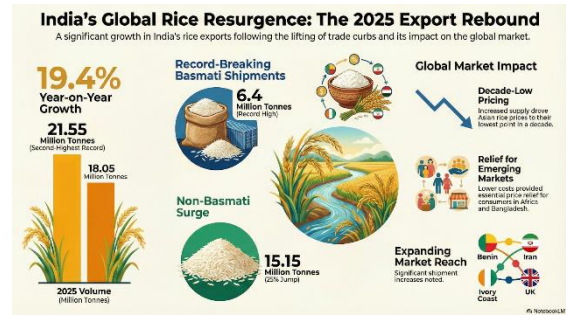
#### India's Seed System: Sowing the Seeds of Food Security



## 29) INDIA'S RICE EXPORTS

### Why in News?

India's rice exports jumped 19.4% last year to the second-highest on record after lifted all export curbs, making shipments more competitive.



### About

India is the world's largest rice exporter, contributing about 28% of global rice exports. It is also the second-largest rice producer globally, after China.

### Trends in India's Rice Exports

India's rice exports increased by 19.4% in 2025 compared to the previous year following the lifting of export restrictions. Higher Indian exports led to a decline in rice shipments from Thailand and Vietnam.

### Impact on Global Food Prices

Improved availability of rice due to increased Indian exports helped reduce food costs in Africa and other importing regions.

### Global Rice Production Scenario

The top five rice-producing countries are China (208.49 million tonnes), India (177.00 million tonnes), Bangladesh (36.00 million tonnes), Indonesia (34.00 million tonnes), and Vietnam (28.00 million tonnes).

### Composition of India's Rice Exports

**Non-basmati rice** accounts for a larger share of export **volume**, while **basmati rice** contributes a higher export **value** due to its premium pricing.

### Major Importers of Indian Rice

**Bangladesh** is one of the largest importers of Indian **non-basmati rice**, whereas **Iran** is the largest importer of Indian **basmati rice**.

## Regional Distribution of Export Markets

India's rice exports are primarily directed towards West Asia for basmati rice and Africa and South Asia for non-basmati rice.

## Varieties of Rice Exported by India

India exports a wide range of rice varieties, including basmati rice, parboiled (sella) rice, white rice, raw rice, broken rice, brown rice, and organic rice.

## 30) AMENDMENTS TO NEW DRUGS AND CLINICAL TRIALS

### Why in News?

Health Ministry relaxed CDSCO drug trial rules, reducing test licence requirements to speed up drug development and ease regulatory burden.

### About

- Drug and clinical trials are conducted to test the safety, efficacy, and quality of new medicines before public use.
- This ensures ethical conduct, protects patient safety, and provides regulatory oversight.
  - It also standardizes trial procedures and streamlines drug approval,
  - maintaining high quality standards.

### New Drugs and Clinical Trials (Amendment) Rules, 2026

- **90-Day Shorter Timeline**
  - Earlier, companies had to **wait for a physical test licence** before starting drug trials before it can start testing a new drug in humans.
  - Now, this waiting step is removed means they can start the trial after online approval/intimation, so that the whole drug development process is **faster by about 3 months (90 days)**.
- **Faster Approval for High-Risk Drugs:**
  - For high-risk categories where test licences are still required (such as narcotic or psychotropic drugs), the statutory processing time has been halved from 90 days to 45 days.

- **No Prior Permission for Low-Risk Studies:**

- Certain **low-risk tests** called **Bioavailability and Bioequivalence (BA/BE) studies** check how a drug works in the body.
- Companies **no longer need prior approval** for these tests from CDSCO. They can **start immediately** after giving a simple **online notice**.

### Digital Filing (Paperless Process):

- All applications and notifications now have to go through **online portals** called **NSWS and SUGAM**.
- This makes the process **transparent, fast, and paperless**, so everything can be tracked online.

### CDSCO

*Central Drugs Standard and Control Organization (CDSCO) is the National Regulatory Authority of India under the **Ministry of Health & Family Welfare**.*

*It Operates under the **Drugs & Cosmetics Act, 1940** and the **Drugs & Cosmetics Rules, 1945**.*

#### Key Functions:

- **Approves new drugs, clinical trials, and import licenses;**
- **Regulates manufacturing of blood banks, vaccines, and large-volume parenterals;**
- **Sets standards for drugs/cosmetics and medical devices;**
- **Coordinates with State Drug Control Organisations and central advisory**

## 31) DRAFT PESTICIDES MANAGEMENT BILL, 2025

### Why in News?

The Union Government has invited public and stakeholder comments on the Draft Pesticides Management Bill, 2025.

## About

- It was introduced by the **Ministry of Agriculture and Farmers Welfare** to replace the Insecticides Act, 1968 and Rules, 1971.
- It seeks to **modernise pesticide regulation** in line with current agricultural, technological, and regulatory needs, with a farmer-centric focus.

## Key Institutions Envisioned

**Central Pesticides Board:** Advises on standards, disposal, residue monitoring, and poisoning cases.

**Registration Committee:** Registers pesticides, evaluates safety and efficacy, and can suspend or cancel approvals.

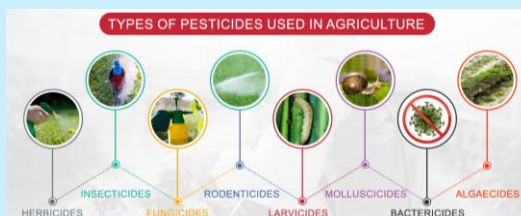
## Main Provisions

- **Mandatory accreditation** of pesticide testing laboratories.
- **Compulsory licensing** for manufacturers, sale, and distribution; standard labelling and disposal norms.
- **Stricter controls** and higher **penalties** to curb fake, spurious, and unsafe pesticides.
- **Powers to ban** spurious or risky pesticides.

State-level authorities empowered to prescribe and enforce compounding penalties.

## PESTICIDES

- Substances used to **prevent**, destroy, repel, or control **pests affecting crops**, livestock, or public health.



- India is one among the **top five largest manufacturer** of agrochemicals globally.
- India is a **net exporter** of pesticides by volume, accounting for **roughly 9-10% of global** pesticide exports.

- However, there is **dependence on imported raw materials**/technical grade inputs (especially from China) for domestic pesticide manufacturing.
- Recently, rapid shift observed toward **plant-derived (botanical) and microbial (fungal/bacterial) pesticides** to meet "residue-free" export standards.
- Also, use of **Nano-pesticides** enables precise, controlled delivery, reducing chemical use and environmental impact.
- Usage of **drones and smart formulations** enhance sustainable, efficient pest management has increased.
- **International Conventions:**
  - **Stockholm Convention:** Restricts Persistent Organic Pollutants like DDT.
  - **Rotterdam Convention:** Ensures prior informed consent for hazardous chemicals.
  - **FAO-WHO Codex Alimentarius:** Sets safe residue limits in food.
- **Indian Government Initiatives:**
  - **Integrated Pest Management (IPM) Programme** promotes minimal and scientific pesticide use.
  - **Central IPM Centres** train farmers in eco-friendly pest control.
  - **National Mission on Sustainable Agriculture (NMSA)** promotes IPM and reduced chemical inputs.
  - **Paramparagat Krishi Vikas Yojana (PKVY)** encourages organic farming without chemical pesticides.
  - **National Mission on Natural Farming (NMNF)** was launched as a standalone CSS in 2024.
  - **CROP Portal** digitally registers pesticides and manufacturers in India.

## ENVIRONMENT

### 32) AMENDED FOREST CONSERVATION GUIDELINES 2026

#### Why in News?

In **January 2026**, the **Ministry of Environment, Forest and Climate Change (MoEFCC)** amended the Forest Conservation Guidelines under the **Van (Sanrakshan Evam Samvardhan) Adhiniyam** to allow **non-government participation** in restoring degraded forest land.

#### Amendment to Forest Conservation Framework

- Under the new Guidelines **Private** and **non-government entities** can now restore degraded forest land including afforestation, ecological restoration, and plantations in forest areas under an approved plan.
- **Plantation, afforestation and Assisted Natural Regeneration (ANR)** undertaken on forest land are now explicitly classified as **forestry activities**.
- If the **State Government allows it**, private or non-government groups can help restore or plant trees on degraded forest land. As long as they follow **an approved plan** and work under **the State Forest Department's supervision**, it counts as official forestry activity.
- **Exemption from CA & NPV:** Consequently, the requirements of Compensatory Afforestation and payment of Net Present Value shall not be applicable to **Plantation, afforestation and Assisted Natural Regeneration (ANR)**. however, NPV continues to apply in **cases involving non-forest use of forest land**.
- Experts fear that allowing private parties to restore forests may lead to single-crop commercial plantations, which lack the biodiversity and ecological richness of natural forests.

#### NET PRESENT VALUE (NPV)

*Net Present Value (NPV) is a charge paid by a user agency when forest land is diverted for non-forest purposes (like mining, roads, dams, industries).*

- It represents the **economic value of forest ecosystem services** (carbon storage, biodiversity, water regulation, etc.) that are lost due to diversion.
- The amount is deposited with **CAMPA** and used for forest conservation and regeneration.

### 33) NEW SOLID WASTE MANAGEMENT RULES, 2026

#### Why in News?

The Union Ministry of Environment, Forest and Climate Change has notified the Solid Waste Management (SWM) Rules, 2026, superseding the Solid Waste Management Rules, 2016.

The rules have been notified under the Environment (Protection) Act, 1986 and will come into full effect from April 1, 2026.

#### Important provisions

- **Polluter Pays Principle:** Environmental compensation for non-compliance such as:
  - Operating without registration
  - False reporting / forged documents
  - Improper solid waste management
- **Central Pollution Control Board:** Prepares guidelines
- **State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs):** Levy environmental compensation

## Four-Stream Segregation at Source (Mandatory)

Waste Stream	Examples & Treatment / Disposal
Wet Waste	Kitchen waste, food waste, fruit & vegetable peels, meat, flowers; <b>treated through composting or bio-methanation</b>
Dry Waste	Plastic, paper, metal, glass, wood, rubber; <b>sent to Material Recovery Facilities (MRFs) for sorting and recycling</b>
Sanitary Waste	Diapers, sanitary napkins, tampons, condoms; <b>securely wrapped and stored separately</b>
Special Care Waste	Paint cans, bulbs, mercury thermometers, medicines; <b>collected by authorised agencies or deposited at designated collection centres</b>

### Clear definition of Bulk Waste Generators

They are entities generating  $\geq 100$  kg/day, or consuming  $\geq 40,000$  litres/day water, or having floor area  $\geq 20,000$  m<sup>2</sup>.

#### Includes

- Government departments, PSUs, institutions, Commercial establishments, residential societies, etc.

#### Responsibilities

- Environmentally sound collection, transport and processing

### Extended Bulk Waste Generator Responsibility (EBWGR)

BWGs generate **~30% of total solid waste**

Mandatory Responsibilities:

- **On-site wet waste processing**, or
- Obtain **EBWGR certificate** if not feasible

## Faster Land Allocation for Waste Processing and Online Monitoring of Complete Solid Waste Management

Facilities with capacity above 5 tonnes/day must follow:

- Graded criteria for development
- Mandatory buffer zone within the allotted land
- CPCB to issue buffer zone guidelines

**Centralized Online Portal** tracks the entire solid waste management chain, from waste generation to disposal.

### Local Bodies & MRFs

- Collection, segregation, transportation
- Coordination with **MRFs**

**MRF:** Material Recovery Facilities (Facilities where **dry waste is received, sorted and recovered** for recycling.)

### Use of Refuse Derived Fuel (RDF) by Industries

- RDF fuel is produced from **high-calorific municipal waste** (non-recyclable plastics, paper, textiles).
- **Mandatory utilization** prescribed for **cement plants and waste-to-energy plants**.
- **Fuel substitution target:** Increase RDF use from **5% to 15% over 6 years**.

### Restrictions on Landfilling and Remediation of Legacy Waste Dumpsites

- Landfills restricted to:
  - Non-recyclable, non-energy recoverable waste
  - Inert material only
- **Higher landfill fees** for unsegregated waste
- Annual landfill audits by SPCBs
- Oversight by **District Collectors**

### Legacy Waste

- Mapping & assessment mandatory
- Time-bound **biomining & bioremediation**
- Quarterly progress reporting online

## Solid Waste Management in Hilly Areas and Islands

Tourist management includes **user fees, regulated inflow, and designated collection points** for non-biodegradable waste.

### Implementation Mechanism

- **Central & State Committees**
- State/UT Committee:
  - Chaired by **Chief Secretary / UT Head**
  - Recommends measures to CPCB

## 34) INTEGRATED ENVIRONMENTAL CONSENT RULES FOR INDUSTRIES

### Why in News?

The Ministry of Environment, Forest and Climate Change (MoEFCC) has amended rules to allow industrial units to apply through a single integrated application.

### Amended rules

1. **Consent to establish (CTE):**  
A **single integrated application** now covers Air Act consent, Water Act consent, and authorisations under waste management rules.
2. **Consent to operate (CTO):**  
Earlier system required time bound renewals. **Now, Valid until cancelled (no periodic renewals required).**

The rules also allow **Registered Environmental Auditors (Environment Audit Rules, 2025)** to conduct **site inspections**, aimed at faster approvals while retaining compliance monitoring.

**Red Category industries** (Industries with highest pollution potential)

- Processing time for consent reduced from **120 days to 90 days**

## Classifications of industries

Category	Pollution Level / Basis	Examples	CTE / CTO Status
<b>Red</b>	Highly polluting (PI ≥ 60)	Thermal power, cement, dyeing, petrochemicals	Mandatory
<b>Orange</b>	Moderate pollution (PI 41-59)	Food processing, printing, automobile units	Mandatory
<b>Green</b>	Low pollution (PI 21-40)	Packaging, electrical assembly, saw mills	Mandatory
<b>White</b>	Practically non-polluting (PI ≤ 20)	Solar, wind energy, fly-ash bricks	<b>Exempt</b>
<b>Blue</b>	Risk-based (Essential environmental services)	Hazardous & biomedical waste treatment, incinerators	Mandatory

## 35) UNFCCC (UN FRAMEWORK CONVENTION ON CLIMATE CHANGE)

### Why in News?

US President Donald Trump issued a memorandum announcing the US exit from the UN Framework Convention on Climate Change (UNFCCC).



### About

- The UNFCCC is an international treaty to **address climate change**.
- Its main aim is to **limit global temperature rise and reduce harmful effects of climate change**. It helps countries work together on climate mitigation and adaptation.
- **It was adopted in 1992 at the Rio Earth Summit**. The Convention has **198 Parties**, including almost all countries and the **European Union**.
- The UNFCCC is one of the three Rio Conventions, alongside **the Convention on Biological Diversity (CBD)** and **United Nations Convention to Combat Desertification (UNCCD)**, all of which are closely interconnected.
- Important agreements like the **Kyoto Protocol and the Paris Agreement** were developed under it.
- Countries meet every year at the **Conference of the Parties (COP)** to discuss progress and future actions.
- The UNFCCC relies on scientific reports from the **IPCC**, which studies climate change causes and impacts.
- The UNFCCC overall supports environmental protection, food security, and sustainable economic development.

## Funds of UNFCCC

**World bank** Acts as a trustee or delivery partner for funds established under the UNFCCC, such as:

- **Global Environment Facility (GEF)**.
- **Green Climate Fund (GCF) (as a delivery partner for specific projects)**

### India's stance

- India signed the UNFCCC at the Earth Summit in Rio de Janeiro in 1992.
- It ratified the Convention in 1993, committing to report on emissions and take voluntary climate actions in line with its development priorities.

## 36) LOSS AND DAMAGE FUND

### Why in News?

The UN's Loss and Damage Fund has begun operations, opening its **first funding call** for vulnerable countries. An initial **\$250 million** is allocated to address climate-related economic and non-economic losses.

### About

- The *Loss and Damage Fund*, formally called the **Fund for responding to Loss and Damage (FRLD)** is a **multilateral climate finance mechanism established under the UNFCCC and the Paris Agreement**.
- **The Loss and Damage Fund** was adopted at **COP27 in Sharm el-Sheikh, Egypt (2022)** and was operationalized at **COP28 in Dubai, UAE (2023)**, with countries agreeing on governance arrangements and initiating financial pledges to support vulnerable developing countries affected by climate change.

### Governance and funding

- The LDF is governed by a **Governing Board**, which is responsible for determining the allocation of the Fund's resources.
- The **World Bank** serves as its **interim trustee and host the secretariat** for 4 years. It manages the financial accounts and reporting for the fund.

## 37) NO ORGANIC WASTE (NOW)

### Why in News?

COP30 (Belém, 2025) placed **waste and circularity** at the heart of climate solutions, with **No Organic Waste (NOW)** global initiative launched at COP30 under the UNFCCC, to cut methane and promote inclusive, sustainable growth.

### About

- The No Organic Waste (NOW) Plan to Accelerate Solutions was launched at COP30 (Belém, Brazil, November 2025) as the waste-sector implementation mechanism of the Global Methane Pledge (GMP).
- Aims to reduce methane emissions from organic waste by diverting it from landfills and treating it as a climate mitigation opportunity.
- **Targets a 30% reduction in methane emissions by 2030 (baseline: 2020).**
- Waste sector contributes about 18% of global anthropogenic methane emissions.

### Key Targets:

- **Food & Social Goals:**  
The plan seeks to recover 20 million tonnes of surplus food annually, feed 50 million people, and integrate 1 million informal waste workers into the formal circular economy.
- **Operational & Financial Aspects:**  
It is being implemented initially across 25 cities in 18 countries, is supported by \$30 million from the Global Methane Hub, and assists countries in embedding waste-sector targets in their 2025–26 NDCs.

The **NOW Plan** was developed by the CCAC **Climate and Clean Air Coalition (CCAC)**, and the **Global Methane Hub** to provide the technical and financial framework that GMP countries need to meet their targets.

India supports the **technical goals** of the NOW Plan (cleaner cities, better waste tech) and works with the CCAC as a partner; but it avoids **formal signatures** on methane-specific treaties to protect its agricultural sector from international pressure.

### Global Methane Pledge

*The **Global Methane Pledge** is a voluntary international initiative launched at **COP26 (Glasgow, 2021)**, aiming to **reduce global methane emissions by at least 30% by 2030, compared to 2020 levels.***

*It is led by the **United States and the European Union** and is coordinated under the **United Nations Environment Programme (UNEP)** through the **Climate and Clean Air Coalition (CCAC).***

*The pledge focuses on key methane-emitting sectors such as **energy, agriculture, and waste**, given methane's high global warming potential in the short term.*

***India is not a signatory** to the pledge, citing concerns related to **food security, agricultural livelihoods, and equity under climate commitments.***

## 38) GLOBAL RISKS REPORT 2026

### Why in News?

World Economic Forum (WEF) recently released the Global Risks Report 2026.

**Objective:** Warn policymakers about emerging risks and promote preparedness and resilience.

### Key Highlights

- Assessed across immediate, short-medium (2026–28), and long-term (up to 2036) horizons by 1,300+ experts.
- **Short & medium term:** Geoeconomic confrontation, state-based conflicts, extreme weather, societal polarization.
- **Long term:** Extreme weather, biodiversity loss, ecosystem collapse.

## Top Risks for India

- **Cyber insecurity:** Rising digital dependence.
- **Income & wealth inequality:** Widening disparities raise social tension.
- **Weak public services:** Health, education, infrastructure, safety net gaps.
- **Economic/geoeconomic shocks:** Trade tensions, tariffs, supply-chain disruptions.
- **State-based conflicts & strategic instability:** Regional conflicts, terrorism, geopolitical flashpoints (e.g., Indus water).

India's risks reflect societal and governance challenges more than some global threats.

## 39) RANGELANDS AND CLIMATE CHANGE 2026

### Why in News?

The United Nations has declared 2026 as the International Year of Rangelands and Pastoralists (IYRP) to address the historical neglect of these ecosystems in global climate policies.



### About

- Rangelands are **defined by how humans use the land rather than just the plants growing there**; they are unfenced, natural landscapes primarily managed for livestock grazing and wildlife.
- The scope of rangelands is much broader than grasslands because they **include diverse terrains such as shrublands, savannas, deserts, and even alpine tundras**.
- They **cover more than 50% of the Earth's land surface**, supporting the livelihoods of

millions of pastoralists and acting as critical buffers against desertification.

- The **United Nations** has **declared 2026** as the **International Year of Rangelands and Pastoralists (IYRP)** to address the historical neglect of these ecosystems in global climate policies.
- In India, there is no single, comprehensive legal definition for "rangeland" or "grassland" under a specific Act. Instead, their legal status is fragmented across different colonial-era and post-independence laws, which often leads to administrative ambiguity.
- In India, **grasslands lack a specific, unified legal definition and are often traditionally categorized as "Wastelands"** in revenue records, which makes them legally vulnerable to industrial diversion.
- However, **under the Indian Forest Act** and Supreme Court mandates, **many are treated as "deemed forests"** to ensure environmental protection, while at the village level, they are designated as communal grazing lands.
- Recently, in light of the International Year of Rangelands 2026, there is a legal shift toward **recognizing these areas as distinct "Biodiversity Heritage Sites."**
- This move aims to protect them from being mismanaged as empty spaces for afforestation, legally acknowledging their role as unique carbon sinks and vital habitats for species like the Great Indian Bustard.

## 40) BIO-HAPPY DISTRICT (KEYI PANYOR, ARUNACHAL PRADESH)

### Why in News?

**Keyi Panyor in Arunachal Pradesh** has been selected to become **India's first Bio-Happy District** - an initiative that integrates biodiversity conservation with human well-being, livelihoods, nutrition, and public health.



## About

The concept of *Bio-happiness* was originally coined by agricultural scientist Dr. M.S. Swaminathan and focuses on harmonious coexistence between people and nature, promoting sustainable use of agro-biodiversity to improve quality of life beyond GDP-centric growth.

The project, led by the M.S. Swaminathan Research Foundation in collaboration with the district administration, will study **traditional ecological knowledge, local farming systems, and biodiversity to shape a model** of well-being-centred sustainable development.

## 41) ETHANOL BLENDING

### Why in News?

The Union Minister for Petroleum and Natural Gas, Hardeep Singh Puri, stated that India has almost reached 20% ethanol blending in ESY 2025, generating USD 19.3 billion in foreign exchange savings.

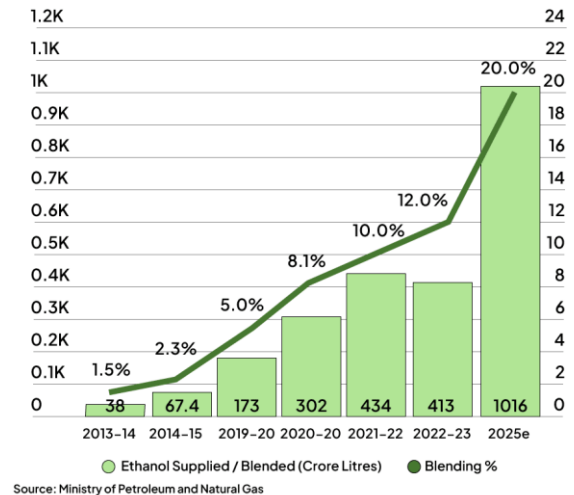
### About

- Ethanol blending refers to mixing **bio-ethanol** with petrol under the **Ethanol Blended Petrol (EBP) Programme** to reduce fossil fuel use and improve energy security.
- It comes under the **Ministry of Petroleum & Natural Gas** and is implemented under the **National Policy on Biofuels (NPB), 2018**.

## Scaling Up Ethanol Blending

India met its **20%** ethanol blending goal in 2025, ahead of the **2030 target**, and now aims to scale blending to **27% by 2030** under the **National Policy on Biofuels**.

## Ethanol Blending Over The Years



*Maharashtra, Uttar Pradesh, and Karnataka are the top ethanol producers.*

## Significance of Ethanol Blending

- Reduced import dependence:** Cuts crude oil imports and strengthens energy security.
- Foreign exchange savings:** Saves about ₹1.36 lakh crore through import substitution.
- Lower emissions:** Ethanol produced from **non-food biomass(2G)** cuts lifecycle GHG emissions by over 50%.
- Enhanced farmer incomes:** Nearly ₹1 lakh crore transferred to farmers since 2014.
- Use of agri-residues:** Converts crop waste, dung, and biomass into ethanol.
- Crop diversification:** Encourages maize and alternative crops over sugarcane.

## 42) GREENSTEEL

### Why in News?

**Green steel** is central to India's climate goals, economic future, and global leadership in sustainable industrialisation.

## About

**Green steel** refers to steel produced with significantly reduced greenhouse gas emissions through the use of clean energy sources such as **green hydrogen, renewable electricity, or other low-carbon technologies.**

### Decarbonization of steel production

#### Substituting the Primary Production Processes with Cleaner Alternatives:

*It focuses on key green transition levers such as energy efficiency, renewable energy, green hydrogen, material efficiency, shift from coal-based to natural gas-based DRI, Carbon Capture, Utilisation and Storage (CCUS), and use of biochar.*

- In line with **COP26 commitments**, India's steel sector must **significantly cut emissions by 2030.**
- India aims for **net-zero carbon emissions by 2070**, making steel sector decarbonization crucial.



*India is the world's second-largest crude steel producer, behind China.*

*In FY 2024-25, India produced around **151 million tonnes (MT)** of crude steel.*

## Government initiatives promoting greensteel

- **Steel Scrap Recycling Policy, 2019:** Promotes domestic scrap generation to reduce coal use and emissions in steelmaking.
- **National Green Hydrogen Mission:** Encourages use of green hydrogen in steel production to decarbonize the sector.
- **National Steel Policy, 2017:** Emphasizes energy efficiency, use of cleaner technologies, and reduction of carbon footprint in steel production.
- **National Mission on Enhanced Energy Efficiency (NMEEE):** Supports adoption of energy-efficient technologies in energy-intensive sectors like steel.
- **Carbon Credit Trading Scheme (CCTS), 2023:** Enables market-based incentives for reducing emissions, including in the steel sector.

## Significance

- Steel industry is the **most energy- and resource-intensive** industrial sector.
- It is among the **largest emitters of CO<sub>2</sub>** globally.

## 43) KAZIRANGA CORRIDOR



### Why in News?

Recently, PM Modi inaugurated the ₹6,957-crore **Kaziranga corridor**, built following Supreme Court and Wildlife Institute of India guidelines, and launched **two Amrit Bharat trains.**

### Kaziranga Elevated Corridor Project & Connectivity

Project Cost & Length: ₹6,950 crore, 86 km (**Kaliabor–Numaligarh section of NH-715**)

### Key Features

- 35 km Elevated Wildlife Corridor through Kaziranga National Park
- 21 km bypass sections
- 30 km widening of existing highway (2 → 4 lanes)
- **Route:** Passes through **Nagaon, Karbi Anglong, Golaghat**

## Objectives & Benefits

- Ensures safe, uninterrupted wildlife movement
- Reduces human-wildlife conflict
- Improves road safety, travel time, and traffic flow
- New Bypasses at Jakhalabandha & Bokakhat to decongest towns and enhance urban mobility.

The Kaziranga corridor, enhances **habitat connectivity** and **reduces wildlife mortality**; however, habitat disturbance during construction causing temporary stress and **displacement of wildlife**, along with increased human activity raising risks of **encroachment** and **poaching**.

## 44) BALARAM AMBAJI WILDLIFE SANCTUARY

### Why in News?

Recently, the Standing Committee of the National Board for Wildlife (SCNBWL) issued guidelines on using sanctuary land for religious structures, following a proposal involving Balaram Ambaji Wildlife Sanctuary, which houses two historic temples.

### About

- The Balaram Ambaji Wildlife Sanctuary is **located on the slopes of the Aravalli hills in North Gujarat** and has **large areas of dry deciduous forests**, making it a beautiful and ecologically important region.
- The sanctuary is named after the **historic Balaram and Ambaji temples**, located at opposite ends of the protected area.

**Balaram Ambaji Wildlife Sanctuary** lies in the catchment area of the **Banas River** and the **Sabarmati River**, both of which influence the sanctuary's water system and ecology. The **Balaram River**, a tributary of Banas within the sanctuary, also drains into the Banas.

- **Flora:** It is home to **483 plant species**, including **medicinal plants** like **Gugal, and Musali**.

- **Fauna:** **Leopard reigns as top predator** and shares its habitat with the Indian Sloth Bear, Striped Hyena, and Indian Pangolin.

**Ecological Significance:** The sanctuary's forests **conserve the depleting Aravalli ecosystem, control Thar Desert's southward expansion, and form watersheds for Dantiwada, Dharoi dams, Sabarmati, and Banas rivers**. Its ecological boundaries merge with Rajasthan forests northward while buffering semi-arid North Gujarat from desertification.

## 45) VULTURE SAFE ZONE

### Why in News?

The Tamil Nadu Forest Department informed the Madras High Court that it is establishing **Vulture Safe Zones**, beginning with the **Moyar River Valley in the Nilgiris Biosphere Reserve**, to protect vultures from toxic veterinary drugs like **diclofenac**.



### About Vultures

India is home to **9 of the world's 23 vulture species**.

1. **Critically Endangered:** White rumped, Slender billed, long billed, Red headed vultures, Indian Vulture.
2. **Endangered:** Egyptian Vulture.
3. **Near Threatened:** Himalayan Griffon Vulture, Cinereous Vulture, Bearded Vulture.

### Vulture Safe Zone (VSZ)

Vulture Safe Zones (VSZ) are declared under the Action Plan for Vulture Conservation (2020-2025), formulated by the MoEFCC.

## VSZ Conditions

- **100 km safety radius:** A monitored area of about 30,000 sq km around vulture nesting sites.
- **Ban on “Toxic Five” Nonsteroidal anti-inflammatory drugs (NSAIDs):** Diclofenac, Aceclofenac, Ketoprofen, Nimesulide, and Flunixin; **only Meloxicam and Tolfenamic Acid allowed.**
- **800 carcass rules:** Over 2 years, 800 cattle liver samples tested; certification only if toxic drug prevalence is below 0.1%.
- **Survival tracking:** GPS/satellite data for 25–50 vulture-years must show zero NSAID related deaths

## Other Initiatives

- **National Action Plan (2020–25)** for breeding centres and Vulture Safe Zones (VSZs).
- **Wildlife Protection Act (1972):** Critically endangered vultures (White-rumped, Slender-billed) are in **Schedule I**, receiving the highest legal protection.
- **Drugs & Cosmetics Act (1940):** Used to ban toxic veterinary drugs—**Diclofenac (2006)** and **Aceclofenac, Ketoprofen, Nimesulide (2023–25)**.
- **Jatayu Breeding Centre, Pinjore in Haryana** – world’s largest; others at Bhopal, Guwahati, Hyderabad, Buxa.
- **Captive-bred vulture release in Assam (2026).**
- **Vulture restaurants and GPS tagging** support survival and monitoring.

## 46) Madhav Gadgil

### Why in News?

Eminent ecologist Madhav Gadgil has recently passed away; he is widely remembered for chairing the **Western Ghats Ecology Expert Panel**, one of his most significant contributions to environmental conservation.

### WGEEP: Gadgil Commission (2011)

- **Established:** 2010 by MoEFCC; Chaired by **Prof. Madhav Gadgil.**

- **Mandate:** To assess the ecology of the Western Ghats and identify **Ecologically Sensitive Areas (ESAs).**

## Core Recommendations

### • Zonal Classification

Proposed the **entire Western Ghats** as an ESA. Divided into three zones based on ecological sensitivity: **ESZ-1** (Highest), **ESZ-2** (High), and **ESZ-3** (Moderate).

### • Major Prohibitions

**Total Ban:** No GM crops, no new SEZs, and no new hill stations.

**Mining:** No new licenses; phased closure of existing mines in ESZ-1 and ESZ-2 by 2016.

**Infrastructure:** Strict curbs on new dams, railways, and major roads in ESZ-1 and ESZ-2.

### • WGEA

**WGEA:** Proposed a statutory **Western Ghats Ecology Authority** (under Environment Protection Act, 1986) Covering 6 Western ghats states.

**Bottom-up Approach:** Shifted power to **Gram Sabhas** for local environmental decision-making.

## Contributions of Madhav Gadgil

- **Community-Based Conservation:** Advocated that local communities are custodians of natural resources, influencing the Biological Diversity Act (2002) and Forest Rights Act (2006).
- **People’s Biodiversity Registers (PBR):** Initiated documentation of local biodiversity, integrating traditional knowledge with science.
- **Academic Leadership:** Founded the Centre for Ecological Sciences (CES) at IISc in 1982, strengthening ecological research in India.

## 47) SMOOTH COATED SEA OTTER

### Why in News?

A smooth-coated otter (*Lutrogale perspicillata*) was recently sighted in the Adyar River near Chennai’s Tholkappia Poonga Eco-Park.

## About

**Species:** Smooth-coated Otter (*Lutrogale perspicillata*)



**Status:** Listed as **Vulnerable on the IUCN Red List and under Schedule I** of the Indian Wildlife (Protection) Act, 1972.

**Habitat:** Rivers, wetlands, lakes, estuaries (fresh & brackish water)

**Importance:** Indicator of healthy freshwater ecosystems

## Behaviour & ecology

- These otters are social animals, often living and hunting in family groups.
- They are excellent swimmers with webbed feet and typically fish, but will also eat crustaceans and smaller animals.

**Threats:** Habitat loss, pollution, reduced fish stocks, human conflict.

## GEOGRAPHY

### 48) ARAVALLI

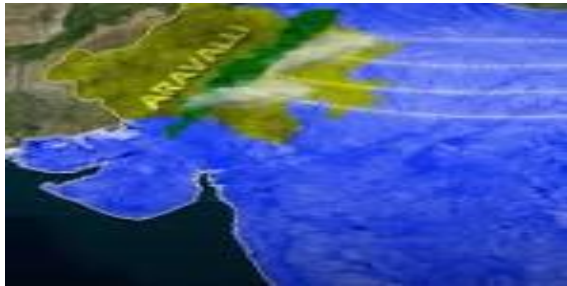
#### Why in News?

Recently, the Aravalli Hills are in the news due to **damage from mining, waste dumping, and encroachment**, and concerns over a **Supreme Court approved revised definition**, now temporarily stayed.

#### About

##### Location & Extent

- Located in **north-western India**, extending ~670 km SW-NE from **Delhi** through **southern Haryana and Rajasthan** to **Ahmedabad, Gujarat**.



- **One of the oldest fold mountains** in the world, dating to the **Proterozoic era**.

#### Geological Formation

- Part of the **Aravalli-Delhi orogenic belt**, formed by **tectonic plate collisions**.
- Shaped by **prolonged weathering and erosion**

#### Physiographic Significance

- Acts as a **natural boundary** between the **Thar Desert** and eastern Rajasthan plains/plateaus.
- Divides Rajasthan into:
  - NW **arid region** with sand dunes
  - SE **semi-arid to sub-humid region**
- Composed of **discontinuous ridges and peaks** (width: 6-60 miles; elevation: 1,000-3,000 ft)

#### Highest Peak & Hill Station

- **Guru Shikhar**: 1,722 m (5,650 ft)
- **Mount Abu**: Only hill station in Rajasthan

#### Drainage system

- The Aravalli Range is an important watershed, giving rise to rivers like **Luni, Sakhi, Sabarmati, Sahibi (Dohan, Sota, Krishnavati), Chambal, Banas, Berach**, and tributaries like Ahar.
- These rivers drain into inland basins, the Arabian Sea, and the Yamuna, forming wetlands and lakes such as **Rann of Kutch, Bhindawas, Sultanpur, and Pichola**. **Protected areas**: Ranthambore NP, Sariska TR, Mount Abu WS, Sultanpur NP
- **Northern Aravalli Leopard Corridor**: Delhi Ridge to Sariska TR
- **Southern Aravalli Corridor**: Rajasthan to Gujarat, enables inter-state wildlife movement

#### Resources

- **Rich in minerals**: copper, zinc, lead, marble

### 49) MEXICO POPOCATEPETL VOLCANO

#### Why in News?

Recently, scientists have obtained the **first ever 3D images of the internal structure of Mexico's Popocatepetl volcano** using advanced imaging techniques.

#### About

- **Popocatépetl**, meaning "Smoking Mountain" in Nahuatl, is a **5,452 m stratovolcano** in **Central Mexico**, near Puebla, Mexico State, and Morelos.



- It lies on the **Trans-Mexican Volcanic Belt**, formed by the **subduction of the Cocos Plate**

- One of Mexico's **most active volcanoes**, it has erupted since 1519 and is part of the **Pacific Ring of Fire**.
- **Popocatepetl is a stratovolcano** (steep, cone-shaped, layered volcano with explosive eruptions, e.g., Mount Fuji).

## 50) FLASH FOG

### Why in News?

Delhi-NCR experienced an unusual weather event termed "flash fog" on 14 January 2026, when a dense layer of fog formed and dissipated very rapidly within minutes, sharply reducing visibility before clearing soon after sunrise.

### About

- Flash fog is a **rapid-onset, short-lived fog event** where dense fog develops and dissipates quickly under specific atmospheric conditions, unlike typical overnight radiation fog.
- It **appears suddenly** due to instantaneous condensation of water vapor near the surface, dramatically reducing visibility, and can disappear as rapidly as it formed once sunlight warms the air.

### Formation Mechanism

#### Flash fog typically forms when:

- There is **high humidity** and residual moisture, often after a **prolonged cold night**.
- A sudden temperature change or cold air influx near the surface pushes the air to saturation point quickly, causing rapid condensation.
- Low wind speeds prevent dispersion, allowing fog droplets to accumulate rapidly.
- Urban pollution particles provide condensation nuclei that enhance droplet formation and thickness.

### Distinction from Standard Fog

Typical radiation fog develops slowly overnight from the cooling of the earth's surface; flash fog instead forms almost instantaneously at dawn or early morning and usually dissipates quickly with rising temperatures.

### Implications for Safety

Flash fog events are particularly hazardous



because their sudden onset can catch commuters, drivers and aviation operations off guard, leading to major visibility loss and transport disruptions

## SCIENCE & TECHNOLOGY

### BIO-TECHNOLOGY

#### 51) BIO-MATERIALS

##### Why in News?

Biomaterials are currently in news, because they represent the "Next Green Manufacturing Leap." As of early 2026, the conversation has shifted from purely medical uses to their role in solving the plastic crisis and decarbonizing the economy.

##### About

- Biomaterials are (humans, animals or plants) for mainly medical purposes-therapeutic or diagnostic functions.
- They are also used in sectors such as packaging, construction, agriculture, energy and not just limited to healthcare domain.
- Can be natural or synthetic.
- Metals, ceramics, plastic, glass, and even living cells and tissue all can be used in creating a biomaterial.
- They are designed to be **biocompatible**, ensuring they do not trigger adverse immune responses.
- They often are **biodegradable**, and some are bio-absorbable, meaning they are eliminated gradually from the body after fulfilling a function.
- They reduce dependence on fossil-based raw materials and promote the use of renewable biological resources.
- **Examples:**  
**Natural Biomaterials:** Collagen, Chitin, Cellulose, Silk, etc.

**Synthetic Biomaterials:** Polylactic acid (PLA), Polyethylene (PE), Polymethyl methacrylate (PMMA), Silicone, Polycaprolactone (PCL), etc.

##### Applications

###### Medical

Heart valves, stents, Contact lenses., Orthopaedic implants (hip, knee), Dental implants, Drug

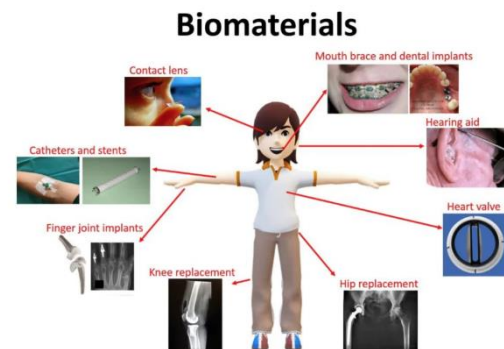
delivery systems, Tissue engineering and 3D bioprinting.

##### Bio-sensors & Electronics

- Wearable health monitors
- environmental monitoring
- **E-waste reduction:** Using cellulose for flexible circuit boards.
- **Bio-fuel cells**

##### Environmental & Packaging

- **Edible coatings** to preserve fruits/vegetables.
- **Compostable packaging** for food containers and cutlery.
- **Bioremediation:** to "trap" and break down heavy metals or oil spills in oceans.
- **Agricultural mulch films**



**Industrial & Construction:** Self-healing concrete, Bio-composites, Mycelium bricks, Bio-lubricants.

**Fashion & Textiles:** Lab-grown leather, Bio-synthetic fibers & Microbial dyes.

#### 52) ANTIMICROBIAL RESISTANCE (AMR)

##### Why in News?

The Union Health Ministry is considering introducing mandatory **blue strip labelling** on all anti-microbial medicines including antibiotics as a part of regulatory initiative aimed at curbing the rising threat of AMR in India.

##### About

- **Antimicrobial Resistance (AMR)** refers to the ability of **microorganisms (bacteria, viruses,**

**fungi, parasites)** to survive exposure to drugs designed to kill them.

- It develops due to:
  - Overuse and misuse of antibiotics
  - Incomplete treatment courses
  - Over-the-counter sale of antibiotics
  - Use of antimicrobials in **livestock, poultry, and agriculture**

Leads to the emergence of **drug-resistant superbugs**.

### Threats due to AMR

- WHO recognises AMR as **one of the top 10 global public health threats**.
- Can make **common infections untreatable**. Increases **mortality, morbidity, and healthcare costs**.
- India is a **high antibiotic consumer**. So, high burden of **drug-resistant TB, bacterial infections**.

### India -AMR Specific Schemes

- National Action Plan on AMR (NAP-AMR 2.0)
- National Programme on AMR Containment (NCDC)
- AMR Surveillance Networks (ICMR & NARS-Net)
- India AMR Innovation Hub (IAIH)
- State-Level AMR Action Plans and Projects

### Global approach

- WHO Global Action Plan on AMR
- Global Antimicrobial Resistance Surveillance System (GLASS)
- One Health Approach : Coordination between human health, animal health, agriculture, and environment sectors

## 53) MITOCHONDRIAL EVOLUTION IN INSECTS

### Why in News?

A recent study used the **mitochondrial DNA of stoneflies**, to better understand how they are related and how they evolved. This work shows how **mitochondrial DNA helps track insect**

**evolution and adaptations over millions of years.**

### Mitochondria

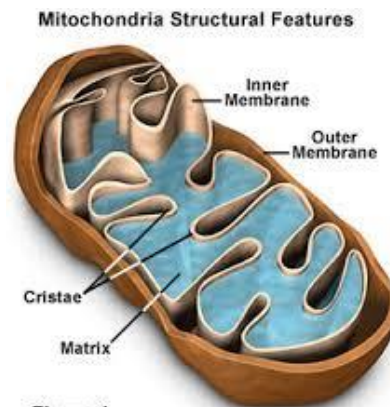


Figure 1

- **Mitochondria** are **cell organelles** responsible for producing energy in the form of **ATP**.
- They are found in **almost all eukaryotic cells** (absent in mature red blood cells).
- Mitochondria contain their **own DNA and ribosomes**.
- Mitochondrial DNA(mtDNA):It's **circular**, not linear like nuclear DNA.
- It contains **37 genes**, mostly involved in **energy production**.
- Because it's **only maternally inherited** and mutates relatively slowly, mtDNA is often used in :
  - **ancestry studies**
  - **tracing human evolution,**
  - phylogeny,
  - population genetics, and
  - species identification (DNA barcoding, e.g., COI gene).
- Mutations cause **mitochondrial diseases**, often affecting muscles and nerves.  
**Example:** Leigh syndrome is a severe mitochondrial disease caused by impaired energy production in cells affecting the **brain and nervous system**.

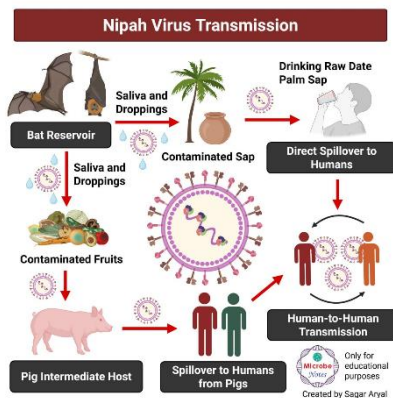
## 54) NIPAH VIRUS

### Why in News?

Multiple **cases of Nipah virus infection** have been reported near **Kolkata**, including health-care workers (nurses, doctors).

## About

- The Nipah virus (NiV) is a zoonotic virus transmitted to humans from animals (such as bats or pigs).
- Nipah virus (NiV) belongs to the family *Paramyxoviridae*, specifically within the genus *Henipavirus*. It is a highly pathogenic, enveloped, single-stranded RNA virus.
- It spreads through infected bats, contaminated food, or human contact.
- Fruit bats of the **Pteropodidae** family are the natural host of Nipah virus.
- It causes severe respiratory illness or fatal encephalitis.
- High Fatality rate(40-75%)
- First identified in 1999 in Malaysia and Singapore.
- Nipah first appeared in India in **West Bengal** (2001) with severe outbreaks. Kerala has also experienced repeated Nipah outbreaks.



## Symptoms

- Fever, headaches, myalgia (muscle pain), vomiting and sore throat.
- Dizziness, drowsiness, altered consciousness, and neurological signs that indicate acute encephalitis
  - Incubation period : 4 to 14 days

## Diagnosis

RT-PCR(Real time polymerase chain reaction) via enzyme-linked immunosorbent assay (ELISA).

## Treatment

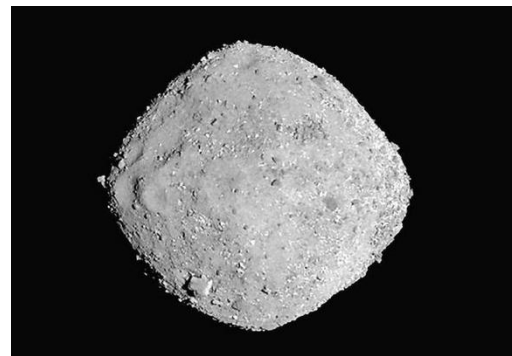
- It has no specific treatment or vaccine available. The primary treatment for humans is supportive care.
- WHO has identified Nipah as a priority disease for the WHO Research and Development Blueprint.

## SPACE

### 55) ASTEROID BENNU

#### Why in News?

NASA scientists have announced major findings from samples brought back from **asteroid Bennu** by the **OSIRIS-REx mission**. These discoveries strengthen theories about **asteroids delivering the building blocks of life to Earth**.



## About

- Bennu (101955 Bennu)** is a **near-Earth asteroid (NEA)** discovered in **1999**.
- A relatively small asteroid that passes close to Earth about **every six years**.
- It is a **carbonaceous (B-type) asteroid**, rich in carbon and primitive materials.
- It is a rubble-pile asteroid, meaning it is porous and loosely bound.
- Bennu has a diameter of about **500 metres** and follows an **Earth-crossing orbit**.
- Classified as a **Potentially Hazardous Asteroid (PHA)**.
- A potential resource for water and organics in space.*

## Discoveries

- Samples from the Bennu **contain crucial building blocks of life**, including amino acids,

nitrogen-rich polymers, and for the **first time, ribose and glucose.**

- Benu contains **primitive material from the early solar system**, making it important for studying **solar system formation**.
- The most unexpected discovery is the **presence of water-soluble phosphates**, the components of biochemistry for all known life on Earth today.
- It is a prime target for **space mining** as it contains water-bearing minerals, carbon-rich compounds, and organics, which can be extracted for rocket fuel, life support, and in-space manufacturing and is relatively accessible for spacecrafts.

### OSIRIS -Rex

- **OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification, and Security-Regolith Explorer)**, the United States' first asteroid sample-return mission, brought back material collected from the asteroid **Benu** to Earth.
- The OSIRIS-REx mission demonstrates advanced **sample-return space technology**, a key area in space science.
- Following the successful delivery of samples from asteroid Benu to Earth in September 2023, the spacecraft is **now on an extended mission to visit Apophis**, a near-Earth asteroid.

## 56) PSLV C62

### Why in News?

The *PSLV-C62* mission lifted off on **12 January 2026** from the **Satish Dhawan Space Centre, Sriharikota**, but did not deliver its satellites into orbit as planned.



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

### About

- **PSLV-C62** is a mission of India's **Polar Satellite Launch Vehicle (PSLV)**, operated by **ISRO**.
- PSLV is a **four-stage launch vehicle** (solid-liquid-solid-liquid) primarily used to place satellites into **Sun-Synchronous Orbit (SSO)** and **Low Earth Orbit (LEO)**.
- The "**C-62**" designation indicates the **62nd mission** of the PSLV launch series.

### Significance

- PSLV-C62 carried **foreign commercial satellites**. Highlights India's role as a **cost-effective satellite launch provider**.
- The primary payload belonged to India's **EOS (Earth Observation Satellite) series**.
- EOS satellites support:
  - Agriculture & crop assessment
  - Disaster management and Urban planning
  - Climate & environmental monitoring

#### **SUN SYNCHRONOUS ORBIT (SSO)**

A **Sun-Synchronous Orbit (SSO)** is a **near-polar, low Earth orbit (~600–800 km above Earth)** in which a satellite passes over any given point on Earth at the **same local solar time** on every orbit.

This is achieved by matching the satellite's **orbital precession** with the Earth's revolution around the Sun.

#### **Why SSO?**

- *Constant solar illumination*
- *Accurate Earth observation and imaging*
- *Global coverage with repeatability*
- *Fuel-efficient orbit using Earth's oblateness*

#### **Examples of Indian Satellites in SSO**

- *Cartosat series*
- *Resourcesat series*
- *Oceansat series*
- *RISAT series*
- *EOS (Earth Observation Satellite) series*

Vehicle	Nickname	Type	Purpose
<b>PSLV (Polar Satellite Launch Vehicle)</b>	"The Workhorse"	4-Stage (Solid/Liquid)	Best for Earth Observation, Lunar (Chandrayaan-1), and Mars (Mangalyaan) missions.
<b>GSLV (Geosynchronous Satellite Launch Vehicle)</b>	—	3-Stage (Solid/Liquid/Cryo)	Used for <b>medium-heavy</b> communication satellites and Earth observation (GISAT/EOS series).
<b>LVM3 (Launch Vehicle Mark-III)</b>	"The Fat Boy"	3-Stage (Solid/Liquid/Cryo)	India's <b>heaviest rocket</b> . Used for Chandrayaan-3 and the upcoming Gaganyaan missions.
<b>SSLV (Small Satellite Launch Vehicle)</b>	"Launch on Demand"	3-Stage (All Solid)	A <b>low-cost, quick-assembly</b> rocket designed to launch <b>small</b> satellites (up to 500kg) within 72 hours.

## DEFENSE

### 57) SU-57

#### Why in News?

HAL is awaiting a Russian technical team's cost report, expected this month, to assess the expenditure required for manufacturing Su-57 fifth-generation fighter jets in India.

#### About



- Su-57 is **Russia's fifth-generation stealth** multirole fighter aircraft developed by Sukhoi.
- Designed for air superiority and precision **strike missions** with stealth, supercruise, and high manoeuvrability.
- Equipped with
  - Advanced avionics,
  - AESA (Active electronically scanned array) radar,
  - Sensor fusion,
  - Internal weapons bays.
- Intended to counter other **fifth-generation fighters like the F-22 and F-35**.
- India is evaluating the Su-57 as an interim capability to bridge gaps until the indigenous AMCA (Advanced Medium Combat Aircraft) programme matures.

#### **STEALTH FIGHTER JET**

*A stealth fighter jet is an aircraft designed to be **nearly undetectable** by enemy radar, infrared, and other sensors **using special shaping, radar-absorbent materials, internal weapons bays, and reduced heat signatures**, enabling it to penetrate heavily defended airspace for air superiority, ground attack, or electronic warfare.*

### 58) SURYAISTRA

#### Why in News?

The Indian Army has recently signed a deal with private defence firm NIBE Limited, in partnership with Israel's Elbit Systems, for the supply of the Suryastra rocket launcher system.

#### About

- **Suryastra is India's first indigenously developed, multi-calibre, long-range rocket launcher system.**
- **Long-range precision strike:** Capable of engaging surface targets at ranges of **150 km and 300 km**, enabling deep and strategic strikes
- **Multi-target engagement:** Can simultaneously attack **multiple enemy positions at varying ranges**, enhancing tactical flexibility.
- **High accuracy:** Demonstrated **Circular Error Probable (CEP) of less than 5 meters**, ensuring precision targeting.
- **Loitering munition capability:** Equipped to launch **loitering munitions (a weapon system that blends the capabilities of an unmanned aerial vehicle (UAV) and a guided missile) up to 100 km**, expanding operational roles.
- **Advanced fire control technology:** Integrates **PULS (Precise & Universal Launching System)** with GPS, inertial navigation, and digital ballistic computation for accurate targeting.
- **High mobility and survivability:** Features **semi-automated reloading** and **shoot-and-scoot capability**, reducing vulnerability to counter-battery fire.





### PINAKA

The **Pinaka** is a fully indigenous, all-weather Multi-Barrel Rocket Launcher (MBRL) developed by the **DRDO**, designed to deliver high-volume firepower by launching a salvo of 12 rockets in just 44 seconds.

## 59) BHAIRAV BATTALION

### Why in News?

The **Bhairav Battalions**, a newly raised **modern warfare force of the Indian Army**, will make their **debut appearance at the Army Day Parade in Jaipur**.

### About



- The **Bhairav Battalion** initiative, launched in **2025 (Light Commando units)**
- Reflect shift from manpower-heavy formations to **technology-driven, agile warfare**.
- To bridge the operational gap between the strategic **Para Special Forces** (deep behind enemy lines) and the tactical **Ghatak Platoons** (localized battalion level).
- By acting as high-speed, offensive formations, they provide the military with a **"Fight Tonight" capability** for immediate border contingencies.
- Currently, **15 battalions** have been raised, to expand to 25, primarily deployed in sensitive sectors like **Ladakh, Jammu, Rajasthan, and the Northeast**.

- **Multi-domain integrated**, drawing specialists from **Artillery, Air Defence, and Signals** to operate as a self-contained strike force.
- To signify broader **Force Restructuring**, moving toward **Integrated Battle Groups (IBGs)** and tech-enabled deterrence.

## 60) OPERATION TRASHI 1

### Why in News?

Operation Trashi-I, was launched in Sonnar village near Mandral-Singhpora in the Chatroo belt.

### About

- A **multi-day counter-terrorism** and area-domination operation
- Conducted in the forested belts of the Chatroo region, Kishtwar district (**J&K**)
- Aims to track, neutralise and dismantle terrorist groups using dense forest cover
- Launched based on specific intelligence inputs.
- **Jointly conducted** by the Indian Army, Jammu & Kashmir Police (including SOG), and CRPF
- Objectives include:
  - Elimination of terrorists
  - Destruction of terrorist logistics and hideouts
  - Disruption of infiltration and movement routes between Jammu region and Kashmir Valley
- Uses aerial surveillance, sniffer dogs, and human intelligence.
- Demonstrates a modern, intelligence-driven counter-insurgency approach.



## INTERNATIONAL RELATIONS

### 61) UN-DESA

#### Why in News?

UN DESA is focusing on accelerating the Multidimensional Vulnerability Index (MVI) to Protect developing economies from external shocks, with an expert panel set to convene in 2026.

#### About

- The **United Nations Department of Economic and Social Affairs (UN DESA)** is a UN body that supports the development pillar of the United Nations.
- It is a **part of UN Secretariat**.
- It **supports the UN General Assembly (UNGA)** and the Economic and Social Council (**ECOSOC**).
- It is **headquartered** at the UN Headquarters in **New York, USA**.
- UN DESA promotes sustainable development across social, economic, and environmental dimensions.
- It serves as the **"think tank"** of the UN, providing, analyzing, and promoting data, policy advice, and capacity-building on economic, social, and environmental issues, particularly **supporting the 2030 Agenda and the 17 Sustainable Development Goals (SDGs)**.
- UN DESA is composed of nine specialized divisions like **UN Forum on Forests , UN Statistics Division, Population Division etc.**
- UN DESA is **led by the Under-Secretary-General for Economic and Social Affairs**, currently Li Junhua.

#### Reports Published by UN DESA

- World Economic Situation and Prospects Report
- World Social Report
- Sustainable Development Goals Report.

### 62) INDIA-ARAB FOREIGN MINISTER'S MEETING

#### Why in News?

The India–Arab Foreign Ministers' Meeting in Jan 2026, **first held in 2016** at Manama (Bahrain), **has been** revived after nearly a decade with India hosting the second round in New Delhi (2026), signalling renewed diplomatic engagement with the Arab League.

#### About

- India Arab Foreign Ministers' Meeting is the highest institutional mechanism driving this partnership, which was formalised in March 2002 when India and League of Arab States (LAS) signed an MoU institutionalizing the process of dialogue.
- A Memorandum of Cooperation was signed for the establishment of **Arab-India Cooperation Forum** during the visit of the then Arab League Secretary General Amre Moussa to India in December 2008, which was subsequently revised in 2013 in terms of structural organization.
- The **India–Arab League Cooperation Forum (2008)** is an institutional platform to strengthen India's engagement with the Arab League countries.
- In Jan 2026 , the first India-Arab FMM **hosted by India in New Delhi** and saw the participation by all 22 Arab countries by Foreign Ministers, other Ministers, Ministers of State and other Senior Officials and Arab League.
- The **Delhi Declaration (Jan 2026)** outlines a multi-sectoral roadmap for 2026–2028, targeting a **\$240 billion+ trade relationship** through new working groups in space, AI, and food security.
- Politically, it reaffirms support for a **two-state solution for Palestine**, condemns maritime threats in the Red Sea, and demands **UNSC reforms** to empower the Global South.



- **Arab League**, also called *League of Arab States (LAS)*, formed in 1945 is an intergovernmental pan-Arab organisation following the adoption of the Alexandria Protocol in 1944. It consists of 22 member states.
- It was formed in Cairo with six members: Egypt, Iraq, Transjordan (later renamed Jordan), Lebanon, Saudi Arabia, and Syria, with Yemen joining on 5 May 1945, of all Arab states in the Middle East and North Africa.
- There are four nations that were conferred observer status by the League, Brazil, Eritrea, **India**, and Venezuela.

### 63) IMF EXTENDED FUND FACILITY

#### Why in News?

The IMF Executive Board approved an immediate disbursement of \$1 billion to Pakistan under the Extended Fund Facility (EFF).

#### About

- The **Extended Fund Facility (EFF)** is a financing mechanism of the **International Monetary Fund (IMF)**, a Bretton Woods institution.
- Provide assistance to countries experiencing serious payment imbalances because of structural impediments or slow growth and an inherently weak balance-of-payments position.
- It offers **repayable loans** with a **longer duration of three years or more** and extended repayment schedules compared to regular IMF facilities.
- Loan disbursements are made in **instalments**, subject to periodic assessments of the borrowing country's policy implementation.

### 64) PAX SILICA

#### Why in News?

The U.S. Ambassador-designate Sergio Gor announced that the United States plans to invite India to join the "Pax Silica" alliance as a full member.

#### About

Pax Silica is a **U.S.-led multilateral initiative** launched in December 2025 to secure **global supply chains** for critical minerals, rare earth elements, semiconductors, and AI technologies.

- It aims to reduce dependence on China, which controls significant portions of these sectors.
- The alliance includes partners like Japan, South Korea, the UK, and Australia
- **India is likely to be invited to join the U.S.-led Pax Silica initiative** aimed at securing global semiconductor, AI, and critical mineral supply chains.
- The Pax Silica Declaration emphasises three core objectives
  - Reducing coercive economic dependencies.
  - Ensuring secure global technology and AI supply chains
  - Building trusted digital infrastructure

### 65) CRITICAL MINERALS MINISTERIAL

#### Why in News?

External affairs minister Jaishankar embarks on 3-day visit to U.S. to attend critical minerals ministerial.

#### About

- The Critical Minerals Ministerial is an international forum aimed at **securing resilient supply chains** of minerals essential for clean energy, defence, and advanced technologies, including lithium, cobalt, nickel, vanadium, and rare earth elements.

- The 2026 inaugural session is hosted by U.S. secretary of state with participation from around 20 countries, including G-7 nations, India, Australia, Japan, South Korea, and Mexico.
- India's delegation aims to reduce dependence on dominant producers like China while supporting EVs, renewable energy, and defence technologies.
- The **Critical Minerals Ministerial (Feb 2026) in the US, paves way for India's future integration into Pax Silica, a US-led initiative securing AI and semiconductor supply chains.** This initiative, launched in late 2025, focuses on reducing reliance on China by fostering trusted partnerships with nations like India, Japan, and the UK.
- Key outcomes included the launch of **FORGE** (successor to the Mineral Security Partnership), **Project Vault** to build a US strategic critical minerals reserve, and proposals for price stabilization mechanisms to protect partner countries from non-market competition.



*Pax Silica is a high-technology initiative focused on securing the **downstream semiconductor and AI supply chain** and building trusted chip ecosystems.*

- *The **Critical Minerals Ministerial** is an **upstream, resource-centric forum** that focuses on the extraction, refining, and recycling of critical minerals like lithium and cobalt.*
- *While Pax Silica supports **digital and computing sovereignty**, the Ministerial aims to reduce dependence on China for **raw materials essential to green energy and manufacturing.***

### **Minerals Security Partnership**

- *The Minerals Security Partnership (MSP) is a **US-led initiative launched in June 2022** to secure critical mineral supply chains, vital for clean energy and technology.*
- *It aims to **diversify supply, reduce dependence on China**, and foster high-standard production/recycling.*
- *The MSP includes the US, Australia, Canada, Finland, France, Germany, **India**, Italy, Japan, Norway, Republic of Korea, Sweden, the UK, and the European Commission*
- ***India joined the MSP** in June 2023 as the only developing country, helping to secure its access to critical minerals for economic growth and technology.*
- ***MSP Finance Network** launched to strengthen cooperation, this network facilitates investment in projects across the globe to secure and diversify the supply of critical minerals.*

## **66) INDIA – EU FREE TRADE AGREEMENT (FTA)**

### **Why in News?**

On January 27, 2026, during the 16th India-EU Summit in New Delhi, there was a formal conclusion of the India-EU Free Trade Agreement (FTA) which was Termed the "Mother of All Deals,".

### **India -EU bilateral Trade**

Bilateral merchandise trade between India and the EU has demonstrated sustained growth, valued approximately at INR 11.5 Lakh Crore (USD 136.54 billion) in 2024-25, with India exporting roughly INR 6.4 Lakh Crore (USD 75.85 billion) to the EU. **Bilateral trade stood at \$136.5 billion in 2025; the deal targets \$200 billion by 2030.**

## Benefits for India

India secured key concessions to boost its manufacturing and services sectors:

- **Core Exports:** Duty-free exports are now available for labor-intensive items such as **textiles, leather, gems, and spices.**
- **Steel Industry:** India secured a **duty-free quota of 1.6 million tonnes** for steel, providing a significant boost to heavy industry.
- **Professional Mobility:** The pact makes it easier for **skilled Indian workers** to work across the 27-country bloc.
- **Sustainable Trade:** India secured a "**Forward-Looking Most-Favored Nation**" (MFN) clause. This ensures that if the EU gives any other country better terms or exemptions regarding the **Carbon Border Adjustment Mechanism (CBAM)**, those same terms will automatically apply to India.
- **Security & Defence:** For the first time, tariffs on arms, ammunition, and dual-use technology will be phased out over a 3-to-5-year period.

## Key Exclusions and Missing Pillars

The deal **does not include** as of this finalization:

- **Sensitive Agriculture:** There are **no concessions** on sensitive items such as **chicken and rice** to protect domestic producers.
- **Strategic Procurement:** No agreement was reached regarding **government procurement** on energy and raw materials.
- **Sustainability & GIs:** Notably, the deal currently lacks a "sustainable development" chapter and a finalized agreement on **Geographical Indications (GIs)**.

The India-EU FTA marks a historic supply-chain reset, linking the world's two largest democratic markets. By granting duty-free access to 99.5% of Indian exports and creating a predictable Green

Trade framework, it cushions against global protectionism and elevates the partnership from trade to a strategic alliance, laying the institutional foundation for India's \$30-trillion *Viksit Bharat* vision by 2047.



- **CBAM (Carbon Border Adjustment Mechanism)** is an EU policy that acts as a "**carbon tax**" on carbon intensive sector imports like steel, cement, and electricity etc. It forces non-EU companies to pay for the pollution caused during production, ensuring foreign goods face the same climate costs as EU-made products.
- For India, CBAM may raise export costs and reduce competitiveness of carbon-intensive goods, while also creating pressure to adopt cleaner technologies.
- India has expressed concerns regarding climate justice, the disproportionate impact on developing countries, and possible violation of WTO norms.

## 67) SALAL HYDROELECTRIC PROJECT

### Why in News?

Union Minister of Power and Housing & Urban Affairs directed sediment removal at the Salal Power Project in Jammu and Kashmir to ensure maximum utilisation of water resources.

### About

- The Salal Project, planned in the 1960s, was India's first hydropower project approved under the Indus Waters Treaty (1960), generating electricity and enabling regulated use of Chenab waters within treaty limits.
- Salal project was a major point of dispute with Pakistan, which argues the design violated the Indus water treaty, 1960.

### Location and River System

- **River:** Chenab (Western River of the Indus system).
- **Region:** Reasi District, Jammu and Kashmir

**Physiography:** Himalayan river system with high hydropower potential

## 68) CHABAHAR PORT

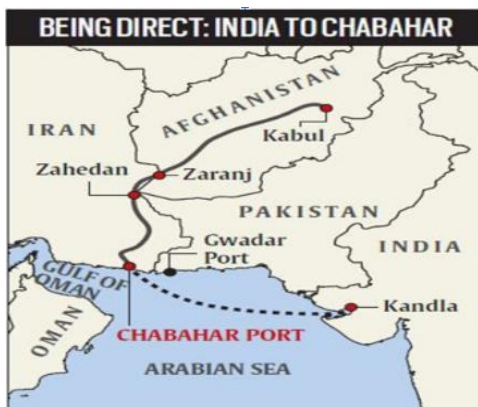
### Why in News?

India is engaged in discussions with the United States to ensure continuity of its plans at Chabahar Port, even as the current US sanctions waiver remains valid until April 26.

### About

#### Chabhar port

- **Location:** Sistan–Baluchistan province, Iran, on the Gulf of Oman near the Strait of Hormuz
- **Ocean Access:** Iran's only oceanic port with direct access to the Indian Ocean
- **Terminals:** Shahid Beheshti and Shahid Kalantari
- **Geographical Significance:** Close to Afghanistan, Pakistan, and India
- **Trade Connectivity:** Part of International North–South Transport Corridor (INSTC) connecting Indian Ocean → Caspian Sea → Russia → Europe



## 69) VENEZUELA

### Why in News?

Venezuela is in focus because President Nicolás Maduro was captured by United States forces following a U.S. military operation in early January 2026, and is now facing criminal charges in the United States, triggering regional political uncertainty, global legal debate, and diplomatic responses.

### About

- Venezuela is a resource-rich country in **South America** facing a prolonged political, economic, and humanitarian crisis. It possesses the **world's largest proven crude oil reserves (Orinoco Belt)** along with significant natural gas, gold, iron ore, bauxite, and coltan deposits.
- Despite this, Venezuela's economy collapsed due to



over-dependence on oil exports, economic mismanagement, corruption, falling oil prices, and international sanctions, leading to hyperinflation and currency devaluation.

- Venezuela has alleged that U.S. actions such as sanctions and interference affecting diplomatic functions violate the **Vienna Convention on Diplomatic Relations (1961)**, particularly provisions on **respect for diplomatic missions (inviolability)** and **non-interference in internal affairs** of the receiving state.
- The UN Charter bars external intervention or use of force against Venezuela's sovereignty and political independence except with UN Security Council authorization.
- It is bounded by Guyana, Brazil and Colombia and it shares a border with the Caribbean Sea and the Atlantic Ocean.

- Major River are Rio Negro (shared with Colombia and Brazil) and Orinoco (shared with Colombia).
- The world's highest waterfall – the **Andes Mountains Angel Falls** is located in the Guiana Highlands.

## 70) SYRIA

### Why in News?

Syrian army extends hold over north Syria and also takes over Kurdish-held town east of Aleppo.

### About

- Renewed Israeli airstrikes on Syrian territory (especially near Damascus & Homs) and with Spillover effects of the Israel– Hamas conflict into Syria.



- Syria is located **in West Asia (Middle East)** and borders with Turkey, Iraq, Jordan, Israel (Golan Heights), Lebanon, Mediterranean Sea – West
- **Capital:** Damascus (one of the world's oldest cities).

Major Syria conflict hotspots in news include **Idlib (last major rebel stronghold)**, **northeast Syria/Rojava (SDF–Turkey tensions)**, **Deir ez-Zor (ISIS remnants and US presence)**, **Aleppo region (Turkish-backed operations)**, and the **Israeli-strike-affected Damascus and Golan Heights corridor**.

## 71) CHILE WILDFIRE

### Why in News?

In January 2026, central and southern Chile faced devastating wildfires due to extreme heat, drought, winds, and human factors like arson and industrial plantations.

### About

- The Chile wildfires of 2026 highlight the growing intersection of **climate change, human activity, and environmental vulnerability**.
- They underscore the importance of **proactive disaster management**, sustainable land use, and community awareness in minimizing human, economic, and ecological losses



- Chile is a long and narrow country located along the western coast of South America, bordered by **Peru, Bolivia, Argentina, and the Pacific Ocean**.
- It is characterized by the **Andes Mountains** in the east, the **Atacama Desert** in the north (the driest non-polar desert), and the **glaciated Patagonia** region in the south.
- Situated on the **Pacific Ring of Fire** and influenced by the cold Humboldt Current, Chile is highly prone to earthquakes and is the **world's largest producer of copper and a key holder of lithium reserves**.

## 72) IRAN

### Why in News?

Iran is in the news due to widespread protests in January 2026 driven by economic distress and political discontent, followed by a government crackdown and internet shutdowns, escalating tensions with the United States and drawing international attention.

### About

- Iran is a prominent country located in West Asia, sharing land borders with **Armenia, Azerbaijan and Turkmenistan** to the north, **Afghanistan and Pakistan** to the east, **Iraq** to the west, and **Turkey** to the northwest.
- It has important maritime boundaries with the Caspian Sea in the north and the Persian Gulf and Gulf of Oman in the south, giving it strategic significance in regional and global geopolitics.



- Tehran is the capital city of Iran, and the country is a member of key international groupings such as **SCO, OPEC and BRICS**.

## 73) UGANDA

### Why in News?

Uganda's gold exports surged sharply rising about 76% to a record ~\$5.8 billion making gold a major export and driving economic interest.

### About

- Uganda's gold exports rose sharply to **\$5.8 billion**, becoming a top export commodity.

- Gold now drives a major part of Uganda's foreign earnings and trade balance.
- Uganda is estimated to hold roughly 31 million tonnes of gold.
- Landlocked East African country, bordered by Kenya, Tanzania, DRC, South Sudan, Rwanda.
- **Major Rivers** are Nile (Uganda, South Sudan, Sudan, and Egypt).
- **Land of lakes:** Lake Victoria shared by Uganda, Kenya, and Tanzania.



## 74) CHAGOS ARCHIPELAGO

### Why in News?

The Chagos Islands are in news over the UK-Mauritius sovereignty dispute and control of Diego Garcia base.

### About

- The **Chagos Archipelago** is a group of about **60 islands in the Indian Ocean**, located **south of the Maldives**. **Diego Garcia** as the largest and most strategic island.
- It is administered by the UK as the **British Indian Ocean Territory (BIOT)**, after being separated from **Mauritius in 1965**.



- India has **consistently supported Mauritius's claim** over Chagos.

## SCHEMES & INITIATIVES

### 75) NPS VATSALYA

#### Why in News?

The PFRDA issued the NPS Vatsalya Scheme Guidelines, 2025, detailing scheme features and providing incentives to Anganwadi workers, ASHAs, and Bank Sakhis to support outreach and onboarding.

#### About

- NPS Vatsalya was launched on 18 September, 2024 **by the Union Ministry for Finance and Corporate Affairs.**
- It is a **contributory savings and long-term financial security scheme** designed **exclusively for minors.**

#### Eligibility

- Open to **all Indian citizens**, including NRI/OCI, **below 18 years of age**
- Minor is the sole beneficiary
- Account opened in the name of the minor and **operated by the guardian**

#### Contribution

- Minimum initial and annual contribution: ₹1000
- No maximum limit on contribution
- Contributions can also be gifted by relatives and friends.

#### Pension Fund Selection

- Guardian can choose any one Pension Fund registered with PFRDA

Incentivising **Anganwadi and ASHA workers** to spread awareness will significantly improve **last-mile outreach**, leading to higher enrolment in the NPS Vatsalya Scheme.

### 76) PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY)

#### Why in News?

The Congress demanded a timely, impartial probe into PMKVY irregularities after CAG flagged data manipulation.

#### About

- PMKVY is a **flagship skill development scheme** of the Government of India.
- It was launched in **2015** under the **Ministry of Skill Development and Entrepreneurship (MSDE)**
- It is implemented by **National Skill Development Corporation (NSDC).**
- It aims to make Indian youth **skilled and job-ready.**
- To provide industry-relevant skill training and certification to youth for better employability.

#### Key Features

1. **Short-term skill training** aligned with industry needs.
2. **Recognition of Prior Learning (RPL)** – certifies existing skills of workers.
3. **Free training & assessment** for beneficiaries.
4. **Outcome-based approach** – focus on placement and productivity.

#### Target Beneficiaries

- School dropouts
- Unemployed youth
- Informal sector workers



### PMKVY 1.0 (2015–16)

- Pilot phase focused on **quick skilling and certification**
- Emphasis on **short-term training** to address immediate skill gaps

### PMKVY 2.0 (2016–20)

- Expanded scale with **stronger industry alignment**
- Introduced **Recognition of Prior Learning (RPL)** and improved placement focus

### PMKVY 3.0 (2020–23)

- Shifted to a **district-level, demand-driven approach**
- Greater role for **states/UTs** and focus on **local employment needs**

## Pradhan Mantri Kaushal Vikas Yojana 4.0

It includes three components:

1. Short-Term Training (STT)
2. Special Projects
3. Recognition of Prior Learning (RPL)
  - **Short-Term Training (STT)** targets unemployed youth, school/college dropouts, candidates seeking fresh skilling, upskilling or reskilling.
  - **Special Projects** targets marginalised and vulnerable groups needing focused support for future-oriented jobs.
  - **Recognition of Prior Learning (RPL)** targets workers with existing skills or experience seeking assessment and certification.

### Eligibility

- Indian nationals with **valid Aadhaar**.
- Must meet **job-role specific eligibility criteria**.

- **RPL:** Prior work experience in the relevant job role is mandatory.

## Geographical Coverage

Special focus on:

- Aspirational districts
- Backward, border & tribal areas
- Left-Wing Extremism (LWE) affected districts

Target Group, Eligibility and Geographical Coverage



	Short Term Training	Special Projects	Recognition of Prior Learning
Target Group	Candidates looking for fresh skilling, re-skill/upskill, out of education candidates, school/college dropouts or unemployed youth of India nationally	Marginalized, vulnerable groups, etc. requiring special attention or jobs -roles with focus on future skills.	Candidates with prior learning experience or skills and willing to get assessed and certified.
Eligibility	Indian nationals possessing valid Aadhaar and fulfilling eligibility criteria of respective job role. In case of RPL, prior experience will be required in the job role for which RPL certification is being sought and as specified in the job role.		
Age Group	15-45 years	15-45 years	18-59 years
Geographical coverage	Special attention to aspirational, backward, border, tribal and Left-Wing Extremism (LWE) affected districts, including skilling requirement for other countries.		

## 77) SAMAGRA SIKSHA ABHIYAN

### Why in News?

Centre chairs meet to chart pathway for 'Samagra Shiksha 3.0' school education programme

### About

- **Samagra Shiksha Abhiyan** is an **integrated centrally sponsored scheme** for school education under the **Ministry of Education**.
- Launched in **2018** by merging:
  - Sarva Shiksha Abhiyan (SSA)
  - Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
  - Teacher Education (TE)
- It aims to cover the entire continuum from pre-primary to senior secondary level.
- Applies to **government schools, local body schools, and government-aided schools**

### Core Objectives

1. **Universal access and retention** in school education.
2. **Improve quality of education** through teacher training and learning outcomes.



### **Samagra Shiksha 1.0:**

*Focused on **universal access, enrolment, retention, and school infrastructure** across pre-primary to senior secondary levels.*

### **Samagra Shiksha 2.0:**

*Aimed at **improving learning outcomes**, with greater emphasis on **teacher training, digital education, and quality enhancement**.*

3. **Promote equity** for disadvantaged groups (girls, SC/ST, minorities, CWSN).
4. **Holistic development** of students.

## **What is Samagra Shiksha 3.0?**

- It is the **restructured and strengthened phase** of Samagra Shiksha aligned with **NEP 2020**.
- Focuses on **quality, outcomes, and future-ready education**, not just enrolment.
- The focus is on **foundational literacy and numeracy (FLN)**.
- It promotes **digital learning**, competency-based education, and **teacher training**.
- Special emphasis is given to **inclusion of disadvantaged groups**.
- The scheme **strengthens governance and outcome-based monitoring**.

## ART & CULTURE

### 78) SOMNATH TEMPLE

#### Why in News?

In January 2026, the Somnath temple in Gujarat was prominently in the news, celebrating the 1,000th anniversary of Mahmud of Ghazni's 1026 attack.



#### About

- **Somnath Temple** is a **historic and sacred Hindu shrine** located in **Prabhas Patan, near Veraval in Gujarat**.
- It is dedicated to **Lord Shiva**, known as **Somnath ("Lord of the Moon")**.
- The temple is considered one of the **12 Jyotirlingas**, the holiest shrines of Shiva.

#### Timeline

- The **first historical temple** is believed to have been constructed around **5th–6th century CE**, though some legends trace it to **ancient times (mythologically connected to the Moon God, Soma)**.
- It was **first destroyed by Mahmud of Ghazni in 1026 CE**, and rebuilt multiple times afterward.
- The **present structure was reconstructed in 1951** under the guidance of **Sardar Vallabhbhai Patel**.

#### Significance

- Somnath has a **long and turbulent history**, having been **destroyed and rebuilt multiple**

**times** by invaders, notably by **Mahmud of Ghazni** in 1026 AD.

- Symbol of **India's resistance and cultural endurance** against repeated invasions.
- The **Somnath Temple** is built in the **Chaulukya (Solanki) style of temple architecture**, which is a **sub-style of North Indian (Nagara) temple architecture**.

### 79) AJMER SHARIF DARGAH

#### Why in News?

A **legal petition** has been filed in an Ajmer court claiming that the Ajmer Sharif Dargah *was originally a Shiva temple* and seeking an **Archaeological Survey of India (ASI) survey** of the site. This has reignited debate over the historical origins of the shrine.

#### About

- **Ajmer Sharif Dargah** is the **Sufi shrine** and tomb of **Khwaja Moinuddin Chishti**, located in **Ajmer, Rajasthan**.
- Built in the **13th century**, with significant additions made by the Mughal Emperors, including **Humayun and Shah Jahan**.
- It is one of the most **revered Sufi shrines in India**, attracting devotees of **all faiths**.
- The shrine is famous for the **annual Urs festival**, marking the saint's **death anniversary**.

#### Khwaja Moinuddin Chishti

- **Khwaja Moinuddin Chishti (1141–1236 CE)** was a **prominent Sufi saint** of the **Chishti Order** in India.
- Born in **Sistan (present-day Iran/Afghanistan region)**, he later settled in **Ajmer, Rajasthan**, where he preached **Islamic mysticism, love, and service**.
- He lived in Ajmer during the reigns of **Qutub - Ud-din-Aibak and Iltutmish**.
- Known as "**Gharib Nawaz**" (Benefactor of the Poor) for his lifelong dedication to **helping the needy and marginalized**.

- Introduced **Sufism to northern India**.
- His teachings led to the establishment of the **Chishti Sufi Order** in India.

### SUFISM

*Sufism is a mystical branch of Islam that focuses on inner spirituality, devotion, and closeness to God rather than ritualistic practices alone.*

### Chishti Order

The **Chishti Order** is one of the **major Sufi orders (tariqas)** in India.

Founded in **Chisht, Afghanistan**, it was brought to India by **Khwaja Moinuddin Chishti**

## 80) BUDDHISM- DIAMOND TRIANGLE

### Why in News?

UNESCO has added an area known as the “Diamond Triangle” of Buddhist sites to India's tentative list for possible inscription as World Heritage Sites.

### About

- The **Diamond Triangle of Buddhism** refers to a group of three ancient Buddhist heritage sites in **Odisha, India**
- **Lalitgiri, Udayagiri, and Ratnagiri** -located close to one another in Jajpur and Cuttack districts of Odisha.
- These sites were major centres of **Buddhist learning, practice, and monastic life**, with evidence of stupas, monasteries, sculptures, and relics spanning many centuries.

### Significance

- **Lalitgiri:**

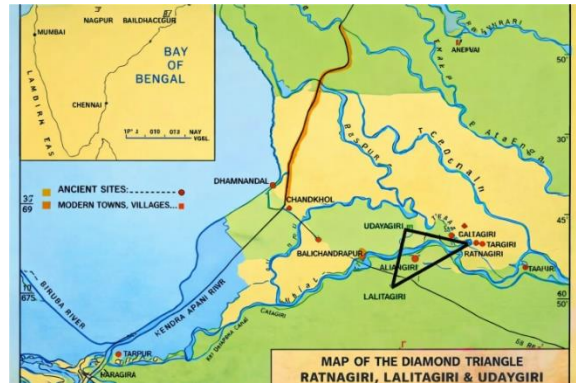
The **oldest site**, famous for its relic stupa believed to contain Buddha's remains, highlighting early Buddhist significance.

- **Ratnagiri:**

A major center for **Tantric Buddhism**(Vajrayana), featuring extensive monasteries, intricate carvings, and recent excavations revealing large Buddha heads.

- **Udayagiri:**

Features the largest complex, known as **Madhavapura Mahavihara**, with large monasteries, unique stupas, and Vajrayana deities.



### Why Diamond?

- They are called the *Diamond Triangle* because together they illustrate the rich tradition of **Vajrayāna Buddhism** (literally *Diamond Vehicle*), a key form of Buddhist practice.
- Signifies an indestructible path to enlightenment, aligning with the powerful symbolism found in the Buddhist teachings and art at these sites.

## 81) PIPRAWAH

### Why in News?

Prime Minister Narendra Modi inaugurated the "Light & the Lotus: Relics of the Awakened One" exhibition in New Delhi on January 3, 2026, celebrating the return of sacred Piprahwa Buddhist relics after 127 years from the United Kingdom.

### About

- **Piprahwa** is an archaeological site located in **Siddharthnagar district, Uttar Pradesh**, near the India–Nepal border.
- It is believed to be associated with **Kapilavastu**, the capital of the **Shakya clan**, to which **Gautama Buddha** belonged.

- Excavations at Piprahwa revealed a **stupa**. The stupa is dated to the **5th century BCE**, making it one of the **earliest Buddhist stupas**.

### Piprahwa Stupa

- The **original Piprahwa Stupa** is believed to have been **square in plan**, especially in its **earliest construction phase**. This is **unusual**, as most Buddhist stupas (like **Sanchi**) are **circular**.
- The stupa was originally a **mud-brick structure**, later enlarged and encased with **burnt bricks**.
- At its core were **stone and crystal caskets** placed inside **sandstone coffers**.

### Piprahwa Relics

- In **1898**, archaeologist **William Claxton Peppé** discovered **relic caskets**. And it contained various gemstones, bone fragments and coffers.
- **Mortal remains:** It also contained bone fragments and ash. An inscription in **Brahmi script** identifies the relics as those of **Lord Buddha**, deposited by the **Shakyas**.
- **Coffins:** The relics were preserved in reliquaries, including sandstone coffers and soapstone and crystal caskets.
- **Gemstones:** The find included 349 gemstones such as pearls, rubies, sapphires, topaz, and gold sheets.



**Kapilavastu** was the ancient capital of the Shakya kingdom and the childhood home of Buddha.

**Kapilavastu** is located in the **Terai region on the India-Nepal border**.

There are two primary, debated locations for the ancient city:

- **Tilaurakot** in Nepal (about 25 km from Lumbini) and
- **Piprahwa** in Uttar Pradesh, India



## 82) JAIPUR PUPPETS (KATHPUTLIS)

### Why in News?

Jaipur puppets have been highlighted in media as part of efforts to revive, promote and preserve India's intangible cultural heritage and the need to support this age-old folk art form.



### About

- **Jaipur Puppets**, also called **Kathputli**, are a traditional form of **string puppetry** from **Rajasthan**, particularly **Jaipur**.
- The term *Kathputli* comes from "**Kath**" (**wood**) + "**Putli**" (**doll**) - wooden dolls controlled by strings.
- Performed to **entertain, educate, and narrate stories** from mythology, folklore, and local history.
- Traditionally the artisans who were involved in making puppets belonged to the nomadic community called as **Putli Bhatt or Nat**.
- Originally belonging to the **Nagaur area in the Marwar region**, they travel all through the country in order to exhibit their skills.

## Types of puppetry

Type of Puppetry	Name of Puppet Form	Associated State(s)
String Puppetry	Kathputli	Rajasthan
	Kundhei	Odisha
	Gombeyatta	Karnataka
	Bommalattam	Tamil Nadu
Shadow Puppetry	Togalu	Karnataka
	Gombeyatta	
	Tholu Bommalata	Andhra Pradesh, Telangana
	Ravanachhaya	Odisha
Rod Puppetry	Putul Nach	West Bengal
	Yampuri	Bihar
Glove Puppetry	Pavakoothu	Kerala

## 83) THIRUVALLUVAR

### Why in News?

Prime Minister Narendra Modi paid tributes to the Tamil poet-philosopher Thiruvalluvar on Thiruvalluvar Day (January 15-16, 2026), praising his magnum opus, the *Thirukkural*, for its timeless, universal ethical, social, and political values.

### About

- **Thiruvalluvar** was an **ancient Tamil poet-philosopher**, dated between **3rd century BCE and 1st century CE**.
- He is the author of the **Thirukkural**, a classic Tamil text consisting of **1,330 couplets (kurals)**.
- The work is **secular in nature**, addressing moral, social, political, and personal conduct applicable to all humanity.

### Thirukkural

- Considered a **universal ethical guide**, comparable to global moral classics.
- The *Thirukkural* is divided into **three sections**:
  - **Aram** (Virtue / Ethics)
  - **Porul** (Wealth / Governance)
  - **Inbam** (Love / Personal life)

- Contains early ideas on **good governance, justice, leadership, diplomacy, and statecraft**, relevant even today.
- A cornerstone of **Tamil literature** and a symbol of **India's ancient intellectual tradition**.
- Translated into **many Indian and foreign languages**, giving it global recognition.

## 84) ADI SHANKARACHARYA

### Why in News?

A controversy has broken out in Uttar Pradesh following the issuance of a notice to a religious leader for allegedly using the title 'Shankaracharya'.

### About

**Adi Shankaracharya (8th century CE)** was a renowned **Indian philosopher and born in Kalady, Kerala**, theologian who consolidated the doctrine of **Advaita Vedanta (non-dualism)**.

### Advaita Vedanta

Advaita Vedanta is a major school of Hindu philosophy (**non-dual Vedanta**).

It teaches non-dualism, holding that **Atman** (individual self) and **Brahman** (ultimate reality) are one. The apparent dualities of the world are **Maya** (illusion), and **moksha** (liberation) is attained through the realization of this oneness.

### Contributions

#### Literature

Authored authoritative **Bhashyas** on the **Upanishads, Bhagavad Gita, and Brahma Sutras**, systematising Vedantic thought.

#### Mathas

Established four major **Advaita Mathas** to propagate his philosophy:

- **Sringeri** (South)
- **Dwaraka** (West)
- **Puri** (East)
- **Jyotirmath/Badri** (North)
- Revived **Vedic orthodoxy** while reforming excessive ritualism by stressing **philosophical inquiry over mechanical practices**.

- Engaged in philosophical debates with **Buddhists and other Indian schools**, reinforcing Hindu metaphysical traditions.
- Integrated **Bhakti with Jnana**, composing devotional hymns such as **Bhaja Govindam** to popularise Advaita philosophy
- Played a crucial role in fostering **intellectual and spiritual unity across India**, transcending regional boundaries.



### 85) NATHAMUNIGAL

#### Why in News?

The finding of an idol near Gangaikonda Cholapuram provides material evidence supporting the 'Thiruvarasu' of Nathamunigal.

#### About

- Nathamuni (c. 9th–10th Century CE) was a **Vaishnavite philosopher-saint** and the **reviver of the Sri Vaishnava tradition** in South India.
- He is credited with **recovering and systematising the Divya Prabandham**, a collection of **4,000 Tamil devotional hymns** composed by the **Alvars**.
- Nathamuni integrated **Bhakti (devotion)** with **Vedantic philosophy**, laying the foundation for later Sri Vaishnava thinkers.
- He is traditionally regarded as the **teacher of Yamunacharya (Alavandar)**.
- His work helped establish the **equal spiritual status of Tamil (Dravida Veda)** alongside Sanskrit scriptures.

### 86) V.O. CHIDAMBARAM PILLAI

#### Why in News?

V.O. Chidambaram Pillai earned the title 'Sekkizhutha Chemmal' for hauling the oil press himself after refusing to submit to the degrading colonial punishment imposed during his imprisonment.

#### About

- V. O. Chidambaram Pillai (1872–1936) was a prominent freedom fighter, lawyer and pioneer of economic nationalism in South India, popularly known as **Kappalottiya Tamizhan (The Tamizh Helmsman)**.
- He founded the **Swadeshi Steam Navigation Company in 1906** to operate services between **Tuticorin and Colombo**, directly challenging the British monopoly in shipping and giving practical shape to the Swadeshi movement.



- **Influenced by Bal Gangadhar Tilak**, VOC also played an important role in organising labour, notably leading the **Coral Mill workers' strike in 1908**, making him one of India's earliest labour leaders.
- Arrested on charges of sedition, he was subjected to severe imprisonment, including being forced to pull an oil press like a bullock, earning him the title "**Sekkizhutha Chemmal.**"
- His life symbolised assertive nationalism, self-reliance, and resistance to colonial economic exploitation.

## 87) 150TH THEOSOPHICAL SOCIETY INTERNATIONAL CONVENTION

### Why in News?

150th international convention of Theosophical Society inaugurated in Chennai.

### About

- The Theosophical Movement originated by **Madame H. P. Blavatsky and Colonel H. S. Olcott**, who were deeply influenced by Indian philosophy and culture.
- They founded the **Theosophical Society in 1875 in New York, USA**, and later shifted its headquarters to **Adyar, near Madras, in 1882**.
- The Society believed that a **direct spiritual connection between the human soul and God** could be achieved through contemplation, prayer, and inner revelation.
- It **accepted core Hindu doctrines** such as karma and reincarnation, and drew inspiration from the Upanishads as well as the Samkhya, Yoga, and Vedanta schools of Indian philosophy.
- Its primary objective was to **promote the universal brotherhood of humanity**, transcending distinctions of race, caste, creed, sex, or colour.
- It also sought to study the unexplained laws of nature and explore the latent spiritual and intellectual powers of human beings.
- In India, the Theosophical Movement became **closely associated with the Hindu renaissance**.
- It **opposed social evils** such as child marriage, supported the abolition of caste discrimination, advocated the upliftment of the depressed classes, and worked for the betterment of widows.

## 88) INDIRA GANDHI PEACE PRIZE

### Why in News?

Mozambican rights activist Graca Machel to be conferred with Indira Gandhi Peace Prize.

### About

- The Indira Gandhi Prize for Peace, Disarmament and Development, popularly known as the **Indira Gandhi Peace Prize**, has been conferred **annually** since 1986 by the **Indira Gandhi Memorial Trust** in honour of former Prime Minister Indira Gandhi.
- It recognises individuals or organisations for exceptional and sustained contributions to **international peace, disarmament and development**.
- The award carries a **cash prize of ₹1 crore, along with a citation and a trophy**, and is regarded as one of India's most prestigious international peace awards.



Selection is based on impactful efforts that address **global humanitarian challenges and promote the welfare of humanity** across its three core domains.

## 89) MANUSMRITI

### Why in News?

The *Manusmriti*, an ancient legal text, is frequently in the news due to debates over its contentious views on gender and caste, often contrasting with modern constitutional values.

### About

- **Manusmriti** (also called *Manava Dharma Shastra*) is an **ancient Sanskrit legal and social text** attributed to **Manu**, the mythical law-giver.
- It was composed roughly between **200 BCE and 200 CE**.

- The text lays down **norms for social conduct, duties (dharma), law, governance, and justice.**
- It covers topics such as **varna system, family laws, inheritance, kingship, civil and criminal laws.**
- Manusmriti is one among many **Dharmashastra texts**, not a religious scripture like the Vedas.

### Significance

- Provides insight into **ancient Indian legal systems and administration.**
- Reflects the **varna-based social order** and gender norms of ancient times.
- Useful for understanding **evolution of caste system.**

Text / System	Type	Region / Use	Main Aspect / Purpose
<b>Manusmriti</b>	Dharmashastra	Pan-India	Social law, duties, varna system, punishments
<b>Yajnavalkya Smriti</b>	Dharmashastra	Pan-India	Inheritance, property law, court procedures
<b>Parashara Smriti</b>	Dharmashastra	Pan-India	The most authoritative code for <i>Kaliyuga</i> . It outlines social conduct, duty, and morality across four castes (Varnas)
<b>Mitakshara</b>	School of Hindu law	Most of India	Inheritance <b>by birth</b> , joint family system
<b>Dayabhaga</b>	School of Hindu law	Bengal & Assam	Inheritance <b>after father's death</b>