

# **Factly Monthly**

**Compilation**

**2025**

**For UPSC CSE Prelims  
Exam**

**November 2025**

**INDEX**

|  |    |
|--|----|
| Muthuramalinga Thevar.....   | 4  |
| Bordetella Holmesii .....  | 4  |
| Marine Fisheries Census 2025 .....   | 5  |
| Tiangong (“Heavenly Palace”) Space Station .....   | 7  |
| Key Facts About Cape Verde .....   | 8  |
| Cloud Seeding.....   | 8  |
| Mahuadanr Wolf Sanctuary .....   | 9  |
| Exercise MILAN 2026.....   | 11 |
| Bhavani Island .....   | 12 |
| Exercise “Trishul” .....   | 12 |
| SC Judgement on summoning of advocates by agencies .....                                   | 13 |
| Burevestnik Missile.....   | 13 |
| Second World Summit for Social Development 2025.....                                       | 14 |
| Gogabeel Lake.....   | 15 |
| Ramnami Tribe.....   | 16 |
| QS Asia University Rankings 2026 .....   | 17 |
| Pampadum Shola National Park.....  | 18 |
| Subsidiary Body on Article 8(j) and Other Provisions (SB8J) .....                          | 18 |
| Umngot River .....   | 19 |
| World Cooperative Monitor (WCM) Report 2025.....   | 20 |
| Mussels .....  | 21 |
| Ramman Festival.....   | 22 |
| Scrub Typhus .....   | 23 |
| INS Savitri.....   | 24 |
| Interstellar Comet 3I/ATLAS.....   | 24 |
| State of Food and Agriculture (SOFA) Report 2025 .....                                     | 25 |
| Operation White Cauldron.....  | 27 |
| Indian Mouse Deer .....  | 28 |
| Alprazolam .....   | 29 |
| Project Suncatcher .....   | 29 |
| Sustainable Harnessing of Fisheries in the Exclusive Economic Zone (EEZ) Rules, 2025 ..... | 30 |
| ReALCRaft Portal.....  | 32 |
| ICFT-UNESCO Gandhi Medal.....  | 33 |
| Exercise Malabar 2025.....   | 33 |
| ‘CoopKumbh’ 2025 .....   | 34 |
| Draft Legal Metrology (Packaged Commodities) (Second) Amendment Rules, 2025 .....          | 35 |
| Integrity Matters Checklist Tool by Global Reporting Initiative (GRI) .....                | 36 |

## Factly Compilation November 2025

|  |    |
|--|----|
| Exercise MITRA SHAKTI-2025 .....   | 37 |
| Booker Prize 2025.....   | 38 |
| Key Facts About Bhutan .....   | 39 |
| Vanadium Flow Battery .....  | 39 |
| Climate Investment Fund (CIF) .....  | 40 |
| Neodymium (Nd).....  | 41 |
| World Artificial Intelligence Cooperation Organization (WAICO).....  | 42 |
| Rift Valley Fever (RVF) .....  | 44 |
| Digital Gold .....   | 45 |
| Plant Genome Saviour Awards 2024-25.....   | 46 |
| Fungus Infections Rise.....  | 47 |
| Credit Guarantee Scheme for Exporters (CGSE).....  | 48 |
| News: The Union Cabinet approved the Credit Guarantee Scheme for Exporters (CGSE) to provide 100% guarantee coverage for additional credit to eligible exporters. .... | 48 |
| YBRANT Programme.....  | 49 |
| Pratyush Sinha Committee.....  | 50 |
| Quantum Diamond Microscopy (QDM).....  | 51 |
| “Operation Bullion Blaze” .....  | 52 |
| ‘DRISHTI’ System.....  | 52 |
| Rare Earth Hypothesis.....   | 53 |
| Anti-Defection Law .....   | 54 |
| Global Carbon Budget 2025 .....  | 55 |
| Saranda Forest.....  | 56 |
| New Royalty Rates of Critical Minerals.....  | 57 |
| Integrated Forum on Climate Change and Trade (IFCCT) .....   | 58 |
| Country Platform for Climate and Nature Finance.....   | 59 |
| Operation SOUTHERN SPEAR .....   | 60 |
| Colombo Security Conclave (CSC).....   | 61 |
| Ambaji Marble .....  | 62 |
| Sentinel-6B Satellite.....   | 63 |
| Asbestos.....  | 65 |
| ASW-SWC Mahe .....   | 66 |
| ARKA GKT-1.....  | 67 |
| National Gopal Ratna Awards 2025.....  | 68 |
| Revised Insurance Framework of Pradhan Mantri Fasal Bima Yojana (PMFBY) .....  | 69 |
| YUVA AI for ALL Initiative .....   | 71 |
| Sir Creek.....   | 72 |
| New National Industrial Classification (NIC) 2025.....   | 74 |
| e-Jagruti Platform .....   | 75 |

|   |     |
|---|-----|
| Ratanmahal Wildlife Sanctuary .....   | 77  |
| Trade Intelligence and Analytics (TIA) Portal .....                                   | 78  |
| Talaq-e-Hasan .....   | 79  |
| Dolphin-Assisted Cast Net Fishing .....   | 80  |
| Earth System Sciences Council (ESSC).....   | 83  |
| World Urbanisation Prospects 2025 Report.....   | 84  |
| Himalayan Black Bear .....  | 85  |
| Indira Gandhi Peace Prize 2024 .....  | 86  |
| ASHA AI Platform .....  | 87  |
| BIRSA 101 .....   | 88  |
| Kurdistan Region .....  | 89  |
| Radio Galaxies .....  | 90  |
| Global Methane Status Report 2025 .....   | 91  |
| Veerangana Jhalkari Bai Koli.....   | 93  |
| SARAL SIMS.....   | 94  |
| Zinc-Ion Batteries .....  | 95  |
| UAE Just Transition Work Programme (JTWP) .....                                       | 96  |
| Mount Semeru.....   | 96  |
| African Grey Parrot .....   | 97  |
| Bharat NCAP 2.0 .....   | 98  |
| Moss.....   | 99  |
| Hayli Gubbi Volcano .....   | 100 |
| Auramine O.....   | 101 |
| Blind Women's T20 World Cup 2025 .....  | 103 |
| Article 240 .....   | 104 |
| Abujhmadiya Tribe .....   | 104 |
| Lachit Borphukan .....  | 105 |
| SIDDHI 2.0 Platform.....  | 106 |
| Lake Urmia .....  | 107 |
| Critical Mineral Recycling Incentive Scheme.....                                      | 107 |
| Rare Earth Magnets .....  | 109 |
| Ningaloo Reef.....  | 110 |
| Sirpur Archaeological Site.....   | 110 |
| Tex-RAMPS Scheme.....   | 112 |
| Finn's Weaver .....   | 112 |
| Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM) ..... | 113 |
| NUDGE Initiative .....  | 115 |
| Bnei Menashe.....   | 116 |
| Grey Seal (Halichoerus grypus) .....  | 117 |

|   |     |
|---|-----|
| Key Facts About Italy .....                     | 118 |
| International Maritime Organization (IMO) ..... | 119 |
| Vikram-I .....                                  | 120 |
| International IDEA 2026.....                    | 121 |

### Muthuramalinga Thevar

News: Vice President of India paid respects to Pasumpon Muthuramalinga Thevar at his memorial on his 118th birth anniversary and 63rd Guru Pooja at Pasumpon village in Ramanathapuram district.

#### About Muthuramalinga Thevar



Figure 1. Source – Swarajya Magazine

- Birth: He was born on 30 October 1908 in Pasumpon village, Ramnad district, Tamil Nadu.
- Political career and associations
  - He was initially associated with the Indian National Congress, but later became a key supporter of Subhas Chandra Bose, joining the Forward Bloc after the 1939 Tripuri Congress session.
  - He was elected three times to the national Parliament from the All India Forward Bloc (AIFB) and served as its National Deputy Chairman from 1952.
- Role in social justice movements
  - He fiercely opposed the Criminal Tribes Act (CTA) of 1920, leading mass protests against the Act which criminalized entire communities as habitual offenders.
  - His efforts contributed to the repeal of the Act in 1946.
  - He was also closely associated with the Temple Entry movement.
    - He played a pivotal role in allowing Dalits to enter the Meenakshi Temple in Madurai alongside activist A. Vaidyanatha Iyer.
  - He fought for the upliftment of marginalized communities and against untouchability, serving as secretary of the Harijan Sevak Sangh in Ramnad district.
- Legacy
  - Muthuramalinga Thevar is celebrated for promoting social equality and political representation for backward classes in Tamil Nadu.
  - His birth anniversary, Thevar Jayanthi, is commemorated annually and remains a significant event, especially in southern Tamil Nadu.
  - Several educational institutions and a district are named after him and his memorial is an official state shrine.

### Bordetella Holmesii

News: The Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh reported a sharp rise of pertussis-like infections by Bordetella holmesii in north India, based on 2019–2023 surveillance.

### About *Bordetella Holmesii*



Source – TH

- *Bordetella holmesii* is a Gram-negative coccobacillus, strictly aerobic and slow-growing organism.
- First identified: It was first identified as a distinct species in 1995.
- Diseases caused by it:
  - Pertussis-like illness: It presents with symptoms similar to whooping cough.
  - Invasive infections: It can cause bacteremia, pneumonia, meningitis, endocarditis, pericarditis, and septic arthritis.
  - Misdiagnosis: It is frequently misdiagnosed as *B. pertussis* because standard diagnostic tests are not species-specific.
- Detection:
  - Accurate detection needs precise molecular assays (e.g., real-time PCR) targeting insertion sequences.
  - Culture technique and real-time PCR are 2 methods used to detect *Bordetella* spp.
- Resistance: It can show resistance to some antibiotics commonly used for *B. pertussis* and other invasive infections, such as macrolides and certain cephalosporins
- Epidemiological significance: Recent studies indicate that *B. holmesii* is a significant cause of infection in some areas.
  - For example, a study in North India found it responsible for nearly 37% of pertussis-like infections, exceeding those caused by *B. pertussis*.

### Marine Fisheries Census 2025

News: Marine Fisheries Census 2025 advances with digital geo referenced supervision and web dashboards after workshops and a national meet at CMFRI Kochi.

#### About Marine Fisheries Census 2025





Source – Ministry of Fisheries

- It is the 5th edition of India's national marine fisheries census.
- Ministry involved: Ministry of Fisheries, Animal Husbandry and Dairying
- Funded by: It is fully funded by the Department of Fisheries.
- Nodal agency: Central Marine Fisheries Research Institute (CMFRI) serving as the nodal agency.
- Operational partner: Fishery Survey of India acting as the operational partner.
- Launched on: Officially launched on the World Fisheries Day on November 21, 2024.
- Slogan : It's slogan is "Smart Census, Smarter Fisheries,"
- Aim: The census aims to provide comprehensive, accurate, and timely data essential for the sustainable development and governance of the sector, which supports over a million families.
- Key features:
  - Coverage: The exercise will cover around 1.2 million fisher households across 5,000 marine fishing villages and habitations in 13 coastal States and Union Territories, including the Andaman & Nicobar Islands and Lakshadweep.
  - Duration: The census will be conducted over 45 days, from November 3 to December 18.
  - It Shift to a digital, geo-referenced system with multi-tier web dashboards for real-time supervision.
  - App-Based Data Collection:
    - The VYAS-NAV app will be used for validating fishing villages and harbours.
    - The VYAS-BHARAT used for household and infrastructure enumeration.
    - The VYAS-SUTRA used for real-time supervision and monitoring.
  - First Time in MFC 2025:
    - It will collect socio-economic information, including family income, home ownership, liabilities, sources of credit, and insurance status.
    - It will document the socio-economic impacts of the COVID-19 pandemic.
    - It will also document the reach of welfare schemes such as the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and PM-MKSSY.
    - It will include Institutional mapping of Fish Farmer Producer Organisations (FFPOs) and SHGs to strengthen collectivisation and the fisheries value chain.

## Tiangong ("Heavenly Palace") Space Station

News– China launched its Shenzhou-21 mission, carrying a new crew—including its youngest astronaut—to the Tiangong ("Heavenly Palace") Space Station aboard a Long March-2F rocket from the Jiuquan Launch Centre.



Source- DDnews

### About the Shenzhou-21 Mission

- Mission Duration: The crew will stay in orbit for six months, taking over operations from the Shenzhou-20 team.
- Scientific Objective: Notably, this mission has carried four black mice, the first small mammals on board the Chinese space station, to study reproduction in microgravity — a crucial experiment for long-term human space habitation.

### About Tiangong Space Station: "Heavenly Palace"

- It is China's own permanently crewed space station in Low Earth Orbit (LEO).
- Objective
  - To build a permanent and reliable space station in Earth's orbit.
  - To ensure the health and safety of astronauts living there for long durations.
  - To create a platform for scientific and technological research in space.
- Size & Capacity:
  - Much smaller than the International Space Station (ISS), Tiangong consists of three main modules, compared to ISS's 16.
  - It weighs about 80–100 tons, roughly one-fifth the mass of the ISS.
  - Designed to host three astronauts for up to six months, and six astronauts during crew handovers.
- Significance– The station functions as a space laboratory, equipped with 23 experiment racks for studies in:
  - Space life sciences and biotechnology
  - Microgravity physics and combustion
  - Material science in space
  - Fundamental physics under microgravity conditions.



## Key Facts About Cape Verde

News– Cape Verde recently became the second-smallest country by population to qualify for the FIFA World Cup.

### About Cape Verde



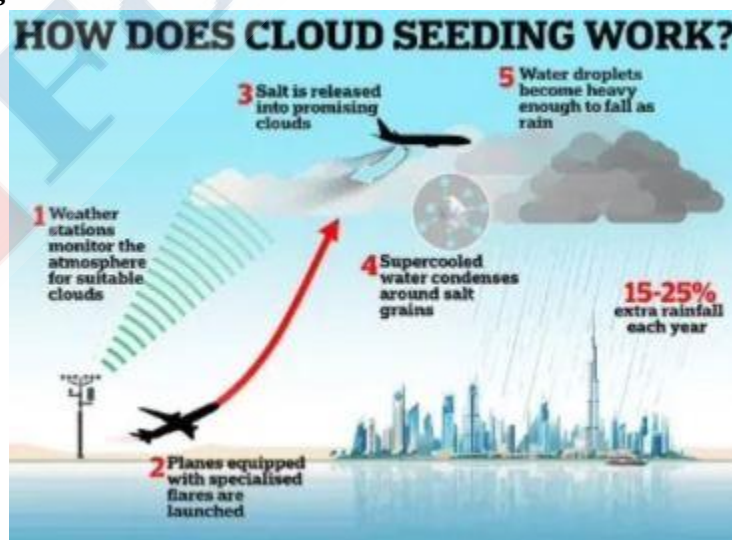
Figure 2. Source- Britannica

- Official Name: Republic of Cabo Verde
- Location: Atlantic Ocean, off the northwestern coast of Africa, near Senegal.
- Geographical Nature: Archipelagic state consisting of 10 volcanic islands and 5 islets
- Island Groups:
  - Barlavento (Windward Islands)
  - Sotavento (Leeward Islands)
- Capital: Praia (located on Santiago Island)
- Terrain: Eastern islands are older and flatter; western islands are younger and mountainous
- Official Language: Portuguese
- Political System: Unitary parliamentary republic
- Neighboring Country (Nearest Point): Senegal
- UN Membership: Joined in 1975, after gaining independence from Portugal

## Cloud Seeding

News: Amid surging pollution levels, the Delhi government, in collaboration with the Indian Institute of Technology, Kanpur conducted two cloud-seeding trials to induce rain.

### About Cloud Seeding



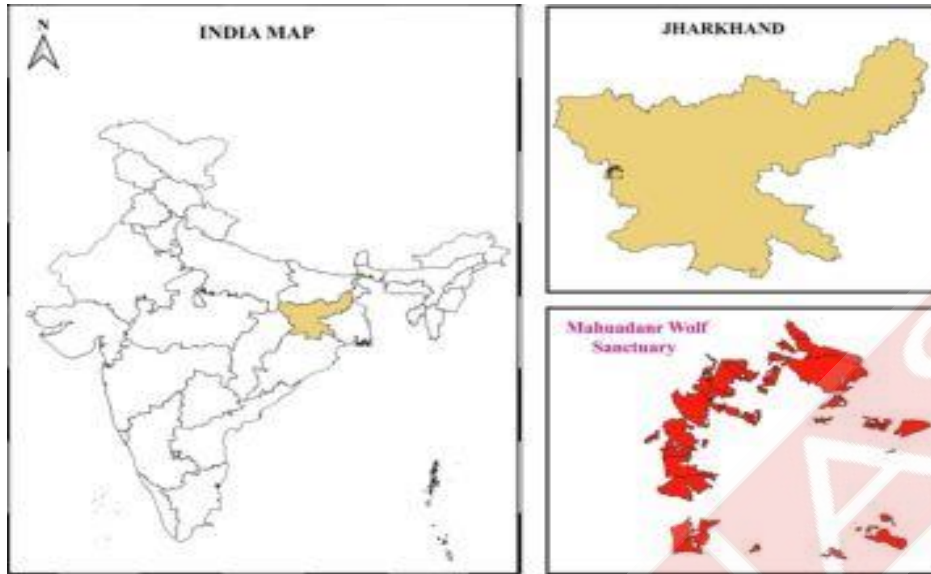
Source – Mahabaahu News

- Cloud seeding is a weather modification technique designed to induce rainfall or snowfall by introducing particles into clouds that act as condensation or ice nuclei, encouraging precipitation.
- The practice originated in the 1940s.
- Objective: It includes enhancing water supply, boosting crop yields, and reducing hail or storm damage in vulnerable areas.
- Working mechanism: The process relies on introducing particles that trigger water or ice droplet formation within clouds, eventually leading to rain or snow.
- Methods of dispersal: Aircraft, rockets, drones, or ground-based generators.
- Common Seeding Agents:
  - Silver iodide, potassium iodide, dry ice, urea, and table salt are most widely used.
  - Natural substances such as pollen, dust, and certain bacteria (*e.g., Pseudomonas*) can also act as nucleation surfaces.
  - Hygroscopic materials like table salt, calcium chloride, and urea attract moisture, further promoting condensation.
  - Advanced Methods: Recent experiments use laser pulses or electrical charges to combine water molecules, alter latent heat in clouds, and strengthen updrafts to enhance precipitation potential.
- Conditions Required for Cloud Seeding:
  - Adequate cloud cover and depth are essential.
  - The process works only with specific clouds, mainly hygroscopic or warm-rain clouds that already contain enough moisture.
- Advantages
  - Increases Rain or Snow: Can potentially boost precipitation, benefiting agriculture, reservoirs, and drought-prone regions.
  - Mitigates Harsh Weather: May lessen hail or storm damage in sensitive areas.
  - Relatively Cost-Effective: Compared to large-scale water management projects, cloud seeding is less expensive to implement.
- Disadvantages
  - Uncertain Effectiveness: Success depends heavily on existing atmospheric conditions and the presence of suitable clouds — outcomes are inconsistent.
  - Environmental Risks: Silver compounds are toxic to aquatic life and excess sodium can degrade soil and inhibit plant growth.
  - Weather Disruption: Artificially altering rainfall in one area may unintentionally affect weather patterns elsewhere, raising ecological and ethical concerns.

### **Mahuadanr Wolf Sanctuary**

News: Mahuadanr Wolf Sanctuary is the only wildlife sanctuary in the country dedicated entirely to the Indian grey wolf.

#### **About Mahuadanr Wolf Sanctuary**



Source – Research Gate

- It is India's first and only sanctuary dedicated solely to the Indian grey wolf (*Canis lupus pallipes*).
- Location: It is located in Mahuadanr valley in Latehar district of Jharkhand.
  - It lies within the Chhota Nagpur plateau, bordering the Palamau Tiger Reserve.
- Area: The total forest area under the sanctuary is 63.256 sq. Km.
- Established: It was originally classified as "wasteland," was later declared a sanctuary in 1976.
- Terrain: It is characterized by rocky hills, dry deciduous forests, scrublands, and streams.
- River: The major river which drains the Mahuadanr valley is Burha River.
- Flora: Bel, Dhaura, Khair, Salai, Piar, Kendu, Karonda, Ziziphus and stunted Sal, Kajhi, Chilbil & Amla are found here.
- Fauna: It hosts 27 species of mammals, 19 species of birds, 18 species of reptiles, 8 species of amphibians, and 30 species of butterflies.
  - The Green Pit Viper and the Whip Scorpion are also found in the sanctuary.

#### About Indian grey wolf (*Canis lupus pallipes*)



Source- Outlook traveller

- It is a *subspecies of the grey wolf*, found across Southwest Asia and the Indian subcontinent.
- Distinct features:

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



- It lives in smaller packs and is *less vocal compared to other wolf subspecies*.
- It is *primarily nocturnal*, hunting from dusk to dawn.
- Habitat– It is well-adapted to warmer climates and typically inhabits scrublands, grasslands, and semi-arid agroecosystems.
- Conservation Status:
  - IUCN Red List: Classified as *Endangered*, with the Indian population estimated between 2,000 and 3,000 individuals.
  - CITES: Appendix I
  - Wildlife (Protection) Act, 1972: Schedule I

### Exercise MILAN 2026

News: India will host Exercise MILAN 2026 scheduled to be conducted from 19 to 25 February 2026.

#### About Exercise MILAN 2026



Figure 3. Source: PIB

- It is a biennial multinational naval exercise conducted by the Indian Navy.
- Location of 2026 edition: Visakhapatnam, Andhra Pradesh
- History: It was launched in 1995 at Port Blair with participation from four navies.
  - Later, it evolved into a multilateral maritime exercise involving partner navies worldwide (notably in 2024).
- Aim: To enhance professional interaction and military cooperation between the navies of friendly foreign countries.
- Theme of the exercise 2026: Camaraderie, Cooperation and

#### Collaboration

- The exercise is part of India's Historic Maritime Convergence alongside: International Fleet Review (IFR) 2026, and Indian Ocean Naval Symposium (IONS) Conclave of Chiefs.
- Purpose: To operationalize MAHASAGAR Vision – *Mutual and Holistic Advancement for Security and Growth Across Regions*.
  - MAHASAGAR extends India's earlier SAGAR initiative (*Security and Growth for All in the Region*) beyond the Indian Ocean, promoting Sustainability, Resilience and Collective responsibility across maritime regions.
- Participating Nations: Invitations extended globally to navies from around the world.
- Operational Components
  - Sea Phase: It focus on interoperability between international navies.
  - Harbour Phase: It includes professional interactions, planning conferences, and cross-deck visits to strengthen naval partnerships and training exchanges.

### Bhavani Island

News: The Andhra Pradesh tourism department had closed Bhavani Island due to repeated floods at the Prakasam Barrage on the Krishna River.

#### About Bhavani Island

Source: Andhra Tourism

- Location: Bhavani Island is situated in the midst of the Krishna River, at Vijayawada, Andhra Pradesh.
  - It is located at the upstream of Prakasam Barrage.
- It is considered as one of the largest river islands in India, with an area of 133 acre.
- Naming: It is named after the Goddess Bhavani or Kanaka Durga whose temple is on the Indrakeeladri hill close to the island.
- Terrain: The island's landscape is relatively flat, with gentle slopes leading down to the water's edge.
- Flora: It is surrounded by mangroves, trees and manicured gardens.
- Fauna: The island is home to several birds: the bright-coloured kingfisher heron and the egret, black-capped kingfisher bird.
- Bhavani Island stands as a premier destination for water sports and recreation.

### Exercise "Trishul"

News: Exercise Trishul (TSE-2025) begins as a large tri-services drill led by the Navy across Rajasthan–Gujarat and the northern Arabian Sea.

#### About Exercise "Trishul"



Source – ET

- Exercise Trishul is a major tri-services exercise to test and demonstrate joint capabilities across land, air, sea, cyber, and space.
- Aim: The exercise aims to validate joint operational procedures, enhance interoperability, and strengthen network integration among the services.
- Conducted by: It is conducted jointly by the Indian Navy, Indian Army, and Indian Air Force.
  - Coordinated by: It is coordinated by Headquarters Western Naval Command.
  - Supported by: It is supported by the Indian Coast Guard, Border Security Force, and other central agencies.
- Location: It is conducted in the states of Rajasthan and Gujarat.
  - Specific areas: The specific areas include Sir Creek, the Rann of Kutch, and the Thar Desert from Jaisalmer to Sir Creek.
  - Maritime axis: The maritime axis covers the Saurashtra coast and the northern Arabian Sea.
- Sub-exercises: The exercise includes 'Trinetra' for electronic warfare and counter-drone operations, and 'Mahagujraj' for integrated air operations.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



## SC Judgement on summoning of advocates by agencies

News: The Supreme Court issued directions barring the police and prosecuting agencies from summoning legal professionals to reveal communications they provide while advising their clients.

### About SC Judgement on Summoning of Advocates by Agencies

Background: The Supreme Court gave directions stopping police and investigation agencies from summoning lawyers only for doing their professional duties — i.e., advising clients. The case was taken up by the Court on its own (suo motu).

Main Questions Before the Court: Can a lawyer be summoned only for giving legal advice to a client and if a lawyer's role goes beyond professional duties, can the summons be subjected to judicial oversight.

Attorney-Client Privilege: It was held that communications between a lawyer and their client are confidential.

Section 132 of the Bharatiya Sakshya Adhiniyam (BSA) 2023 protects this — lawyers cannot be forced to disclose what clients tell them.

Exception: The only exceptions are:

- Communication made for illegal purposes.
- If the lawyer observes any illegal act.
- If disclosure is required after employment ends for specific legal reasons.

Lawyers cannot be summoned merely because they gave legal advice to a client. However, if they are personally involved in illegal activities, they can be investigated like anyone else.

The privilege (protection) helps ensure clients can speak freely to their lawyers.

Balance Between Investigation & Rights

- The Court said privilege under Section 132 must be respected.
- It helps prevent misuse of power and protects the lawyer-client relationship.

The Court held that summons cannot be issued to lawyers just for representing their clients.

Judicial Oversight: Sufficient oversight already exists under Section 528 of the Bharatiya Nagarik Suraksha Sanhita (BNSS). Anyone (including lawyers) can challenge a summons before a court.

In-house Legal Advisers

- In-house company lawyers (salaried employees) are not protected under this privilege.
- The privilege applies only to independent advocates as defined under the Advocates Act.

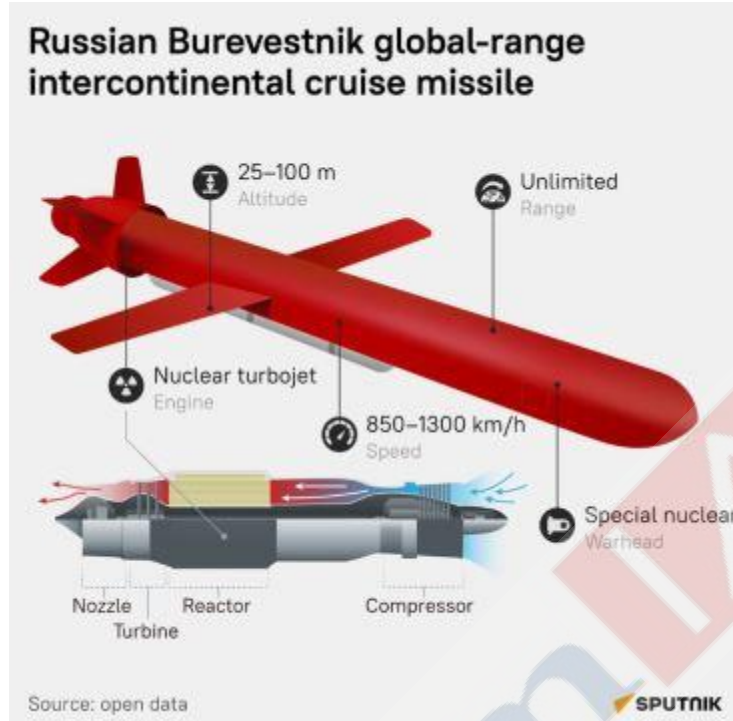
Constitutional Rights: The Court said forcing lawyers to reveal client communications violates:

- Article 19(1)(g) – Right to practice a profession.
- Article 21 – Right to personal liberty.
- Article 20(3) – Protection against self-incrimination.

## Burevestnik Missile

News: Russia recently announced a successful test of the Burevestnik (9M730).

### About Burevestnik Missile



Source – Sputnik India

- It is a nuclear-powered, nuclear-armed cruise missile.
- The missile's name means "*storm petrel*" — a bird symbolizing an approaching storm.
- NATO refers to it as SSC-X-9 Skyfall.
- President Vladimir Putin first revealed it in March 2018 as part of Russia's next-generation strategic weapons.
- It is believed to be powered by a mini nuclear reactor that activates after initial launch using solid-fuel boosters.
- Key Features
  - It is designed to have unlimited range and unpredictable flight paths.
  - It is capable of evading existing missile defence systems due to its low altitude and unpredictable trajectory.
  - It can theoretically fly for many hours or even days.
  - Reportedly, it can fly between 10,000 and 20,000 km, potentially reaching any target in the continental United States from within Russia.
  - It can fly as low as 50 to 100 metres above ground, making radar detection and interception extremely difficult.
- Working mechanism
  - The missile is powered by a miniaturized nuclear reactor instead of conventional fuel.
  - The reactor heats incoming air to create thrust, similar to a jet engine.
  - As long as the reactor operates, the missile can stay in flight indefinitely.

### Second World Summit for Social Development 2025

News: Recently, the Second World Summit for Social Development is scheduled in Doha, Qatar, from 4–6 November 2025, and India will participate.

#### About Second World Summit for Social Development 2025



United Nations



SECOND  
WORLD SUMMIT  
FOR SOCIAL  
DEVELOPMENT  
DOHA 2025

## World Social Summit under the title Second World Summit for Social Development

4 - 6 November 2025

- The World Social Summit 2025 is officially titled the Second World Summit for Social Development (WSSD2).
- It is a United Nations–convened global summit to advance poverty eradication, full and productive employment and decent work for all, and social inclusion.
- Held in: It is going to be held in Doha, Qatar.
- Guided by: It is guided by the United Nations General Assembly resolutions 78/261 and 78/318.
- Guiding principle: Its guiding principle is ensuring that no one is left behind.
- Aim: It is a significant global event aimed at fostering inclusive social development and addressing key challenges to achieve well-being for all.
- Main objectives
  - Review and recommit to the Copenhagen Declaration on Social Development.
  - Give momentum to the Sustainable Development Goals (SDGs) and the 2030 Agenda.
  - Address emerging challenges from technology, demographic changes, and climate change.
  - Strengthen international cooperation.
- The first World Summit for Social Development was a conference held in Copenhagen in March 1995.

### Gogabeel Lake

News: Gogabeel Lake became India's 94th Ramsar site and Bihar's sixth.

#### About Gogabeel Lake

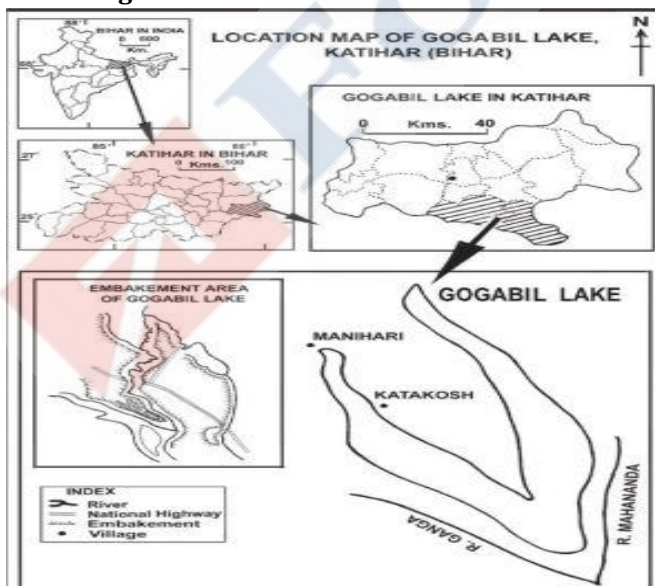


Figure 4. Source – Research Gate

- Location: It is located in Katihar district of Bihar.
- Type of lake: It is an oxbow wetland.
- River associated: It is situated between the rivers Ganga and Mahananda, and during floods the lake joins these two rivers.
- Size: The Ramsar site covers 86.63 hectares.
- Conservation Reserve: It was notified as a Community Reserve and a 'Conservation Reserve' in 2019, by the Bihar Government.
  - It is conserved and managed by the local community as the state's first community reserve.
- Biodiversity importance:
  - More than 90 bird species are recorded, with about 30 migratory.
  - Threatened species include the Vulnerable Lesser Adjutant Stork.



- Near Threatened species include Black-necked Stork, White Ibis, and White-eyed Pochard.
- It serves as a breeding ground for Vulnerable fish species Walago attu.
- It provides habitat for the Smooth-coated Otter (*Lutrogale persipici lata*) and the Helicopter Catfish.

- Festival: Local cultural traditional festivals like Sirva, Adra, Chhat are observed in this wetland.

#### About Ramsar Sites in Bihar

- Bihar now has 6 Ramsar sites and stands at 3rd position in the country after Tamil Nadu and Uttar Pradesh.
- The previous 5 Bihar Ramsar sites are
  - Gokul Jalashay (Buxar)
  - Udaipur Jheel (West Champaran)
  - Kabar Jheel/Kabar Taal (Begusarai) – (Bihar first Ramsar site)
  - Nagi Bird Sanctuary (Jamui) – listed in 2024.
  - Nakti Bird Sanctuary (Jamui) – listed in 2024.

### Ramnami Tribe

News: At Chhattisgarh Foundation Day in Raipur, Prime Minister wore Ramnami tribe's peacock-feather crown.

#### About Ramnami Tribe

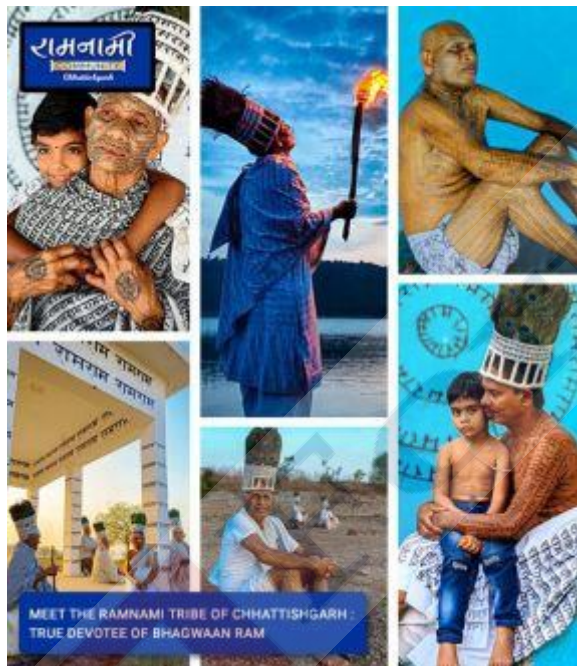


Figure 5. Source – Ramnami Community

- The Ramnami tribe is a Hindu sect that worships Lord Ram and tattoos “Ram” on their bodies while wearing peacock-feather headgear.
- Location: They live mainly in villages along the Mahanadi river in Chhattisgarh, some also live in border regions of Maharashtra and Odisha.
- Origin: The Ramnami Samaj emerged in the 19th century as a peaceful resistance movement against the prevailing caste system in India.
- Started by: It was started by Parsuram Bhardwaj, in the 1890s, the son of a low-caste sharecropper.
- Right to inscribe Ram's name : In 1910, the Ramnami Samaj was taken to court by upper-caste Hindu groups over this unique practice, but they won the case and the right to inscribe Ram's name on their bodies, clothing, and living spaces.
- Process of tattooing
  - The process of tattooing is carried out manually by appointed senior Ramnamis.
  - They utilize two wooden needles, making it an intensely painful endeavor.
  - The ink used is created from the soot obtained by burning kerosene oil in an earthen pot.

- Key features
  - Those with full body tattoos are known as “*purnanakshik*” and are mostly in their seventies.
  - They believe in a formless divine entity, whom they worship as the ‘One True God’ identified as Ram.
  - They prioritize gender equality.
  - They wear shawls printed with “Ram,” adorn peacock-feather crowns, and use ghungroos in dances and Bhajan performances.

- They hold a three-day Bhajan Mela at the end of the harvest season in December–January in the village of Sarsiwa in Raipur district, Where they erect a jayostambh (a white pillar with the name of Ram inscribed on it), and chant from the Ramcharitmanas.

## QS Asia University Rankings 2026

News: Recently, the QS World University Rankings 2026 was released by QS Quacquarelli Symonds.

### About QS Asia University Rankings 2026

| Top 10 Asian Universities 2026 |  |
|--------------------------------|--|
| 2026 Rank                      | Institution  |
| 1                              | The University of Hong Kong                        |
| 2                              | Peking University                                  |
| ~3                             | National University of Singapore                   |
| ~3                             | Nanyang Technological University                   |
| 5                              | Fudan University                                   |
| 6                              | The Hong Kong University of Science and Technology |
| ~7                             | The Chinese University of Hong Kong                |
| ~7                             | City University of Hong Kong                       |
| 9                              | Tsinghua University                                |
| 10                             | The Hong Kong Polytechnic University               |

Figure 6. Source: IE

- The 2026 rankings included 552 new institutions, intensifying competition across Asia.
- China added the highest number (261) of new institutions, overtaking India, which added 137 new entries this year.
- Overall, India now has 294 institutions in the QS Asia rankings, compared to China's 395.
- Nine of India's top ten institutions including seven IITs have seen a decline in rankings in the QS Asia University Rankings 2026.
- Despite the fall in rank, most Indian institutions' scores have actually improved, indicating tougher competition from other Asian countries.
- The University of Hong Kong topped the list, followed by Peking University (China) and National

University of Singapore and Nanyang Technological University (joint third).

- China, Hong Kong, and Singapore continue to dominate the top 10, while South Korea and Malaysia show notable upward movement.
- South Korea's leading universities like Yonsei University and Korea University climbed steadily due to strategic focus on research and internationalisation.
- Malaysia also improved, with Universiti Malaya and Universiti Putra Malaysia gaining ranks on the back of better faculty-student ratios and international engagement.

### About Findings Related to India

- Among these, Chandigarh University was the only one to improve its rank, moving from 120 to 109 this year.
- 36 Indian universities have improved their ranking this year with Sathyamaba Institute of Science and Technology seeing the biggest improvement.
- IIT Bombay recorded the sharpest fall, dropping 23 places from 48 to 71.
- IIT Delhi remained India's top-ranked institution, even though it fell 15 ranks to 59
- Reasons for Rank Decline:
  - Indian institutes improved overall scores, but others in the region advanced faster, especially in research and global engagement.
  - Citations per paper: Indian IITs lag behind regional leaders, for example, IIT Delhi (31.5), IIT Bombay (20.0), IIT Madras (20.3) compared to top Asian universities scoring in the 90s.
  - Faculty-Student Ratio: Many IITs face resource and staffing challenges, with scores ranging from 16.5 (IIT Kharagpur) to 40.9 (IIT Delhi) far below the top Asian average (80–90 range).
  - Internationalisation: IITs continue to have very low international student ratios (2.5–12.3), compared with global leaders scoring 100 on this metric.
  - Limited international faculty and research collaboration further weaken their global visibility.



## Pampadum Shola National Park

News: Pampadum Shola National Park is in the news for its successful forest restoration work. In recent years, the Forest Department has been removing non-native trees and wattle that had spread across the park and harmed its natural shola-grassland ecosystem.

### About Pampadum Shola National Park

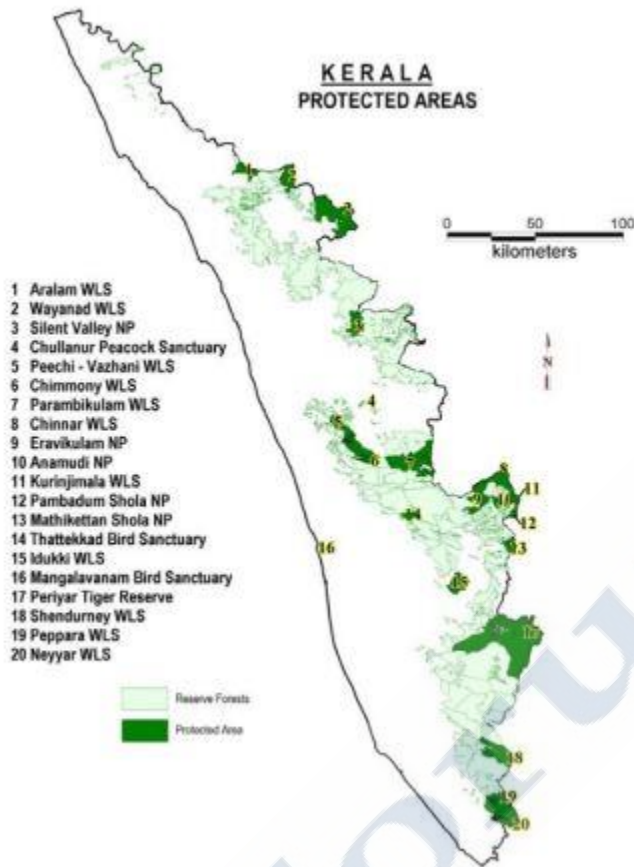


Figure 7. Source – Research Gate

- **Location:** The Pampadum Shola National Park located in Idukki, Kerala.
  - It is in the eastern part of the Southern Western Ghats.
  - It is a part of Palani hills stretched up to Vandaravu peak.
- **Naming:** The name “Pampadum Shola” translates to “the forest where the snake dances”, reflecting the park’s mystical charm and ecological richness.
- It is the smallest national park of Kerala, covering roughly 12 sq. km.
- **Connecting:** It connects the Eravikulam National Park and the Palani Hills.
- It was declared a National Park in 2003.
- **Rivers:** The park serves as an important watershed for the Pambar River and the Vaigai River, which are vital sources of water for the adjacent regions in Tamil Nadu.
- **Terrain:** The terrain ranges between 1,600 to 2,400 meters in altitude.
- **Vegetation:** It features diverse ecosystems such as evergreen forests, moist deciduous patches, shola grasslands, and semi-evergreen zones.
- **Biodiversity Hotspot:** It hosts 14 species of birds, 9 species of mammals, 100 species of butterflies, and 93 species of moths, including the threatened butterfly *Parantica nilgiriensis* (Nilgiri Tiger).

- **Flora:** The park supports 22 species of trees, 74 species of herbs and shrubs, and 16 species of climbers, showcasing the botanical diversity of the Western Ghats.
- **Fauna:** Pampadum Shola is home to rare and endangered species like nilgiri tahr, elephants, gaurs, leopards, wild boars, sambars, and common langurs.

## Subsidiary Body on Article 8(j) and Other Provisions (SB8J)

News: Recently, the first meeting of the Subsidiary Body on Article 8(j) and Other Provisions (SB8J) issued recommendations on its functioning to ensure meaningful IPLC participation in CBD decision-making.

### About Subsidiary Body on Article 8(j) and Other Provisions (SB8J)



Source – UN

- It is the first permanent body of its kind under any multilateral environmental agreement, providing a structured and continuous mechanism to represent innovations, and practices of Indigenous Peoples and Local Communities (IPLCs) concerns.
- Established: It was established by the Conference of the Parties (COP) of Convention on Biological Diversity (CBD) at its 16th meeting (COP 16) in Cali, October 2025.
- Aim: It aims to –
  - Advise the Conference of the Parties and other subsidiary bodies on matters concerning IPLCs.
  - Support the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access to Genetic Resources, as requested.
  - Strengthen inclusion of traditional knowledge, innovations, and practices within biodiversity governance.
  - Track progress of the Kunming-Montreal Global Biodiversity Framework (KMGBF).
- Article 8(j): Article 8(j) of the CBD relates to traditional knowledge, innovations and practices, and SB8J ensures its implementation.
- Significance: SB8J marks a major step towards inclusive biodiversity governance, ensuring that IPLCs are active participants in shaping conservation policy.
  - It aligns the global biodiversity agenda with fairness, respect for traditional knowledge, and equitable sharing of benefits.

### Umngot River

News: Meghalaya's Umngot River is in news as soil dumping into a feeder rivulet turned its crystal-clear waters muddy, prompting government intervention.

#### About Umngot River



Source – TH

- It also called Dawki River or Wah Umngot.
- Origin: It originates from the Eastern Shillong Peak, which is located 1,800 m above sea level.
- Location : It flows through Dawki in West Jaintia Hills district, Meghalaya.
- It is widely considered the cleanest river in India,

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- It is famous for its incredibly clear and transparent water that makes boats appear to be floating in the air.
- It acts as a natural divide between Jaintia and Khasi hills, before finally flowing into Bangladesh.
  - It runs along the India–Bangladesh border;
- Tributary of: Downstream in Bangladesh, the Umngot feeds the Piyain River, a tributary of the Surma.
- Suspension bridge: The Dawki Suspension Bridge over the Umngot was built in 1932 (British era).
- Significance : The Umngot River supports tourism, local livelihoods, and fishing, while Dawki town on its bank serves as a trade route between India and Bangladesh.

### World Cooperative Monitor (WCM) Report 2025

News: Union Minister of Cooperation has congratulated Amul and Indian Farmers Fertiliser Cooperative Limited (IFFCO) for occupying the first two ranks among the top ten cooperatives in the world.

#### About World Cooperative Monitor (WCM) Report 2025



Source – Ministry of Cooperation

- It is the 13th edition of a comprehensive global study on cooperatives and mutual enterprises.
- Released by: International Cooperative Alliance (ICA) and the European Research Institute on Cooperative and Social Enterprises (EURICSE)
- It offers the most comprehensive overview of the global cooperative and mutual sector, highlighting how cooperatives contribute to sustainable, inclusive, and resilient economies worldwide.
- The Report aligns with the United Nations International Year of Cooperatives-2025 (IYC-2025).
- Key Findings
  - The Top 300 cooperatives achieved a combined turnover of USD 2.79 trillion in 2023.
  - The agriculture (35.7%) and insurance (31.7%) sectors dominate the rankings by turnover, followed by wholesale and retail trade (18%).
  - The leading organisations by turnover include Groupe Cr dit Agricole (France), State Farm (USA), and REWE Group (Germany).
  - By turnover relative to GDP per capita, India's Amul and IFFCO top the global list, highlighting the strength of cooperatives in emerging economies.
  - Europe and the Americas account for the majority of the Top 300, but representation from Asia-Pacific and Africa continues to grow.



#### About AMUL

- The Anand Milk Union Limited commonly known as Amul is an Indian dairy brand owned by the cooperative society, Gujarat Cooperative Milk Marketing Federation (GCMMF), based in Anand, Gujarat.
- Founded in: 1946 by Tribhuvandas Kishibhai Patel
- It is India's largest food product marketing organization with annual turnover (2023-24) USD 7.3 Billion .
- Its daily milk procurement is approximately 35 million Liters per day from 18600 village milk cooperative societies, 18 member unions covering 33 districts, and 3.64 million milk producer members.

#### About IFFCO

- Indian Farmers Fertiliser Cooperative (IFFCO) is a cooperative that manufactures and markets fertilisers.
- Founded in: 1967
- Headquarter: New Delhi
- It is one of the largest cooperatives in the world, with around 35,000 member cooperatives reaching over 50 million Indian farmers.

### Mussels

News: Scientists have deployed thousands of mussels on the seafloor to monitor microplastic levels.

#### About Mussels



Source: Outdoornews

- **Classification:** Mussels are bivalve molluscs belonging to the marine family Mytilidae and the freshwater family Unionidae.
- Mussels typically live in beds on the ocean floor, attaching themselves to rocks or other mussels.
- **Habitat:** They are most common in cool seas.
  - Freshwater mussels (naiads) inhabit streams, lakes, and ponds.
- **Distribution:** They are widely distributed across the world's oceans, including the Pacific, Atlantic, and the Mediterranean Sea.
- **Life span:** They can live for several decades, and certain species may survive up to 50 years.
- Mussels are filter feeders, extracting plankton and nutrients by filtering seawater through their bodies.
  - They can filter more than 17 gallons of water per day, helping to clean ocean ecosystems.

- Features:
  - Mussels use strong, hair-like byssal threads, also known as “beards,” to attach themselves securely to surfaces like rocks, wood, and even steel.
  - These byssal threads are made of chitin, a fibrous and durable material that provides remarkable strength and stability.
  - During low tide, mussels close their shells tightly to prevent drying out and protect themselves from harsh environmental conditions.
- Importance:
  - Mussels are a nutritious food source, low in sodium and saturated fat but rich in Vitamins B and C, Omega-3 fatty acids, and minerals like iron, manganese, phosphorus, and potassium.
  - Mussels play an important ecological role in maintaining water quality and supporting marine biodiversity.
  - Scientists are studying mussel adhesion to develop bio-inspired adhesives for delicate surgeries, including eye operations.
- Threat: Mussels are vulnerable to pollution and coastal erosion and Ocean acidification.

### Ramman Festival

News: President Droupadi Murmu received a Ramman mask at a special Uttarakhand Assembly session, spotlighting this centuries-old Garhwal festival.

#### About Ramman Festival



Source – Uttarakhand Govt.

- It is a multiform cultural event that reflects the community's environmental, spiritual, and cultural concepts and recounts its founding myths.
- Location associated with: Twin villages of Saloor-Dungra in Uttarakhand's Chamoli.
- It strengthens community self-worth by combining theatre, music, historical reconstructions, and traditional oral and written tales.
- Time: Celebrated annually in late April during Baisakhi.
- Dedicated to: It is dedicated to the tutelary god Bhumiyal Devta.
- Festival premises: Most festivities occur at the temple of Bhumiyal Devta.
- UNESCO Recognition: Inscribed in 2009 on UNESCO's Intangible Cultural Heritage list.
- Key Features
  - Ritual Theatre:
    - The festival stages the Ramayana and local legends as full theatrical performances.
    - Performers wear 18 distinct masks made from Bhojpatra (Himalayan birch).
    - The masks are accompanied by make-up using sheep's wool, honey, vermilion, wheat flour, oil, turmeric, soot and locally grown plants and vegetables.
  - Dances:
    - The sequence begins with an invocation to god Ganesha.

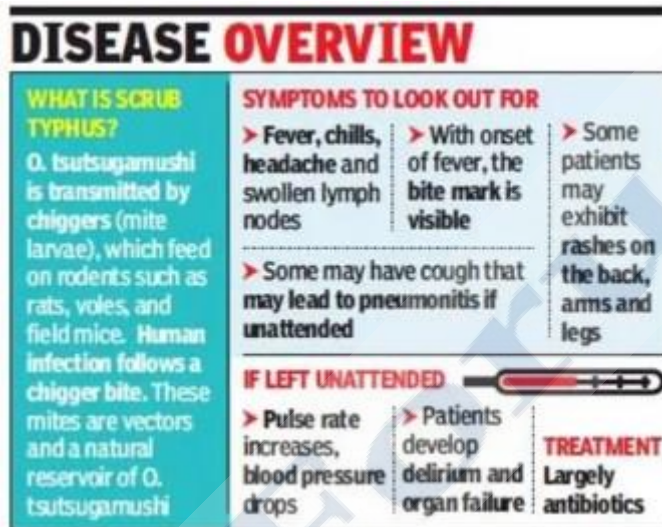


- It includes the Sun God dance and an enactment of the myth of the birth of Brahma and Ganesha.
- Other dances feature Bur Deva alongside Krishna and Radhika.
- The dance sets depict local livelihoods and hardships, for example Mwar-Mwarin shows buffalo herders facing a tiger attack, while Baniya-Baniyain portrays a trader couple being robbed.
- Musicals:
  - The local Ramkatha is sung in carefully measured rhythm, covering a total of 324 beats and steps.
  - The Jagar tradition is also performed as part of the musical narration.
- Storytelling: The festival uses historical reconstructions and both oral and written tales to present founding myths and everyday community life.
- Caste-based Roles: Different castes have specific, hereditary roles in the festival, reflecting a strong community structure.

### Scrub Typhus

News: A Gulf-based Keralite was recently diagnosed with scrub typhus.

#### About Scrub Typhus



Source: TOI

- Scrub Typhus, also known as bush typhus, is a disease caused by the bacterium *Orientia tsutsugamushi*.
- Transmitted by: It is transmitted by the mite *Leptotrombidium deliense*.
  - It spreads through the bite of infected chiggers, which are the larval stage of mites.
  - Chiggers (Mite Larvae) become infected after feeding on the skin of infected rats or mice.
  - They are tiny, almost invisible, and are usually red, yellow, or orange in colour.
- Geographical Distribution: The disease is commonly found in rural Southeast Asia, Indonesia, China, Japan, India, and northern Australia.
- Who are at risk:
  - People of all ages and genders can get scrub typhus.
  - About 1 million cases occur worldwide each year.
  - The risk is higher in rural, forested, and overgrown areas with bushes, weeds, leaf litter, and damp conditions.
  - Chiggers are more active in late spring and summer.
- Symptoms: The bite is usually painless, but causes itching and redness later. Symptoms appear 6–10 days after infection and may include Fever and chills, Rash and headache, etc
- Treatment: Antibiotics are the main treatment and should begin early.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Prevention: There is no vaccine for scrub typhus.

### INS Savitri

News: Recently, INS Savitri has arrived at Port Louis, Mauritius, as part of a Long-Range Operational Deployment to the South West Indian Ocean Region.

#### About INS Savitri



Source: India Today

- INS Savitri is an Indian Naval Ship that serves as an Offshore Patrol Vessel (OPV).
- Developed by: It was indigenously built by Mazagon Dock Limited in Mumbai.
- Commissioned on: The ship was commissioned into the Indian Navy on 7 June 1990.
- It operates under the Eastern Naval Command, which is headquartered at Visakhapatnam.
- INS Savitri is designed for a wide range of operational roles, including maritime surveillance, patrol, and search and rescue missions.
- Features:
  - The ship can achieve a top speed of 15 knots, which is approximately 30 kilometers per hour.
  - It is armed with a 40×60 Bofors Gun, providing it with effective defensive capabilities.
  - The ship is equipped with a helicopter deck capable of operating the Chetak helicopter, enhancing its operational versatility.
  - INS Savitri has been deployed for various expeditionary and humanitarian missions in the Indian Ocean region.
  - It has previously conducted patrols near the Maldives, Seychelles, and Mauritius to ensure maritime security.

### Interstellar Comet 3I/ATLAS

News: NASA confirmed water's chemical fingerprint on interstellar comet 3I/ATLAS, reshaping ideas on comet evolution and ingredients for life.

#### About Interstellar Comet 3I/ATLAS



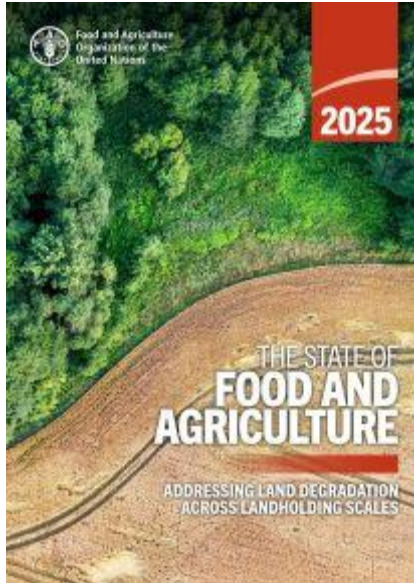
Source – ET

- 3I/ATLAS is an interstellar comet – the third known object from outside our solar system.
- Naming: The prefix “3I” marks it as the third confirmed interstellar object after:
  - 1I/‘Oumuamua– identified in 2017 (was dry))
  - 2I/Borisov – identified in 2019 (was rich in carbon monoxide- rich)
- Identified by: It was identified by the Asteroid Terrestrial-impact Last Alert System (ATLAS) in Hawaii.
- Origin: It entered our Solar System from another star system and is estimated to be at least seven billion years old.
- Trajectory: It is travelling on a hyperbolic path.
- Speed: It travels at a speed of 57–68 km/s.
- Composition:
  - It is an active comet with a solid icy nucleus and a coma of gas and icy dust escaping from the nucleus.
    - NASA’s Swift Observatory detected hydroxyl gas formed when sunlight breaks water molecules.
    - It was losing water at a rate of roughly 40 kilograms per second, even though it was far beyond the typical distance where solar heat could cause water ice to vaporise.
- Its estimated nucleus size is 10–30 km, larger than earlier interstellar comets.
- No threat: It poses no threat to Earth and will remain far away.
- The closest it will approach earth is about 1.8 astronomical units (about 170 million miles, or 270 million kilometers).
- Significance: The water signature suggests distant planetary systems may share chemistry with earth’s, informing models of comet and planet formation.

### State of Food and Agriculture (SOFA) Report 2025

News: State of Food and Agriculture (SOFA) 2025 report released on November 3, 2025 by the Food and Agriculture Organization (FAO) of the United Nations.

#### About State of Food and Agriculture (SOFA) Report 2025



- The SOFA 2025 report offers an in-depth assessment of the ways in which human-induced land degradation affects agricultural productivity, food security, and the resilience of ecosystems.
- Theme of the report 2025: Addressing land degradation across landholding scales
- Key Findings:
  - Nearly 1.7 billion people live in regions where agricultural output is shrinking due to land degradation caused by human activity.
  - This degradation is severely eroding agricultural productivity, threatening food security, and damaging ecosystems.
  - India ranks among the countries with the highest yield losses from human-induced land degradation.
- Impact on Agricultural Land Use: Between 2001 and 2023, total agricultural land fell by 78 million hectares (mha) — a 2% decline globally.
  - Within this period: Cropland expanded by 78 mha and permanent meadows and pastures shrank by 151 mha
- Agricultural expansion continues to be the primary driver of global deforestation, accounting for nearly 90% of forest loss.
- Land Abandonment and Restoration Potential: Around 3.6 mha of cropland are abandoned annually, with land degradation being a major contributing factor.
  - Reversing just 10% of human-induced degradation on existing croplands could feed an additional 154 million people annually.
  - Restoring abandoned croplands could provide enough production to feed between 292 and 476 million people.
- Vulnerability Hotspots and Human Toll
  - Land degradation, poverty, and food insecurity intersect to form vulnerability hotspots, especially in Southern Asia and Sub-Saharan Africa.
  - In these regions, declining land quality overlaps with high poverty and childhood stunting.
  - Approximately 47 million children under five suffering from stunted growth live in areas with severe yield losses due to degradation.
- Farm Size and Degradation Dynamics: Farm size plays a critical role in land management and productivity:
  - Large farms often invest in advanced technologies that improve resource efficiency but can accelerate land degradation through intensive use.
  - Small farms face resource constraints and market barriers, which worsen vulnerability to degradation.



- Global farm structure:
  - 85% of the world's 570 million farms are smaller than 2 hectares, managing only 9% of global farmland.
  - The largest 0.1% of farms (over 1,000 hectares each) control about half of all agricultural land.
- Regional Patterns of Impact
  - Eastern and Southern Asia are the most affected regions, given their high population density and extensive degradation.
  - Sub-Saharan Africa: Cropland expanded by 69 mha, but forest loss reached 72 mha. Experiences large yield gaps, primarily due to resource constraints rather than degradation alone.
  - Latin America: Cropland grew by 25 mha, while deforestation totaled 85 mha.
  - Europe and North America show a strong correlation between historical degradation and current yield losses.
- Smallholder Contribution: Despite facing limited access to land, credit, inputs, and markets, the world's 500 million smallholder farmers make significant contributions to global food supply.
  - They provide 16% of global dietary energy, 12% of global protein, and 9% of global fat from crops.
  - Smallholders are vital for local agrifood systems, dietary diversity, and high-value crops that enhance rural livelihoods.
- Large-scale operations, which dominate globally traded commodities, have outsized influence on food availability.
  - The report stresses their critical responsibility to adopt sustainable land management practices to prevent further degradation.
- Key recommendation: Urgent action is needed to:
  - Restore degraded lands,
  - Adopt sustainable farming practices,
  - Protect vulnerable communities, and
  - Balance productivity with ecosystem preservation.

### Operation White Cauldron

News: The Directorate of Revenue Intelligence (DRI) uncovered a major illicit drug manufacturing unit in Gujarat under "Operation White Cauldron."

#### About Operation White Cauldron



Source: DRI

- Conducted by: Directorate of Revenue Intelligence (DRI) under the Ministry of Finance
- Location: A secluded area off Gujarat State Highway (SH) 701, Valsad district, Gujarat.



- Objective: To dismantle a clandestine synthetic drug manufacturing unit producing Alprazolam, a psychotropic substance regulated under the NDPS Act, 1985.
- Outcome:
  - A full-scale illegal manufacturing unit was uncovered.
  - Four persons arrested — including two masterminds/financiers, one employee, and one recipient from Telangana.
- Seizures Made:
  - Finished Alprazolam: 9.55 kg and Semi-finished Alprazolam: 104.15 kg
  - Raw materials (431 kg total) including: *p-Nitrochlorobenzene, Phosphorous Pentasulfide, Ethyl Acetate and Hydrochloric Acid*
  - Industrial-scale equipment seized: Reactors, Centrifuge, Industrial refrigeration unit and Heating mantle.

#### About Directorate of Revenue Intelligence (DRI)

- The Directorate of Revenue Intelligence (DRI) serves as India's apex anti-smuggling agency, functioning under the Central Board of Indirect Taxes and Customs (CBIC), Ministry of Finance.
- It is primarily responsible for detecting and preventing smuggling activities, including drug trafficking, illicit international trade in wildlife, and environmentally sensitive goods.
- The DRI also plays a crucial role in combating commercial frauds related to international trade and preventing evasion of customs duties, thereby safeguarding the nation's economic and environmental interests.

### Indian Mouse Deer

News: Recently, Rare Indian mouse deer photographed at Tungareshwar Wildlife Sanctuary.

#### About Indian Mouse Deer



Source – TH

- The Indian Spotted Chevrotain, commonly called the Indian Mouse Deer, is a tiny, secretive ungulate belonging to the family *Tragulidae*.
- Scientific name: *Moschiola indica*
- It is the smallest deer species found in India.
- They are living representatives of one of the oldest ruminant lineages.
- Habitat: They typically inhabit semi-evergreen, moist evergreen, and tropical deciduous forests. These animals can also be found in cultivated areas such as gardens and plantations.
- Distribution: They are found mainly in the dense forests of India and Sri Lanka, and possibly southern Nepal.
  - Within India, they inhabit the Western Ghats and Eastern Ghats and in the forests of central India.
  - The Indian Spotted Chevrotain is one of ten extant species of mouse deer scattered across Southeast Asia and parts of Africa.
- Features:

- Size: The Indian Spotted Chevrotain is remarkably small, typically 50–60 cm long and weighing 3–4 kg.
- Appearance: Its dull brown coat is marked with three to four white stripes and small white spots along the flanks, providing excellent camouflage against the forest floor's dappled light.
- Unlike true deer, male mouse deer lack antlers. Instead, they have elongated upper canines that function like tusks for defense and competition during mating.
- Unlike most ruminants that have a four-chambered stomach, the Indian Mouse Deer possesses three stomach chambers, reflecting a less specialized digestive system.
- Feeding Habits: Primarily nocturnal foragers, Indian Mouse Deer feed on fruits, leaves, roots, and herbs, occasionally consuming insects, crustaceans, and small vertebrates.
- Behavior: It is a solitary, nocturnal and extremely shy animal.
- Communication: Males use scent from specialized maxillary glands to mark territories and attract mates, particularly during breeding periods. This olfactory communication is essential for reproduction and territorial maintenance.
- Ecological Importance: The Indian Mouse Deer plays a key ecological role as a seed disperser, aiding in forest regeneration by spreading seeds from the fruits it consumes.
- Conservation status: 'Least Concern' under the IUCN Red List.

### Alprazolam

News: The Directorate of Revenue Intelligence (DRI) recently busted a an illegal Alprazolam manufacturing unit in Valsad, Gujarat, under "Operation White Cauldron."

#### About Alprazolam



Source – PIB

- Alprazolam is a psychotropic substance regulated under the Narcotics, Drugs and Psychotropic Substances (NDPS) Act, 1985.
- Drug Class: It belongs to the class of drugs called benzodiazepines.
- Uses: It is primarily used for the management of: Generalized anxiety disorder (GAD), Panic disorder (including panic attacks), Anxiety associated with depression.
- Mechanism: Alprazolam works by enhancing the activity of gamma-aminobutyric acid (GABA), a natural brain chemical that calms the nervous system, reducing excessive brain activity.
- Regulatory Act: It is regulated under the NDPS Act, 1985, which prohibits production, sale, transport, and consumption of narcotic and psychotropic substances.
- Legal Status: It is listed under India's prescription-only schedules (Schedule H/H1) and can be sold only on a registered medical practitioner's prescription
- Social Issue: The misuse of alprazolam in India drives illegal sales, fuels addiction among youth and workers, raises crime risks, and harms public health.

### Project Suncatcher

News: Google unveiled Project Suncatcher to explore space-based AI compute using solar-powered satellites.

#### About Project Suncatcher



Source – AI News

- It is a research initiative exploring how constellations of solar-powered satellites could host data centres in space.
- Initiative of: it is an initiative of Google.
- Aim: To examine whether future AI computing can be powered by solar energy harnessed directly from space and scaled effectively.
- Objective: To process AI workloads in orbit, lowering the environmental footprint of terrestrial data centres while benefiting from uninterrupted solar exposure.
- Working Mechanisms
  - Constellation design: Google plans a constellation of compact satellites, each carrying custom Tensor Processing Units (TPUs) to run AI workloads in orbit.
  - Power supply: Each satellite draws electricity from high-efficiency solar panels to provide continuous onboard power for computing.
  - Data transport in space: Satellites connect using free-space optical communication beams, creating high-speed links between satellites and to ground stations on Earth.
  - Networked operation: Data is relayed across the satellite network and then back to Earth, enabling coordinated processing rather than isolated tasks.
- Key Features
  - Environmental advantage: Operating beyond the atmosphere avoids many cooling, land, and water needs of Earth-based data centres.
  - Throughput targets: Early ground tests achieved bidirectional speeds up to 1.6 Tbps, with plans to scale to tens of terabits per second.
  - High power generation: Solar panels on these satellites could generate enough electricity to be eight times more powerful than panels on Earth.
  - Radiation tolerance: Trillium TPUs were tested to withstand a total ionizing dose equivalent to a five-year mission without permanent failures.

### **Sustainable Harnessing of Fisheries in the Exclusive Economic Zone (EEZ) Rules, 2025**

News: Recently, the Government of India has notified the “Sustainable Harnessing of Fisheries in the Exclusive Economic Zone (EEZ) Rules, 2025,”

#### **About Sustainable Harnessing of Fisheries in the Exclusive Economic Zone (EEZ) Rules, 2025**





Source – Corpseeds

- The Rules aims to promote sustainable harnessing of deep-sea fisheries resources, empower small fishers' cooperatives, and ensure ecological conservation.
- Nodal Ministry: Ministry of Fisheries, Animal Husbandry & Dairying
- Aligns with: It is aligned with India's vision of building a prosperous and inclusive Blue Economy and fulfills Budget 2025–26 announcement.
- Legality: It come under the ambit of the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976 (80 of 1976).
- Focus on: Rule specifically focused on Andaman & Nicobar and Lakshadweep Islands that account for nearly half of India's EEZ.
- Applicability
  - Rule is applicable to fishing and fishing related activities in the exclusive economic zone (EEZ).
  - Traditional and small-scale fishers are exempted from this requirement.
  - Prohibition of foreign vessels from operating in India's EEZ.
- Key provisions
  - Access Pass: A fully digital Access Pass via the ReALCRaft portal for mechanized and large motorized vessels, issued by an authority not below Deputy Director in the Department of Fisheries, Government of India.
  - Empowering cooperatives and capacity building: Priority to cooperatives and Fish Farmer Producer Organizations (FFPOs), with training, international exposure, and credit under Pradhan Mantri Matsya Sampada Yojana (PMMSY) and Fisheries and Aquaculture Infrastructure Development Fund (FIDF).
  - Sustainable practices: Ban on LED light fishing, pair trawling, and bull trawling; minimum legal sizes and fisheries management plans framed with States.
  - Mariculture promotion: Support for sea-cage farming and seaweed cultivation to reduce nearshore pressure and create livelihoods.
  - Digital compliance: ReALCRaft integrates with Marine Products Export Development Authority (MPEDA) and Export Inspection Council (EIC) for Fish Catch and Health Certificates, ensuring traceability and export compliance.
  - Safety, Security, and Regulation:
    - Mandatory use of transponders and QR-coded ID cards enhances sea safety.
    - The ReALCRaft system is linked with *Nabhmitra* for vessel tracking and coastal security support to agencies like the Indian Navy and Coast Guard.



- National Plan of Action on IUU Fishing: A national plan will be prepared to combat Illegal, Unreported, and Unregulated (IUU) fishing in India's EEZ.
- Indian origin" clarity: Fish caught in the EEZ beyond the contiguous zone will be treated as Indian origin under customs norms.

### ReALCRaft Portal

News: Recently, a key reform under the new EEZ Rules has been done by introducing digital Access Pass system through the ReALCRaft Portal.

#### About ReALCRaft Portal



Source – Ministry of Fisheries

- It is a national online platform which provides web-based and citizen-centric services to marine fishers and coastal States and Union Territories for the registration and licensing of fishing vessels.
  - The portal also enables the transfer of ownership and completion of other vessel-related formalities through a simplified digital process.
- Developed by: Department of Fisheries.
- Objective: It has been launched to promote ease of doing business and bring transparency, efficiency, and accountability to the marine fisheries sector.
- The system is designed to be fully digital, transparent, and time-bound, allowing applicants to submit minimal documentation, track the status of their application in real time, and complete the process without visiting any government office.
- Integrated platform: The ReALCRaft Portal is integrated with the Marine Products Export Development Authority (MPEDA) and the Export Inspection Council (EIC) to facilitate the issuance of Fish Catch and Health Certificates.
  - This integration supports traceability, sanitary compliance, and eco-labelling, which are essential for exporting seafood to international markets.
  - The portal is also linked with the Nabhmitra Application to enhance sea safety and support the use of transponders for vessel tracking and navigation.
- Features:
  - Under the Sustainable Harnessing of Fisheries in the EEZ Rules, 2025, all mechanized and large motorized fishing vessels are required to obtain a free digital Access Pass through the ReALCRaft Portal for operations in India's Exclusive Economic Zone (EEZ).
  - Traditional and small-scale fishers, using motorized or non-motorized crafts, are exempted from the requirement of obtaining an Access Pass.
  - The portal ensures that foreign fishing vessels are not allowed to obtain Access Passes, thereby protecting the interests of Indian small-scale fishers.
  - Fishermen and their vessels are identified using QR-coded Aadhaar Cards or Fisher ID Cards, ensuring proper verification and monitoring at sea. These digital features help marine enforcement agencies, including the Indian Coast Guard and Indian Navy, in strengthening coastal security and surveillance in the EEZ.

- Currently, about 2.38 lakh fishing vessels across 13 coastal States and Union Territories are registered on the ReALCRaft Portal.
- Around 64,187 mechanized fishing vessels will need to obtain Access Passes for EEZ operations through the ReALCRaft system.

### **ICFT-UNESCO Gandhi Medal**

News: The 55th International Film Festival of India (IFFI) has officially announced the nominees for the esteemed ICFT-UNESCO Gandhi Medal. This year's 10 notable films will be judged by an esteemed Jury panel.

#### **About the ICFT-UNESCO Gandhi Medal**



Source: PIB

- The ICFT-UNESCO Gandhi Medal is an international honor presented annually at the International Film Festival of India (IFFI).
- History: The UNESCO Gandhi Medal was first introduced in 1994 to mark the 125th birth anniversary of Mahatma Gandhi, celebrating his legacy of peace, non-violence, and tolerance.
- The award is a collaborative initiative between UNESCO and the International Council for Film, Television and Audiovisual Communication (ICFT), Paris.
- Each year, the ICFT-UNESCO Jury, consisting of five distinguished international film experts, selects the winning film from ten pre-selected entries proposed by IFFI.
- It recognizes films that best reflect Gandhi's vision of harmony, intercultural dialogue, and non-violent resolution of conflict.
- It honors filmmakers who use cinema as a medium to bridge divides and inspire harmony in a conflicted world.
- The ICFT-UNESCO Gandhi Medal celebrates films that advance the message of peace, human dignity, compassion, and intercultural understanding.

### **Exercise Malabar 2025**

News: The Malabar Exercise 2025 is set to be hosted to strengthen maritime cooperation and improve interoperability among the participating forces.

#### **About Exercise Malabar 2025**



Source: TOI

- Exercise Malabar 2025 is a Quad Naval Exercise with India, the US, Japan and Australia.
- Location: The exercise is being hosted by the US in the Guam islands.
- Indian Participation: INS *Sahyadri*, an indigenously designed and built Guided Missile Stealth Frigate, represents India in the exercise.
- The previous 2024 exercise was hosted by India in Visakhapatnam.
- Objective: To strengthen coordination, enhance interoperability, and showcase collective commitment to regional maritime security.
- Significance: Reflects India's dedication to partnerships with like-minded nations and aligns with the *Aatmanirbhar Bharat* initiative, highlighting indigenous naval capability.
- Exercise

Structure:

- Harbour Phase: It includes operational discussions, planning sessions, and coordination on communication protocols. It features familiarisation visits among naval personnel of participating countries and involves social and sporting engagements to build camaraderie.
- Sea Phase: It focuses on complex naval operations including joint fleet manoeuvres. It encompasses anti-submarine warfare, gunnery exercises, and flying operations.

### 'CoopKumbh' 2025

News: Union Minister of Cooperation will inaugurate Cooperative Kumbh 2025, a two-day international cooperative conference, at Vigyan Bhawan, New Delhi.

#### About 'CoopKumbh' 2025



Source – PIB

- Cooperative Kumbh 2025 is an international conference on the urban cooperative credit sector that focuses on collaboration, innovation, and policy advancement.
- Aim: It aims to strengthen the cooperative framework for financial inclusion and promote innovation in the cooperative banking landscape.
- Nodal Ministry: Ministry of Cooperation
- Organizing Agency: The National Federation of Urban Cooperative Banks and Credit Societies (NAFCUB) is organising the conference.
- Aligned with: The conference aligns with the International Year of Cooperatives 2025 as declared by the United Nations.
- Theme: The theme of the conference is “Digitizing Dreams – Empowering Communities.”
- Key Features
  - Focused deliberations: It will deliberate on digital transformation, governance reforms, and the empowerment of women and youth leadership in the cooperative sector.
  - Global perspectives: International experts, including representatives from the World Council of Credit Unions and GreenStone Farm Credit Services, will share insights on global best practices in cooperative finance and sustainable banking.

### **Draft Legal Metrology (Packaged Commodities) (Second) Amendment Rules, 2025**

News: The Department of Consumer Affairs proposed rules mandating country-of-origin filters on e-commerce listings and invited stakeholder comments by November 22, 2025.

#### **About Draft Legal Metrology (Packaged Commodities) (Second) Amendment Rules, 2025**

- Proposed by : The amendment has been proposed by the Department of Consumer Affairs, Government of India.
- Aim: The amendment aims to help consumers make informed purchasing decisions by enabling easy identification of product origin and strengthening transparency in digital marketplaces, while supporting ‘Atmanirbhar Bharat’ and ‘Vocal for Local’.



- Align with: The draft is aligned with Legal Metrology (Packaged Commodities) Rules, 2011.
- Key feature: Every e-commerce entity selling imported products shall provide a searchable and sortable filter for the country of origin with its product listings
- Significance: The proposal improves transparency, makes 'Made in India' products easily discoverable, and builds consumer trust in a fair and competitive e-commerce ecosystem.

### Integrity Matters Checklist Tool by Global Reporting Initiative (GRI)

News: Recently, the Global Reporting Initiative (GRI) launched the Integrity Matters Checklist to align corporate climate disclosures with UN net-zero standards.

#### About Integrity Matters Checklist Tool by Global Reporting Initiative (GRI)



Source – GRI

#### About Integrity Matters Checklist Tool

- It is a practical tool that helps organizations report on climate targets, transition plans, and greenhouse gas (GHG) reduction efforts in line with science-based pathways.
- Launched by: It is launched by Global Reporting Initiative (GRI) in partnership with the United Nations.
- Objective : Its objective is to provide science-based guidance for credible, transparent, and accountable corporate climate commitments.
- Aim : It aims to bridge the gap between corporate climate ambition and transparency, ensuring that promises match actions.
- It guides companies to disclose fossil-fuel phase-out decisions and to integrate just transition principles into their operations.
- Operationalizes: It operationalizes the Integrity Matters report recommendations first launched at COP27 and updated for 2025.
- Align with:
  - UN standards for credible net-zero commitments and transition plans.
  - GRI 102: Climate Change 2025 Standard, enabling disclosure of all elements of the UN integrity framework.
  - Guidance on aligning commitments with the Paris Agreement and the 2030 Agenda.

#### About Global Reporting Initiative (GRI)

- It is an independent, international organization that provides the world's most widely used framework for sustainability reporting, helping companies and organizations report their economic, environmental, and social impacts.
- Founded: It is founded in 1997.

- The GRI pioneered the first global standards for sustainability reporting.
- The GRI Standards are available as a free public good.

### Exercise MITRA SHAKTI-2025

News: The Eleventh edition of Joint Military exercise “Exercise MITRA SHAKTI-2025” commenced at Foreign Training Node, Belagavi, Karnataka.

#### About Exercise MITRA SHAKTI-2025



Source – PIB

- The 2025 edition is 11th edition of the Indo-Sri Lankan Joint Military Exercise.
- Location: Foreign Training Node, Belagavi, Karnataka.
- Objective: To jointly rehearse Sub-Conventional Operations under Chapter VII of the United Nations Mandate, emphasizing peacekeeping and counter-terrorism. It focuses on synergising joint responses during counter-terrorist operations.
- Participating Contingents
  - India: 170 personnel, mainly from the RAJPUT Regiment, supported by 20 Indian Air Force members.
  - Sri Lanka: 135 personnel, primarily from the GAJABA Regiment, along with 10 Sri Lankan Air Force members.
- Key highlights of Exercise
  - Tactical Drills: It includes raid missions, search and destroy operations, heliborne assaults, and area domination activities.
  - Special Training Components: The exercise features Army Martial Arts Routine (AMAR), combat reflex shooting, and Yoga sessions to enhance physical and mental agility.
  - Technology Integration: It involves the use of Drones, Counter-Unmanned Aerial Systems, and helicopters for surveillance, logistics, and evacuation purposes.
  - Operational Drills: Joint drills include securing helipads, casualty evacuation, and coordination during counter-terrorist operations.
- Significance: It enhances interoperability between the two armies and promotes sharing of best practices and joint combat skills.
- It will also strengthen bilateral defence cooperation and India-Sri Lanka relations while reinforcing commitment to UN peacekeeping objectives.

## Booker Prize 2025

News: The Booker Prize 2025 was announced in London on November 10, 2025 (early November 11 IST).

### About Booker Prize 2025



Source: TH

- The Booker Prize 2025, one of the most prestigious awards in English-language fiction.
- Awarded by: The Booker Prize Foundation
- First award: The Booker Prize was first awarded in 1969 to promote reading and literary excellence.
- How award is decided: Each year, the prize is awarded to what is, in the opinion of the judges, the best sustained work of fiction written in English and published in the UK and Ireland.
- Award: The winner receives £50,000 as well as the £2,500 awarded to each of the six shortlisted authors.
  - Both the winner and the shortlisted authors are guaranteed a global readership and can expect a dramatic increase in book sales.
- Notable Awardees
  - The inaugural winner was P. H. Newby for *Something to Answer For*.
  - The first woman to win the prize was Bernice Rubens in 1970 for *The Elected Member*.
  - Indian and South Asian Winners: Several Indian and Indian-origin authors have received the Booker Prize, including:
    - V. S. Naipaul (*In a Free State*, 1971)
    - Salman Rushdie (*Midnight's Children*, 1981)
    - Arundhati Roy (*The God of Small Things*, 1997)
    - Kiran Desai (*The Inheritance of Loss*, 2006)
    - Aravind Adiga (*The White Tiger*, 2008)

### About the Booker Prize 2025 Winner

- The Booker Prize 2025 was awarded to David Szalay for his novel *Flesh*.
- The book tells the story of István, a reserved Hungarian man navigating love, displacement, and identity across decades.

## Key Facts About Bhutan

News: Prime Minister will be visiting the Kingdom of Bhutan from 11-12 November 2025.

### Key Facts About Bhutan



Source: World Atlas

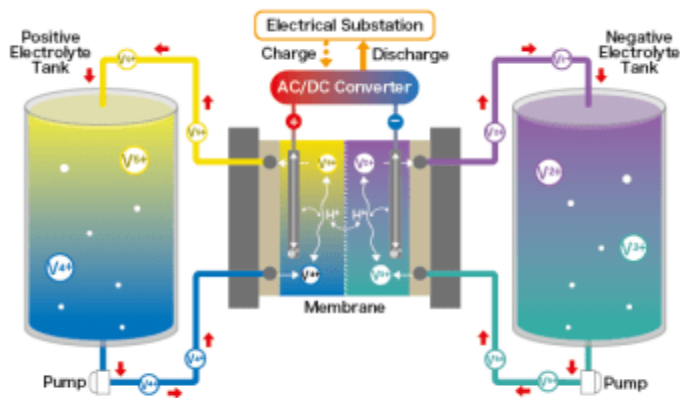
- Location: Bhutan is a small, landlocked country in South-Central Asia located on the eastern ridges of the Himalayas.
- Bordering nations: Bhutan is bordered by the Tibet Autonomous Region of China to the north and by the Indian states of West Bengal, Assam, Arunachal Pradesh, and Sikkim to the south, east, and southwest.
- Physiography: Geographically, Bhutan can be divided into three main regions: the Great Himalayas in the north, the Lesser Himalayas in the centre, and the Duars Plain in the south.
- Main Rivers: Bhutan's main rivers, including the Torsa (Amo), Wang (Raidak), Sankosh (Mo), and Manas, all flow southward from the Great Himalayas into India, where they join the Brahmaputra River.
- Climate: The Duars Plain and adjacent foothills have a hot, humid, subtropical climate. The central valleys of the Lesser Himalayas have a temperate climate with moderate rainfall. The northern Great Himalayan region has alpine and tundra conditions with cold temperatures.
- Vegetation: Bhutan's vegetation ranges from tropical forests in the lowlands to alpine shrubs and grasses in the high mountains.
- Ethnic groups: The three major ethnic groups in Bhutan are the Bhutia (Ngalop), the Nepalese, and the Sharchop.

## Vanadium Flow Battery

News: Ministry of Power and Housing & Urban Affairs inaugurated India's largest and first MWh-scale Vanadium Redox Flow Battery (VRFB) system of 3 MWh capacity.



## About Vanadium Flow Battery



**Structure of Vanadium redox flow battery**

ⓈThe figure shows the flow during charging process.

Source: lesys

- VRFBs are a type of rechargeable flow battery that stores electrical energy in liquid electrolytes containing vanadium ions.
- How they differ from traditional batteries:
  - Conventional batteries (like lithium-ion) store energy in solid electrodes, limiting capacity and cycle life.
  - VRFBs use two separate electrolyte tanks, one for the positive and one for the negative vanadium ions. This separation allows independent scaling of energy (tank size) and power (cell stack size).
- Working mechanism
  - Charging Phase: External electricity (from a renewable source or grid) powers an electrochemical reaction, converting vanadium ions between different oxidation states. This process stores energy within the electrolyte solutions in separate tanks.
  - Storage Phase: The charged electrolytes remain in their tanks, holding energy for extended periods without significant self-discharge. The system's storage duration depends solely on the volume of electrolyte, making it highly flexible.
  - Discharging Phase: When electricity is needed, the electrolytes are pumped through a cell stack containing ion-selective membranes. The stored chemical energy is converted back into electrical energy, supplying power to the grid or facility.
- Key advantages
  - Scalability: Their energy and power capacities can be scaled independently, making them ideal for applications from microgrids to national storage systems.
  - Safety and Stability: The non-flammable, water-based vanadium electrolyte ensures safe, stable operation with minimal risk of chemical cross-contamination.
  - Long Lifecycle: VRFBs last over 20 years with little capacity loss, and the electrolyte retains its value indefinitely, lowering lifetime storage costs.
  - Low Environmental Impact: With recyclable, non-toxic materials, VRFBs are sustainable and align with global clean energy and decarbonization goals.

## Climate Investment Fund (CIF)

News: The Climate Investment Funds (CIF), a \$13 billion program under the World Bank, received \$100 million from Germany and Spain to help poor countries deal with climate change impacts.

Created with love ❤ by ForumIAS- the knowledge network for civil services.

Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

### About Climate Investment Fund (CIF)



Source – CIF

- The CIF is an international financing mechanism established to help developing countries address climate change challenges.
- It was established in 2008 through collaboration between multilateral development banks (MDBs) and developed country governments.
- CIF works with multilateral development banks (MDBs): ADB, African Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, World Bank, and the International Finance Corporation.
- It also coordinates with other Climate Funds such as Green Climate Fund (GCF), Global Environment Facility (GEF) and Adaptation Fund (AF).
- Purpose: To assist developing countries in mitigating and adapting to climate change while promoting sustainable development and poverty reduction.
- It seeks to leverage additional public and private investments through concessional financing, technical assistance, and capacity building.
- CIF supports low-carbon and climate-resilient development, investing in areas such as clean technology, sustainable forestry, and climate adaptation.
- It promotes collaboration between public and private sectors to mobilize investment, encourage technology transfer, and strengthen private sector capacity for climate projects.
- Funding Mechanisms: CIF operates through two main trust funds:
  - Clean Technology Fund (CTF): It supports low-carbon technologies in developing countries. It also finances projects in renewable energy, energy efficiency, and sustainable transport to reduce greenhouse gas emissions.
  - Strategic Climate Fund (SCF): It focuses on targeted programs addressing specific climate challenges such as Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR) and Scaling Up Renewable Energy Program (SREP)
- Governance Structure
  - Trust Fund Committees: Oversee strategies and funding decisions for the CTF and SCF, including representatives from donors, recipients, MDBs, civil society, and the private sector.
  - Multilateral Development Banks (MDBs): Implement CIF projects, providing technical expertise and financial management.
  - CIF Administrative Unit: Coordinates CIF operations, manages funds, and facilitates knowledge sharing among partners.

### Neodymium (Nd)

News: India is set to scale up its neodymium production ninefold to 500 tonnes by the end of FY27, as part of an aggressive push to boost self-reliance in rare earth elements.

### About Neodymium (Nd)

- Neodymium (symbol Nd, atomic number 60) is a ductile and malleable silvery-white metal belonging to the lanthanide series of rare-earth elements.
- It is classified as a rare-earth element.
- It is found in minerals such as monazite and bastnäsite and extracted mainly through mining and refining of rare-earth ores.
- Neodymium is one of the more abundant rare earths, exceeded only by yttrium, lanthanum, and cerium.
- Physical Properties
  - Appearance: Silvery-white metal with high ductility and malleability.
  - Oxidation: Neodymium oxidizes quickly in air, forming a flaky oxide layer ( $\text{Nd}_2\text{O}_3$ ) that easily spalls off, exposing fresh metal to further oxidation.
  - Storage: Because of its reactivity, neodymium must be stored under vacuum, in inert gas, or in sealed plastic to prevent corrosion.
- Magnetic Properties
  - Neodymium is strongly paramagnetic and becomes antiferromagnetic at very low temperatures
  - It develops spontaneous magnetic moments on different atomic sites, making it critical for high-performance magnetic materials.
- Major Applications
  - Magnets: The most important use is in neodymium-iron-boron ( $\text{Nd}_2\text{Fe}_{14}\text{B}$ ) magnets, strongest permanent magnets known. These are vital in electric motors, generators, computer hard drives, and wind turbines.
  - Electronics and Alloys: It is used in steel manufacturing, lighter flints (misch metal), and ferrous/nonferrous alloys.
  - Lasers: It is widely used in industrial, medical, and military lasers.
  - Optics and Glass: Neodymium compounds color glass in pink to purple hues and are used in glazes and fiber optics. A mixture of neodymium and praseodymium absorbs harmful sodium-D light, protecting welders' and glassblowers' eyes.
  - Cryogenics: Employed as a regenerator material in low temperature cryocoolers.

### World Artificial Intelligence Cooperation Organization (WAICO)

News: At the APEC leaders' meeting, Xi Jinping pushed proposal for World Artificial Intelligence Cooperation Organization to set AI governance rules and boost cooperation.

### About World Artificial Intelligence Cooperation Organization (WAICO)



Source – Outlook Business

- WAICO is presented as a global body to govern artificial intelligence, advancing shared rules and cooperation in this field.
- Proposed by: Chinese President proposed a global AI governance body at the 2025 APEC summit.
- Based in : It could be based in the commercial hub of Shanghai.
- Purpose: It can set governance rules and boost cooperation, making artificial intelligence a public good for the international community.

#### Various Initiatives for AI Governance

| Initiative  | Purpose and Objective  |
|---|--|
| UNESCO Recommendation on the Ethics of AI (2021)                            | Adopted by 194 member states; it establishes the first global ethical framework for AI development.  |
| UN General Assembly Resolution on “Safe, Secure, and Trustworthy AI” (2024) | Promotes responsible AI systems that support sustainable development for all, encouraging global cooperation for inclusive and safe AI governance. <i>(United Nations)</i> |
| EU Artificial Intelligence Act (EU AI Act)                                  | The world’s first comprehensive, risk-based legal framework for AI (fully applicable by June 2026). <i>(European Union)</i>  |
| Bletchley Declaration (2023)  | Collaborate on AI safety research and frontier risk management through voluntary cooperation. <i>(United Kingdom)</i>  |
| AI Seoul Summit (2024)  | Advanced discussions on AI safety, governance, and innovation. <i>(South Korea)</i>  |
| India-AI Impact Summit (2026)   | Aims to make AI governance more inclusive and human-centric by strengthening Global South participation and sustainable AI practices. <i>(India)</i>                       |

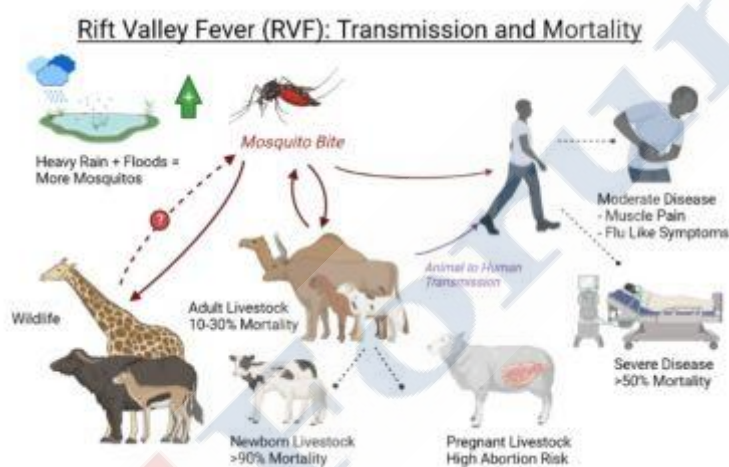


|  |   |
|--|---|
| G7 Hiroshima AI Process (2023)                               | Established the International Code of Conduct for AI developers, promoting trustworthy AI aligned with democratic values and human rights. (G7 countries – led by Japan)          |
| BRICS Leaders' Declaration on Global Governance of AI (2025) | Promotes South-South cooperation, technology sharing, and inclusive AI governance reflecting developing nations' priorities. (BRICS – Brazil, Russia, India, China, South Africa) |
| Frontier AI Safety Commitments                               | Major tech firms pledge responsible testing, transparency, and deployment practices for advanced AI models to reduce systemic risks. (Private Sector – multiple global companies) |

### Rift Valley Fever (RVF)

News: Recently, WHO confirmed an outbreak of Rift Valley Fever (RVF) affecting Mauritania and Senegal, resulting in over 404 human cases and 42 deaths.

#### About Rift Valley Fever (RVF)



Source – Jenner Institute

- RVF is a viral zoonotic disease that affects both animals and humans.
- Caused by : The disease is caused by a Phlebovirus belonging to the Phenuiviridae family.
- It primarily infects animals such as sheep, goats, cattle, and camels.
- Transmission
  - Humans become infected through bites of infected mosquitoes or contact with blood, organs, or raw milk from infected animals.
  - There is no evidence of human-to-human transmission.
- Incubation period: It is usually begin 2–6 days after exposure.
- Symptoms
  - About 90% develop a mild, flu-like illness with high fever, headache, weakness, backache, and muscle and joint pain, sometimes with nausea, vomiting, and light sensitivity.

- Severe disease is uncommon but includes:
  - Ocular disease (0.5–2%) causing blurred vision, floaters, eye pain, and possible permanent loss;
  - Meningoencephalitis (<1%) with confusion, dizziness, seizures, or coma; and
  - A haemorrhagic form (<1%) with jaundice, bleeding, and liver failure, carrying ~50% fatality.
- **Diagnosis**
  - Diagnosing RVF is challenging because it mimics malaria, typhoid, and other febrile illnesses.
  - Confirmation requires laboratory testing using molecular or serological methods under high biosafety precautions.
- **Treatment**
  - No specific antiviral treatment or licensed human vaccine is available.
  - Animal vaccination is useful between outbreaks but not during them.
- **Global classification**
  - It is recognized by the World Organization for Animal Health as a notifiable animal disease.
  - It listed by WHO as a priority pathogen with epidemic potential.
- **Indian perspective**
  - India has not reported any Rift Valley Fever outbreak till date.
  - It is classified as an exotic zoonosis under India's One Health surveillance framework.

### Digital Gold

News: SEBI has cautioned the public about rising investments in unregulated digital gold amid a surge in gold prices and online promotions.

#### About Digital Gold



Source – ET

- Digital gold refers to buying and owning gold electronically without physically holding the metal.
- Technology used : Digital gold is created using blockchain technology, which enables online buying, selling, and storing of gold.
- The value moves in line with physical gold prices.
- Benefits: Digital gold offers easy online access, small investment amounts, quick selling in emergencies, removal of storage hassles, and later conversion into coins, bars, or jewellery.
- Risks:

## Factly Compilation November 2025

- It operates outside Sebi's regulatory purview.
- It is neither a security nor regulated commodity derivative, carries counterparty and operational risks, offers no investor-protection mechanisms, and
- It depends on platforms or jewellers where default risk remains.
- SEBI's Advisory to Investors: Investors should prefer gold investment options such as gold ETFs, exchange-traded commodity derivatives, EGRs, Sovereign Gold Bonds, or products available through Sebi-registered intermediaries.

## Plant Genome Saviour Awards 2024-25

News: Union Agriculture Minister recently presented 'Plant Genome Saviour Awards' to farmers in New Delhi.

### About Plant Genome Saviour Awards 2024-25



Source: PIB

- Purpose of the Awards: These awards honour individual farmers, communities, and organizations for their outstanding contributions to conserving traditional seed varieties, protecting plant genetic resources, and promoting biodiversity.
- Award Categories & Recipients: Recognized entities and individuals included: Community Seed Bank, Telangana, Shiksha Niketan, Purba Bardhaman (West Bengal), Mithilanchal Makhana Producers' Association, CRS-Na Dihing Tenga Unyan Committee, Assam, Shri Bhupendra Joshi (Uttarakhand), Shri T. Joseph (Kerala) and Shri Lakshan Pramanik, Shri Ananthamurthy J, Shri Nakul Singh (Bihar), Shri Narendra Singh (Uttarakhand), among others.
- Financial Incentives: Under the PPV&FRA scheme, financial rewards up to ₹15 lakh are provided to encourage the conservation of indigenous seed varieties.

### About the Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA)

- Establishment: Constituted under the *Protection of Plant Varieties and Farmers' Rights Act, 2001*; functions under the Ministry of Agriculture & Farmers' Welfare, Government of India.
- Headquarters: Located in New Delhi.
- Core Objectives:
  - Grant intellectual property rights to plant breeders for developing new plant varieties.
  - Recognize and reward farmers and communities for conserving traditional varieties.
  - Protect farmers' rights to save, use, sow, resow, exchange, share, and sell farm-saved seeds of registered varieties.

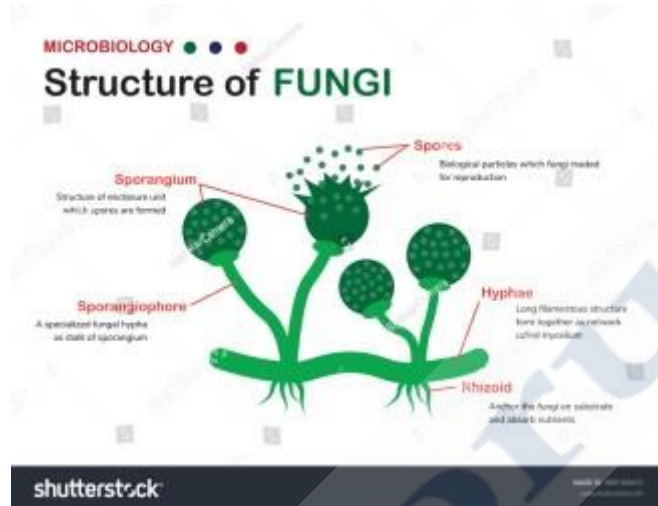
Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Promote research, innovation, and biodiversity conservation.
- Maintain the National Register of Plant Varieties (NRPV) and document valuable germplasm resources.
- Significance:
  - Safeguards traditional knowledge and ensures equitable benefit sharing from the use of indigenous varieties.
  - Serves as a bridge between scientific innovation and traditional farming wisdom.
  - Supports India's goals of seed sovereignty, biodiversity conservation, and sustainable agriculture.

## Fungus Infections Rise

News: Recently, there has been an increase in Fungal infection in India.

### About Fungi



Source – Shutterstock

- Fungi are eukaryotic organisms belonging to the Kingdom Fungi.
- They include a diverse range of forms such as yeasts, molds, truffles, and mushrooms.
- Most fungi are microscopic, made up of thread-like filaments called hyphae (<10 µm diameter).
- Hyphae collectively form a mycelium, which absorbs nutrients from the environment instead of performing photosynthesis.
- Fungi obtain nutrients from soil, water, decaying matter, or living hosts (as parasites).
- Their cell wall is made of chitin, unlike plant (cellulose) or bacterial (peptidoglycan) cell walls.
- Major Types of Fungi (Based on Sexual Reproduction)
  - Chytridiomycota (Chytrids): It is oldest group of fungi. They are mostly unicellular and aquatic, with a single flagellum for movement. They are often parasitic on insects, plants, or amphibians.
  - Zygomycota (Conjugated Fungi): They commonly appear as molds on decaying materials. Some species act as parasites of insects.
  - Ascomycota (Sac Fungi): It is the largest group of fungi. It includes yeasts, truffles, and morels (some are edible). Many produce toxic secondary metabolites or act as plant parasites.



- Basidiomycota (Club Fungi): It includes mushroom-forming fungi. It is characterized by club-shaped reproductive cells (basidia) that produce spores. Mushrooms are the spore-bearing fruiting bodies consisting of a cap, stem, and gills (though some lack these parts).
- Reproduction in Fungi
  - Asexual Reproduction: It occurs through fragmentation of mycelium or spore formation. It produces clonal populations, allowing rapid spread in favorable conditions.
  - Sexual Reproduction: It involves meiosis, leading to genetic recombination and diversity. It can occur between different mating types (heterothallic) or within the same mycelium (homothallic).

### Credit Guarantee Scheme for Exporters (CGSE)

**News: The Union Cabinet approved the Credit Guarantee Scheme for Exporters (CGSE) to provide 100% guarantee coverage for additional credit to eligible exporters.**

#### About Credit Guarantee Scheme for Exporters (CGSE)



Source – PIB

- The CGSE is designed to provide full guarantee support to Member Lending Institutions for extending additional working capital and collateral-free loans to eligible exporters
- Aim: The scheme aims to provide additional credit support for exporters so they can diversify into new markets and improve global competitiveness.
- Implemented by: The scheme will be implemented by the Department of Financial Services (DFS) through the National Credit Guarantee Trustee Company Limited (NCGTCL).
- Oversee by: A Management Committee chaired by the Secretary of the Department of Financial Services will oversee implementation and progress.
- Timeline: The scheme is currently valid until March 2026.
- Loan Details: It provides additional working capital and collateral-free term loans up to 20% of sanctioned limits.

- Beneficiaries: The scheme is expected to benefit Eligible exporters, including MSMEs and non-MSME exporters.
- Alignment with Goals: It is expected to reinforce India's journey towards *Aatmanirbhar Bharat* and help achieve the target of USD 1 trillion in exports.

### YBRANT Programme

News: YBRANT Programme was launched by IICA and WNS Global Services on 11th November 2025 to prepare students for leadership roles.

#### About YBRANT Programme



Source – WNS

- Launched by: The Indian Institute of Corporate Affairs (IICA) and WNS Global Services jointly launched the IICA-WNS YBRANT CSR, ESG & Sustainability Programme
- Aim: To prepare students for leadership roles that align business performance with positive social and environmental impact.
- It focuses on integrating Corporate Social Responsibility (CSR), Environmental, Social, and Governance (ESG) principles, and sustainability into mainstream management education.
- Purpose: The YBRANT Programme seeks to nurture a new generation of socially responsible and sustainability-driven leaders in India.
- It encourages future business leaders to view business not merely as a means for profit, but as a force for sustainable and inclusive development.
- The initiative promotes the idea of responsible business conduct that balances profitability with social and environmental well-being.
- Programme Structure: The programme runs for a duration of six months.
  - It includes 22.5 hours of academic sessions and 18 hours of fieldwork.
  - The curriculum consists of 15 comprehensive modules covering key topics such as: Basics of CSR and Sustainability, Global CSR Trends, Indian CSR Laws and Regulations, ESG Reporting and Impact Assessment and Corporate Governance and Responsible Leadership.
  - The learning experience is designed as a blended model, combining academic instruction with practical exposure and industry insights.
- Participants will attend weekly live sessions conducted by IICA faculty members and industry experts.
- All course content and activities are hosted on IICA's online Learning Management System (LMS), making the programme accessible from anywhere in India or abroad.
- Certification and Digital Credentials
  - Upon completion, participants will receive a digital certificate issued through IICA's digital credential system.

- The certification is verifiable through QR code, DigiLocker and can be shared on LinkedIn to enhance professional visibility.

### Pratyush Sinha Committee

News: The Pratyush Sinha Committee is in the news after SEBI asked it to review conflict-of-interest and disclosure rules following allegations against its former chief.

#### About Pratyush Sinha Committee



Source – Money Control

- The Pratyush Sinha Committee is a High-Level Committee that was set up to review conflicts of interest and the disclosure framework for board members.
- Formed by: It was formed by the Securities and Exchange Board of India (SEBI) in March 2025.
- Objectives: The committee was formed to assess SEBI's framework on conflicts of interest and disclosure of interests and to propose reforms that improve transparency, accountability, and ethical conduct.
- Key Recommendations
  - Public disclosure of assets and liabilities: The chairman, whole-time members, and senior SEBI employees must publicly disclose their assets and liabilities to increase transparency.
  - Uniform investment restrictions and insider status: The chairman and whole-time members should face the same investment and trading restrictions as employees, and they should be treated as insiders.
  - Wider definition of family for conflict checks: The definition of family should be expanded so that more related persons are covered while assessing conflicts of interest.
  - Strengthened recusal framework: SEBI should follow a clear recusal framework and publish a summary of recusals in its Annual Report.
  - Secure whistle-blower mechanism: A secure, confidential, and anonymous whistle-blower system should be created with safeguards against retaliation.
  - Post-retirement appearance restrictions: Former members and employees should not appear before or against SEBI in key matters for two years after leaving.
  - New ethics and compliance structure: An Office of Ethics and Compliance and an Oversight Committee on Ethics and Compliance should be set up.

- Technology-based conflict detection system: SEBI should build an advanced system using technology, including artificial intelligence and data analytics, to prevent and detect conflicts of interest.
- Committee Members
  - The committee was chaired by Pratyush Sinha, a retired IAS officer and former Chief Vigilance Commissioner.
  - Other members included Injeti Srinivas, Uday Kotak, G Mahalingam, Sarit Jafa, and R Narayanaswamy.

### Quantum Diamond Microscopy (QDM)

News: India's first indigenous Quantum Diamond Microscope was announced under the National Quantum Mission at (Emerging Science Technology and Innovation Conclave) ESTIC 2025.

#### About Quantum Diamond Microscopy (QDM)



Source – PIB + Swarajya Mag

- A Quantum Diamond Microscope is a quantum imaging system that uses nitrogen-vacancy centres in a thin diamond layer to optically map dynamic, three-dimensional magnetic fields at the nanoscale.
- India's first patent: The QDM marks a milestone in quantum sensing and has earned India its first patent in this domain.
- Developed by : It has been developed by the P-Quest Group at IIT Bombay under the National Quantum Mission.
- Technology Used
  - The microscope uses nitrogen-vacancy (NV) centres in diamond, which are atomic-scale defects formed by a nitrogen atom next to a vacancy.
  - These NV center show strong quantum coherence at room temperature and are highly sensitive to magnetic, electric, and thermal variations.
  - The system uses optically detected magnetic resonance to read local magnetic fields.
- Uses
  - It helps in neuroscience and materials research by mapping dynamic magnetic activity.



- It supports non-destructive evaluation of semiconductor chips, especially in 3D chip architectures.
- It can be expanded for biological imaging and geological magnetisation studies.

### **“Operation Bullion Blaze”**

News: In a major crackdown, the Directorate of Revenue Intelligence (DRI) busted a gold smuggling and melting network in Mumbai under “Operation Bullion Blaze.”

#### **About “Operation Bullion Blaze”**



Source – PIB

- It is a major enforcement action conducted by the Directorate of Revenue Intelligence (DRI) in Mumbai in November 2025.
- Aim: It targeted a well-organized gold smuggling and illicit melting syndicate operating across discreet locations in the city.
- Findings: The operation uncovered an organised racket involved in smuggling gold into India, melting it in covert furnaces, and illicitly selling the refined bullion into the grey market.

### **‘DRISHTI’ System**

News: Indian Railways is planning to install the AI-based ‘DRISHTI’ system to improve freight train safety.

#### **About ‘DRISHTI’ System**



Source – IE

- It is an AI-Based Surveillance System for Wagon Door Lock Monitoring in real time.
- Developed by: it is jointly developed by Northeast Frontier Railway (NFR) and IIT Guwahati – Technology Innovation and Development Foundation (IITG TIDF).
- Aim:
  - The aim of DRISHTI is to provide an intelligent and real-time monitoring solution that can detect anomalies in wagon door locking mechanisms during transit using advanced computer vision and machine learning.
  - The system also aims to strengthen wagon sealing integrity, improve reliability, and reduce dependence on manual checks.
- Key features
  - The system provides real-time status updates on door lock conditions and detects abnormal events or tampering during transit.
  - It issues automated, data-driven alerts without affecting normal train operations, thereby improving freight security.
  - It uses AI-powered cameras and sensors placed at strategic points to capture and analyse door positions and locking conditions in real time.

### **Rare Earth Hypothesis**

News– Recent discoveries in exoplanet science have revived discussions around the Rare Earth Hypothesis.



Source- The Hindu

### About Rare Earth Hypothesis

- It states that while simple microbial life may be widespread in the universe, complex life is extremely rare because it requires a very narrow set of environmental, geological, and astronomical conditions. Hence, Earth-like planets capable of supporting advanced life are likely to be very few.
- Proponents – Proposed by Peter Ward (paleontologist) and Donald Brownlee (astronomer) in their 2000 book “Rare Earth: Why Complex Life is Uncommon in the Universe.”
- Key conditions that determine whether complex life can emerge include a planet’s position in a safe region of its galaxy, the nature and distance of its host star, essential geological features such as planetary size and active tectonics, and the stabilizing role of a large moon.

### How It differs from other Theories

- Unlike the Mediocrity Principle and Drake Equation—which assume life should be common across the universe—the Rare Earth Hypothesis argues that complex life is extremely rare despite the possible abundance of simple microbial life.
- It also provides a response to the Fermi Paradox by suggesting that intelligent civilizations are scarce because planets with the right conditions for complex life are exceptionally uncommon.

### Significance :

- It reshapes how scientists assess planetary habitability by highlighting the narrow and unique conditions required for complex life.
- It guides astrobiology and exoplanet research to focus on planetary systems resembling Earth–Sun conditions.

## Anti-Defection Law

News: Recently, the Calcutta High Court disqualified senior political leader from the West Bengal Legislative Assembly.

### About Anti-Defection Law

- It was introduced through the 52nd Constitutional Amendment (1985) by adding the Tenth Schedule to the Constitution.

- Purpose: To curb political defections motivated by the lure of office, money, or other similar incentives—popularly highlighted by the “Aaya Ram, Gaya Ram” episode of 1967.
- Scope: Applies to Parliament and all state legislative assemblies.
- Grounds for Disqualification:
  - A legislator voluntarily gives up membership of their political party (which can be inferred from conduct, not only formal resignation).
  - A legislator violates the party whip by abstaining from voting or voting against party directions.
- Judicial Interpretation:
  - “Voluntarily giving up membership” has a broad meaning, covering conduct such as public criticism of the party or participation in opposition rallies.
  - Courts insist on no intervention until the Presiding Officer gives a decision but allow review after.
- Independent and nominated members:
  - Independent legislators are disqualified if they join a political party after being elected.
  - Nominated members may join a party within six months of being nominated; after that period, joining a party leads to disqualification.
- Authority to Decide Disqualification:
  - The Presiding Officer (Speaker/Chairman) decides on defection petitions.
  - Their decision is subject to judicial review by the High Courts and the Supreme Court.
- No Specified Time Limit: The law does not fix a timeline for the Presiding Officer to decide cases, resulting in delays that have been criticised by courts and committees.
- Exceptions (No Disqualification):
  - Party merger: If two-thirds of a party’s legislators agree to merge with another party.
  - Members who stay with the original party or merge with the new one are both protected.

## Global Carbon Budget 2025

News: Recently, The Global Carbon Budget 2025 was released by the Global Carbon Project (GCP).

### About Global Carbon Budget 2025

| ● Annual growth in CO <sub>2</sub> emissions (in percentage) |              |              |            |            |
|--|--------------|--------------|------------|------------|
|  | 2025 vs 2024 | 2024 vs 2023 | 2015-2024* | 2005-2014* |
| India  | 1.4          | 4            | 3.6        | 6.4        |
| China  | 0.4          | 0.7          | 2.5        | 6.7        |
| United States  | 1.9          | -0.6         | -1.2       | -1.4       |
| World  | 1.1          | 1.1          | 0.8        | 2.1        |

\* AVERAGE GROWTH SOURCE: GLOBAL CARBON PROJECT DATA

Source: IE

- The Global Carbon Budget 2025, released by the Global Carbon Project (GCP) provides the world’s most comprehensive annual assessment of carbon sources, sinks, and emission trends.



- Global fossil CO<sub>2</sub> emissions are projected to increase modestly in 2025, reaching a record ~38.1 billion tonnes.
- Total global CO<sub>2</sub> emissions (including land-use change such as deforestation) are expected to remain largely flat at ~42 billion tonnes, due to a decline in emissions from land-use changes.

### India-Specific Findings

1. Sharp slowdown in emissions growth: India's fossil-fuel CO<sub>2</sub> emissions are estimated to rise by only 1.4% in 2025, a steep drop from the 4% growth in 2024, and among the lowest annual increases in recent years.
2. Coal demand growth significantly moderated: Favourable early monsoon conditions reduced cooling needs during peak summer, while strong expansion of renewable energy slowed coal consumption—the dominant source of India's emissions.
3. Electricity-sector emissions showed the first half-year decline: Independent CRE A/Carbon Brief analysis (cited in the GCP report context) noted that India's power-sector CO<sub>2</sub> emissions fell year-on-year in the first half of 2025 due to lower cooling demand and stronger renewable penetration.
4. Decadal emissions growth rate continuing to fall: India's average annual emissions growth dropped to 3.6% during 2015–2024, compared to 6.4% in 2005–2014, indicating structural improvements in carbon intensity and a scaling effect from a larger economic base.

### Saranda Forest

News: Recently, the Supreme Court directed the Government of Jharkhand to notify 31,468.25 hectares of the Saranda Game Sanctuary as Saranda Wildlife Sanctuary.

### About Saranda Forest



Source: Sabrangindia

- Saranda Forest is located in the West Singhbhum district of Jharkhand.
- The name "Saranda" comes from a local expression meaning "The Land of Seven Hundred Hills," reflecting its hilly geography.
- Area: The forest covers an area of about 820 square kilometers and has recently been declared a wildlife sanctuary.
- It is inhabited by the Ho, Munda, Oraon and allied Adivasi communities.
- Vegetation: Saranda is dominated by dense sal forests, which form the major vegetation cover.
- River: Karo River flows through the forest.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Flora: The forest also includes teak, palash, mahua, bamboo, and various other indigenous plant species.
  - The Tholkobad region in the forest is a special habitat for rare orchids, including all 11 known species of the Dendrobium genus and the rare Bulbophyllum crassipes and Pecteilistriflora.
- Fauna: Saranda Forest supports 28 species of mammals, including elephants and leopards.
  - It is home to around 60 different bird species, making it significant for birdwatching.
  - The region contains about 20 reptile species and 8 amphibian species, highlighting its ecological diversity.
  - A total of 63 butterfly species have been recorded in the forest, adding to its biodiversity richness.

### New Royalty Rates of Critical Minerals

News– The Union Cabinet has approved the revision of royalty rates for four critical minerals- caesium, graphite, rubidium, and zirconium—to encourage domestic production.

#### About Royalty Rate

- A royalty rate is a fee imposed by the government on mining companies for extracting minerals from the earth. It ensures that the state receives an equitable return for exploiting its natural resources.
- Legal Framework:
  - Governed by the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) and the Mineral Concession Rules, 1960.
  - Central Government has the authority to fix and revise royalty rates, after consulting state governments.
  - The Second Schedule of the MMDR Act lists royalty rates for each mineral.
- Collection: Royalty is remitted by leaseholders or mining companies to the state government in accordance with central legislation. The rates are periodically revised to reflect market fluctuations and strategic priorities

#### Key Features of the decision

- Graphite:
  - Royalty: Graphite with 80% or higher carbon will have a royalty of 2% of average sale price (ASP), while graphite with less than 80% carbon will attract 4% of ASP.
  - Note: Previously, royalty was charged per tonne, but it will now follow an ad valorem (price-linked) system to reflect market value.
  - Applications: Used as a key component in electric vehicle (EV) batteries, lubricants, and refractories.
- Caesium:
  - Royalty: 2% of ASP, calculated based on the metal content in the ore.
  - Applications: Critical for high-tech electronics, atomic clocks, GPS systems, and medical instruments.
- Rubidium:
  - Royalty: 2% of ASP, based on the metal content in the ore.

- Applications: Used in specialty glasses, fibre optics, telecommunication systems, and night vision devices.
- Zirconium:
  - Royalty: 1% of ASP, calculated on the metal content in the ore.
  - Applications: Widely used in nuclear energy, aerospace, healthcare, and manufacturing.

### Mudh-Nyoma Airbase

News– The Chief of the Air Staff inaugurated the Mudh-Nyoma airbase in Ladakh.



Source- HT

### About Mudh-Nyoma Airbase

- Location & Altitude: Situated in Nyoma, Leh district of Ladakh at an altitude of 13,700 feet (4,200 m), making it India's *highest fighter-capable airfield and the fifth highest in the world*.
- Strategic Proximity: Located 23 km from the Line of Actual Control (LAC) with China, close to Pangong Tso, Depsang Plains, and Chushul Valley, providing tactical and logistical advantages for rapid military response and enhanced surveillance.
- Construction & Upgrade: Developed and upgraded by the Border Roads Organisation (BRO).
- Runway & Infrastructure: Features a 2.7 km rigid pavement runway, along with a new air traffic control complex, hangars, crash bay, and accommodation facilities for personnel.
- Aircraft Capability: Can operate fighter jets (e.g., Sukhoi-30MKI), transport aircraft (e.g., C-17 Globemaster III), helicopters, and unmanned aerial vehicles, enabling high-altitude operations.

### Integrated Forum on Climate Change and Trade (IFCCT)

News: The Integrated Forum on Climate Change and Trade (IFCCT) was formally launched at COP30 on November 15 to manage climate–trade tensions.

### About Integrated Forum on Climate Change and Trade (IFCCT)



Source – ToI

- It is a high-level forum designed to foster dialogue and explore practical solutions at the intersection of international trade policy, climate action, and development priorities.
- Launching: The IFCCT was launched at COP30, Belém (Brazil), on 15 November 2025.
- Aim: The forum aims to bridge the gap between the climate and trade communities by providing a dedicated, politically supported space for government officials and stakeholders to discuss and align climate and trade policies.
- Principle used: The IFCCT is built on the principle that trade can be a key lever for turning climate ambition into action.
- Key features
  - The Forum will begin with an open-ended consultation process into 2026 to define its topics and jurisdiction.
  - The Forum brings together governments, civil society, business groups, and international initiatives to discuss climate-related trade tensions.
  - It seeks interoperability rather than fragmentation in climate-related trade measures and aims to prevent trade becoming a fault line in global climate efforts.

### Country Platform for Climate and Nature Finance

News: India and other countries announced plans to set up national 'country platforms' for climate and nature finance at COP30.

#### About Country Platform for Climate and Nature Finance





- It is a strategic, country-driven mechanism that translate climate priorities into programmatic investment approaches.
- Announced at: The initiative was announced at a ministerial event during COP30 in Belem, Brazil.
- Aim: The aim of the country platform is to replace a fragmented project approach with a coordinated, country-led system that aligns stakeholders, financing flows, and policies with the country's climate and nature priorities.
- Coordination with Global Funds: The Green Climate Fund, with climate finance commitments of \$19 billion, coordinates and supports these platforms.
- Members
  - Members include 13 countries: India, Cambodia, Colombia, Kazakhstan, Lesotho, Mongolia, Nigeria, Oman, Panama, Rwanda, the Dominican Republic, Togo, South Africa, and a regional alliance – The African Islands States Climate Commission (AISCC).
  - Total no of country platform: With these (members named above), total number of platforms become 16, which also includes:
    - Brazil country platform
    - Caribbean regional platform

Note : For detailed information on The Green Climate Fund read [this article here](#).

### **Operation SOUTHERN SPEAR**

News: U.S.A Defense Secretary Pete Hegseth announced Operation SOUTHERN SPEAR to combat narco-terrorism, highlighting growing military tensions in the Latin American region, especially with Venezuela.

#### **About Operation SOUTHERN SPEAR**

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



Source: Defence Scoop

- Launched by: U.S. Ministry of War (Defence)
- Objective: To defend the U.S.A homeland, combat narco-terrorism, and secure the Western Hemisphere from drugs, particularly those coming from Venezuela.
- The operation is part of broader efforts to curb drug trafficking and its devastating effects on U.S.A citizens.
- Background: The operation comes amid increasing tension between the U.S.A and Venezuela. U.S.A has accused Venezuela of being involved in illegal drug trafficking.
- The operation will involve military strikes and surveillance efforts to target drug trafficking boats operating in the Caribbean and surrounding regions.
- The operation builds on a pre-existing campaign (launched in January) that integrates robotic and autonomous systems (RAS) for detecting and surveilling drug trafficking.

### Colombo Security Conclave (CSC)

News: Amid ongoing tensions with Bangladesh, National Security Adviser Ajit Doval is set to host Khalilur Rahman, the interim Bangladeshi government's National Security Adviser, for security discussions.

#### About Colombo Security Conclave (CSC)

Source: Universal Institutions

- The Colombo Security Conclave (CSC) is a key regional platform aimed at enhancing security cooperation among Indian Ocean Region (IOR) countries.
- Objectives: To promote regional security by addressing transnational threats that affect all member nations.

- Permanent secretariat: Colombo
- Origin: The CSC traces its roots to a 2011 trilateral maritime security grouping comprising India, Sri Lanka, and the Maldives.
  - It was revitalized and upgraded in 2020, evolving into a broader security cooperation platform that reflects contemporary regional challenges.
  - Mauritius formally joined as a full member in 2022, Bangladesh joined in 2024 and Seychelles currently participate as observer countries.
  - Current members include India, Bangladesh, Maldives, Mauritius, and Sri Lanka.
- Five Pillars of Cooperation: The CSC's agenda is built around five major pillars, representing key security priorities in the Indian Ocean Region:
  - Maritime Safety and Security
  - Countering Terrorism and Radicalisation
  - Combating Trafficking and Transnational Organised Crime
  - Cyber Security and Protection of Critical Infrastructure and Technology
  - Humanitarian Assistance and Disaster Relief (HADR)
  - These pillars enable structured collaboration, joint exercises, knowledge sharing, and capacity-building among member states.

### Ambaji Marble

News: Recently, Ambaji Marble has officially received a Geographical Indication (GI) Tag.

#### About Ambaji Marble



Source: Asian Marbles

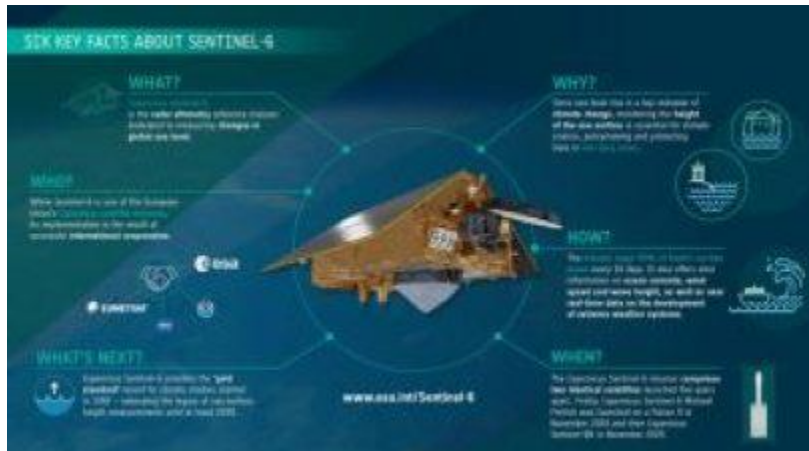
- Ambaji Marble is sourced from the Banaskantha district in north Gujarat.
- Unique Characteristics:
  - Ambaji Marble is known for its milky-white color, durability, and natural beauty.
  - It has been used in the Dilwara Jain Temple in Mount Abu (constructed around 1,200-1,500 years ago), which still stands in excellent condition.
  - Ambaji marble is high in calcium and has a unique silicon oxide and calcium oxide content, contributing to its strength and shine, which are key reasons for its use in prestigious constructions.
- Historical Significance:
  - The marble has been used in the construction of the Ambaji temple, a prominent Shaktipeeth and pilgrimage site.
  - It has also been used in the construction of several other religious sites, memorials, and grand buildings both in India and abroad.
  - Beyond its commercial value, Ambaji Marble is linked to the spiritual significance of Ambaji Shaktipeeth, a sacred pilgrimage site, further enhancing its prestige.
- Global Use and Recognition:
  - Ambaji Marble has been exported globally, with notable uses in Miami, Los Angeles, Boston, New Zealand, and England. The marble has been used in high-profile projects, including the Ram Temple in Ayodhya.

### **Sentinel-6B Satellite**

News: Recently, Sentinel-6B, an ocean-tracking Copernicus satellite, was launched from Vandenberg Space Force Base in California.

#### **About Sentinel-6B Satellite**





Source – ESA

- It is an ocean-tracking satellite with six science instruments launched from Vandenberg Space Force Base in California.
- Joint mission: It is a joint mission between the United States' NASA and NOAA, and the European Space Agency (ESA).
- Launched vehicle used: It was launched by Falcon 9 launched vehicle.
- Aim: The mission aims to measure sea-level rise and ocean conditions with high precision and maintain a reliable sea-level record.
  - Data from Sentinel-6B is expected to improve the accuracy of weather forecasts, including storm and flood predictions, enabling administrators to make better real-time decisions to safeguard public property and protect coastal infrastructure.
- This launch is the fourth successful Copernicus Sentinel mission of 2025, following Sentinel-4A, Sentinel-5A, and Sentinel-1D.
- Key Features
  - It orbits Earth at 7.2 kilometres per second and completes one revolution every 112 minutes.
- Pay load:
  - It is equipped with a highly accurate radar altimeter (developed by ESA) that measures the height of the ocean surface to within a centimetre.
  - Advanced Microwave Radiometer (AMR-C), provided by NASA.
  - A Global Navigation Satellite System Precise Orbit Determination (GNSS POD) receiver, developed by ESA.
  - A Doppler Orbitography and Radiopositioning Integrated by Satellite (DORIS Receiver).
  - A Laser Reflector Array, provided by NASA.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- A GNSS Radio Occultation instrument, provided by NASA.

## Asbestos

News: Asbestos contamination has led to the closure of over 70 public schools in Australia due to the discovery of tremolite asbestos in colored sand products.

### About Asbestos



Source: EMS

- Asbestos is a fibrous material naturally present underground in rock and soil.
- Physical Features:
  - Asbestos is known for its strength and highly flexible and durable.
  - It is resistant to heat, fire, electricity and corrosion.
- Types of Asbestos
  - There are six commercial types: chrysotile, amosite, crocidolite, tremolite, anthophyllite and actinolite.
  - These types fall into two mineral groups: serpentine and amphibole.
    - Serpentine contains only chrysotile.
      - Fibers are long, curly and usually white.
    - Amphibole includes amosite, crocidolite, tremolite, anthophyllite and actinolite.
      - Fibers are needle-like, brittle and vary in color from green to blue to brown.
- Common Uses of Asbestos
  - It is added to building materials, insulation, fireproofing products and automotive brakes.
  - It is also found in several products, including cement, tiles, textiles, appliances, cosmetics and some toys.

- Health risk related to health:
  - When asbestos fibers become airborne and are inhaled or swallowed, they can get trapped in the body and remain there for decades.
  - Trapped asbestos fibers can cause inflammation and scarring in the lungs or abdomen.
  - Long-term exposure can lead to serious diseases such as mesothelioma, lung cancer and asbestosis.
  - All types of asbestos are capable of causing mesothelioma.

### ASW-SWC Mahe

News: The Indian Navy has unveiled the crest of ASW-SWC Mahe before its commissioning in Mumbai.

#### About ASW-SWC Mahe



Source: PIB

- INS Mahe is the first ship of the new Mahe-class ASW-SWC series, intended for the Indian Navy.
- The ship is named after the coastal town of Mahe on India's western coast, tying the unit to Indian maritime heritage.
- Built by: Cochin Shipyard Ltd (CSL) at Kochi.
- It embodies India's push for "Aatmanirbharta / self-reliance" in naval shipbuilding.
- Ship's motto: "Silent Hunters"—reflecting stealth, vigilance and the ASW ethos of submarine detection and neutralisation.
- Features of the ship:
  - The ship is optimised for shallow waters, swift manoeuvrability, and stealth—key in littoral ASW tasks.

- Its missions include submarine-hunting in near-coastal waters, coastal patrol, maritime surveillance and protection of offshore/approach zones.
- The design emphasises low acoustic signature, reduced radar cross-section (RCS) and other stealth features (typical of ASW-SWC designs).
- The ship's crest features a traditional flexible sword—an "Urumi", from the martial art of Kalarippayattu (Kerala).
- The Urumi rises from stylised waves, symbolising agility, precision and lethal grace in the maritime domain.
- Strategic Significance: INS Mahe marks a significant milestone in India's indigenous warship-building capability for anti-submarine warfare in shallow/coastal waters.

### **ARKA GKT-1**

News: Azimuth AI and Cyient Semiconductor announced the launch of 'ARKA GKT-1'. It is billed as India's first-generation intelligent-power platform-on-a-chip designed for high-efficiency edge AI and smart energy applications.

#### **About ARKA GKT-1**

- ARKA GKT-1 is India's first-generation intelligent-power platform-on-a-chip designed specifically for high-efficiency edge AI and smart energy applications.
- Developed by: Azimuth AI and Cyient Semiconductors.
- The project represents a complete custom ASIC turnkey solution developed through close collaboration between the two companies.
- The development process includes chip design, fabrication coordination, OSAT management for assembly, packaging and testing, and final chip delivery.
- It showcases the combined strengths of Azimuth AI's AI-driven silicon design capabilities and Cyient's semiconductor engineering expertise.
- Key Technical Features
  - ARKA GKT-1 integrates multi-core custom computing, advanced analogue sensing, memory and intelligent power management into a single, energy-efficient System on a Chip.
  - It is built using Azimuth AI's Software-Defined Silicon architecture, which enables flexibility and scalability for various applications.



- The chip incorporates Cyient Semiconductors' expertise in mixed-signal, low-power and power-efficient ASIC engineering.
- Target Applications
  - The chip is tailored for smart utilities and advanced metering systems used in modern energy networks.
  - It supports battery management systems that require efficient energy monitoring and control.
  - It is suitable for smart city infrastructure that relies on intelligent, low-power edge devices.
  - It is designed for industrial automation environments that require real-time edge intelligence and low energy consumption.

### National Gopal Ratna Awards 2025

News: The National Gopal Ratna Awards 2025 are in news as the Department of Animal Husbandry and Dairying announced the winners.

#### About National Gopal Ratna Awards (NGRA)



Source – Ministry of Dairy

- The National Gopal Ratna Awards are the highest national honours in India's livestock and dairy sector across three award categories.
- They recognize excellence among dairy farmers, cooperatives and artificial insemination technicians in India's dairy sector.
- Nodal Agency: Department of Animal Husbandry and Dairying

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Presented on: The awards will be presented on November 26 as part of the National Milk Day celebrations.
- Starting: These awards are instituted under the Rashtriya Gokul Mission which was launched in 2014.
  - They have been presented annually since 2021.
- Awards consist of –
  - Best Dairy Farmer and Best Dairy Cooperative/FPO/MPC – These awards include a certificate, memento and cash prize of –
    - Cash prizes are ₹5 lakh for first place,
    - ₹3 lakh for second place and
    - ₹2 lakh for third place and
    - ₹2 lakh for North Eastern Region (NER)/Himalayan States.
  - Best Artificial Insemination Technician awards include a certificate and memento, with no cash prize.

### **Revised Insurance Framework of Pradhan Mantri Fasal Bima Yojana (PMFBY)**

News: The Ministry of Agriculture and Farmers Welfare announced revised PMFBY cover for wild animal attacks and paddy inundation from Kharif 2026.

#### **About Revised Insurance Framework of Pradhan Mantri Fasal Bima Yojana (PMFBY)**



Source – MyGov

- The revised framework expands crop insurance to cover localised damage from wild animal attacks and paddy inundation.
- The modalities follow PMFBY Operational Guidelines to ensure a scientific, transparent and feasible system.

- Key features
  - Crop loss from wild animal attack is recognised as the fifth add-on cover under the localized risk category.
  - States will notify wild animals responsible for damage and identify vulnerable districts or insurance units.
  - Farmers should report losses within 72 hours through the crop insurance app by uploading geotagged photographs.
  - Paddy inundation is reintroduced as a localised calamity cover in flood-prone and coastal paddy areas.
  - Add-On Covers: In addition to this basic cover, the scheme allows “add-on covers”, which are extra, optional protections that states can choose to offer for specific risks.
    - Earlier four main add-on covers under PMFBY are:
      - Prevented sowing/planting risk
      - Mid-season adversity cover
      - Post-harvest loss cover
      - Localised calamities cover (hailstorm, landslide, inundation, etc.)

#### **About Pradhan Mantri Fasal Bima Yojana (PMFBY)**

- Launched in 2016 by the Ministry of Agriculture and Farmers Welfare.
- Aim: To provide comprehensive insurance cover against failure of the crop thus helping in stabilizing the income of the farmers.
- Coverage of crops: It covers –
  - food crops
  - oilseed crops
  - annual commercial/horticultural crops
- Premium: The prescribed premium is –
  - 2% for Kharif crops
  - 1.5% for crops and
  - 5% for commercial and horticultural crops.
  - Balance of actuarial premium is shared equally between State and Central government

### YUVA AI for ALL Initiative

News: Under the IndiaAI Mission, MeitY has introduced 'YUVA AI for ALL' initiative, a free course aimed at familiarising Indians particularly the youth with AI.

#### About YUVA AI for ALL Initiative



Source: OneIndia

- It is free national AI course called 'YUVA AI for ALL' under the IndiaAI Mission.
- Launched by: Ministry of Electronics and Information Technology (MeitY)
- Aim: To make Artificial Intelligence easy to understand and accessible for all citizens of India, especially the youth.
- Purpose: To introduce AI in a simple, practical, and relatable way so that more people become comfortable with the technology.
- Course Overview: It is 4.5-hour, self-paced online course designed to build foundational knowledge of AI.
  - The course uses real-life Indian examples to make learning more meaningful and engaging for diverse learners.
  - The course consists of six short and engaging modules that introduce essential AI concepts.
  - The modules explain what AI is, how it works, and how it is transforming sectors like education, creativity, and work.
  - They also teach learners how to use AI tools safely, ethically, and responsibly, emphasizing responsible digital behaviour.
  - It also offers insights into future opportunities in the AI-driven world.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

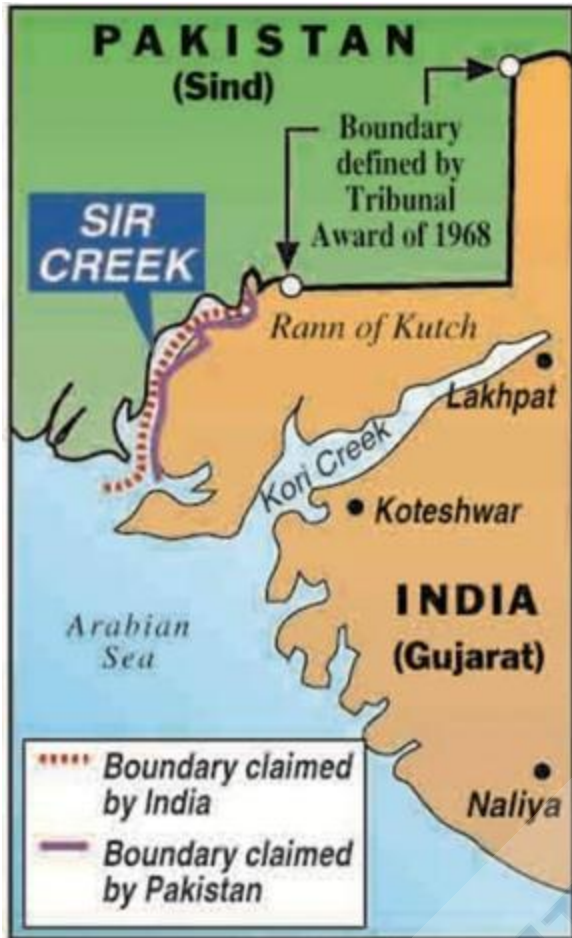


- The course is available completely free of cost on popular learning platforms such as FutureSkills Prime, iGOT Karmayogi, and several other ed-tech portals. Learners can access the course anytime and anywhere, allowing them to learn at their own pace.
- Schools, universities, and organizations across the country can collaborate with IndiaAI to spread the course widely.
- Certification: Every learner who successfully completes the course will receive an official certificate issued by the Government of India.
- **Significance:** The initiative targets to empower 1 crore (10 million) Indian citizens with foundational AI skills.
  - The program helps to bridge the digital divide and promotes ethical, inclusive, and responsible use of AI among the population.
  - It also prepares India's workforce with essential skills for the future of jobs.
  - It combines global AI knowledge with the Indian context, highlighting ethical and inclusive AI use.

### **Sir Creek**

News: Over a year after identifying the need for fast patrol boats and Landing Craft Assaults for deployment in Sir Creek, the Brahmaputra basin, and eastern Ladakh, the Army has moved forward by issuing two RFPs to vendors for their procurement.

### **About Sir Creek**



IE Map/B.K. Sharma

Source: IE Map

- Location: It is a fluctuating 96-km tidal estuary along the India-Pakistan border.
  - It flows into the Arabian Sea and divides the Rann of Kutch (India) from Sindh (Pakistan).
- It was initially known as Ban Ganga.
- It is a marshy, sparsely populated, and hard-to-police region that floods during the monsoon.
- Strategic Importance:
  - Sir Creek is vital to Pakistan's defence of Karachi, its largest city and main economic hub.
  - Pakistan has built bunkers, radars, and forward bases capable of drone and infantry operations.
  - India maintains a strong military presence to deter threats.
  - The creek could serve as a launchpad for terrorist infiltration, as seen during the 2008 Mumbai attacks, when terrorists arrived by boat.
- Economic Importance:

- The region is believed to contain untapped oil and gas reserves, valuable to both India and Pakistan.
- It is home to important fishing grounds, vital for fishermen in Gujarat and Sindh.
- **Nature of the Border Dispute**
  - Pakistan claims the entire creek, while India asserts that the boundary should run along the mid-channel.
  - India bases its claim on the Thalweg principle, which sets a boundary along the navigable channel of a waterway.
  - Pakistan rejects this, arguing the creek is not navigable, so the principle does not apply.
- **Challenges:** The absence of a clear border leads to frequent arrests of fishermen who inadvertently cross into the other country's waters.
  - The boundary demarcation affects the Exclusive Economic Zones (EEZs) of both countries in the Arabian Sea, influencing rights over marine resources up to 200 nautical miles.

### **New National Industrial Classification (NIC) 2025**

News: Recently, MoSPI unveiled the new National Industrial Classification (NIC) 2025 during the 75th NSS anniversary and World Statistics Day in Udaipur.

#### **About New National Industrial Classification (NIC) 2025**



Source – DD News

- The National Industrial Classification (NIC) 2025 is a six-digit system for classifying all economic activities in India, replacing NIC 2008 five-digit system.
- Launched by: Ministry of Statistics and Programme Implementation (MoSPI)

- The classification system was first introduced in 1962 and later revised in 1970, 1987, 1990, 1998, 2004 and 2008.
  - NIC 2025 is the latest national standard for classifying economic activities.
- Aim: Its aim is to reflect India's evolving economic structure, improve data granularity and align with the UN's International Standard Industrial Classification (ISIC) Revision 5.
- The revision was carried out under the guidance of the Expert Committee for Revision of Economic Classifications (ECREC) comprising subject matter experts and industry representatives.
- Feature of NIC 2025
  - Enhanced classification of intermediation services: New classes have been created across multiple sections to reflect the growing role of intermediaries in sectors such as power, retail, logistics, healthcare, education, real estate, and food services.
  - Environmental and green economy integration: Expanded coverage of carbon capture, waste management, and environmental remediation activities, with better alignment to SDGs framework.
  - Digital economy representation: Cloud infrastructure, blockchain, platform-based services, and web search portals are distinctly classified, reflecting the evolving nature of the digital economy.
  - Classification is technology agnostic: In general, distinction of activities is not made based on whether an activity is carried out by means of traditional or modern production techniques.

### **e-Jagruti Platform**

News: e-Jagruti portal is in the news as an AI-enabled consumer grievance platform registering over 2.75 lakh users and enabling global access.

#### **About e-Jagruti Platform**



Source – Ministry of Consumer Affairs

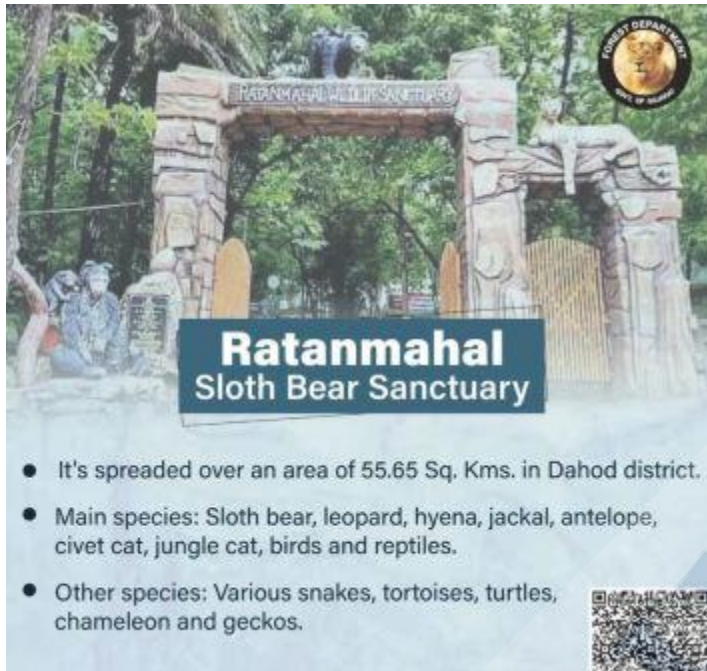


- Full form: e- Justice And Grievance Redressal through Information Technology and Innovation
- It is a unified, AI-enabled digital grievance redressal platform that integrates all consumer dispute resolution systems into one seamless portal.
- Initiative by: It is an initiative of the Department of Consumer Affairs, Ministry of Consumer Affairs, Food, and Public Distribution.
- Launched on: It was launched on January 1, 2025.
- Aim: The platform aims to provide faster, transparent, accessible, and paperless consumer justice across India and abroad, especially empowering MSME consumers, households, and NRIs with real-time, technology-enabled grievance redressal.
- Key features
  - It integrates legacy systems such as Online Case Monitoring System (OCMS), e-Daakhil, NCDRC CMS, and CONFONET into a single interface that supports e-filing, digital scrutiny, electronic notices, and virtual hearings.
  - It offers global accessibility through secure OTP-based registration, enabling complaints from abroad, digital or offline fee payments, encrypted document exchange, and real-time case tracking.
  - It uses an AI-powered, multilingual interface with chatbot assistance, voice-to-text tools, and accessibility support for elderly and differently-abled consumers.
  - It supports role-based dashboards for judges, advocates, and litigants, aiding efficient hearings
- Key benefits of e-Jagriti include:
  - Global Accessibility: NRIs and citizens can file and manage cases from any location, with secure end-to-end encryption and role-based permissions.
  - Efficiency and Speed: Automated workflows, real-time updates via SMS/email and virtual hearings have contributed to disposal rates exceeding 100% in 10 states and the NCDRC recently.
  - Inclusivity: Features like multilingual interfaces and accessibility tools make it user-friendly for diverse demographics.
  - Secure Transactions: Integration with Bharat Kosh and PayGov gateways ensures hassle-free fee payments.

## Ratanmahal Wildlife Sanctuary

News: Over three decades after tigers became extinct in Gujarat, the arrival of tiger in Ratanmahal Wildlife Sanctuary has sparked fresh optimism about reviving the species in Gujarat.

### About Ratanmahal Wildlife Sanctuary



Source – Gujarat Tourism

- Location: The Ratanmahal Wildlife Sanctuary is a protected forest area located in the Dahod district of Gujarat, near the border with Madhya Pradesh.
- The sanctuary was declared a Wildlife Sanctuary in March 1982.
- The sanctuary harbours the highest population of sloth bears in Gujarat.
  - It is known by an alternate name of “Ratanmahal Sloth Bear Sanctuary” also.
- Rivers: The forests of Ratanmahal form the catchment area of the Panam River.
- Forest Types: The forests of the sanctuary include dry teak forests at the foothills.
  - Mixed deciduous forests occupy the central parts of the sanctuary.
- Flora: The sanctuary contains species such as teak, dudhlo, sadad, timru, amla, bamboo, dhavdo, kakadiyo, mahuda, tanach, charoli, ber, jamun, and khakhro.
- Fauna: Sloth bear, Leopards, Striped hyenas, jackals, four-horned antelope, Mongoose and porcupine species, Civet cats, jungle cats and Hanuman langurs are found here.
  - A total of 147 bird species have been recorded in Ratanmahal Sanctuary.

## Trade Intelligence and Analytics (TIA) Portal

News: Union Minister of Commerce and Industry launched the Trade Intelligence & Analytics (TIA) Portal in New Delhi.

### About Trade Intelligence and Analytics (TIA) Portal



Source: ZEE News

- Launched by: The Trade Intelligence & Analytics (TIA) Portal was launched by Minister of Commerce and Industry
- Aim: The portal aims to make trade data more transparent, accessible, and useful for stakeholders across India.
  - It seeks to help importers, exporters, MSMEs, and startups make informed and data-driven decisions.
- Objective: The portal has been developed to support evidence-based policymaking and targeted sectoral interventions.
  - It consolidates global and bilateral trade data into a single platform to enhance the accuracy and efficiency of trade analysis.
  - It helps identify market diversification opportunities, new product potential, and missed opportunities in India's trade basket.
  - It enables policymakers to better understand trade flows with over 220 countries and respond quickly to global developments.
- Features:
  - The portal integrates multiple global and bilateral databases, including UN Comtrade, into one centralised hub.

- It offers 270+ interactive visualisations across 28+ dashboards covering India-level, global, and bilateral trade insights.
- The platform offers intuitive visualisations, advanced drill-down tools, and automated workflows to improve user experience and operational efficiency.
- The Trade Watch Tower identifies champion products by scanning global demand and mapping India's supply capabilities.
- The portal replaces older platforms such as Niryat Portal, Tradestat Portal, and the Commerce Monitoring Dashboard.
- It automates major workflows such as the Monthly Trade Report (300+ pages) and surge monitoring reports
- API-based automated data collation enables easy extraction and download of country and commodity data.
- Dedicated dashboards track PLI commodities, critical minerals, and trade surges with FTA and non-FTA partners.
- Tariff Analysis and Target Monitoring dashboards are under development to further enhance analytical ability.
- Advanced trade indices such as the Trade Complementarity Index, Revealed Comparative Advantage, and Trade Intensity Index support deeper trade analysis.
- The portal provides tools for comparing macroeconomic, trade, and investment indicators across countries.
- It is a cost-effective, open-source solution with no licensing costs and minimal server requirements.]
- By integrating all trade analytics into one system, the portal enhances data-driven decision-making and strengthens India's ability to respond to global trade trends.

### **Talaq-e-Hasan**

News: Talaq-e-Hasan is in news as the Supreme Court hears petitions challenging its validity and questions this practice in modern society.

#### **About Talaq-e-Hasan**





Source – BNB Legal

- Talaq-e-Hasan is a traditional, extrajudicial, revocable Islamic divorce that only men can use under recognised Muslim personal law.
- It is one of the two subtypes of Talaq-ul-Sunnat and the other subtype is called Talaq-e-Ahsan.
- Process of Talaq-e-Hasan
  - In Talaq-e-Hasan, the husband pronounces “talaq” once during a period when the wife is not menstruating (*tuhr*).
  - After this first pronouncement, there is a waiting period until her next menstrual cycle.
  - If reconciliation happens during this time, the divorce process stops.
  - If the couple does not reconcile, the husband repeats the talaq in the second menstrual cycle, and again in the third cycle if separation is still desired.
  - After the third pronouncement, the divorce under Talaq-e-Hasan becomes final and irrevocable.
- Different from Triple talaq
  - Triple talaq or Talaq-e-Biddat allowed a man to divorce his wife by pronouncing “talaq” three times in one sitting.
  - Triple talaq was banned by the government in 2019 as an instant, irrevocable form of divorce.
  - Unlike triple talaq, Talaq-e-Hasan has a waiting period and allows reconciliation before divorce becomes final after the third pronouncement.

### **Dolphin-Assisted Cast Net Fishing**

News: Scientists and conservationists launched an international project on cooperation between wild dolphins and fishers in Ashtamudi Lake, Kerala.

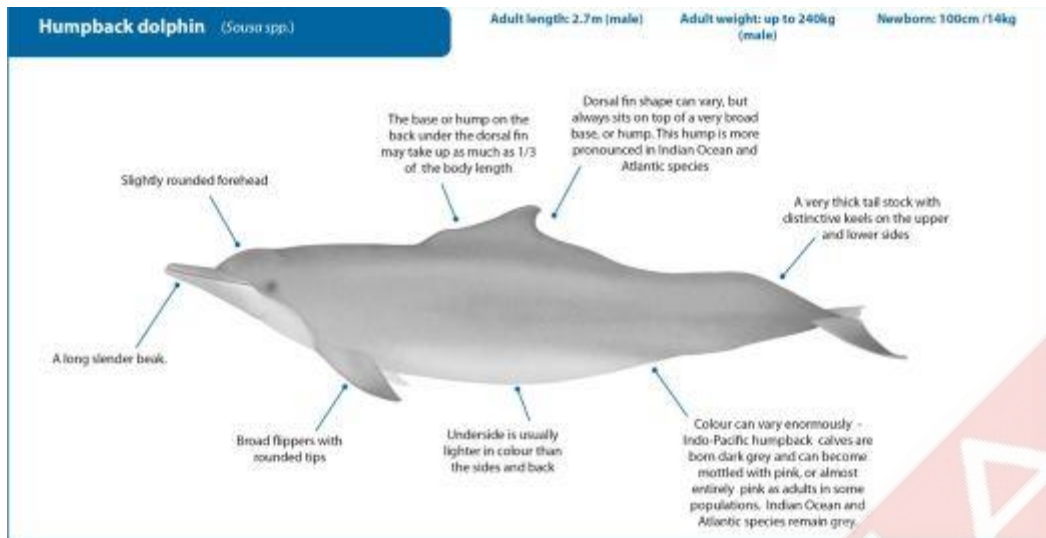
### About Dolphin-Assisted Cast Net Fishing



Source – News Scientist

- Dolphin-assisted cast net fishing is a unique, cooperative fishing technique where wild dolphins and human fishermen work together to increase fish catch efficiency.
- Mechanism used
  - The Humpback dolphins rush and zigzag towards mullet (medium-sized, silvery fish), tossing fish into the air and chasing them towards the shore.
  - Traditional cast net fishermen closely watch these movements and cast their nets in front of the advancing dolphins, matching the direction and timing of the chase.
  - This coordinated behaviour creates a form of mutualism, where fishermen get a much better catch of mullet, while dolphins also benefit through more successful foraging on their preferred prey.
  - This mutualism between dolphins and fishermen has been reported from Brazil and Myanmar also.

### About Humpback Dolphins



Source – Int.

Whaling Comm.

- Type of species: There are four recognized species of humpback dolphins –
  - Indo-Pacific humpback dolphin (*Sousa chinensis*)
  - Indian Ocean humpback dolphin (*S. plumbea*)
  - Atlantic humpback dolphin (*S. teuszi*)
  - Australian humpback dolphin (*S. sahulensis*)
- Habitat: They are found in relatively shallow nearshore waters throughout their range which includes most of the coastlines in Australia, Africa and Asia.
  - The Indian Ocean humpback dolphin (*Sousa plumbea*) is particularly seen along the Kerala coast.
- Conservation Status of Indian Ocean Humpback Dolphin
  - It is considered as 'Endangered' by the ICUN.
  - It is within Schedule I of the Wild Life (Protection) Act, 1972.

### Conservation Status of Humpback Dolphins

- Atlantic humpback dolphin – critically endangered
- Indian ocean humpback dolphin – endangered
- Indo-Pacific humpback dolphin- vulnerable
- Australian humpback dolphin – vulnerable

### Earth System Sciences Council (ESSC)

News: Earth System Sciences Council (ESSC) is in the news after its first General Body meeting reviewed the merged 5 MoES institutes.

#### About Earth System Sciences Council (ESSC)



Source – PIB

- The ESSC is an umbrella body unifying five institutes of the Ministry of Earth Sciences (MoES) for streamlined earth sciences governance.
- Aim: It aims to improve coordination, reduce administrative overlap, streamline governance, and enhance visibility of India's earth science initiatives.
- It was formally registered in December 2023.
- Headed by:
  - a. The Union Minister of Earth Sciences, serves as President of the Council.
  - b. The Secretary of the Ministry of Earth Sciences (MoES) heads the ESSC.
- It supports the government's broader approach of "minimum government, maximum governance."
- Five Institutes constituting the ESSC are –

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



- a. Indian Institute of Tropical Meteorology (IITM), Pune
- b. National Centre for Earth Science Studies (NCESS), Thiruvananthapuram
- c. National Institute of Ocean Technology (NIOT), Chennai
- d. National Centre for Polar and Ocean Research (NCPOR), Goa
- e. Indian National Centre for Ocean Information Services (INCOIS), Hyderabad

### World Urbanisation Prospects 2025 Report

News: Recently UN DESA released the new World Urbanization Prospects 2025 report using the Degree of Urbanization methodology.

#### About World Urbanisation Prospects 2025 Report



Source – UN

- It gives population estimates and projections using the Degree of Urbanization.
- Prepared by: It is prepared by the Population Division of the United Nations Department of Economic and Social Affairs (UN DESA).
- Global findings
  - Urban growth pattern: In 2025, cities house 45 per cent of world's population, towns 36 per cent and rural areas 19 per cent.
  - Rising megacities:
    - The number of megacities (over 10 million people) increased from 8 in 1975 to 33 in 2025, with 19 located in Asia.
    - Jakarta (Indonesia) is the most populous city, followed by Dhaka (Bangladesh), Tokyo (Japan), and New Delhi (India).
  - Dominance of small and medium cities: Around 96 per cent of the world's 12,000 cities have fewer than one million inhabitants, and 81 per cent have fewer than 2.5 lakh people.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Rural areas remain the most common settlement type in 62 countries today, down from 116 in 1975.
  - By 2050, this number is projected to decline further to 44 countries.
- India specific findings
  - High town population: India has 44 per cent of its population living in towns.
  - Large town population globally: India and China together account for over 1.2 billion town dwellers, which is more than 40 per cent of the world's total town population.
  - Over one-third of shrinking cities are in China and 17% in India
  - Rapid urban growth projection: India is among seven countries—along with Nigeria, Pakistan, the Democratic Republic of the Congo, Egypt, Bangladesh, and Ethiopia—that will contribute over half of the projected 986 million increase in global city dwellers by 2050.

### Himalayan Black Bear

News: Recently, the Uttarakhand government ordered shoot-at-sight action against Himalayan black bears in Pauri district after a surge in attacks.

#### About Himalayan Black Bear (*Ursus thibetanus laniger*)



Source – iStock

- The Himalayan black bear is a forest-dwelling bear species of the Himalayan region.
- Habitat: It lives in broadleaf and coniferous forests between altitudes of 1,200 and 3,300 metres.
- Distribution:
  - It occurs along the Himalayas from Jammu and Kashmir to Arunachal Pradesh and in some foothill and northeastern forests.

- It also occurs in warmer forests below the Himalayas, from Rajaji National Park and Corbett Tiger Reserve in Uttarakhand to Mizoram.
- **Keystone species:** It is a keystone species that acts as a primary seed disperser, which is crucial for maintaining the stability of the Himalayan ecosystem.
- **Physical characteristics:** It has a glossy black coat and a distinctive white V-shaped patch on its chest.
- **Diet:** It is omnivorous and eats a variety of plant material and insects, feeding heavily before winter to build body fat.
- **Behaviour:** It is largely solitary and nocturnal, is an excellent climber and swimmer and does not hibernate in warmer areas.
- **Protection status**
  - It is classified as Vulnerable on the IUCN Red List.
  - It is added in the CITES Appendix I
  - It is mentioned in Schedule II of the Wildlife Protection Act, 1972.
- **Threat:** It faces habitat loss from human activities and climate-change-driven changes in hibernation, which are increasing human–bear conflict.

### **Indira Gandhi Peace Prize 2024**

News: Michelle Bachelet received the Indira Gandhi Peace Prize (2024) for Peace, at a ceremony held on November 20, 2025.

#### **About Indira Gandhi Peace Prize**



Source – ET

- It is an annual award given to individuals or organisations that promote global peace, disarmament and development.
- It is also known as the Indira Gandhi Prize for Peace, Disarmament, and Development.

- Established by: It established by the Indira Gandhi Memorial Trust in 1986.
  - It was instituted in memory of former Prime Minister Indira Gandhi.
- Awarded for : The prize honours creative efforts to promote international peace and disarmament, racial equality, goodwill and harmony among nations, development cooperation and scientific discoveries for human betterment, including work towards a new international economic order.
- Prize components: It consists of a monetary award of 25 lakh rupees along with a formal citation.

#### About Indira Gandhi Peace Prize 2024

- Recipient: Michelle Bachelet, former President of Chile and former UN High Commissioner for Human Rights.
- Reason for the prize: She was honoured for her lifelong work for human rights, gender equality, social protection for women and children, and global peace.
- Presented by: It was presented by the chairperson of the Indira Gandhi Memorial Trust.

#### ASHA AI Platform

News: The ASHA AI Platform is an innovative solution launched by the Indian government to enhance the efficiency and transparency of the Public Distribution System (PDS).

#### About ASHA AI Platform



Source – PIB

- The Anna Sahayata Holistic AI Solution (ASHA) is an AI-based platform launched by the Union Food and Public Distribution Ministry.
- Developed by: It has been developed in partnership with the Wadhvani Foundation and is supported by the India AI Mission through Bhashini's multilingual AI infrastructure.
- Aim: To enhance transparency and service delivery in the Public Distribution System (PDS).

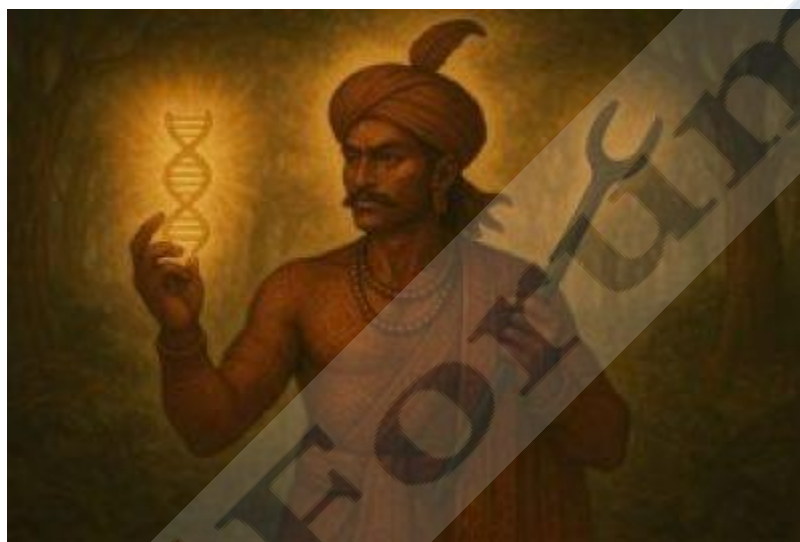


- Purpose: It enables PDS beneficiaries to share feedback on ration distribution through AI-enabled automated calls in their preferred language.
- Key Functions: The system collects feedback on whether beneficiaries received their full entitlement, the quality of foodgrains, and any issues faced at Fair Price Shops.
- It uses multilingual translation, sentiment analysis, automated grievance categorisation and real-time dashboards for administrators.
- Beneficiary Reach: The system currently reaches around 20 lakh beneficiaries every month across India, improving the scale and efficiency of feedback collection.

### BIRSA 101

News: India launched India's first indigenous "CRISPR" based gene therapy for Sickle Cell Disease.

#### About BIRSA 101



Source – Genetic Education

- BIRSA 101 is India's first indigenous CRISPR-based gene therapy.
- Aim: It is developed specifically for treating Sickle Cell Disease, a condition that heavily affects India's tribal population.
- Named after: The therapy is named BIRSA 101 in honour of Bhagwan Birsa Munda, a revered tribal freedom fighter, whose 150th birth anniversary was recently celebrated.
- Developed at: CSIR-Institute of Genomics & Integrative Biology (IGIB), showcasing India's scientific capability in advanced therapeutics.
- Technology used: It uses CRISPR technology that functions like "precise genetic surgery," capable of correcting the mutation responsible for Sickle Cell Disease.

- It has potential applications for treating several other hereditary disorders.
- Affordable: The therapy is designed to be affordable, in contrast to global gene therapies that cost ₹20–25 crore (over 3 million dollars).
- A formal technology transfer agreement was signed between CSIR-IGIB and the Serum Institute of India (SIIPL) to scale up and manufacture BIRSA 101.
  - This partnership ensures affordability, scalability, and real-world clinical deployment.
- Significance: Since Sickle Cell Disease disproportionately affects tribal populations in central and eastern India, BIRSA 101 holds special national importance for improving tribal health outcomes.
  - The launch of BIRSA 101 marks the beginning of India's decisive journey toward achieving a Sickle Cell-Free India by 2047, aligning with the Prime Minister's national mission.

### Kurdistan Region

News: The Turkish government is set up to oversee a new peace initiative with Kurdish leaders kept in prison.

#### About Kurdistan Region



Source – Britannica

- Kurdistan is a broadly defined geographic region traditionally inhabited mainly by Kurds.
- Spread: It consists of an extensive plateau and mountain area, spread over large parts of eastern Turkey, northern Iraq and western Iran and smaller parts of northern Syria and Armenia.
- Mountains: It refers to an area of Kurdish settlement that roughly includes the mountain systems of the Zagros and the eastern extension of the Taurus.
- Rivers: The Tigris and Greater Zab rivers flow through the region, supporting agriculture and settlements.
- The region is significant due to its abundant reserves of oil.

## Radio Galaxies

News: Researchers have successfully recreated the complex structure of the newly discovered Twin Radio Galaxies (TRGs), revealing insights that are transforming our understanding of the physics behind the jets emitted by these systems.

### About Radio Galaxies



Source: Space.com

- Radio galaxies are galaxies that emit exceptionally strong radio waves, far brighter than typical galaxies.
- Their radio emission comes from giant lobes of plasma that extend far beyond the galaxy's visible stars.
- Structure of Radio Galaxies: At the core of a radio galaxy lies an AGN powered by a supermassive black hole.
  - Gas falling into the black hole heats up and forms an accretion disk.
  - Some of this material is funneled into relativistic jets, which inflate the radio lobes.
- Key Features:
  - Radio lobes can span millions of light-years, making them among the largest structures in the universe.
  - They usually appear in pairs, positioned on opposite sides of the galaxy.
  - The radiation is produced by synchrotron emission, electrons moving near light speed in magnetic fields.
- Types of Radio Galaxies:
  - Broad-line radio galaxies: Broad-line radio galaxies show broad emission lines of elements such as hydrogen, oxygen, and silicon in their optical spectra.
    - These broad lines are produced by fast-moving gas located close to the active galactic nucleus (AGN).

## Factly Compilation November 2025

- Narrow-line radio galaxies: Narrow-line radio galaxies show only narrow emission lines, which indicate slower-moving or cooler gas in their environment.
  - The narrow lines suggest that the emitting gas is located farther away from the black hole compared to the gas in broad-line radio galaxies.
- Why They Matter
  - It reveals how supermassive black holes interact with their host galaxies.
  - It act as beacons detectable across vast cosmic distances.
  - It help astronomers study: Galaxy evolution, Intergalactic magnetic fields and High-energy particle physics.

## Global Methane Status Report 2025

News: The Global Methane Status Report was released by the UN Environment Programme (UNEP) at COP30 in Belem.

### About Global Methane Status Report 2025



Source: CCAC

- The report provides updates on global progress on methane mitigation and the remaining work needed to achieve the Global Methane Pledge, as well as the potential for further ambition.
- Released by: It is released by the UN Environment Programme (UNEP) and Climate and Clean Air Coalition (CCAC).
- Finding of the report related to India:



- India as a Hotspot: India has emerged as a global hotspot for methane emissions due to crop-residue (stubble) burning.
- Global Rank: India is the world's third-largest methane emitter after China and the United States.
  - India is responsible for nearly 9% of global methane emissions.
- Major Sources: India's main methane sources are livestock (enteric fermentation and manure) and rice cultivation.
  - Crop-residue burning is becoming a major and fast-growing methane hotspot in India.
- Waste Management Issues: India faces waste-management challenges that significantly increase methane emissions.
  - Methane emissions from waste burning in India rose from 4.5 Mt in 1995 to 7.4 Mt in 2020 – a 64% increase.
- Agriculture Emissions (2020): India generated about 20 Mt of methane from agriculture in 2020, representing 12% of global agricultural methane emissions, one of the highest shares worldwide.
  - Methane emissions from rice cultivation in India are projected to rise by 8% between 2020 and 2030.
- Energy Sector Emissions (2020): India produced around 4.5 Mt of methane from the energy sector in 2020.
- Loopholes: India's Nationally Determined Contributions (NDCs) do not outline actions to reduce methane from agriculture.
  - India's national statement at COP30 made no mention of methane, despite rising emissions.
- Suggestions: Experts emphasize that controlling stubble burning would reduce methane and harmful particulate pollution simultaneously.
  - Experts call for a focused programme across affected states to address both climate and air-pollution impacts.
- Findings in the Global Context

- Global Methane Levels: Global methane emissions currently total about 360 million tonnes per year.
- G20 Contribution: The G20 group, including India, is responsible for about 65% of global methane emissions.
- Global Waste Burning Trend: Global methane emissions from waste burning increased from 56 Mt in 1995 to 80 Mt in 2020 – a 43% rise.
- Future Outlook: Despite rising methane levels, the report suggests emissions could start to decline by 2030 with strong action.
  - Reducing methane is highlighted as one of the most immediate and effective steps to slow the climate crisis.
  - The report also identifies 11 active global programmes aimed at reducing methane emissions.
  - Cutting methane emissions also helps reduce crop losses, supporting agricultural productivity and food security.

### **Veerangana Jhalkari Bai Koli**

News– The Delhi government has decided to include Veerangana Jhalkari Bai Koli in its scheme that celebrates the birth and death anniversaries of prominent personalities.



Source- ETV bharat

#### **About Veerangana Jhalkari Bai Koli**

- Birth: 22 November 1830, Bhojla village near Jhansi (UP).
- Background: Born into a Dalit Koli family; known for exceptional bravery from childhood.

- **Marriage:** Married Puran Kori, a soldier in the army of Raja Gangadhar Rao (husband of Rani Lakshmibai).
- **Association:** Close aide and soldier in the army of Rani Lakshmibai of Jhansi.
- **Role in 1857:**
  - Served in the Durga Dal (women's army) of Jhansi.
  - Became a body double of Rani Lakshmibai due to her resemblance.
  - Played a crucial role in diverting British forces by disguising herself as the queen, helping the real queen escape.

### **SARAL SIMS**

**News–** The Ministry of Steel launched the SARAL Steel Import Monitoring System (SIMS) portal for simplified import registration.

#### **About SARAL SIMS**

- **Purpose & Coverage-** SARAL SIMS streamlines SIMS registration for small steel imports and for exports-related procurement under Advance Authorisation, Special Economic Zone (SEZ), and Export Oriented Unit (EOU) schemes.
- **Applicability-** It covers iron and steel items under Chapters 72, 73, and 86 of the Indian Trade Classification (Harmonized System), 2022.
- **Single Annual Declaration-** Importers need to declare only the total intended annual import quantity once, after which a single SARAL SIMS number is issued and can be used for multiple consignments in that financial year.
- **Small-Import Category Limit-** Allows consignments up to 10 MT, with an annual cap of 500 MT for FY 2025–26 and 1,000 MT from FY 2026–27 onwards.
- **No Limit for Export-Linked Imports-** Imports for export production via SEZ, EOU, or Advance Authorisation routes carry no quantity restriction under SARAL SIMS.
- **Validity, Compliance & Threshold Rule**
  - SARAL SIMS number remains valid till 30th April of the following fiscal year.
  - Annual Return must be filed by 30th April, detailing actual imports.
  - If imports exceed 1,000 MT in a year, the importer must shift to regular SIMS for the rest of that year and cannot revert to SARAL SIMS.

## Zinc-Ion Batteries

News: Bengaluru scientists have developed a new cathode material that boosts the energy density and stability of eco-friendly zinc-ion batteries, offering a promising alternative to lithium-ion batteries.

### About Zinc-Ion Batteries

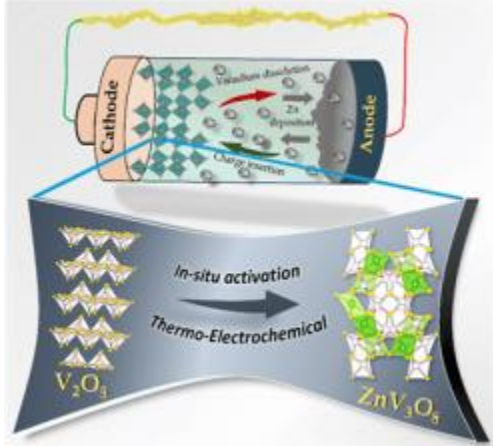


Figure 8. Source: PIB

- Zinc-ion batteries (ZIBs) are rechargeable energy storage devices that use zinc ions ( $\text{Zn}^{2+}$ ) to transfer charge between the electrodes.
- Components and Working Mechanism
  - Anode: The anode in a zinc-ion battery is composed of metallic zinc, which serves as the source of zinc ions during discharge.
  - Cathode: The cathode is generally made from materials such as manganese oxides or vanadium oxides, both of which can reversibly intercalate zinc ions.
  - The electrolyte is a zinc-containing aqueous solution that conducts zinc ions between the anode and cathode.
  - During discharge, zinc metal at the anode is oxidized into zinc ions, which then move through the electrolyte and insert into the cathode material.
  - During charging, zinc ions migrate back to the anode and are reduced to metallic zinc, restoring the battery to its charged state.
- Advantages of Zinc-Ion Batteries
  - Zinc-ion batteries are cost-effective because zinc is abundant, inexpensive, and widely available, which helps reduce production costs.
  - They provide enhanced safety since aqueous electrolytes eliminate the fire and explosion risks commonly associated with lithium-ion batteries.
  - ZIBs are environmentally friendly and generate fewer harmful by products during manufacturing, usage, and disposal.
  - They offer high volumetric energy density, enabling them to store a significant amount of energy within a compact design.
  - Due to recent technological improvements, these batteries can now achieve long cycle life, with some systems lasting thousands of charge-discharge cycles with minimal degradation.

### Recent Breakthrough

- The scientists have made a major advancement in improving cathode performance for ZIBs.
- The research team developed a simple thermo-electrochemical activation technique that modifies the structure of the common cathode material vanadium oxide ( $\text{V}_2\text{O}_5$ ).
- This process creates beneficial defects within the material, transforming it into zinc-vanadium oxide ( $\text{Zn-V}_2\text{O}_5$ ), which provides more pathways and active sites for zinc-ion movement.
- The modified cathode demonstrates significantly improved energy density, enhanced structural stability, and faster ion transport, all of which contribute to more efficient and longer-lasting ZIBs.
- The activated  $\text{Zn-V}_2\text{O}_5$  material allows the battery to be recharged thousands of times with minimal performance loss, solving a long-standing problem in zinc-ion battery development.



- Researchers noted that this simple activation strategy could also be applied to other cathode materials, potentially accelerating the development of greener and more efficient energy storage technologies.

### UAE Just Transition Work Programme (JTWP)

News: At COP30 in Belem, Brazil, the UAE Just Transition Work Programme (JTWP) formally adopted a new Just Transition Mechanism (JTM) to support countries in transitioning away from fossil fuels through technical assistance, capacity-building, and international cooperation.

#### About UAE Just Transition Work Programme (JTWP)



Figure 9. Source: DTE

- The JTWP is formally adopted at COP30 in Belem, Brazil, also called the Belém Action Mechanism (BAM).
- Aim: To support countries in transitioning away from fossil fuels through technical assistance, capacity-building, and international cooperation.
- It is particularly important for developing countries, which face the greatest social and economic disruption from fossil-fuel phase-out.
- Objective: It ensures that climate action supports communities, workers, and economies during the shift toward low-carbon and climate-resilient development.
- Purpose:
  - Inclusive Transition: It aims to help countries design transition pathways that are socially inclusive, economically sustainable, and environmentally sound.
  - Equity Focus: It emphasizes that climate transitions should generate new opportunities while protecting vulnerable groups and workers.
- Key focus areas:
  - Multi-Dimensional Approach: The programme integrates energy, socio-economic, workforce, and community dimensions into transition planning.
  - Social Protection: It requires transition strategies to include social protection measures for affected workers and communities.
  - Country-Specific Pathways: It encourages nations to tailor their transition plans to their own contexts and development priorities.

### Mount Semeru

News: The Semeru volcano erupted recently, sending a massive 6,500-foot ash plume into the atmosphere.

#### About Mount Semeru



Source: thejakartapost

- Mount Semeru is the highest mountain on Java Island, Indonesia.
- It is an active volcano classified as a stratovolcano and is known for its frequent volcanic activity.
- The volcano is situated within the Bromo-Tengger-Semeru National Park in Lumajang Regency, East Java Province.
- Mount Semeru stands as the highest peak on Java, reaching an elevation of 3,676 meters (12,060 feet) above sea level.
- The volcano is part of the Pacific Ring of Fire, a region characterized by intense seismic and volcanic activity.
- It is also the part of the Island arcs formed by the subduction of the Indo-Australian plate below Sunda Plate (part of Eurasian Plate).

### **African Grey Parrot**

News: African grey parrots continue to be widely sold in pet markets across country despite the fact that no registered breeders or authorized pet shops exist for this species.

#### **About African Grey Parrot**



Source: Seneca Park Zoo

- The African grey parrot is a medium-sized parrot with mottled grey plumage.
- Scientific name: *Psittacus erithacus*.
- This species is classified under the class Aves and the order Psittaciformes.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- It is among the world's most skilled birds when it comes to speaking and mimicking sounds.
- Habitat: They are also found at forest edges, in clearings, gallery forests, mangroves, wooded savannahs, cultivated land, and even gardens.
- Range: They are native to central and West Africa.
  - They are found from southeastern Ivory Coast across the moist lowland forests of West Africa to Cameroon.
  - Their range extends into the Congo forests and areas just east of the Albertine Rift in Uganda, Kenya, and Tanzania.
- Physical Features:
  - It has a large black bill, a white facial mask surrounding yellow eyes, and a distinctive red vent and tail.
  - Females feature a light gray crown bordered with darker gray, a gray body, and bright scarlet tail feathers.
  - Males appear much like females but their plumage darkens as they grow older.
  - It forms monogamous pairs and nests alone in tree cavities.
  - One of its defense mechanisms is fluffing up its feathers to appear larger and using its strong beak to bite.
- Diet: Its diet consists mainly of fruits, seeds, buds, nectar, and pollen.
- Life Span: African grey parrots can live for 50 years or more, often outliving their human caretakers.
- Conservation Status
  - IUCN Red List – Endangered
  - CITES – Appendix I

### **Bharat NCAP 2.0**

News: The Ministry of Road Transport and Highways has issued a revised draft of Bharat NCAP 2.0 expanding assessment scope and updating safety standards.

#### **About Bharat NCAP 2.0**



Source – ET Auto

- The Bharat New Car Assessment Program (NCAP) 2.0 is a revised vehicle safety rating programme that evaluates the crashworthiness and safety technologies of cars sold in India.
- Nodal Ministry: Ministry of Road Transport and Highways (MoRTH)

- Certification by: Testing and certification are handled by the Central Institute of Road Transport (CIRT), Pune.
- Aim: Its aim is to upgrade India's vehicle safety standards, protect both occupants and vulnerable road users, and encourage adoption of advanced safety technologies.
- Key Features
  - Comprehensive Assessment Verticals: Bharat NCAP 2.0 evaluates every vehicle across five assessment areas which are –
    - Safe Driving
    - Accident Avoidance
    - Crash Protection
    - Vulnerable Road User Protection
    - Post-Crash Safety
  - Expanded Mandatory Crash Tests: Under the crash protection vertical, it introduces an expanded set of mandatory crash tests, including new full-width frontal impact and rear impact tests in addition to earlier tests.
  - Injury Assessment Using ATDs: The programme uses Anthropomorphic Test Devices (ATDs) to assess potential injuries to adult and child occupants in different crash scenarios during all required tests.
  - Focus on Active Safety Technologies: It makes the Electronic Stability Control (ESC) system a mandatory technology for eligibility to the star rating programme, while allowing manufacturers to voluntarily offer Autonomous Emergency Braking System (AEBS) for additional assessment.
  - Revised and Stricter Star Rating Criteria: The revised document increases the point thresholds for higher star ratings and introduces conditions such as minimum Adult Occupant Protection scores and the bar on zero scores in any assessment vertical for a five-star rating

### **About Bharat NCAP 2023**

- Implementation: Bharat NCAP 2023 was implemented in October 2023.
- Purpose: Its purpose is to provide safety ratings for vehicles based on crash testing under Automotive Industry Standard AIS-197 and to give star ratings that reflect the crashworthiness of cars.
- Assessment verticals and crash test procedure: Under Bharat NCAP 2023, vehicles are assessed under Adult Occupant Protection, Child Occupant Protection and Safety Assist Technologies through controlled frontal, side and oblique side impact crash tests at specified speeds to evaluate safety performance.
- Nature of the Programme: Bharat NCAP 2023 is voluntary in nature.
- Valid till: It is an India-specific safety certification programme valid till September 30, 2027.

### **Moss**

News: A study found that moss spores survived nine months in low-orbit space outside the International Space Station (ISS), with over 80% able to reproduce back on Earth.

### **About Moss**





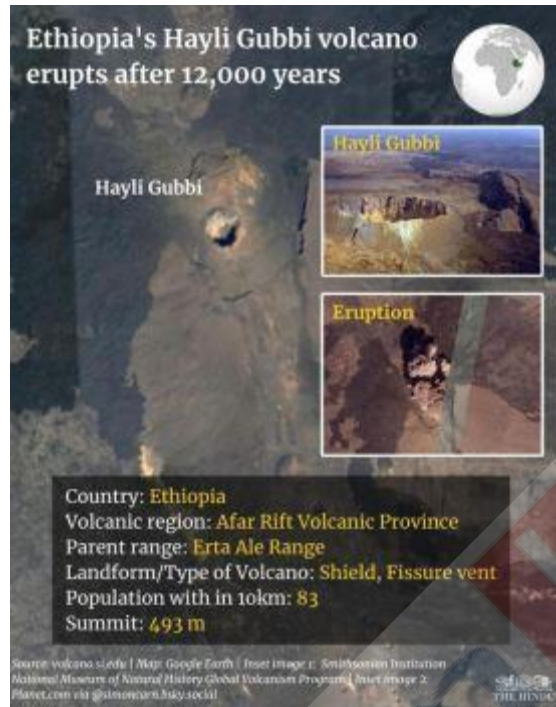
Source – Wikipedia

- Moss is a small non vascular plant known for its high resilience on earth.
- It belongs to taxonomic division Bryophyta (bryophytes).
- Pioneering species: It is among the earliest land plants and has colonised some of the harshest environments on the planet, including Antarctica, volcanic fields, and deserts.
  - One of the most well-known cave mosses is *Schistostega pennata*, also known as dragon's gold, which shines an emerald green colour.
- Distribution: Mosses are distributed throughout the world except in salt water and are commonly found in moist shady locations.
- Environmental significance of Moss
  - Mosses function like natural sponges, absorbing rainfall and maintaining soil moisture.
  - They stabilise disturbed soil surfaces.
  - By regulating ground temperature, they protect roots in hot areas and slow ice thawing in cold regions.
  - Mosses enable formation of new ecosystems, especially in harsh environments.
  - Their microhabitats support biodiversity, providing shelter and protection to various small organisms.
  - Mosses are widely used as bioindicators of air pollution, especially for heavy metals, nitrogen compounds and acidic deposition.

### Hayli Gubbi Volcano

News: Ethiopia's Hayli Gubbi volcano has erupted after 12,000 years and its ash cloud is moving towards western and northern India.

#### About Hayli Gubbi Volcano



Source – TH

- Location: It is located in the Rift Valley in Afar region of Ethiopia.
  - It forms part of the Erta Ale volcanic range.
  - It lies at the edge of the East African Rift, where the African and Arabian plates are slowly pulling apart (divergent boundary) in an intense geological activity zone.
- Type: It is a broad shield volcano formed by thin, fluid lava flows that usually erupt less explosively.
- Composition: It is built mainly from dark basaltic lavas but also contains more silica-rich rocks such as trachytes and rhyolites.
- Recent eruption: This volcano has erupted after almost 12,000 years.
  - The eruption was classified as sub-plinian, producing an ash cloud that rose up to 45,000 feet (14 km), dispersing volcanic ash, sulfur dioxide, glass shards, and fine rock fragments.

### Auramine O

News: Recently, auramine O, a banned synthetic dye, has re-emerged in India's food chain, highlighting recurring chemical adulteration concerns.

### About Auramine O



Source – TH

- Auramine O is a synthetic yellow industrial dye, produced from compounds such as dimethylaniline and formaldehyde.
- Regulation: It is not approved for use as a food colour in India, the European Union, the United States, or most other regulatory jurisdictions.
  - The International Agency for Research on Cancer (IARC) classifies it as a substance that is possibly carcinogenic to humans.
  - Concern: It is used to give a yellow colour to sweets, turmeric powder, chickpeas and street food snacks, despite the ban.
- Chemical property and structure
  - Formula: It has the molecular formula  $C_{17}H_{22}ClN_3$ .
  - Appearance: It typically appears as yellow flakes, powder or needle like crystals.
  - Solubility: It is soluble in ethanol and slightly soluble in water.
- Applications
  - Biological and medical uses
    - Fluorescent stain: Used to stain acid-fast bacteria in microscopy, particularly for detecting *Mycobacterium tuberculosis* and other mycobacteria.
    - Diagnostic tool: Helps in the direct detection of bacteria in patient specimens and is used to stain parasites like *Cryptosporidium* in stool samples.
    - Research: Investigated for potential uses in cancer treatments, cardiovascular disease research, and as a component in targeted drug delivery systems.
  - Industrial applications
    - Textile and leather industry: Used for dyeing acrylic, silk, and cotton fibers, as well as leather and paper.
    - Printing and inks: Used in direct printing, blotch discharge printing, and as a component in inks.
  - Other applications
    - Color lakes and paints: Used to create color lakes and is also used in the production of paints.
    - Food adulteration testing: Its presence is sometimes a marker for adulteration in certain food products, and specialized methods are used for its detection.
    - Health Concern: Ingestion of auramine O can cause liver and kidney damage, enlargement of the spleen, mutagenic effects, and carcinogenic outcomes with long-term exposure.



## Blind Women's T20 World Cup 2025

News: Indian Women's blind cricket team have created history winning the first-ever Women's T20 World Cup for the Blind in Colombo.

### About Blind Women's T20 World Cup 2025



Source – CABI

- The T20 Cricket for the Blind Women's World Cup is a pioneering initiative that champions inclusivity, empowerment, and sporting excellence.
- 2025 edition: The Blind Women's T20 World Cup 2025 was the inaugural tournament.
- Host: India and Sri Lanka co-hosted the event, with fixtures in Delhi, Bengaluru and Colombo.
- Teams participated: This historic tournament featured six teams: India, Pakistan, Sri Lanka, Australia, USA, and Nepal.
  - Eleven players make up a blind cricket team.
- Features: The game is played with a white plastic ball packed with ball bearings that rattle as it rolls, which allows it to be heard by players.
- Final Result: India emerged as the champion by defeating Nepal by 7 wickets in the final held at the P Sara Oval, Colombo.
- Rules followed: The event followed the International Blind Sports Federation Sight Classification rules, ensuring fairness and competitiveness.
- Role of CABI: The Cricket Association for the Blind in India (CABI) played a significant role in organizing and promoting the tournament, underscoring India's leadership in developing blind cricket globally.

### About Cricket Association for the Blind in India (CABI)

- The Cricket Association for the Blind in India (CABI) is the apex body that organizes and conducts cricket for the blind across India.
- Affiliated to: It is affiliated to World Blind Cricket (WBC).
- CABI is the cricketing arm of Samarathanam Trust for the Disabled which governs cricket for the blind in India.



## Article 240

News– The Centre is considering a proposal under the Constitution (131st Amendment) Bill, 2025 to bring Chandigarh under Article 240 of the Constitution.

Currently, Chandigarh is a Union Territory without a legislature, administered by the Governor of Punjab, who holds additional charge. The city also functions as the shared capital of Punjab and Haryana, and several laws of both states apply to it.

### About Article 240

- Article 240 gives the President of India the power to make regulations for the peace, progress and good government of certain Union Territories, such as:
  - Andaman and Nicobar Islands
  - Lakshadweep
  - Dadra and Nagar Haveli and Daman and Diu
- These regulations can amend or repeal any existing law, including laws made by Parliament, applicable to those Union Territories.

### Implications of Bringing Chandigarh Under Article 240

- If Chandigarh is brought under Article 240, the Centre (through the President) would be able to make laws for Chandigarh directly, instead of depending on Parliament for every legal change.

## Abujhmadiya Tribe

News: The Abujhmadiya tribe is in news because its members are increasingly participating in the Bastar Olympics sports tournament.

### About Abujhmadiya Tribe



Source – MoTA

- It is sub-group and sub-caste of the Gond tribe of the Central India region.
  - On racial grounds, they are placed in the Pre-Dravidian or Proto-Australoid group, with generally medium height and strong physique.
- Location: They inhabit the dense forests and hilly terrains of the Abujhmadiya region, which spans the Narayanpur, Bijapur, and Dantewada districts of Chhattisgarh, bordering Maharashtra and Odisha.
- It is also recognized as one of the seven Particularly Vulnerable Tribal Groups (PVTGs) in Chhattisgarh.

- Language: Speak 'Madi', a local dialect of the Dravidian language family's Gondi dialect.
- Chief Deities: Major deities include Budhadeva, Thakur Dev (Tallubhet), Budhimai or Budhi Dokri, and Lingopen.
- They also have a house god (Chota pen, Bada pen, Manjhla pen) and a clan god (Gotranusara as the Kul Devta).
- Nature Worship: The tribe worships natural elements such as the Sun, Moon, rivers, mountains, and the Earth.
- Festivals : Major festivals include Pola, Kakasar, and Pandum, often linked to agricultural cycles.
- Dance and Music: Men and women are very fond of dancing and singing. Key dances include Kaksar, Gedi dance, and Rilo.
  - Traditional musical instruments like drums and flutes are used during performances.
- Folk Songs: Their folk songs include Dadriya, Relogeet, Poojageet, songs for marriage, engagement, and baby showers (chhatthi).
- Body Art: Tattooing (*Godana*) is considered a permanent jewel for Abujhmaria women.
- Social Structure:
  - The society is patriarchal and organized into clans (*gotras*).
  - They have a traditional caste panchayat system led by a *Manjhi* (chief).

### Lachit Borphukan

News: Every year, 24th November is celebrated as Lachit Diwas to mark the birth anniversary of Ahom general Lachit Borphukan.

#### About Lachit Borphukan

- Lachit Borphukan was an Ahom army commander known for leading the 1671 Battle of Saraighat against the Mughals.
- Birth: He was born on 24th November 1622.
- Battle of Saraighat: In the 1671 Battle of Saraighat, fought on the Brahmaputra River, he lured the Mughals into a naval battle and defeated their fleet.
- Guerrilla tactics: He preferred guerrilla tactics, using mobile forces to raid large Mughal camps and positions.
- Death: He died on 25th April 1672, a year after the Battle of Saraighat.
- He was the inspiration behind strengthening India's naval force and revitalising inland water transport and creating infrastructure associated with it due to his great naval strategies.
- Recognition: The Lachit Borphukan gold medal, instituted in 1999, is awarded to the best National Defence Academy cadet.

#### About Ahom Dynasty

- Established: The Ahom kingdom was founded in 1228 in the Brahmaputra valley of Assam.
- Founder: The kingdom was founded by Chaolung Sukapha.
- First permanent capital: Charaideo was the first permanent capital of the Ahom empire, which was founded by the Ahom monarch Chao Lung Siu-Ka-Pha.
- The Ahoms fought several Mughal campaigns between 1615 and 1682 while retaining independence.
- Ahom rule ended in 1826 when the Treaty of Yandaboo annexed the province to British India.

## SIDDHI 2.0 Platform

News: SIDDHI 2.0 is in the news because CCRAS has launched its second edition as a two-day national conclave in Vijayawada.

### About SIDDHI 2.0 Platform



Source – PIB

- Full form: Scientific Innovation in Drug Development, Healthcare & Integration (SIDDHI 2.0)
- It is the second edition of CCRAS's flagship industry–research interface initiative in Ayurveda.
- Launched by: It has been launched by the Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of Ayush.
- Aim: It aims to act as a national translational accelerator that promotes wider industry adoption of CCRAS technologies and supports the development of evidence-based, globally competitive Ayurvedic pharmaceuticals.
- SIDDHI 2.0 marks a decisive shift towards research-led product development, indigenous technologies, and faster translational pipelines, which are key priorities of India's current Ayush innovation strategy.
- Significance: It lays the foundation for a modern, evidence-driven, and scalable future for Ayurveda in alignment with India's national vision for holistic health.

### About Central Council for Research in Ayurvedic Sciences (CCRAS)

- It is an autonomous apex research body responsible for promoting scientific research in Ayurvedic Sciences.
- Nodal ministry: It is under Ministry of AYUSH.
- Establishment: It began in 1962 as the advisory Central Council for Ayurvedic Research.
- Purpose: To formulate, coordinate, and promote research in Ayurveda on scientific lines.
- Structure: It works through 30 institutes and collaborations with universities and hospitals.
- Objectives:
  - It frames research aims and undertakes programmes in Ayurveda.
  - It promotes institutions by financing enquiries and publishing literature.
  - It undertakes consultancy, sponsored R&D and national and international collaborations.

## Lake Urmia

News: Iran has used cloud-seeding over the Urmia Lake basin to address the country's severe drought.

### About Lake Urmia



Source: Britannica

- Location: It is a large oligotrophic and extremely hypersaline lake located in Iran.
  - It lies in the Armenian Highlands, between the provinces of Azerbaijan in Iran and west of the southern portion of the Caspian Sea
- It is the largest lake in the Middle East and the sixth-largest saltwater lake on Earth.
- The lake is surrounded by mountains in the west and north, and plateaus in the south and east.
- Feeding rivers: The inflow of water in the lake is from rivers like the Talkheh, Zarineh, and Simineh.
- Area: The lake covers an area ranging from 2,000 to 2,300 square miles.
- Elevation: It lies at an elevation of 4,183 feet (1,275 meters) above sea level.
- Protection status: The Lake, along with its 102 islands were protected to create Urmia Lake National Park in 1975.
- Features
  - Lake Urmia is known for its extremely salty water, which is one-fourth as salty as the Dead Sea.
  - Main salts in the lake are chlorine, sodium, and sulfates.
  - A unique feature of Lake Urmia is its changing colors in certain seasons.
  - The high salinity and microscopic activities cause the water to turn red and orange, creating a striking landscape.
  - The lake also has impressive salt dunes, adding to its natural beauty.
- Threats: Fluctuating water levels and reduced inflow due to climate change, water diversion, and human activity have raised concerns about the lake's future sustainability.

## Critical Mineral Recycling Incentive Scheme

News: Recently, the progress of the ₹1,500 crore Incentive Scheme for Critical Mineral Recycling was reviewed.

### About Critical Mineral Recycling Incentive Scheme

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.





Source: PIB

- The Critical Mineral Recycling Incentive Scheme is a ₹1,500 crore initiative under the National Critical Mineral Mission.
- Aim: To boost India's recycling capacity for extracting critical minerals from secondary sources.
- Objective: The scheme seeks to develop an annual recycling capacity of 3 lakh tonnes for critical mineral extraction.
- Project Management Agency: Jawaharlal Nehru Aluminium Research, Development & Design Centre (JNARDDC), Nagpur.
  - It manages the application process, supports stakeholders, and oversees implementation.
- Focus: It focuses on securing vital materials needed for clean energy technologies, electronics, EVs, and strategic sectors.
  - It also focusses on rapidly scaling up domestic recycling capacity to meet the growing industry demand for critical minerals essential for clean energy, electronics, mobility, and strategic sectors.
- Features of scheme
  - Targeted Secondary Sources: The scheme promotes extraction of minerals from: E-waste, Spent Lithium-ion Batteries (LiBs) and Industrial scrap and other secondary materials
  - Beneficiaries: The scheme include both large recyclers and small/new recyclers, including start-ups.
    - One-third of the scheme outlay is earmarked specifically for small and new recyclers.
    - The scheme supports investments in new units, capacity expansion, modernization, and diversification of existing facilities.
    - Incentives apply to the actual extraction of critical minerals, not just mass production.
- Significance: The scheme strengthens India's circular economy and reduces dependence on imported critical minerals. It supports sustainable resource management and accelerates India's clean-energy transition.

## Rare Earth Magnets

News: The Union Cabinet has approved 'Scheme to Promote Manufacturing of integrated Rare Earth Permanent Magnets' to promote manufacturing of sintered Rare Earth Permanent Magnets.

### About Rare Earth Magnet



- Rare earth magnets are permanent magnets made from alloys of rare earth elements.
- They are the strongest type of permanent magnets.
- They are made using rare earth elements such as neodymium, samarium and dysprosium.
- The manufacturing process of REPMs involves converting rare earth oxides into metals, then turning those metals into alloys, and finally forming them into finished magnets with precise shapes and properties.
- Properties: REPMs have very high magnetic strength despite being small and lightweight.
  - These magnets retain their magnetic power for a long time and perform well even under extreme conditions.
  - REPMs are important because they produce powerful magnetic fields even when they are small and lightweight, making them ideal for advanced industrial and technological applications.
  - Their strength and efficiency allow machines and devices to perform better, use less energy, and become more compact.

Types of Rare Earth Magnets: There are two main types of rare earth magnets, each with distinct properties and uses:

- Neodymium Magnets (NdFeB): They are made from neodymium, iron and boron. They are the strongest and most widely used rare earth magnets.
- Samarium Cobalt Magnets (SmCo): They are made from an alloy of samarium and cobalt. They are known for excellent high-temperature performance and strong resistance to corrosion and demagnetization.

Uses: REPMs are essential in several key sectors, including:

- Electric vehicles (EVs): Used in motors for higher efficiency
- Renewable energy: Used in wind turbine generators
- Electronics: Found in smartphones, laptops, speakers and hard drives
- Aerospace and defence: Used in precision instruments and high-tech equipment

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Medical devices: Found in equipment like MRI machines and surgical tools.

Due to their importance in modern industries, REPMs are considered critical for national security and technological growth.

### Ningaloo Reef

News: An unprecedented marine heatwave has caused catastrophic damage to the UNESCO-listed Ningaloo Reef in Western Australia, killing nearly 70% of its corals.

#### About Ningaloo Reef

Source: [youraussieholiday.com.au](http://youraussieholiday.com.au)

Location: Ningaloo Reef is located on Western Australia's remote northwest coast along the East Indian Ocean. It is about 1,200 km north of Perth.

- The reef is bordered by the striking red limestone ranges of Cape Range National Park.
- The reef forms part of the Ningaloo Coast World Heritage Area, which includes the reef and the adjoining Cape Range Peninsula.

Marine Biodiversity: Ningaloo sustains both temperate and tropical marine life, including mammals, reptiles, and diverse fish species.

- Coral Diversity: The reef contains around 250 coral species, including 200 hard corals, forming vibrant coral gardens.
- Fish Diversity: Over 500 species of fish inhabit the reef, contributing to its rich marine ecosystem.
- Mega Marine Species: The reef is home to manta rays, whale sharks, humpback whales, potato cod, dugongs, reef sharks and six species of sea turtles.
  - Ningaloo hosts one of the world's largest seasonal aggregations of whale sharks, making it one of the best places on earth to swim with them.

Aboriginal Heritage: The Yinikutira (Jinigudira) are the traditional owners of the Ningaloo Coast and the Cape Range region.

Recreational Activities: Ningaloo Reef is a popular destination for snorkelling, scuba diving, kayaking and marine wildlife tours.

### Sirpur Archaeological Site

News: Chhattisgarh government is giving the Sirpur archaeological site a major upgrade, including battery-operated golf carts, digital exhibits, and immersive storytelling modules, as part of its efforts to prepare Sirpur for a UNESCO World Heritage Site nomination.

#### About Sirpur Archaeological Site



Source: IE

- Location: Sirpur is located in the Mahasamund district of Chhattisgarh.
- The site dates back to the 5th–12th centuries CE and contains monuments from multiple religious traditions.
- Sirpur stands on the banks of the Mahanadi River. Historically, it was known as Shripur or Sripura during its flourishing phase.
- History: Sirpur served as the capital of Dakshina Kosala under the Panduvanshi and later the Somavamshi kings.
- Discovery: The archaeological site was first discovered in 1882 by Alexander Cunningham. Major excavations were conducted in the 1950s, 1990s and again in 2003.

### Archaeological Discoveries in Sirpur

**Temples and Monasteries:** Archaeologists uncovered 22 Shiva temples across the site. Excavations also revealed five temples dedicated to Vishnu.

- The Laxman Temple, dedicated to Lord Vishnu, is a notable example of Nagara-style architecture.
- The Gandheshwar Temple is renowned for its detailed carvings that highlight the artistic excellence of the period.
- The Surang Tila complex features a raised terrace accessed by 37 steps and built in panchayatana style.

**Buddhist Centres:** Ten Buddhist viharas have been found along with large monasteries like the Tivaradeva Mahavihara which was a major Buddhist centre.

**Jain Centres:** Three Jain viharas form part of the multi-religious blend of the site.

**Sculptures and Artifacts:** Exquisite sculptures of deities and fragments of ancient pottery demonstrate the skilled craftsmanship of the region's artisans.

### Sirpur's Trade and Commerce



Sirpur's position along the Mahanadi River made it a strategically important trade centre. The region prospered as a hub for trading goods such as gemstones, textiles, and spices. Remains of old marketplaces highlight the city's significance in regional and long-distance trade.

### Tex-RAMPS Scheme

News: The Government of India has approved the Tex-RAMPS scheme to boost innovation and competitiveness in the textiles sector.

#### About Tex-RAMPS Scheme



Source – Ministry of Textiles

- Textiles Focused Research, Assessment, Monitoring, Planning and Start-up (Tex-RAMPS) Scheme is for future-proofing India's textiles and apparel ecosystem.
- Type of Scheme: It is a Central Sector Scheme.
- Ministry involved: It is fully funded and implemented by the Ministry of Textiles.
- Timeline: The scheme is co-terminus with the upcoming Finance Commission cycle.
- Aim: It addresses critical gaps in research, data systems, innovation support and capacity development.
- Vision: Its vision is to position India as a global leader in sustainability, technology and competitiveness.
- Financial layout: The scheme has an outlay of ₹305 crore for 2025–31.
- Key component: The key components are research and innovation, data, analytics and diagnostics, the Integrated Textiles Statistical System, capacity development and knowledge ecosystem, and start-up and innovation support.
- Key features:
  - Integrated Textiles Statistical System (ITSS): It is a real-time analytics platform intended to improve structured monitoring and strategic decision-making across the sector.
  - It will foster entrepreneurship by supporting incubators, hackathons and collaborations between academia and industry to promote high-value textile start-ups.

### Finn's Weaver

News: Finn's Weaver Bird is in the news because its population is rapidly declining in the Terai region.

#### About Finn's Weaver



Source – DTE

- The Finn's Baya (*Ploceus megarhynchus*) is also called as Finn's Weaver, Yellow Weaver and Himalayan Weaver.
  - In Uttarakhand, it is called *Pahari* (hill) Baya.
- Naming: The weaver bird was named Finn's Weaver after Frank Finn, the British officer who identified the bright yellow colour during the breeding season.
- First identified by: It was first identified by A O Hume (father of Indian ornithology).
- Habitat: It lives near dams and reservoirs where marshy soil, water and tall grasses provide nesting sites.
- Distribution: It is native to the Ganges and Brahmaputra valleys in India and Nepal, especially the Terai grasslands.
- Diet:
  - Finn's Weavers are primarily Granivorous.
  - It is also an opportunistically (during the breeding period) insectivorous.
- Conservation status
  - IUCN Red list: It is in Endangered category.
  - Wildlife Protection Act, 1972: It is placed in Schedule IV of the Wildlife Protection Act, 1972.
- Threats: Expansion of agriculture, grass cutting, construction and water management decisions, along with floods, crow attacks and breeding failures, threaten this species.

### **Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM)**

News: The Union Cabinet approved the Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets with a financial outlay of Rs. 7,280 crore.

### **About Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM)**

**Cabinet clears ₹7,280 crore scheme to make India a global hub for Rare Earth Permanent Magnets**

**Scheme**

India's first scheme to set up integrated facilities for producing sintered Rare Earth Permanent Magnets, from oxides to finished magnets

**Total outlay: ₹7,280 crore**  
**Project duration: 7 years**

**Benefits**

- Reduces import dependence and boosts self-reliance
- Secures supply chains for EVs, renewables, electronics, defence
- Supports rising magnet demand (expected to double by 2030)
- Generates jobs and strengthens manufacturing competitiveness
- Aligns with Atmanirbhar Bharat & Net Zero 2070 goals



Source – PIB

- It is a first-of-its-kind national initiative to build a complete domestic supply chain from rare earth oxides to finished high-performance Rare Earth Permanent Magnets (REPMs).
  - It will support setting up integrated REPM manufacturing units that convert rare earth oxides into metals, then metals into alloys, and finally alloys into finished magnets.
- Nodal ministry: The nodal ministry is the Ministry of Mines (with oversight from the Department of Atomic Energy and NITI Aayog).
- Targets
  - Establish 6,000 Metric Tons per Annum (MTPA) integrated REPM manufacturing capacity.
  - Select 5 beneficiaries through global competitive bidding, each with up to 1,200 MTPA capacity.
- Financial outlay
  - Total outlay: Rs. 7,280 crore
    - Rs. 6,450 crore as sales-linked incentives for five years.
    - Rs. 750 crore as capital subsidy for setting up 6,000 MTPA capacity.
- Duration: The total duration of the scheme will be 7 years from the date of award which include-
  - a 2-year gestation period for setting up an integrated REPM manufacturing facility
  - 5 years for incentive disbursement on the sale of REPM.

#### Current Status of India w.r.t. Rare Earth Permanent Magnets (REPMs)

- Rare earth reserves in India: India has 6.9 million tonnes of rare earth reserves, (5th largest globally), yet contributes around 1% to global production.
  - Distribution:
    - It spread across coastal placer sands in Odisha, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat.
    - It is also found in hard-rock deposits in Rajasthan and Gujarat.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- REPMs consumption in India: India currently consumes about 4,000–5,000 tons per annum (TPA) of permanent magnets.
  - Future demand: REPM demand is expected to double by 2030 from 2025 due to electric vehicles, renewable energy, and electronics.
  - Import dependent: Presently, REPM demand is almost fully import-dependent.

NOTE: For more information on Rare Earth Permanent Magnets (REPMs), please click [here](#).

### NUDGE Initiative

News: The Central Board of Direct Taxes (CBDT) is launching the second NUDGE Initiative based on its analysis of Automatic Exchange of Information (AEOI) data for FY 2024–25.

#### About NUDGE Initiative



Source – ET

- Full form: “Non-intrusive Usage of Data to Guide and Enable (NUDGE)” initiative
- Implementing agency: Central Board of Direct Taxes (CBDT)
- Nodal Ministry: Ministry of Finance
- Aim: To strengthen voluntary tax compliance through data-driven, non-intrusive communication.
- Focus: It focuses on helping taxpayers correctly disclose foreign assets and foreign-source income.
- First NUDGE Campaign: The first NUDGE Campaign was launched in November 2024.
  - It targeted taxpayers flagged under Automatic Exchange of Information (AEOI) for not reporting foreign assets in AY 2024–25.
  - It resulted in: 24,678 taxpayers revising returns, disclosure of ₹29,208 crore worth foreign assets and declaration of ₹1,089.88 crore foreign-source income.
- Second NUDGE Campaign: The second NUDGE Campaign was launched in November 2025.
  - Under the campaign, SMSs and emails will be issued to such taxpayers whose foreign assets appear to exist but have not been reported in the ITRs filed for AY 2025-26.



- This is to advise them to review and revise their returns on or before 31st December 2025 to avoid penal consequences.
- The campaign aims to facilitate correct reporting in Schedule Foreign Assets (FA) and Foreign Source Income (FSI) in ITRs.
- Note: Accurate and complete disclosure of foreign assets and income is a statutory requirement under the Income-tax Act, 1961 and the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015.

#### About Automatic Exchange of Information (AEOI)

- It is a system for the regular exchange of financial account information between tax authorities of different countries under international agreements developed by the Organisation for Economic Co-operation and Development (OECD).
- Objective: To promote global tax transparency and curb tax evasion by enabling jurisdictions to access information about their residents' foreign financial assets.
- The framework operates through major international standards such as
  - Common Reporting Standard (CRS)
  - Foreign Account Tax Compliance Act (FATCA)
- These frameworks require financial institutions to identify and report accounts held by specified individuals and entities to their respective tax authorities.
- AEOI significantly aids tax administrations in detecting undisclosed offshore assets, recovering tax revenue, and encouraging voluntary compliance.

#### Bnei Menashe

News: Israel has approved a plan to bring the remaining 5,800 Bnei Menashe Jews from Northeast India to the country within the next five years.

#### About Bnei Menashe



Source: The Week

- The Menashe or Bnei Menashe are an indigenous community from Manipur and Mizoram in Northeast India.
- They belong mainly to the Chin, Kuki, Mizo, and Zo ethnic groups.

- The community believes it descends from the biblical Tribe of Menashe, one of the Ten Lost Tribes of Israel exiled by the Assyrian Empire roughly 2,700 years ago.
  - According to historians, the community is believed to have reached India approximately three to five centuries ago.
  - Their claim has cultural and traditional roots, though it is not scientifically proven.
- They are Christians who have converted to Judaism and now follow traditional Jewish practices, including observing holidays like Sukkot.
  - Over the last several decades, many Bnei Menashe have embraced Jewish rituals.
- In 2005, they were recognized as “Zera Yisrael” (descendants of Israel), a classification that allowed them to pursue immigration.
- In November 2025, Israel approved a plan to bring all remaining 5,800 Bnei Menashe from Northeast India over the next five years, completing their Aliyah by 2030.

### Grey Seal (*Halichoerus grypus*)

News: A recent study found that grey seal milk contains 332 different kinds of oligosaccharides, making it more complex than human milk.

#### About Grey Seal (*Halichoerus grypus*)



Source – Wildlife Trust

- Grey seal is a marine mammal belonging to the family Phocidae.
- It is also called the Atlantic seal or the horsehead seal.
- Habitat: It spends most of their lives in coastal waters.
  - On land, it hauls out on rocky coasts, islands, sandbars, ice shelves, and icebergs.
- Distribution: It is found across shores of the North Atlantic Ocean, from the mid-Atlantic region to the Baltic Sea.
- Features
  - Males can grow up to 10 feet long, while females are smaller.
  - Males have large, horse-like heads.
  - Pups are born with white lanugo fur which helps retain warmth by absorbing sunlight and trapping heat.
  - Behaviour: It is diurnal, active during the day and sleeping at night.
    - It displays bottling behaviour, where the seal floats vertically with only its head above water.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Diet: It is carnivores feeding mainly on benthic or demersal fish, squid, and occasionally seabirds.
- Indicators species: Being apex predators, it absorbs high levels of pollutants, serving as indicators of marine ecosystem health.
- Life Span: It typically lives between 25 and 35 years.
- Conservation Status: It is listed as Least Concern on the IUCN Red List.
- Threats: They face threats from receding ice cover, pollution, shrinking fish stocks, and disease.

### About Grey Seal Milk

- Grey seal milk contains 332 types of oligosaccharides, the highest recorded in any mammal milk, surpassing human milk which averages 100.
  - Oligosaccharides are carbohydrates composed of a small number (typically 2 to 10) of monosaccharide sugar units. They are found in foods like fruits, vegetables, legumes, and milk.
  - They act as prebiotics, feeding beneficial gut bacteria and supporting gut health.
- These sugars help protect against viruses and bacteria, support gut development, and promote healthy microorganism growth in pups.
- Grey seal milk may help develop future medicines or may be added to breast milk substitutes to strengthen infant immunity.

### Key Facts About Italy

News: The Italian Parliament has approved a law recognizing femicide, with support from both ruling and opposition parties, to better protect women.

### Key Facts About Italy



Source – Britannica

- Location: Italy is located in Southern and Western Europe, consisting of a peninsula extending into the Mediterranean Sea and several islands.
- Capital: The capital and largest city of Italy is Rome.
- It is the tenth-largest country in Europe by area and the third-most populous EU member.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

- Land boundaries
  - It shares land borders with France, Switzerland, Austria, Slovenia and enclaves Vatican City and San Marino.
  - Exclave: Campione d'Italia is an Italian exclave in Switzerland.
- Coastline Border: Italy has a coastline of 7,600 km on the Mediterranean Sea, the Ligurian and Tyrrhenian seas, the Ionian Sea, and the Adriatic Sea – including its islands.
- Climate: Coastal areas largely follow a Mediterranean climate, while inland northern and central regions experience humid subtropical conditions.
- Mountains
  - The Apennine Mountains run through the centre of the peninsula, while the Alps mountain form most of its northern boundary.
  - Highest point: Mont Blanc
- River
  - The Po River is the longest river of Italy which flows across the Padan plain.
  - Most of its rivers drain into the Adriatic or Tyrrhenian Sea.
- Lake: Lake Garda is the largest lake of Italy.
- Volcanic Features
  - Active volcanoes – Mount Etna (largest in Europe), Stromboli, and Vesuvius.
- Terra Rossa: Much of southern and coastal Italy has a soil known as Terra Rossa — a reddish, clayey to silty-clay soil formed over limestone or dolomite in Mediterranean climate zones.

### **International Maritime Organization (IMO)**

News: India has been re-elected to the Council of the International Maritime Organization (IMO) in Category B, comprising 10 countries with the largest interest in international seaborne trade.

#### **About International Maritime Organization**



Source: IMO

- International Maritime Organization is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.
- Purpose: To create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented.
- Established in: It was established in 1948 and the IMO Convention entered into force in 1958.

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



- Headquarters: London, UK
- Member states: IMO currently has 176 Member States and three Associate Members.
  - India joined the IMO in 1959.
  - There are 67 intergovernmental organizations which have observer status and 88 international non-governmental organizations in consultative status with IMO.
- Structure of the organisation:
  - IMO is led by the Secretary General.
  - IMO Assembly: It consists of all Member States and is the highest governing body of the Organization.
  - IMO Council: It is elected by the Assembly for a term of two years. It acts as the executive organ of IMO and is responsible for supervising the work of the Organization.

### Vikram-I

News: Recently, the Prime Minister has unveiled India's first privately developed orbital launch vehicle Vikram-I.

#### About Vikram-I



Source: News11

- Vikram-I is India's first privately developed orbital-class rocket.
- Built by: Skyroot Aerospace in Hyderabad.
- Launched by: Skyroot Aerospace is targeting early 2026 for Vikram-I's maiden orbital flight.
- Named after: It is named after Dr. Vikram Sarabhai, the pioneer of India's space programme.
- Purpose: Vikram-I is designed to serve the small satellite launch market with rapid, affordable orbital access.
- The rocket is intended to support dedicated launches, rideshare missions, and multi-orbit deployments for small satellite operators.
- It aims to provide fast turnaround, enabling assembly and launch within 24 hours from any launch site.
- Features:
  - Dimensions: The rocket stands 20 meters tall and has a diameter of 1.7 meters, making it compact yet powerful.
  - It generates 1,200 kN of thrust using solid propulsion in its first three stages.

- It uses an all-carbon composite structure, which reduces weight while improving strength and efficiency.
- It incorporates 3D-printed engines that reduce engine mass by up to 50% and cut production time by 80%.
- It uses ultra-low-shock pneumatic separation systems, which ensure safer and smoother stage separation.
- Its advanced avionics system enables precise real-time guidance during ascent.
- The rocket includes a restartable orbital adjustment module, allowing insertion into multiple orbits in a single mission.
- Payload Capacity: Vikram-I can carry up to 350 kg to Low Earth Orbit (LEO).
  - It can deliver 260 kg to a Sun-Synchronous Orbit (SSO).
  - It is capable of lifting 290 kg to a 500 km SSO, and 480 kg to a 500 km LEO at a 45° inclination, depending on mission profile.
- Propulsion System:
  - Stage 1 – Kalam-1200: Kalam-1200 is a 10-meter solid rocket motor made from carbon fiber. It produces a peak thrust of 120 tons and burns for 80–100 seconds.
  - Stage 2 – Kalam-250: The second stage uses solid propulsion similar in design to the first stage.
    - It provides the mid-ascent boost after first-stage separation.
  - Stage 3 – Kalam-100: The third stage, known as Kalam-100, produces 100 kN of thrust in vacuum for 108 seconds.
  - Stage 4 – Raman Engine Cluster: The fourth stage uses a cluster of four Raman engines, each producing 3.4 kN of thrust.

### **International IDEA 2026**

News: Chief Election Commissioner of India is set to assume the Chairship of the International Institute for Democracy and Electoral Assistance (International IDEA) for 2026.

#### **About International IDEA**



Source – International IDEA

Created with love ❤ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

## Factly Compilation November 2025

- International IDEA (International Institute for Democracy and Electoral Assistance) is an intergovernmental organisation founded in 1995.
- It works to strengthen democratic institutions and electoral processes worldwide.
- The organisation promotes inclusive, resilient, and accountable democracies globally.
- Membership: It has 35 member countries, with the US and Japan as observers.
  - India is a founding member of International IDEA and has consistently contributed to its governance and democratic initiatives.
- Governance
  - The Institute's governance consists of a Council of Member States, a Steering Committee, a Finance and Audit Committee, a Board of Advisers and a Secretariat, led by the Secretary-General.
  - The Council of Member States are governments from all regions.
  - Chairship: Each year, the Council elects a Chair and two Vice Chairs among its Members States.
- Registered Electors (35 IDEA Member Countries): 1,887,164,374

### About International IDEA 2026

- Chief Election Commissioner (CEC) of India will assume the Chairship of International IDEA in 2026.
- As Chair, India will preside over all council meetings throughout 2026.
- Significance: The Chairmanship is seen as a major global recognition for the Election Commission of India (ECI).