

FORTUNE Prelims Precise

November 2024



Preface

Fortune IAS Academy presents '**Prelims Precise**', a monthly current affairs magazine through which we make prelims current affairs revision precise and effective.

This magazine is a comprehensive resource that condenses the significant news of each month into distinct sections such as polity and governance, economic development, science & technology, among others.

Each content is organised with the why in news context followed by its explanation.

Fortune Prelims Precise is available to all Prelims cum Mains batch students (2024) as part of the course study material. **It can be purchased from Fortune IAS Academy for Rs. 50 per issue.**

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History & Culture

Bidar Fort



- The **Karnataka Wakf Board** has **controversially claimed 17 monuments** inside the historic Bidar Fort as its property, a move unknown to the Archaeological Survey of India (ASI), which manages the fort.
- **The Bidar Fort** was originally constructed in the 8th century CE and later reconstructed in **1428 CE by Ahmad Shah Al Wali of Bahmani sultanate** when he shifted the capital from Hasanabad (now Kalaburagi) to Muḥammadābād (now Bidar).
- Fort then passed on to the Bijapur Sultanate, the Mughals and finally the Nizams.
- The fort showcases a blend of **Persian, Islamic, and Indian architecture**.
- It has 7 entrances including the **Sharza Darwaza and Gumbad Darwaza and is surrounded by a triple moat for defense**.
- **Solah Khamba Masjid**, one of the largest in India, with its 16 pillars is part of the fort.
- Fort also has the unique **Karaz water supply system** that was introduced from Persia.

Chhath Puja

- The Prime Minister recently extended his greetings to people on **Nahay-Khay in the Chhath festival**.
- Chhath Puja, celebrated **six days after Diwali** in October-November, honors the **Sun God (Surya) and Usha** for sustaining life.

- It is a prominent festival in Bihar, Jharkhand, parts of Uttar Pradesh, and Nepal.
- Rituals include **fasting and bathing in rivers or ponds**.
- The **first day, Nahay-Khay**, involves a ceremonial bath followed by a meal.
- In Tamil Nadu, **Skanda Shasti** is observed around this time, dedicated to **Lord Kartikeya (Murugan)**.
- Chhath is **inclusive, with no caste barriers** or priestly intermediaries.



Raja Raja Chola I



- The birth anniversary of Raja Raja Chola I was celebrated during the **Sadhya Vizha at the Brihadishwara Temple, Thanjavur**, Tamil Nadu, in the Tamil month of Aippasi (mid-October to mid-November).
- Known as **Arulmozhi Varman** before his coronation, **Raja Raja Chola I (947–1014 CE) reigned from 985 to 1014 CE**, expanding his empire to Sri Lanka, the Maldives, Kerala, and Lakshadweep.

- His reign was marked by military conquests, administrative vision, and cultural patronage, including building the **Brihadishwara Temple in 1010 CE**.
- He introduced **new coins featuring a figure of the standing king and on the reverse the seated goddess**, replacing older Chola coins with the tiger emblem.
- His life is celebrated in **Kalki Krishnamurthy's Ponniyin Selvan**, adapted into films.
- Raja Raja Chola I was succeeded by his son Rajendra I.

MS Subbulakshmi



- The Madras High Court **barred The Hindu from awarding the 'Sangita Kalanidhi MS Subbulakshmi Award' to T.M. Krishna** in M.S. Subbulakshmi's name.

- The award, established by The Hindu in 2005, **accompanies the Music Academy's Sangita Kalanidhi title**,

instituted in 1942.

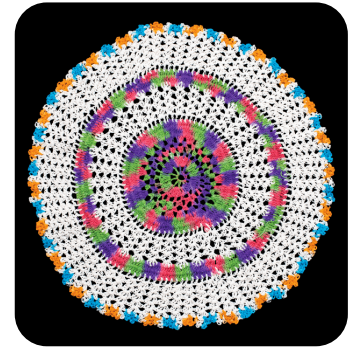
- The court ruled that the award and cash prize **can be given to Krishna without associating it with M.S. Subbulakshmi**.

Legacy:

- ✓ Born as Madurai Shanmukhavadiyu Subbulakshmi in Madurai on September 16, 1916.
- ✓ M.S. Subbulakshmi debuted on stage at 13 getting her earlier lessons into music from her mother and grandmother, who had a devadasi lineage.
- ✓ Praised by leaders like Gandhi and Nehru, she **became the first woman to receive the Sangita Kalanidhi title in 1968**.
- ✓ She was awarded the **Bharat Ratna (1998), Padma Bhushan (1954), Padma Vibhushan (1975), and the Ramon Magsaysay Award (1974)**.
- ✓ **Affectionately called 'Meera'** for her role of 16th century saint Mirabai in the Tamil film **Meera** (1945), she also supported the **Tamil Isai Movement**, promoting Tamil compositions in Carnatic music.

Narasapuram lace craft

- Narasapuram crochet craft, with its tradition of lace-making dating back to the 19th century, has received the prestigious **Geographical Indications (GI) tag**.



- **Narasapur is a tiny township in the West Godavari district of Andhra Pradesh**, sitting pretty on the right bank of **Godavari**.
- The womenfolk of the farming community began to use their leisure time to create wonderful artefacts from colourful lace.
- The lace work is **done using thin threads and these are again woven with thin crochet needles** of varying sizes.
- Narsapur's famed hand-made crochet industry produces doilies, pillow covers, cushion covers, bed spreads, table-runners, and tablecloths etc.

Global Engagement Scheme (GES)



- The **Ministry of Culture** has been implementing the "Global Engagement Scheme" **to promote India's rich cultural heritage across the globe**.
- It was previously known as the **Scheme for promotion of International Cultural Relations**.
- Under the Scheme, **the Festivals of India (Foi) is organized abroad** to promote people to people connect and bilateral cultural contacts.
- The Ministry promotes **Indian folk through Grant-in-aid to Indo-Foreign Friendship Cultural Societies** in foreign countries for organizing cultural activities.
- Also, the Ministry administers a Scheme by the name of **'Financial Assistance for Veteran Artists'** with the objective **to support old and poor artists aged 60 and above**, who have contributed significantly in folk art or are still contributing.

Polity & Governance

National Company Law Tribunal (NCLT)

- The Supreme Court has drawn attention to the shortage of members in the **National Company Law Tribunal (NCLT)**.

NCLT:

-  **NCLT** is a quasi-judicial body (meaning it has the powers of a court to hear and decide cases based on legal principles) under the Ministry of Corporate Affairs.
-  It was established under the **Companies Act, 2013** in 2016, replacing the Company Law Board (CLB)

Functions:

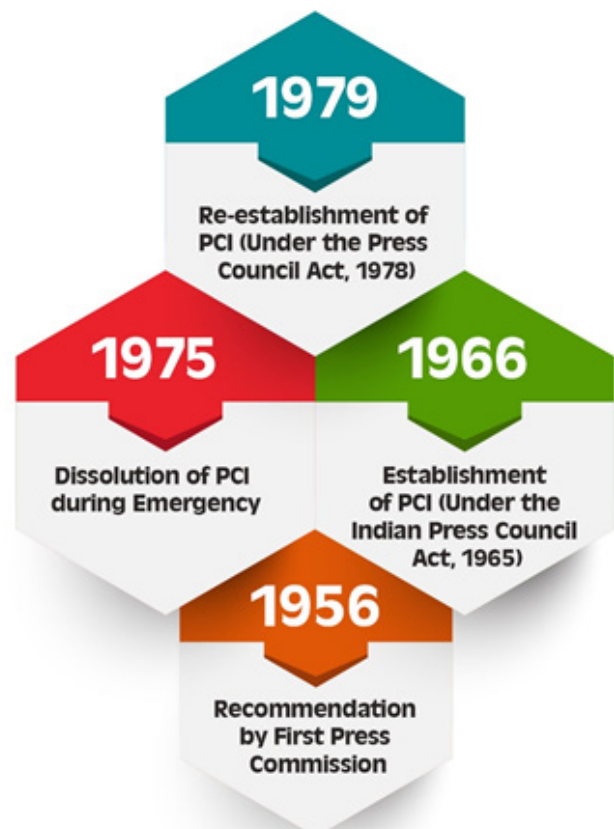
- ✓ Handles insolvency and liquidation cases under the **Insolvency and Bankruptcy Code (IBC), 2016**.
- ✓ Resolves **corporate disputes** like mismanagement, mergers etc.
- ✓ Manages the winding-up of companies under the **Companies Act, 2013**.
- ✓ Oversees **investigations** into corporate fraud and company affairs.
- The NCLT has its **Principal Bench in New Delhi** and 16 other Benches.
- Each bench is chaired by a **Judicial member** (a serving or retired High Court Judge) and a **Technical member** (from the Indian Corporate Law Service).
- Appeals from NCLT decisions can be made to the **National Company Law Appellate Tribunal (NCLAT)**, with further appeals to the **Supreme Court**.

Press Council of India (PCI)

- National Press Day**, observed on 16th November, had the theme “Changing Nature of the Press” this year bringing the importance of the press regulator, **Press Council of India**.

- The **Press Council of India (PCI)** was established in **1966** under the **Indian Press Council Act, 1965**, to uphold press freedom and ethical journalism.
- It was **repealed in 1975** during the emergency and re-established in **1979**.
- PCI includes a **chairperson** (a retired Supreme Court judge) and **28 members** from journalism, Parliament, and other fields.
- The Chairperson is **appointed by the Central government** based on the recommendation of a **committee** that includes the Speaker of the House of People (Lok Sabha), the Chairman of the Council of States (Rajya Sabha), and a member elected by the PCI's 28 members.
- It can **investigate unethical practices** but lacks authority over electronic and social media, issuing only recommendations and guidelines.

Press Council of India Key Milestones



Grievance Redressal Assessment & Index (GRAI)

- The **2nd edition of the Grievance Redressal Assessment and Index (GRAI) 2023** was recently launched by the central government.
- It is conceptualized by the **Department of Administrative Reforms and Public Grievances (DARPG)**.
- GRAI evaluates grievance redressal mechanisms in **89 Central Ministries and Departments** based on **Efficiency, Feedback, Domain, and Organizational Commitment** across **11 indicators**.
- The rankings use data from the **Centralised Public Grievance Redressal and Management System (CPGRAMS)**.
- The **Department of Agriculture, CAG, and Department of Investment & Public Asset Management** topped the rankings.

CPGRAMS

- ☞ It was launched in **2007** by the **DARPG** and allows citizens to file grievances online with any Central Ministry or Department 24/7.
- ☞ Citizens can submit grievances and track them using a unique registration number.
- ☞ The system also digitizes grievances received by post and integrates various grievance mechanisms, including those of the **PMO, President's Secretariat, and Cabinet Secretariat**.
- ☞ Ministries upload the **Action Taken Report (ATR)** for transparency.

Samvidhan Divas

- India observed the **National Constitution Day, also known as Samvidhan Divas** on November 26.
 - ☞ This date signifies the **culmination of nearly three years of rigorous debate** and drafting by the Constituent Assembly in Delhi.
- The **Constitution Day** celebrated annually commemorates the adoption of the Indian Constitution by the Constituent Assembly on November 26, 1949.
 - ☞ The Constitution came into effect on January 26, 1950, which is marked as **Republic Day**.

- In 2015, the **Ministry of Social Justice and Empowerment** designated November 26 as Constitution Day to promote constitutional values.
 - ☞ Before this, the day was **celebrated as Law Day**.

Minority Institution status case

- The Supreme Court of India clarified the criteria for determining whether an **educational institution qualifies as a minority institution** under **Article 30**.
- The ruling followed a **2019 referral in the Aligarh Muslim University (AMU) case**.
- AMU is **Constitutionally recognized as "Institutions of National Importance"** as per Entry 63 of Union list in seventh schedule.
- The Court stated that **such a recognition "doesn't disqualify an institution** from minority status.
- AMU had previously been denied minority status in the **1967 Azeez Basha case**, though later verdicts were inconsistent, prompting the referral.

Supreme Court's Test for Minority Institutions:

Two-Part Test:

1. Establishment:

- ✓ Evaluates origin and purpose whether by minorities.
- ✓ Considers founding intent, funding sources, and oversight.

2. Administration:

- ✓ Minority institutions can appoint community members but are not obligated.
- ✓ Misaligned administration may suggest it was not primarily for minority benefit.

Aligarh Muslim University (AMU)

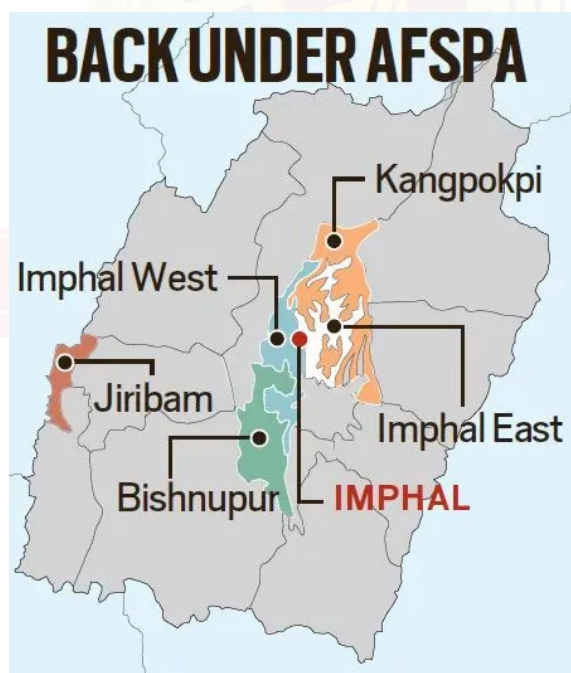
- Sir Syed Ahmed Khan founded the **Muhammadan Anglo-Oriental College (MAO) in 1877** to provide modern education to Muslims while preserving Islamic values.
- Though primarily for Muslims, the college was **open to all communities**.

- In **1920**, the institution was incorporated into **Aligarh Muslim University (AMU)** through the **AMU Act**, merging MAO College with another Muslim University Association.

Economy

The Armed Forces (Special Powers) Act, 1958

- The Union government **reimposed the Armed Forces (Special Powers) Act (AFSPA)**, in areas under the jurisdiction of six police stations across five **Manipur** districts.
- The AFSPA in its original form was promulgated by the British **in response to the Quit India movement in 1942**.
- After independence, India **decided to retain the act** through a parliamentary law.
- AFSPA provides for **special powers for the armed forces** that can be imposed by the **Centre or the Governor of a state**, on the state or parts of it, after it is declared **“disturbed” under Section 3**.
- **The Disturbed Areas notification is applicable for a period of six months**, following which it can be periodically extended by the Ministry of Home Affairs after assessing the situation.
- It grants the armed forces **special powers in “disturbed” areas**, allowing them to open fire, arrest individuals without warrants, and search premises without prior approval.
- These powers are given to security personnel with blanket impunity, making the **Act highly controversial and criticized for its perceived draconian nature**.



Domestic Systemically Important Banks (D-SIBs)

- The Reserve Bank of India (RBI) has retained **SBI, ICICI Bank, and HDFC Bank** as Domestic Systemically Important Banks (D-SIBs).
- These banks are deemed **“Too Big To Fail” (TBTF)**, and their failure could disrupt the domestic financial system and economic activity.
- **D-SIB Framework:** Introduced by RBI in 2014, it classifies banks into 5 buckets based on their **Systemic Importance Scores (SISs)**.
- D-SIBs must maintain **higher capital buffer**
- **Banks** are usually required to maintain the **Common Equity Tier 1 (CET1) capital** which includes shares, retained earnings, and other reserves, which are crucial for absorbing losses in times of financial stress.
- ✓ D-SIBs in addition to CET1 have to maintain an **additional common equity requirement (Additional CET1) surcharge** with respect to its bucket listing.
- ✓ **Additional CET1 requirement** is proportional to its **Risk Weighted Assets (RWAs)**

Global Systemically Important Bank (G-SIBs):

- **G-SIBs** are banks whose failure or disorderly collapse would have a **significant negative impact on the global economy**
- **The Financial Stability Board (FSB)**, which has representatives from major financial regulatory authorities, including central banks, finance ministries, and international financial organizations, identifies G-SIBs.
- In case a **foreign bank** having branch presence in India is a Global Systemically Important Bank (G-SIB), it also has to maintain an **additional CET1 capital surcharge** in India as applicable to it as a G-SIB, proportional to its Risk Weighted Assets (RWAs) in India.

Foreign Contribution Regulation Act (FCRA)

- The **Ministry of Home Affairs (MHA)** has recently cited reasons to deny or cancel foreign fund registration of NGOs under the Foreign Contribution Regulation Act (FCRA).
 - ★ Some reasons include: **diversion of foreign funds for carrying out anti-development activities or inciting malicious protests and religious conversions**; not responding to **summons or requests to disclose data**; **links with terrorist organisations** or anti-national organisations among others.
- The **FCRA was enacted during the Emergency in 1976** and **amended under the UPA government in 2010** to “consolidate the law” on utilisation of foreign funds, and “to prohibit” their use for “any activities detrimental to national interest”.

The FCRA requires **every person or NGO seeking to receive foreign donations** to be

Registered under the Act,

- To open a bank account for the receipt of the foreign funds in **State Bank of India, Delhi**, and
- To utilise those funds **only for the purpose for which they have been received** and as stipulated in the Act.

They are also required **to file annual returns**, and they must not transfer the funds to another NGO.

The Act also prohibits the receipt of foreign funds by **candidates for elections, journalists or newspaper and media broadcast companies, judges and government servants, members of legislature and political parties or their office-bearers, and organisations of a political nature.**

The MHA is required to approve or reject the application of registration **within 90 days**.

Once granted, FCRA registration **is valid for five years**.

- 📄 NGOs are expected to apply for **renewal within six months of the date of expiry** of registration.

Corporate Social Responsibility (CSR)

- According to the information from the **National CSR Portal**, from 2014 to 2023, Rs 1.84 lakh crore of **Corporate Social Responsibility (CSR)** funds were disbursed.
- India became the **first country to legally mandate Corporate Social Responsibility (CSR)** from 2014.
- It falls under **the ambit of the Ministry of Corporate Affairs**.
- **Section 135 of the Companies Act 2013** outlines the rules and regulations governing CSR.
- **Schedule VII of the Companies Act** names the activities (shown in figure)

Any company (including foreign which has branches in India) with Net Worth of ₹500 crore+ or turnover of ₹1,000 crore+ or net profit of ₹5 crore+ from their business in India have to **spend 2% of the average net profits made during the preceding 3 years** for the above listed CSR activities in India.

- As of now, CSR sectors like **healthcare and education** are the funds' largest recipients and make up half of the total CSR contributions until 2023.
- Spending **cannot be on their own employees** while contributions to Central government funds like PM National Relief Fund (PMNRF) and PM CARES fund are included.
- A **CSR committee** must be set up with the **CSR funds and unused funds held in separate accounts by the company**.

List of Approved CSR Activities Under Schedule VII



World Intellectual Property Indicators (WIPI) 2024 Report

- Geneva based UN Specialised Agency, **The World Intellectual Property Organization (WIPO)** has released the **annual WIPI Report**
- **Intellectual Property (IP)** refers to creations of the mind like inventions, literary works, designs, and symbols.
- It is protected by **patents, copyrights, trademarks, and trade secrets**, allowing creators to control and benefit from their work.

Findings:

- India now ranks **6th globally in terms of patent applications**, with 64,480 patent filings in 2023.

Patents:

- ◆ India recorded a **phenomenal +15.7% growth in patent applications** in 2023, and for the first time in history, **more than half (55.2%)** of India's patent applications in 2023 were filed by **residents**.
- ◆ There was also a **149.4% increase in the number of patents granted** in 2023 compared to the previous year.

Industrial Design:

- ◆ India's industrial design applications surged by **36.4% in 2023**, & filings were led by key sectors such as **Textiles and Accessories, Tools and Machines, and Health and Cosmetics**.

Trademark:

- ◆ India ranked **4th globally** in trademark filings in 2023, with a 6.1% increase over the previous year.
- ◆ India now holds the **second-largest number of active trademark registrations** in the world, with over 3.2 million trademarks in force.

'One Sun One World One Grid' (OSOWOG) Initiative

- India is in discussions with Gulf and Asian countries for cross-border power grid links under the **One Sun One World One Grid (OSOWOG)** initiative.

- Proposed by Prime Minister Narendra Modi during the **International Solar Alliance (ISA)** Assembly in 2018, it was officially launched at the **United Nations Climate Action Summit in 2019**.
- At **UNFCCC COP26 in Glasgow 2021**, host UK established its global energy vision called **Green Grids Initiative (GGI)** which was merged with OSOWOG to form the **GGI-OSOWOG**.
- The initiative aims to tap into solar and renewable energy from regions where the sun is shining and transmit it globally, embodying the belief that "the sun never sets."
- The OSOWOG initiative is to be carried out in **3 phases**:
 - ➔ **First phase:** The Indian grid would be connected to the grids of the **Middle East, South Asia and South-East Asia** to develop a common grid.
 - ➔ **Second phase:** It would connect the functional first phase to the pool of renewable resources in **Africa**.
 - ➔ **Third phase:** It plans at achieving **true global interconnection** with the aim of 2,600 GW of interconnection by 2050.



International Relations

'Global Energy Efficiency Alliance'

- **The United Arab Emirates** has unveiled an ambitious initiative to establish the 'Global Energy Efficiency Alliance' **during the UN Climate Change Conference (UNFCCC COP 29), hosted in Baku, Azerbaijan.**
- The Alliance builds on the **'UAE Consensus' from COP28** where all parties to the summit agreed to
 - Triple renewables and double energy efficiency by 2030
 - Halt deforestation by 2030 and peaking emissions by 2025.
- The UAE plans to lead the alliance by **sharing its expertise in energy efficiency, fostering knowledge transfer, and building effective partnership** models with the private sector.
- **African countries** will be the focus of this alliance.

G20 Brazil Summit

- Leaders of the Group of 20 (G20) major economies convened at **Rio de Janeiro's Modern Art Museum** for the annual summit.
- The G20 summit had a theme of "Building a Just World and a Sustainable Planet" and 3 priorities
 - ✓ **Social inclusion** and the fight against hunger and poverty
 - ✓ **Reform of the institutions** of global governance
 - ✓ **Sustainable development** and energy transition

Key takeaways of the G20 Leaders Declaration:

Security: The document names the **war in Ukraine and its negative effects** on all nations involved.

- ▶ They also declared their confidence in the **peaceful coexistence between the State of Palestine and the State of Israel** unanimously and recommitted to advancing the **effort to end nuclear weapons.**

Climate Change: Regarding the Paris Agreement, the document reinforces the commitment to limit the **global average temperature increase to below 2°C.**

- ▶ A goal to **end plastic pollution by the end of this year** was also presented.
- ▶ For climate funding, the group has committed to promoting and encouraging **public and private investments in Nature-Based Solutions.**

Hunger & Poverty: The leaders launched the **Global Alliance Against Hunger and Poverty.**

- ▶ **88 countries (including India),** 67 organisations have already joined the Alliance.
- ▶ **"Sprints 2030":** These are high-impact areas on which primary focus will be provided.
- ▶ These are: school meals; cash transfers; smallholder and family farming support programs; socio-economic inclusion programs; integrated maternal and early childhood interventions; and water access solutions.

India and Japan Defence Technology Agreement

- India and Japan signed a Memorandum of Implementation (MoI) for the **"co-development" of Unified Complex Radio Antenna (UNICORN) Mast.**
- The Unicorn Mast is a **conical structure with Integrated Communication systems** which will help improve the stealth characteristics of Naval Platforms.
- These advanced systems will be **co-developed by Bharat Electronics Limited** in India with Japanese collaboration.
- When implemented, this would be the **first case of co-development and co-production of defence equipment** between India and Japan.



The Henley Passport Index

- **Singapore has been named the world's most powerful passport** again, offering its citizens **visa-free access to 195 countries**, according to the latest Henley Passport Index released recently.
- **France, Germany, Italy, Japan, and Spain** shared the second place, granting their citizens visa-free access to 192 countries.
- **India ranked 84th** along with Mauritania, Senegal and Tajikistan, providing its citizens with **visa-free access to 58 countries**.
- Afghanistan, Syria, Iraq, Yemen, Somalia and Pakistan are the **least powerful in the index**.
- The Index ranks passports based on the **number of countries that their holders can visit without the need for a visa before arrival**.
- The ranking is determined by data provided by the **International Air Transport Authority (IATA) for 199 passports**.
- The index was first launched in **2005 as Henley & Partners Visa Restrictions Index**, by UK based travel consultancy Henley and Partners and was updated to **Henley Passport Index in January 2018**.
- **IATA** is a **Canada** based airlines trade association founded in **1945** for setting aviation standards, advocacy and professional certification.

The International Criminal Court (ICC)

- The International Criminal Court's Pre-Trial Chamber (PTC) issued arrest warrants for Israeli Prime Minister Benjamin **Netanyahu** and **Hamas officials**, accusing them of war crimes and crimes against humanity.

- **The International Criminal Court (ICC)** is a non-UN body **based in Hague** is a court of **last resort for the prosecution of serious international crimes**, including genocide, war crimes, and crimes against humanity.
- Impetus for the court came from the **ad hoc international tribunals set up in the 1990s** to address the atrocity crimes committed in the **former Yugoslavia and Rwanda**.
- The court's founding treaty, **the Rome Statute**, was adopted in 1998, and the court **began work in 2002**.
- There are **124 member countries** including **the state of Palestine**.
 - ✓ **Ukraine will soon become the 125th.**
 - ✓ **India's neighbours** - Afghanistan, Nepal, Bangladesh and Sri Lanka are members
- The court operates on the **"principle of complementarity,"** meaning states are primarily responsible for prosecuting crimes, with the ICC stepping in when national efforts fail.
- Notably, countries like the **U.S., Russia, India and China** are not parties to the ICC.

Power of the Court:

The ICC is **only competent to hear a case if:**

- ◆ The country where the offence was committed **is a party to the Rome Statute;** or
- ◆ The **perpetrator's country of origin is a party** to the Rome Statute.

The ICC may **only exercise its jurisdiction if the national court is unable or unwilling to do so.**

The ICC only **has jurisdiction over offences committed after the Statute's entry into force** on 1 July 2002.

For a case to be heard by ICC, a preliminary examination of the situation is done by the **Office of The Prosecutor**, who then proceeds the case based on merits to a Pre-Trial Chamber.

The **Trial Chamber** then hears the case and gives a verdict which can be appealed in the **Appeals Chamber**.

Convicted individuals **serve their sentences** in countries that have agreements with the ICC.

U.N. Peacebuilding Commission (PBC)

- India was **re-elected to the UN Peacebuilding Commission (PBC)** for the 2025-2026 term, continuing its active role in global peace efforts.
- The **PBC is an intergovernmental advisory body** that supports peace efforts in **conflict-affected countries** and adds capacity to the international community's broader peace agenda.
- India has been a member** of the Commission since **its inception in 2005**.
- The **top financial contributing countries and the top troop-contributing countries** to the United Nations system **are also members**.
- 👉 **India is among the largest contributors** of uniformed personnel to UN Peacekeeping.
- The Commission **advises the UN General Assembly and Security Council on peacebuilding issues** and promotes a strategic, integrated approach.
- It includes **31 members, elected from the General Assembly, Security Council, and Economic and Social Council**.

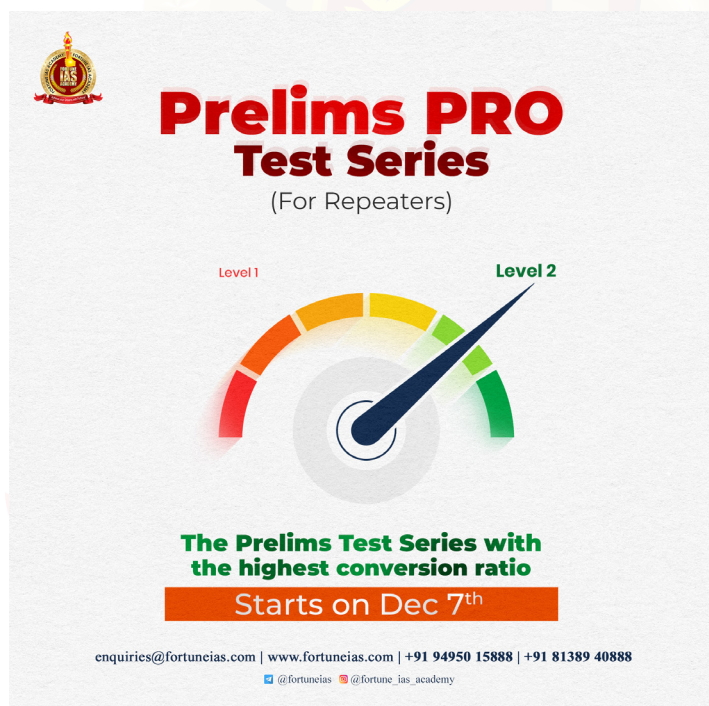
Environment & Ecology

Adaptation Gap Report 2024

- The annual **Adaptation Gap Report** was released by the **United Nations Environment Programme (UNEP)** just days before UNFCCC COP29.
- It highlights the **gaps between the current adaptation needs and the actions being taken** by countries, particularly in vulnerable regions.
- With the 2024 Title: **'Come Hell and High Water,'** the report warns that "global average temperature rise is approaching 1.5°C above pre-industrial levels".
- Report says that international public adaptation finance flows to developing countries **increased from USD 22 billion in 2021 to USD 28 billion in 2022**.
- While this marks the **largest absolute and relative year-on-year increase** since the adoption of the Paris Agreement on climate change, there is a **wide adaptation gap** since actual adaptation **financing needs** for developing countries is a **whopping \$387 billion per year till 2030**.
- However, the increase in finance would indicate a progress towards **Glasgow Climate Pact goal (UNFCCC COP26)** of doubling annual adaptation finance flowing from developed to developing countries from 2019 levels of \$19 billion to \$38 billion by 2025.

The New Collective Quantified Goal (NCQG)

- The New Collective Quantified Goal (NCQG) on Climate Finance was agreed upon at the **UNFCCC COP29 Baku, Azerbaijan**.
- NCQG is part of **article 9 of Paris Climate Agreement (2015)** which states that developed countries must provide financial assistance to developing countries for both adaptation and mitigation.
- NCQG is supposed to replace the financial commitment under **2009 Copenhagen Accord** where developed nations pledged to **provide \$100 billion annually by 2020**.



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- However, this target was **not fully met until 2022** and will expire in 2025.
- Also, recent reports have shown that this amount is **grossly inadequate** to meet climate transition for developing nations which demanded at least \$1.3 Trillion annual commitment.
- The NCQG decided at COP29 as a **road map** towards that target with a current **commitment of \$300 Billion annually every year by 2035**.
- The amount will be **sourced** from public finance, special climate funds, multilateral development banks (MDBs), private investments and voluntary contributions from developing countries.

Avian Botulism

- An outbreak of **avian botulism at Sambhar Lake in Rajasthan** has led to the death of over 600 birds.
- The disease is caused by the **botulinum toxin produced by Clostridium botulinum bacteria**, which thrive in **low-oxygen environments** such as polluted water or improperly preserved food.
- The toxin **damages nerves, causing paralysis**.
- **Contributing factors** include climate change, reduced water levels, and poor wastewater management, which exacerbate the outbreak.
- To **combat this, authorities have implemented** emergency shelters, intensive care, specialized treatments like infrared therapy, oxygen support, and temperature control, along with creating artificial ponds and aviaries to help stabilize and recover the affected birds.

World Solar Report Series

- The International Solar Alliance (ISA) released the **3rd edition** of the World Solar Report series during its 7th Assembly recently held in New Delhi.
- The series has 4 reports namely the **World Solar Market Report, World Investment Report, World Technology Report, and Green Hydrogen Readiness Assessment for African Countries**.

- First introduced in 2022, this report series **provides a concise and comprehensive overview of global progress in solar technology**, key challenges, and investment trends in the sector.

Key Findings:

- **The World Solar Market Report:** It reveals exceptional solar growth, with global capacity soaring from **1.22 GW in 2000 to 1,418.97 GW in 2023**.
 - ★ Solar jobs have surged to 7.1 million, and global capacity may reach 7,203 GW by 2030.
- **The World Investment Report:** highlights a global shift toward sustainable energy, with energy investments rising from **\$2.4 trillion in 2018 to \$3.1 trillion by 2024**.
 - ★ Solar leads renewable energy investments, **accounting for 59% of the total**, driven by lower costs.
- **The World Technology Report:** showcases advancements in solar technology, emphasising breakthroughs in efficiency, sustainability, and affordability.
 - ★ There is an **88% reduction in silicon usage** since 2004, and a **90% drop in utility-scale solar PV costs**, fostering resilient, cost-effective energy solutions.
- **Readiness Assessment of Green Hydrogen African Countries:** highlights green hydrogen's potential to decarbonise industries heavily reliant on fossil fuels, such as steel and fertilizer production, supporting Africa's transition to cleaner energy.

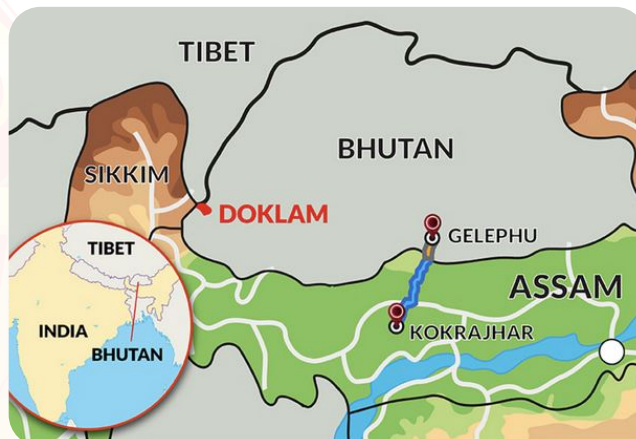
Commission for Air Quality Management (CAQM)

- The Supreme Court pulled up the **Commission for Air Quality Management (CAQM)**, the government's monitoring agency, on its inadequate pollution control response in Delhi.
- The CAQM replaced the **EPCA (Environmental Pollution (Prevention and Control) Authority)**, which was formed in 1998 by the Supreme Court order.
- Under the **Commission for Air Quality Management in National Capital Region (NCR) and Adjoining Areas Act, 2021**, the CAQM was given the statutory power to take all measures for the purpose of protecting and

improving the quality of air in the **NCR and adjoining areas**.

- Adjoining areas means the areas in the States of **Haryana, Punjab, Rajasthan and Uttar Pradesh**.
- The CAQM was set up for **better coordination, research, identification and resolution of problems surrounding air quality** and connected issues.
- It initially had **15 members**, comprising officials, past and present, of the environment ministry and other departments of the Union & State governments.
- ✿ The CAQM now has **27 members**.
- ✿ Members (other than ex-officio) will have a **tenure of three years or upto 70 years of age and are eligible for re-appointment**.

- Gelephu Mindfulness City (GMC) is a **Special Administrative Region in Bhutan**, envisioned by His Majesty King Jigme.
- The Gelephu Mindfulness City is an **innovative urban development project** designed to be a **hub of knowledge, technology, and finance**, grounded in the values of mindfulness, sustainability and harmony.



Graded Response Action Plan (GRAP)

GRAP Stages

State	Category	AQI	AQI Color Code
Stage 1	Poor	201-300	
Stage 2	Very poor	301-400	
Stage 3	Severe	401-450	
Stage 4	Severe plus	451 and above	

Health Statements for AQI Categories

AQI	Category	Possible health impact
0-50	Good	Minimal impact
51-100	Satisfactory	Minor breathing discomfort to sensitive people
101-200	Moderate	Discomfort to people with lung, asthma, and heart diseases
201-300	Poor	Discomfort to most people on prolonged exposure
301-400	Very poor	Respiratory illness on prolonged exposure
401-500	Severe	Affects healthy people and seriously impacts those with existing diseases

Source: Central Pollution Control Board

THE HINDU

Gelephu Mindfulness City Project

- Bhutan is working on a mega project, one that has the potential to redefine how sustainable living can be achieved.
- The City is the biggest **“co-operative project”** in Bhutan and India is supporting the development of this 2,500 square kilometre **“Zero Carbon” city**.

Climate Change Performance Index (CCPI)

- The **Climate Change Performance Index (CCPI) 2025** report, released at the UN climate conference in Baku, assesses 63 countries and the EU, covering 90% of global emissions.
- Published by **Germanwatch**, the **New Climate Institute**, and the **Climate Action Network International**, it tracks progress in emissions reduction, renewable energy adoption, and climate policies.
- CCPI assesses countries based on **four main criteria**: Greenhouse Gas Emissions (40% of the overall score), Renewable Energy (20%), Energy Use (20%), and Climate Policy (20%);
- **India** ranks **10th**, despite dropping three spots, and receives a high ranking in the GHG Emissions and Energy Use categories, medium in Climate Policy, and low in Renewable Energy.
- The **top three spots remain empty** (to signify no country is currently on track to meet the 1.5°C Paris Agreement target), followed by **Denmark (4th)** and the **Netherlands (5th)**.
- The **U.S.** and **China**, the largest emitters, rank **57th** and **55th**, respectively.
- The lowest-ranked are **Iran (67th)**, **Saudi Arabia (66th)**, **UAE (65th)**, and **Russia (64th)**, all major oil and gas producers.

Tsunami Ready

- 24 coastal villages in **Odisha** were recognized as '**Tsunami Ready**' by the **UNESCO Intergovernmental Oceanographic Commission (IOC)**.
- The **UNESCO-IOC Tsunami Ready Recognition Programme (TRRP)** is a global initiative aimed at enhancing risk prevention and mitigation in coastal areas.
- This **voluntary, performance-based program** evaluates communities on **12 indicators**, such as stakeholder training, community awareness, tsunami management plans, mock drills, and evacuation routes.
- Recognition is renewed every **four years**.
- In **2020**, **two villages in Odisha** were **recognised** as Tsunami ready, making India the first nation in the Indian Ocean Region (IOR) to get such a recognition.
- The **Ministry of Earth Sciences** has established a **National Tsunami Ready Board (NTRB)** to assess and recommend communities for IOC-UNESCO recognition after verifying these indicators.
- The **Indian Tsunami Early Warning Centre (ITEWC)** located at the Indian National Centre for Ocean Information Services (**INCOIS**) in **Hyderabad** is the national authority in India for issuing tsunami advisories.

Intergovernmental Oceanographic Commission (IOC):

- The IOC of UNESCO was established in **1960** and serves as a focal point for various United Nations bodies working on **ocean, coastal, and marine ecosystem management**.
- With **150 member states, including India**, the IOC coordinates programs in areas such as ocean observations, tsunami warnings, and marine spatial planning.
- It also supports member states in building scientific and institutional capacity to achieve **United Nations Sustainable Development Goal 14**, aiming to conserve and sustainably **manage ocean and marine resources** by 2030.

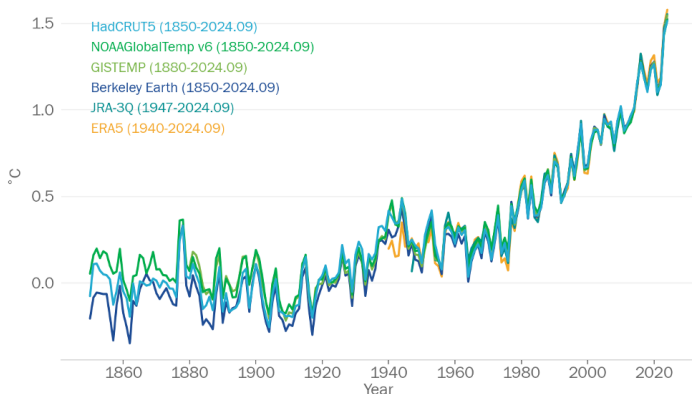
2024 Becomes the Hottest Year Ever Recorded

- The **World Meteorological Organization (WMO)** and **Copernicus Climate Change Service (C3S)** have reported that **2024** is on track to become the hottest year since the preindustrial period.
- This year is also expected to be the **first to surpass a 1.5°C increase** above pre industrial average temperatures.
- In **October 2024**, **temperatures were recorded 1.65°C above pre-industrial levels**.
- This would mark the **second consecutive year of breaking** the global temperature record.
- WMO relies on data from sources such as the U.S. National Oceanic and Atmospheric Administration (**NOAA**) and **NASA** to track global heat.

The Copernicus Climate Change Service (C3S):

- ✓ C3S is one of six thematic information services provided by the **Copernicus Earth Observation Programme of the European Union**.
- ✓ Its mission is to support **adaptation and mitigation policies of the European Union** by providing consistent and authoritative information about climate change.

Global mean temperature 1850-2024
Difference from 1850-1900 average



Cold Wave

- A '**Core Cold Wave Zone**' alert has been issued by the **National Programme on Climate Change and Human Health (NPCCHH)** for 17 states and Union Territories.

- A cold wave is an extreme weather event characterized by a significant drop in temperatures below the average for a region, lasting at least two days.

Key IMD Criteria:

Plains: Minimum temperature $\leq 10^{\circ}\text{C}$ with a departure of $4.5\text{--}6.4^{\circ}\text{C}$ below normal (severe cold wave if departure $> 6.4^{\circ}\text{C}$) or minimum temperature $\leq 4^{\circ}\text{C}$ (severe if $\leq 2^{\circ}\text{C}$).

Hilly areas: Minimum temperature $\leq 0^{\circ}\text{C}$ with a departure of $4.5\text{--}6.4^{\circ}\text{C}$ below normal.

Coastal areas: Minimum temperature $\leq 15^{\circ}\text{C}$ with a departure of $> 4.5^{\circ}\text{C}$ below normal.

Geographic Spread: India's core cold wave zones include northern, central, and eastern regions, but spells can also affect western and southern parts.

- Prolonged exposure to cold can lead to severe health risks like **hypothermia** and **frostbite**. Non-freezing injuries, such as **Immersion Foot**, caused by extended exposure to cold, wet conditions, are also possible. In extreme cases, cold exposure may result in fatalities without proper precautions.
- NPCCHH, started in 2019, is a **flagship programme of the Ministry of Health and Family Welfare** shaping the **health system response to climate change** in the country.



Science & Technology

Operation Dronagiri

- The **Ministry of Science and Technology** launched **Operation Dronagiri**, a pilot project under National Geospatial Policy 2022.
- It seeks to demonstrate the potential **applications of geospatial technologies** and innovations in improving the quality of life of citizens and ease of doing business.
- **Geospatial technology** uses tools to collect, analyze, and visualize geographic location-based data for solving spatial (land space) problems and supporting decisions.
- This initiative is seen **as a response to the growing need for accurate spatial data in the face of rapid urbanization, climate change**, and the increasing frequency of natural disasters.
- The project seeks to create a robust Geospatial Data Interface ecosystem that can be integrated into 3 sectors --**Agriculture, Livelihoods, Logistics and Transport**.
- The Ministry also launched the Integrated **Geospatial Data Sharing Interface (GDI)** for seamless sharing of the geospatial information.

Cardiovascular Kidney Metabolic (CKM) syndrome

- **CKM syndrome (cardiovascular-kidney-metabolic syndrome)** is a newly named medical condition that affects **most human organs**.
- It often starts with **gradual weight gain** and **abdominal fat accumulation (adipose tissue)**, which can lead to obesity.
- This, in turn, **triggers a series of health problems**, such as cardiovascular disease, type 2 diabetes, kidney disease, and obesity.
- **Adipose tissue**, commonly known as body fat, serves as a storage form of energy.
- The **abnormal fat storage often disrupts normal metabolic processes** and contributes to conditions such as CKM syndrome.

- **Addressing obesity and related metabolic issues** is crucial in managing and preventing CKM syndrome.

The H5N1 Strain of Avian Influenza

- The H5N1 strain of avian influenza (bird flu) has **led to the deaths of over 17,000 elephant seals** in a year and wiped out 95% of the pups in 2023, new research has revealed.
- The outbreak has severely impacted breeding populations, particularly in **Patagonia, Argentina**.
- H5N1 is one of several **influenza viruses that causes a highly infectious respiratory disease** in birds called avian influenza (or “bird flu”).
- The virus **does not spread easily between people**, but in rare cases, human-to-human transmission has been reported, typically involving close, prolonged contact.

EV as a Service Programme

- The **Ministry of Power** recently launched ‘**EV as a Service**’ programme.
- EV as a Service is a business model where **electric vehicles (EVs) are available on a subscription or pay-per-use basis**, enabling access without ownership.
- It caters to individuals and businesses, **reducing upfront costs and ownership responsibilities**.
- EV as a Service model **aims to boost e-mobility in government offices** and to deploy **5,000 E-Cars in government departments over the next two years**.
- The programme is rolled out by **Convergence Energy Services Limited (CESL)**, a subsidiary of Energy Efficiency Services Limited (EESL), a joint venture of public sector undertakings under the Ministry of Power.

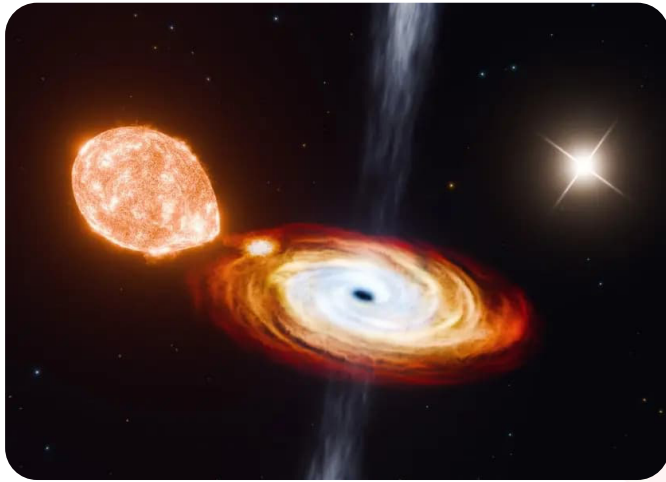
Biofilm barriers

- A team at the **Indian Institute of Science (IISc)** has developed a method to **break down biofilm barriers**, which bacteria form to protect themselves from drugs.

- A **biofilm** is a cluster of bacteria or other microorganisms that stick to surfaces and form a **slimy, protective layer** made up of extracellular substances such as sugars, proteins, and DNA.
- These layers **act as a shield**, making it difficult for antibiotics or other treatments to penetrate and kill the bacteria inside.
- Biofilms can form on **natural and artificial surfaces**, including medical devices, pipes, and tissues inside the body.
- The team **used an enzyme from cow digestive tracts** to dissolve these barriers.
- This approach is particularly useful for **combating bacteria like Klebsiella pneumoniae**, which causes serious infections in hospital settings, especially in diabetics.

“Black Hole Triple” System

- Physicists from Massachusetts Institute of Technology (MIT) using Gaia satellite of **European Space Agency (ESA) satellite** have observed the **first-ever “black hole triple” system** located 8,000 light years from Earth.
- A black hole triple system involves **three celestial bodies** bound by gravity:
 - one or more black holes in close interaction with stars or other black holes.
- In the recently observed system, **V404 Cygni**, the configuration includes a **black hole consuming a nearby star** in a tight orbit, with **a second distant star gravitationally bound** to this inner binary system.
- These systems are **rare** and challenges conventional wisdom, as black holes typically form when a massive star undergoes a **supernova**—a violent explosion caused by the collapse of the star’s core under gravity that expels objects
- A black hole triple system is now explained through the **“direct collapse” process than supernovae** where a massive star collapses inward without a supernova, preventing violent ejection of nearby matter.
 - This process, also called a **“failed supernova,”** allows surrounding stars to remain gravitationally attached



Thrombotic Thrombocytopenic Purpura (TTP)

- A recent study has found an association between the **inactivated COVID-19 vaccine CoronaVac** and **thrombotic thrombocytopenic purpura (TTP)**.
- TTP is a **rare, life-threatening blood disorder** and it can be **inherited or acquired**.
- In TTP, **blood clots form in small blood vessels** throughout your body.
- The clots can **limit or block the flow of blood to your organs** damaging them..
- In TTP, increased clotting consumes platelets, tiny blood cells essential for forming clots to stop bleeding.
 - 👉 As platelets are depleted, there aren't enough to form clots when needed, leading to bleeding and bruising.
- TTP occurs when you do **not have the right amount of an enzyme** (a type of protein in your blood) called **ADAMTS13**.
 - 👉 This enzyme controls how your blood clots.
 - 👉 If you do not have enough ADAMTS13, your body makes too many blood clots.

“Thrombotic” refers to the blood clots that form.

“Thrombocytopenic” means the blood has a lower-than-normal platelet count.

“Purpura” refers to purple bruises caused by bleeding under your skin.

Artificial Intelligence (AI) Data Bank

- Recently, the **Ministry of Science and Technology** launched **India's first Artificial Intelligence (AI) data bank**.
- **AI data bank** is a centralized database that **stores a variety of data** to train, test, and develop scalable and inclusive **artificial intelligence (AI) models**.
- AI data banks are designed to provide **high-quality datasets for a range of applications**, including: predictive analytics, machine learning, natural language processing, and computer vision.
- The Ministry said that AI Data Bank **will enhance “national security”** through **real-time analytics for satellite, drone and IoT data**, aligning with India's goals for disaster management and cybersecurity.

Chagas Disease

- A recent study shows that the **parasite that causes Chagas disease can survive** in certain dead bugs even within insecticide-treated dog kennels.
- **Chagas disease**, also known as **American trypanosomiasis**, is a potentially life-threatening disease caused by the **protozoan parasite Trypanosoma cruzi**:
- It's usually spread through **contact with the urine or feces of infected triatomine bugs**, also known as “kissing bugs”.
- The disease is **widespread in 21 Latin American countries** and affects 6–7 million people globally, leading to **approximately 12,000 deaths annually**.
- The disease is named after **Carlos Chagas, a Brazilian physician** and researcher who in 1909 diagnosed the disease in a person for the first time.
- **Symptoms** include fever, fatigue, body aches, and digestive issues, but they are often mild.
- **Antiparasitic medications** like Benznidazole and Nifurtimox kill the parasite, which are most effective when administered during the **acute phase** of the disease.
- However, they may become **ineffective once the disease progresses to its chronic phase**.

WIFI 7 and 6E

- PlayStation 5 Pro console, which works only in the latest **6GHz WIFI 7 technology**, was released in key markets around the world, skipping India.
- Wi-Fi 7 is the improved wireless standard** and introduces 320MHz channels for higher bandwidth.
- It has **Multi-Link Operation (MLO)** for **simultaneous data transmission** across multiple bands, and low latency, which improves performance for devices like VR headsets.
- Wi-Fi 7 is also backward compatible** with older Wi-Fi types.
- The existing WiFi 6 technology **uses two bands of frequency: 2.4GHz and 5GHz**.
- 2.4GHz has limited data bandwidth, but can blanket a larger area with coverage.
- ➡ On the other hand, 5GHz is significantly faster, but covers a shorter distance.
- The **WiFi 6E standard was introduced in 2021**, allowing the creation of routers that broadcast on 6GHz frequency, bringing up theoretical maximum speeds to 9.6Gbps.
- India and China have not allowed the use of 6GHz spectrum for WiFi yet.**
- In India, the 6GHz band is currently with the **Indian Space Research Organisation (ISRO)** for satellite use cases to prevent potential interference with satellite operations.

	WiFi 6	WiFi 6E	WiFi 7
IEEE	802.11ax		802.11be
Max data rate	9.6 Gbps	9.6 Gbps	46 Gbps
Bands	2.4GHz, 5GHz	2.4GHz, 5GHz, 6GHz	2.4GHz, 5GHz, 6GHz
Bandwidth	20 MHz, 40 MHz, 80 MHz, 160 MHz		Up to 320 MHz
Modulation	1024-QAM		4096-QAM
Security	WPA 3		WPA 3
Key Features	8 x 8 UP/DL MU-MIMO, Beamforming, OFDMA, TWT (Target Wake Time)		16 x 16 UP/DL MU-MIMO, Multi-AP, Multi-RU Puncturing, Multi-Link Operation

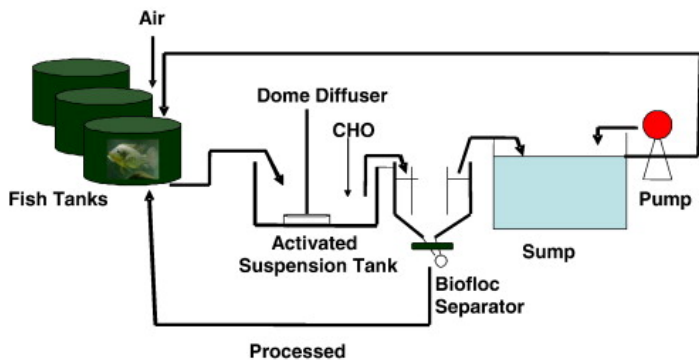
Biofloc Technology (BFT) and Recirculating Aquaculture Systems (RAS)

- India's aquaculture sector has seen greater adoption of Biofloc Technology (BFT) and Recirculating Aquaculture Systems (RAS) recently.

Biofloc Technology (BFT):

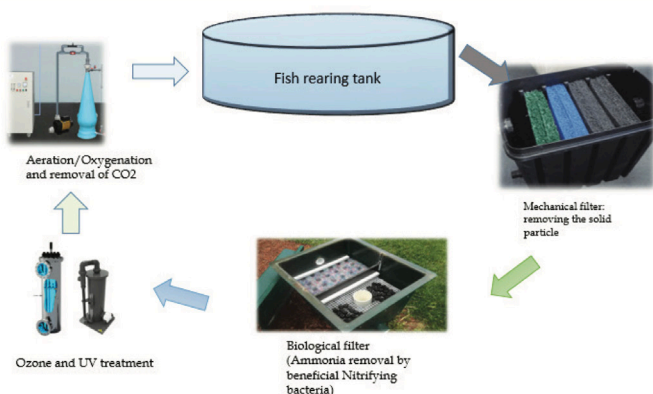
- BFT (Biofloc Technology) is a **closed tank-based fish farming system** that keeps water clean using **beneficial bacteria known as floc**.
- These bacteria, such as **Bacillus, Pseudomonas, Nitrobacter, Acinetobacter, Nitrosomonas** etc, **break down organic waste** like uneaten feed and fish excreta into microbial biomass, which can be consumed by the fish or shrimp.

- This process **reduces the need for frequent water changes** and lowers disease risks by **limiting pathogen growth** through competition for resources.



Recirculating Aquaculture Systems (RAS):

- ★ RAS (Recirculating Aquaculture System) is a closed-loop, tank-based fish farming method that **recycles water through filtration**.
- ★ It uses **mechanical and biological filters** to clean the water, removing waste and preventing pathogens from entering.
- ★ RAS systems **allow high-density fish farming** while minimizing land and water use.
- ★ It's **automated** to ensure optimal conditions for fish and reduces external contamination risks.



Design Law Treaty (DLT)

- The **World Intellectual Property Organization (WIPO)** member states assembled at Riyadh to adopt the **Design Law Treaty (DLT)** after nearly two decades of negotiations.
- India has also signed** this landmark treaty, aimed at simplifying and harmonizing the **registration process for industrial designs** globally.

- Industrial design** refers to the aesthetic aspects of a product's appearance, such as its shape, pattern, and color, which make it visually appealing and distinct.
- It focuses on the decorative features rather than the product's functionality (**product design**).
- The DLT introduces several key provisions aimed at benefiting design applicants, including **relaxed time limits**, the reinstatement of lost rights, the **option to correct or add priority claims**, simplified procedures for recording assignments and licenses, and the option to file multiple designs in a single application.
- The registration and protection of industrial designs in India is administered by the **Designs Act, 2000** and corresponding Designs Rules, 2001 which came into force on 11th May 2001.

AroTrack



- Scientists at **IIT Bombay** have developed **AroTrack**, a compact device for detecting pollutants like **phenol and benzene in water**.
- The device **uses proteins from bacteria in polluted environments** to identify aromatic compounds through a specific ATP hydrolysis reaction.
- ✓ **ATP hydrolysis** is a biochemical reaction that releases chemical energy stored in adenosine triphosphate (ATP)
- This reaction changes the solution's color, detected by AroTrack.
- Key to its function is the **biosensing module MopR**, sensitive to phenol.
- The **portable device works in water up to 50°C** and completes tests in under 30 minutes, offering a robust and efficient solution for water quality monitoring.
- Phenol** can irritate skin and eyes and harm the liver and kidneys with prolonged exposure.
- Benzene** is a carcinogen linked to leukemia and other blood disorders, posing risks to bone marrow and immunity.

Nafithromycin

- India has launched its **first indigenous antibiotic, Nafithromycin**, to combat Antimicrobial Resistance (AMR).
- It was developed with **Biotechnology Industry Research Assistance Council (BIRAC)**, a unit of the Department of Biotechnology and marketed as Mignaf by Wockhardt (Indian Pharmaceutical company).
- It targets typical and atypical pathogens and is ten times more effective than azithromycin.
 - ➔ **Typical pathogens** are common bacteria like **Streptococcus pneumoniae**, causing predictable illnesses.
 - ➔ **Atypical pathogens**, such as **Mycoplasma pneumoniae** or **Legionella pneumophila**, cause less conventional infections like atypical pneumonia and often require different diagnostic and treatment approaches.
- Validated through global clinical trials, it **requires only a three-day treatment** and addresses the significant burden of **community pneumonia** in India.
- Its development took **14 years and ₹500 crores**, marking a **milestone** as no new antibiotics in its class have been globally developed for over 30 years

Sjogren's disease

- Experts say that Sjogren's disease in India is a **silent epidemic, underdiagnosed and poorly understood**.
- Sjögren's disease occurs when the **immune system mistakenly attacks the body's own moisture-producing glands**, though the exact trigger remains unclear.
- It is believed to result from a combination of **genetic predisposition, environmental factors (like infections), and hormonal influences**.
- These factors disrupt normal immune function, causing **chronic inflammation and damage to glands** and other tissues.
- The most common complaints are **dry eyes and dry mouth**.
- Women, especially in their 30s and 40s, are more commonly affected**, suggesting a possible hormonal link.

Defence

Pinaka Rocket System



- The Defence Research and Development Organisation (DRDO) recently completed successful flight tests of the **guided Pinaka Multi-Barrel Rocket Launcher (MBRL)**.
- The system has a demonstrated **range of 75 km and the ability to strike within 10 metres of its target**.
- A Pinaka MBRL unit consists of 18 launchers**, each of which fires at the enemy from 12 launcher tubes.
- The Pinaka MBRL, named after the legendary bow of Lord Shiva, takes just three minutes to come into and out of action.
- The early **Pinaka Mark I** had a **range of only 37.5 km and limited accuracy of about 500 metres**.

The Central Industrial Security Force (CISF)

- The **Union Ministry of Home Affairs** recently approved the **first all-women battalion of the CISF**, which currently has 7% women personnel.
- The CISF, **established in 1969**, provides security to 359 establishments across India.
- It is one of seven **Central Armed Police Forces (CAPF)** — the other six being the Border Security Force, the Indo-Tibetan Border Police, the Sashastra Seema Bal, the Assam Rifles, the National Security Guard, and the Central Reserve Police Force.

- It is unique for having a **dedicated fire wing**.
- The force operates under the **Ministry of Home Affairs**, with operational control under the **Ministry of Defence**.
- Each battalion typically consists of around 1,000 personnel.

The One Rank One Pension (OROP) Scheme

- OROP that brought immense benefits to the armed forces completed its 10th year recently.
- The OROP order issued in 2015, brought into effect **a uniform pension system for all retired defense personnel**.
- It ensures that the **same rank with the same length of service** would get equal pension benefits.

Key Features:

- ✓ **Periodic Revision:** The pension is to be **re-fixed every five years**.
- ✓ **Re-fixation of Pensions:** The pension of **all past pensioners is re-fixed** based on the pensions of personnel who retired in 2013, starting from July 1, 2014.
 - ✓ This created a new benchmark for pensions, with all retirees getting equal benefits for their service.
- ✓ **Inclusive of All Ex-Servicemen:** It covers all personnel who retired up to June 30, 2014, and provided a robust framework for revising pensions for all ranks, including family pensioners.

Sabal-20



- The Army has received Sabal 20 **logistics drones** procured from EndureAir Systems for deployment in the Eastern sector.
- Sabal 20 is an **electric unmanned helicopter based on variable pitch technology** for better control and stability, and capable of **carrying payloads of up to 20kgs**.
- Sabal 20 is **engineered to meet rigorous operational demands**, supporting missions such as long-range deliveries, high-altitude operations, and precision logistics.
- It has the **Vertical Take-Off and Landing (VTOL) technology** which enables seamless operations in confined and rugged terrains.
- The drone has a **low RPM design** that minimises noise with a low aural signature, enhancing stealth in sensitive missions.

Antariksha Abhyas

- India's **Defence Space Agency** successfully conducted the Space TableTop Exercise Antariksha Abhyas-2024, focusing on India's space warfare capabilities.
- The exercise aimed at improving **operational readiness and tri-services integration** for space security.
- Outcomes included refined operational strategies, a framework for collaboration, and a roadmap to advance India's space doctrine aligned with national security objectives.

The **Defence Space Agency (DSA)**, established **in 2018** is a tri-services agency of the Indian Armed Forces, based in **Bengaluru**.

It is responsible for **managing India's space-warfare and satellite intelligence assets**.



Pantsir-S1

- India's **Bharat Dynamics Limited (BDL)** and **Russia's Rosoboronexport** have signed a MoU for cooperation on the Pantsir variants.
- The Pantsir-S1 system is a mobile, **short-range air defense system** with both missile and gun capabilities.
- It can **engage various aerial threats** at ranges of 1,200 to 20,000 meters with missiles and 200 to 4,000 meters with guns.
- The system defends against fixed-wing aircraft, helicopters, missiles, and drones, and can also target light-armored ground objects.



Note: Russia continues to be the main supplier of defence hardware to India, accounting for close to 60% of the weapons used by the country's armed forces.

Exercises

Exercise	Countries Involved	Force	Important Features
Keris Woomera	Indonesia and Australia	All Included (Army, Navy & Airforce)	The exercise is part of Australia's Indo-Pacific Endeavour 2024 .
Sea Vigil	Indian Forces only	21 agencies across six ministries	It is the fourth edition of the Pan-India Coastal Defence Exercise
AUSTRAHIND	India & Australia	Army Level (But Air force also Participated)	The 3rd edition of the annual joint military Exercise held at Pune.
Poorvi Prahara	Indian Forces only	Tri-services exercise	Held in Arunachal Pradesh aimed at Integrated Joint Operations in the challenging mountainous terrains.
VINBAX	India & Vietnam	Army	It is the 5th Edition of the Annual Ex that was held in Ambala, Haryana .
VAJRA PRAHAR	India & US	Army (Special Forces)	It is the 15th edition of the Annual Ex & was held at Idaho, USA
GARUDA SHAKTI	India & Indonesia	Army (Special Forces)	It is the 9th edition held at Jakarta, Indonesia

Miscellaneous

Global Matchmaking Platform (GMP)

- Recently, the **United Nations Industrial Development Organization (UNIDO)** and the Climate Club launched the Global Matchmaking Platform (GMP).
- GMP is an **online tool** aimed at helping emerging and developing economies decarbonize heavy-emitting industries.
- It connects **country-specific needs with global technical and financial assistance** to reduce emissions in energy and emissions-intensive industrial sectors.
- It is inspired by Nobel laureate **Muhammad Yunus' "3 Zeros Revolution"** (zero poverty, unemployment, and net carbon emissions)
- UNIDO is a **specialized agency of the United Nations** that promotes industrial development for poverty reduction, inclusive globalization, and environmental sustainability.

'Namo Drone Didi' scheme

- The Government has operationalised a new initiative that aims to **empower Women Self Help Groups (SHGs) by providing drones**.
- Namo Drone Didi** is a central sector scheme aiming to empower women-led Self-Help Groups (SHGs) by equipping them with drone technology to provide agricultural services.
- The scheme aims to **provide drones to 15000 selected Women SHGs** during the period from **2024-25 to 2025-2026** for **providing rental services to farmers for agriculture purposes** (application of liquid fertilizers and pesticides for the present).
- This initiative is expected to **generate an additional income of at least Rs. 1 lakh per year for each SHG**, contributing to economic empowerment and sustainable livelihood generation.
- Women SHGs **receive substantial financial assistance**, covering 80% of the drone and accessory costs, up to Rs. 8 lakhs.

➔ For the **remaining 20% cost**, SHGs can seek loans from the **National Agriculture Infrastructure Financing Facility (AIF)** with a 3% interest subvention.

- The scheme is a collaborative venture between the **Department of Agriculture & Farmers Welfare, Department of Rural Development, and Department of Fertilizers**.

E-Daakhil Portal

- The **Department of Consumer Affairs** successfully implemented the e-Daakhil portal nationwide with the recent launch in Ladakh.
- Rolled out in 2020** during the COVID-19 pandemic under the **Consumer Protection Act, 2019**, it offers a cost-effective, fast, and convenient online system for **filing consumer complaints**.
- Developed by the **National Consumer Dispute Redressal Commission**, the portal allows consumers and advocates to file grievances without physical presence, using OTP-based authentication via mobile or email for registration.

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OUR **14 TOPPERS FROM PRELIMS CUM MAINS BATCH**

5 TOPPERS IN FIRST ATTEMPT

KASTURI SHA AIR 68	FABI RASHEED AIR 71	SIDDHANT KUMAR AIR 114	MANJIMA P AIR 235
PARVATHY GOPAKUMAR AIR 282	SWATHI S BABU AIR 522	DEVIKRISHNA P AIR 559	OORMILA J S AIR 561
MRIDUL DARSHAN AIR 630	SAYANTH K AIR 701	ANUSHA R CHANDRAN AIR 791	SWATHY S AIR 827
SACHIN ANAND AIR 855	RAVEEN K MANOHARAN AIR 888		

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Places in News

Dominica



- President of the Commonwealth of Dominica conferred the highest National Award- **“Dominica Award of Honour”** on Prime Minister Shri Narendra Modi, for his statesmanship, and support to Dominica during the Covid 19 pandemic.
- Dominica is an island country of the **Lesser Antilles in the eastern Caribbean Sea**.
- It lies between the French islands of Guadeloupe to the north and Martinique to the south.
- The country has been a member of the Commonwealth since independence in 1978.
- The island is 47 km long and has a maximum breadth of 26 km.
- The capital and chief port is **Roseau**.
- The island is of volcanic formation and has a number of active volcanoes, although eruptions are rare.

Shanan Hydropower Project

- Shanan Power House, commissioned in 1932, is **located near Jogindernagar in Himachal Pradesh, India**.

- It was India's first hydroelectric power project with a megawatt capacity and was designed by British engineer Colonel B.C. Batty, in collaboration with Raja Karan Sen of the Joginder Nagar region.

- During the reorganisation of states in **November 1966, the powerhouse was given to Punjab** for a 99-year lease which expired on March 2, 2024.

✓ But the Centre's directive **to maintain “status quo”** has left Himachal high and dry, as the project will remain with Punjab for now.

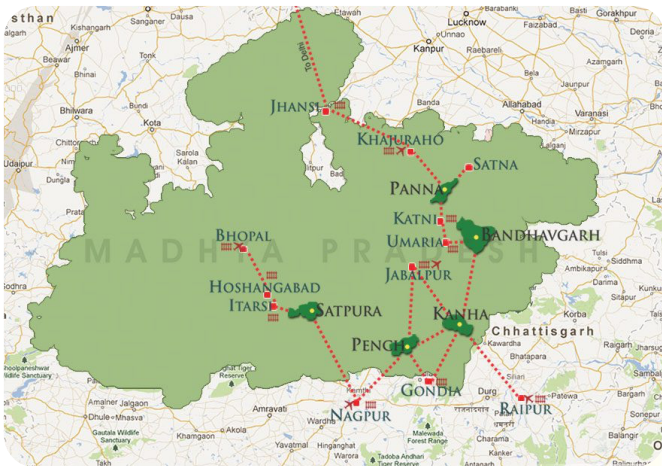
- Currently operated by the Punjab State Electricity Board**, the revenue generated goes to the Punjab government.
- The Project is a **110-megawatt hydroelectric powerhouse** located on **Uhl River — a tributary of the Beas River**.



Bandhavgarh Tiger Reserve (BTR)

- Ten wild elephants have died in **Madhya Pradesh's Bandhavgarh Tiger Reserve**.
- The cause is suspected to be **mycotoxins from Kodo millet**.
- It was Notified as a **National Park in 1968**, and came into existence as a tiger reserve in 1993.
- It is located **between the Vindhya and Satpura mountain ranges**.

- The park is known for its **prodigious tiger population (the highest in any Park in India)** and also has a large breeding population of leopards, and various species of deer.



Kodo Poisoning

- Kodo millet (*Paspalum scrobiculatum*) is also known as **Kodra and Varagu in India**.
- It is one of the “**hardest crops, drought tolerant** with high yield potential and excellent storage properties,” It is rich in vitamins and minerals.
- It is a **staple food for many tribal** and economically weaker sections in India.
- During spring and summer, millets become more susceptible to fungal infections, especially from ergot fungi, which can grow in the ear heads of kodo millet.
- This fungal infection produces **cyclopiazonic acid (CPA)**, a mycotoxin linked to “kodo poisoning,”

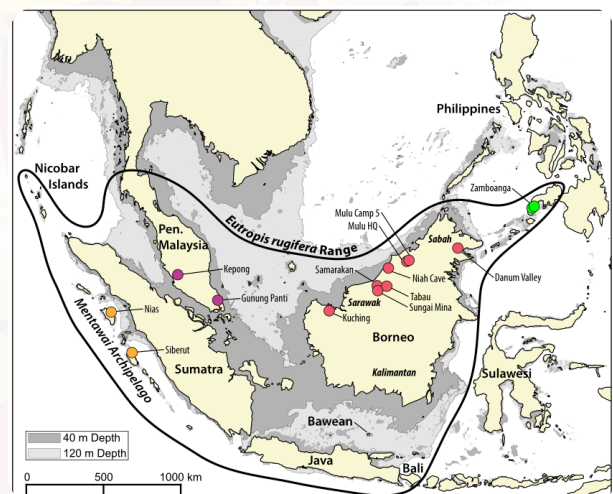
Eastern Maritime Corridor (EMC)

- The **Chennai-Vladivostok eastern maritime corridor** has become operational recently and is carrying oil, food, and machines.
- The corridor will help reduce the time required to transport cargo **between South India and Far East Russia — by up to 16 days** and a significant **reduction of the distance by up to 40%**.
- The current trade route between **Mumbai and St Petersburg in Russia** covers a distance of 8,675 nautical miles, and the time taken for transportation is around 35 to 40 days.
- The Chennai-Vladivostok sea route will only cover a distance of about **5,600 nautical miles**.

- The EMC will connect ports on the east coast to far east Russian ports via the **Malacca Strait, the South China Sea and the Sea of Japan**.



Sundaland Hotspot



- The Sundaland Biodiversity Hotspot covers the **western half of the Indonesian archipelago**, a group of some 17,000 islands stretching 5,000 kilometers.
- It is dominated by **the islands of Borneo and Sumatra**.
- The hotspot covers a small portion of southern Thailand, nearly all of Malaysia, Singapore, Brunei, and the western half of Indonesia.
- ✓ **The Nicobar Islands** are also included.
- Some 380 mammal species are found here, including two species of orangutans: the

Critically Endangered Bornean orangutan (*Pongo pygmaeus*), and the Critically Endangered Sumatran orangutan (*P. abelii*).

Guyana



- Prime Minister Narendra Modi recently made the **first visit by an Indian head of the State** to Guyana in more than 50 years.
- Guyana is located in the **northeastern corner of South America**.
- Indigenous peoples inhabited Guyana **prior to European settlement**, and their name for the land, **guiana** ("land of water"), gave the country its name.
- It is the **only English-speaking country** in South America and today has a 40% population of Indian origin.
- Guyana is bordered by the **Atlantic Ocean** to the north, by **Suriname (along the Courantyne River)** to the east, by Brazil to the south and southwest, and by Venezuela to the west.
- Guyana has been a **member of the Commonwealth** (an international group made up of the United Kingdom and a number of its former dependencies) since 1970.
- Guyana also serves as headquarters for the **15-member Caribbean trade bloc known as Caricom**.

Sugarloaf Mountain



- The G20 leaders posed near **Rio de Janeiro's iconic Sugarloaf Mountain**, a granitic peak (1,296 feet) overlooking Guanabara Bay in southeastern Brazil.
- Known for its **conical shape**, the peak offers a cable car ride to **Urca Hill**, a wealthy neighborhood.
- It is a **UNESCO World Heritage Site**
- Sugarloaf Mountain is **part of the Serra do Mar mountain range**.
- At its base lies the historic fortress of **São João**.

Scarborough Shoal



- China has submitted geographic coordinates and **nautical charts for the Scarborough Shoal to the United Nations**.

- Located **200 km off the Philippines**, within its exclusive economic zone, the shoal is prized for fish stocks and strategic positioning.
- Both **China and the Philippines claim sovereignty**, but Beijing controls it.
- **Permanent Court of Arbitration (PCA)**, an international tribunal based in The Hague, Netherlands in 2016 gave a ruling that favoured Philippines sovereignty.
- It stated that **China's blockade violated international law** but did not resolve sovereignty issues.

Samos Island



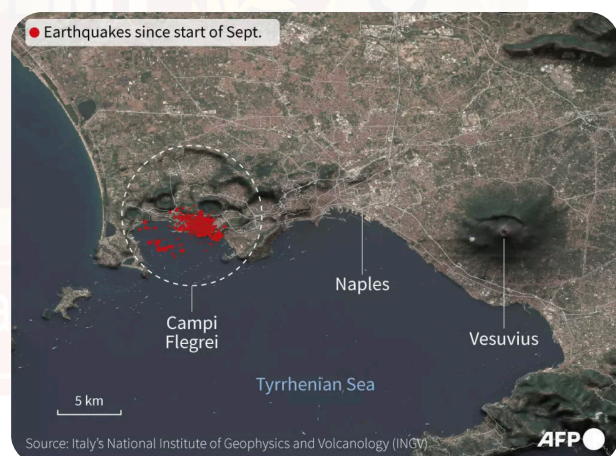
- A migrant boat recently sank off the Greek island of Samos, resulting in the deaths of eight people, including six children.
- According to **United Nations data**, more than **54,000** people have entered Greece illegally so far by sea or land this year.
- **Sámos** is a Greek island in the Aegean Sea and the closest **one to the mainland of Asia Minor**, from which it is separated by the **narrow Sámos Strait**.
- **Anatolia, also called Asia Minor**, is the peninsula of land that today constitutes the **Asian portion of Turkey**.
- The island is **wooded and mountainous** and **Mount Kerketeus** is the highest peak (4,701 feet) which forms the western tip of the island.

Arkavathy River



- The **Arkavathy River in Karnataka** has been found to contain heavy metals and toxic substances like mercury and cancer-causing polycyclic aromatic hydrocarbons (PAHs).
- Arkavathy originates from Nandi Hills at 1,478 meters in **Chikkaballapura**.
- It stretches **190 km** and **meets the Kaveri River** south of Kanakapura.
- Its **tributaries** include Kumudavathi, Suvarnamukhi, and Vrishabhavathi.

The Phlegraean Fields



- The Phlegraean Fields, now considered one massive supervolcano, has started to show increased **seismic activity**.

- **The Phlegraean Fields (also known in Italian as 'Campi Flegrei')** is an active volcanic area located in the **vicinity of Naples, Italy**.
- Unlike the **nearby Mount Vesuvius**, Campi Flegrei is **not characterised by a single volcano**.
- It is more of **a volcanic system**, with several centres situated within **a depressed area called a caldera (essentially a deep sinkhole or cauldron)**.
- Earthquakes started to be felt at Campi Flegrei in September 2023. Since then, over 1,100 have been recorded – **some as powerful as 4.2 on the Richter scale**.

The Barents Sea



- The **Barents Sea, located near Svalbard and Franz Josef Land**, is warming seven times faster than the global average, according to recent studies.
- **Barents Sea** is the outlying portion of the **Arctic Ocean** is 800 miles long and 650 miles wide and covers 542,000 square miles.
- Its **average depth is 750 feet**, plunging to a maximum of 2,000 feet in the major Bear Island Trench.
- It is bordered **by the Norwegian and Russian mainland**, as well as various archipelagos.
- The Barents Sea is warming due to the warm **Norwegian branch of the North Atlantic Current** that brings warm Atlantic waters.
- **Melting sea ice creates a feedback loop**, where open water absorbs more solar heat, accelerating ice melt and further warming.
- This phenomenon, known as **"Atlantification,"** significantly impacts the region's climate and ecosystems.



Species in News

Koima



- A team of researchers have discovered Koima, **a new genus of freshwater fish endemic to the Western Ghats** encompassing two known species that were previously misclassified.
- The fish named under genus nemacheilid loach - **Mesonoemacheilus remadevii** and **Nemacheilus monilis** are now renamed as **Koima remadevii** and **Koima monilis**.
- **Koima** is a small, elongated **bottom-dwelling freshwater fish** used for dietary and ornamental purposes.
- Both species are **endemic to the Western Ghats** and found in the **tributaries of the Cauvery river**.

Senna tora



- The **Tamil Nadu Forest Department** is working to control the spread of **Senna tora**, a potentially invasive species in the **Mudumalai Tiger Reserve (MTR)**.

- **Senna tora** is a **species of flowering plant** in the legume family, originally native to Central America.
- **Senna tora** can **outcompete native vegetation** due to its high resilience and it threatens vital grasslands that support herbivores like elephants and Indian gaur.
- Its name is derived from its **Sinhala name tora** and its most common English name is **sickle senna or sickle wild sensitive-plant**.
- The plant has **wide applications** including traditional medicine, cooking and even industrial mining.
- While **Senna spectabilis** (another invasive species) populates parts of the reserve with **higher rainfall**, Senna Tora is emerging in **drier areas**.

Crinum Andhricum



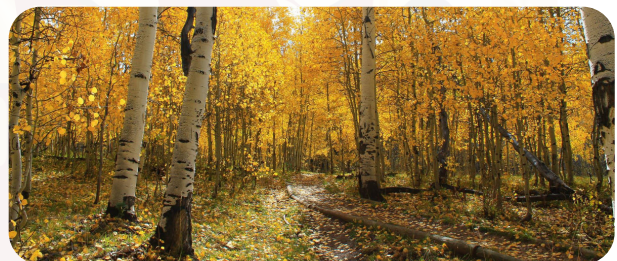
- Botanists have discovered a **new flowering plant species, Crinum andhricum**, in the dry, rocky forests of the Eastern Ghats in **Andhra Pradesh**.
- Found in the Sapparla hills of **Alluri Sitarama Raju district** at 1,141 meters, this plant belongs to the Amaryllidaceae family.
- **Crinum andhricum** features **waxy white flowers** that bloom from April to June, with 12 to 38 flowers per cluster.
- The plant has wider, oblanceolate perianth lobes and stands on a stem **reaching up to 100 cm, thriving in rocky crevices of the region**.

Bathylevius Caudactylus



- Marine biologists have discovered a **new species of bioluminescent sea slug, Bathylevius caudactylus**.
- This species, found in the **deep waters off the Pacific coast** of North America, lives in the midnight zone (1,000 to 4,000 meters below the surface).
- Unlike most sea slugs, which use a raspy tongue to feed, this **species traps crustaceans with a cavernous hood**, similar to a Venus flytrap.
- It can also **emit bioluminescence** to deter predators.
- **Bathylevius caudactylus** is the first sea slug known to inhabit the deep ocean's bathypelagic zone.

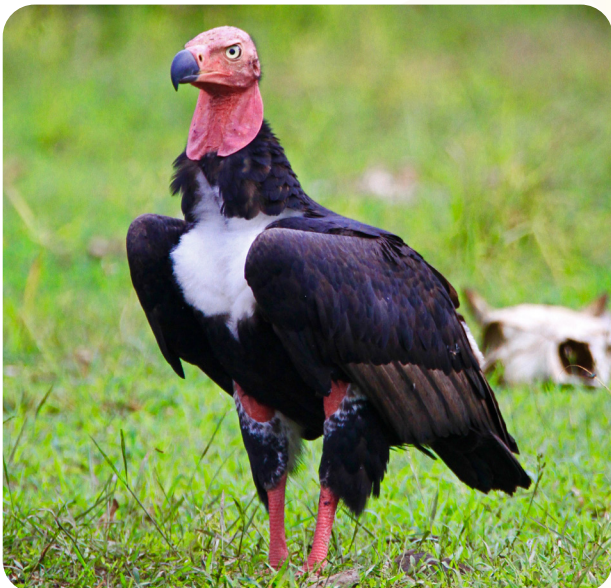
Pando



- Pando, often referred to as the **"Trembling Giant,"** is a clonal colony of genetically identical **Quaking aspen trees (Populus tremuloides)**.
- They are located in **Fishlake National Forest, Utah, USA**.
- While it may appear to be a forest, it is actually one of the oldest and heaviest living organisms on Earth, as **all the trees are connected by a shared underground root system**.
- The colony is estimated to be around **80,000 years old**, and it **reproduces asexually through vegetative reproduction**, meaning new stems grow from the same root system.

- Pando weighs approximately **6,000 metric tons**, making it the heaviest known living organism.
- Pando is facing threats from **overgrazing, climate change, and human activities**, which have impacted its survival and regeneration.
- **Quaking aspen trees (IUCN: Least Concern)** are a species of deciduous trees native to North America.
- They are known for their **characteristic leaves, which tremble or “quake” in the wind** due to their flattened petioles (leaf stalks).

Rare Red-Headed Vulture



- The critically endangered **Red-Headed Vulture (Sarcogyps calvus)** has been sighted for the first time in Kasaragod, Kerala.
- This species, also known as the **“Asian King Vulture,”** is usually found in parts of Central India, Nepal, Myanmar, and South India, including Wayanad in Kerala.
- The vulture, known for its **red head and large wingspan of up to 2.5 meters**, has seen a decline in population due to habitat loss, food scarcity, and poisoning from diclofenac, a drug given to cattle.
- Historically, vultures were common in Kerala, but their numbers dropped after the 1970s.

Dicliptera srisailamica



- Scientists from the **Botanical Survey of India (BSI)** discovered **Dicliptera srisailamica**, a flowering plant in the **Nagarjunasagar-Srisailam Tiger Reserve**, spanning **Andhra Pradesh and Telangana**.
- This plant belongs to the **Acanthaceae family** and grows up to 90 cm with pink, bi-lipped flowers seen from October to January.
- It is the **eighth endemic Dicliptera species in India**, adding to the seven found in Andhra Pradesh.
- The **Botanical Survey of India (BSI)** was **established in 1890**, and currently works under the Ministry of Environment, Forest and Climate Change, tasked with surveying and documenting India's plant diversity.

Mnemiopsis leidyi



- Scientists have discovered that the **comb jelly (Mnemiopsis leidyi)** can **reverse its aging process** by regressing from an adult stage to a larval form under stress.
- Comb jellies or ctenophores, **distinct from jellyfish**, belong to the phylum Ctenophora

and are **bioluminescent** marine creatures that inhabit oceans worldwide, from shallow coastal waters to deep seas.

- They are a group of gelatinous **marine invertebrates** known for their distinctive rows of cilia, which **resemble combs** and help them swim.
- The immortal jellyfish, **Turritopsis dohrnii** is also known to undergo reverse biological development, making them both part of a rare group of “time travellers” in the animal kingdom.

Dicliptera Polymorpha



- Researchers from the **Agharkar Research Institute (ARI), Pune**, have discovered a new species of **plant, Dicliptera polymorpha**, in the Northern Western Ghats.
- This **fire-resistant species blooms twice a year**, once after the monsoon and again following grassland fires.
- It features a unique **spicate inflorescence structure** and is the only species in India with this form.
 - ➔ A **spicate inflorescence**, or “**spike**,” is a flower arrangement where flowers are attached **directly to the stem** without a stalk.
 - ➔ They are densely packed along a single central axis, forming a **cylindrical cluster**.
 - ➔ Examples of plants with this arrangement include wheat, barley, and cattails.
- Thriving in **open grasslands**, it is adapted to **extreme climates**, including droughts and frequent fires.

Chonkus



- Scientists discovered a **new algae strain, Chonkus (UTEX 3222)**, near Italy’s Vulcano Island.
- The designation “UTEX 3222” is part of a **cataloging system used by the University of Texas (UTEX)** Culture Collection of Algae.
- This **cyanobacterium** grows rapidly when exposed to CO₂ and naturally sinks to the ocean floor, making it a **potential carbon capture tool**.
- Its dense colonies could also help produce **omega-3 fatty acids, antioxidants, and algae-based supplements**.

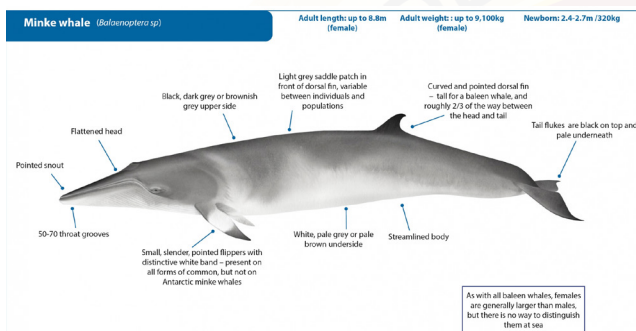
Gastrodia lohitis



- A new orchid species, **Gastrodia Lohitensis**, was discovered in Arunachal Pradesh’s Lohit district.

- This **leafless, endangered orchid** thrives **without sunlight**, relying on fungi for nutrients.
- Found in bamboo canopies near Tezu, it is characterized by unique **white flowers and oblong-linear calli along its labellum**.
 - The **labellum** is a specialized lip-like structure on an orchid flower, different from other petals and used for attracting pollinators.
 - **Calli** are small, raised, often fleshy spots on the labellum that assist in pollination by providing a landing platform or surface for pollinators.
- The species is listed as **“endangered”** on the IUCN Red List.

Minke whales



- For the first time, scientists have directly **measured the hearing range of minke whales**, discovering that the species can **detect high-frequency sounds as high as 90 kilohertz (kHz)**.
- Minke whales are **highly migratory** and **widely distributed throughout tropical, temperate and polar regions**.
- They are the **smallest of the baleen whales**, typically growing up to 10 meters long.
- Killer whales are their predators
- There are two recognized species of minke whales with **partially overlapping ranges**:
- The **Common minke whale (Balaenoptera acutorostrata)** - **Least Concern** as per IUCN Red List, and
- The **Antarctic minke whale (B. bonaerensis)** - **Near Threatened** as per IUCN Red List.

Dunlin



- The Kochi edition of the **Kerala Bird Race 2024** highlighted the sighting of the **Dunlin (Calidris alpina)**, a small shorebird now classified as **“Near Threatened.”**
- Once considered **“Least Concern”** in 2023, the Dunlin was spotted at **Puthuvype Beach**.
- It is a **rare winter visitor** to India, with nesting occurring in coastal tundra.
- Dunlins typically **lay four eggs**, with both sexes sharing incubation, though sometimes the male alone incubates.

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New PRELIMS CUM MAINS BATCH

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Keywords

- Noise Bombing:** South Korea's border island **Ganghwa** is being bombarded nightly with **blood-curdling sounds**, part of a new campaign by the nuclear-armed North Korea that is driving residents to despair.
 - The northern point of South Korea - Ganghwa is an island in the **Han river estuary** on the Yellow Sea and is only about two kilometres (a mile) from the North.
- Weakly Interacting Massive Particles (WIMPs):** are heavy, electromagnetically neutral subatomic particles that are hypothesized **to make up most dark matter** and therefore some **22% of the universe**.
 - These particles are **thought to be heavy and slow moving** because if the dark matter particles were light and fast moving, they would not have clumped together in the density fluctuations from which galaxies and clusters of galaxies formed.
- Agrivoltaic Farming:** also known as **dual-use solar**, is a method of using the same land for both solar energy generation and agriculture. It can include: Crop production, Livestock grazing, Aquafarming, and Greenhouses.
- Peak Oil:** is the point when **global oil production reaches its maximum rate**, after which it will **begin to decline irreversibly**. **Transitioning to electric vehicles, biofuels**, or more efficient transport **could reduce oil demand** which may lead to the condition of Peak Oil.
- Allulose:** is a **naturally occurring sugar found at low levels** in figs, raisins, wheat, maple syrup and molasses. It is roughly **70% as sweet as sugar**, so it tastes very similar and has fewer calories than sugar.
- Toxic epidermal necrolysis (TEN):** is a painful, life-threatening skin condition. It causes large areas of **blistering and peeling skin on at least 30% of your body**, including mucous membranes like the mouth, eyes and genitals. It's the result of **a reaction to certain medications**.
- War Emissions:** are the **greenhouse gas emissions that result from military activity**, including: Fuel consumption, Weapons and ammunition production, Troop deployment, Bombing & Demolition. In 2020, **the Conflict and Environment Observatory (CEOBS)** estimated that military emissions accounted for 5.5% of global greenhouse gas emissions.
- President's Colours Award:** Originating from historical military traditions where **flags represented a unit's identity**, the President's Colours is **one of the highest honours awarded** to a military unit in the Army. It is awarded **upon completing specified meritorious service** to recognise their contributions in operations and peacetime.
- The Maori Tribe:** are the **indigenous people of New Zealand** and trace their ancestry to **Polynesians who migrated** to New Zealand from the Pacific islands, arriving before 1300 CE initially settling along coasts, hunting seals and moas. **"Haka," is a ceremonial dance** performed by the tribe.
- Recusal of Judge:** Whenever **there is a potential conflict of interest**, a judge can **withdraw from cases to avoid perceptions of bias**, which can arise from personal or financial connections, or previous involvement in a case.

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Sreedhanya Suresh IAS
Inspector General of
Registration



Meera K IAS
Sub Collector (SDM)
Ernakulam



Safna Nazarudeen IAS
Sub Collector (SDM)
Thiruvalla



Kiran P B IPS
Asst. Commissioner
of Police
Malappuram



Ankit Asokan IPS
City Police
Commissioner
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Arun S Nair IAS
Asst Collector
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Jeeva Maria Joy IFS
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