

# **Factly Monthly**

**Compilation**

**2025**

**For UPSC CSE Prelims  
Exam**

**March 2025**

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### Aditya-L1 mission

**News:** India's first space-based solar observatory, **Aditya-L1**, has made a **ground breaking observation** by capturing the first-ever image of a **solar flare 'kernel'** in the lower solar atmosphere.

About Aditya-L1 mission

- It is India's **first space-based solar observatory** designed to study the **Sun's corona, solar emissions, solar winds, and flares**.
- It was launched on **September 2, 2023**, using the **PSLV rocket** from Sriharikota.
- The mission is led by **ISRO** in collaboration with **IIA (Bengaluru), IUCAA (Pune), and IISER (Kolkata)**.
- Aditya L1 is positioned at the **Lagrange Point 1 (L1)** of the **Sun-Earth system, 1.5 million km from Earth**.
  - Lagrange points are special positions in space where the gravitational forces of two large orbiting bodies, such as the Sun and the Earth, balance each other out.

Significance of Aditya L1

- **Understanding Sun-Earth Interactions** – Helps study **solar weather impacts** on Earth.
- **Tracking Solar Storms** – Crucial for protecting **satellites, communication, and power grids**.
- **Solving the Coronal Heating Problem** – Explores why the **Sun's outer corona is hotter** than its surface.
- **First UV Imaging of the Sun** – Observes **ultraviolet radiation (200-400 nm)** not visible from Earth.
- **Enhancing Space Security** – Predicts solar activity that may **affect satellite functions**.

Other Solar Missions

- **Hinotori (ASTRO-A)**: Launched by Japan in the 1980s.
- **Parker Solar Probe**: Launched by the U.S. in 2018, becoming the first spacecraft to "touch" the Sun.
- **Solar and Heliospheric Observatory (SOHO)**: A joint NASA-ESA mission, recognized as the longest-operating Sun-observing satellite.

### Euclid Space Telescope

**News:** The Euclid Space Telescope has discovered a new Einstein ring, named Altieri's ring, in the nearby galaxy NGC 6505.

About Euclid Space Telescope

- The **Euclid Space Telescope** is a space observatory launched by the **European Space Agency (ESA)** on **July 1, 2023**, with the mission to explore the **dark universe** including **dark matter and dark energy**.
- **Aim:** It aims to map the large-scale structure of the universe and study how cosmic structures evolved over time.
- **Mission Objectives:** It involves:
  - **Understanding Dark Energy:** Euclid will help determine how dark energy influences the **expansion of the universe**.
  - **Mapping Dark Matter:** By observing gravitational lensing effects, Euclid will provide insights into the **distribution of dark matter**.
  - **Studying Galaxy Evolution:** The telescope will observe billions of galaxies to understand their **formation and growth over 10 billion years**.
- Euclid is positioned at the **Lagrange Point 2 (L2)**, 1.5 million km from Earth, to avoid interference from Earth's light and atmosphere.
- **Field of View:** Much wider than the **Hubble Space Telescope**, allowing it to scan vast areas of the sky efficiently.

- Over six years, Euclid will observe **one-third of the sky** and study billions of galaxies.

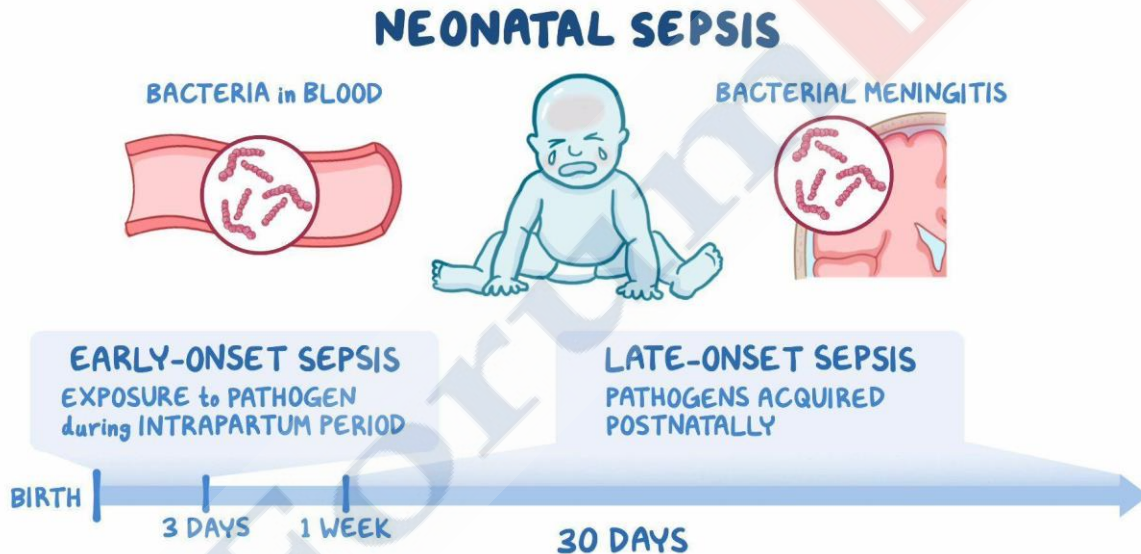
#### About Einstein Ring

- An **Einstein ring** is a ring-shaped pattern of light formed due to **gravitational lensing**.
- It occurs when light from a distant galaxy is bent by the gravitational field of a massive celestial object (such as a galaxy or cluster) in front of it.
- The light bends in such a way that it appears as a circular ring around the foreground object.
- **Einstein rings are extremely rare**—less than **1% of galaxies** produce them. **The first Einstein ring** was discovered in **1987**, and **only a few have been found** since then.
- These rings are **not visible to the naked eye** and **require powerful space telescopes** like ESA's **Euclid** or NASA's **Hubble**.

### Neonatal sepsis

**News:** A recent study highlighted that more than one-third of newborns diagnosed with sepsis could die, emphasizing the urgent need for improved infection prevention and antibiotic management.

#### About Neonatal sepsis



Source: [ar.inspiredpencil.com](https://ar.inspiredpencil.com)

- Neonatal sepsis is a bloodstream infection that affects infants younger than 28 days.
- Neonatal sepsis is commonly caused by bacteria such as **Escherichia coli (E. coli)**, **Listeria**, and **certain Streptococcus strains**, with **Group B Streptococcus (GBS)** being a major cause of neonatal sepsis.
- Infants with neonatal sepsis may exhibit symptoms such as **Temperature instability** (fever or low body temperature), **Breathing difficulties**, **Diarrhea or reduced bowel movements**, **Low blood sugar levels**, **Decreased activity or movement**, **Weak sucking reflex**, **Seizures**, **Abnormal heart rate** (either too slow or too fast), **Abdominal swelling**, **Vomiting** and **Jaundice** (yellowing of the skin and eyes).
- It continues to be a major cause of illness and death among newborns, **particularly in middle- and low-income countries**.



- The condition is categorized into two types based on the timing of its onset: **early-onset sepsis (EOS) and late-onset sepsis (LOS)**.
- EOS occurs within the **first 72 hours of life (though some experts extend this to 7 days)**, while LOS develops at or after 72 hours of birth.

### Electors Photo Identity Card (EPIC)

**News:** West Bengal CM Mamata Banerjee has accused the BJP that multiple electors have been assigned identical EPIC numbers, raising concerns about electoral integrity ahead of the state elections.

About Electors Photo Identity Card (EPIC)

- An **Electors Photo Identity Card (EPIC)** is issued to all registered voters to prevent **impersonation** during elections.
- It serves as an **identity document** but **does not grant the right to vote** unless the elector's name is present in the electoral roll.
- The **Registration of Electors Rules, 1960** provides for the issuance of EPICs.
- EPICs were introduced in **1993** and are **issued by state governments**.
- **Contents of EPIC:**
  - **Elector's name, age, and residence details**
  - **Photograph of the voter**
  - **Facsimile signature of the Registration Officer**
  - Any other **particulars specified by the Election Commission (EC)**
- **EPIC Number Format:** It is a unique alphanumeric code consisting of:
  - Three alphabetical codes
  - A seven-digit numerical code
  - Each EPIC number includes a **Functional Unique Serial Number (FUSN)** for the respective Assembly constituency.
- Since **2017**, EPICs have been generated **exclusively online** via the **ERONET** portal of the Election Commission.
- The **first-time issuance** of an EPIC assigns a **unique number** to the elector. If an elector **replaces** their EPIC, the number remains the **same as the original**.
- **Duplicate EPIC Numbers Issue:**
  - The EC has acknowledged **duplicate EPIC numbers** but clarified that no voter can cast votes outside their **designated constituency**.
  - EC is working on **rectifying duplicate EPIC numbers** by assigning **new unique numbers** through the **ERONET 2.0** platform.

### PUNCH Mission

**News:** NASA is set to launch its latest solar mission on March 6, 2025, from Vandenberg Space Force Base, California.

About PUNCH Mission

- The **Polarimeter to Unify the Corona and Heliosphere (PUNCH)** is a solar mission by NASA.
- **Aim:** The mission aims to study the **Sun's corona** (the outermost layer of the Sun's atmosphere) and its interaction with the **heliosphere** (the vast region of space influenced by the Sun).
- PUNCH is the **first mission specifically designed to study how the solar corona transitions into the solar wind**.

- The mission is being **launched at a time when the Sun is approaching its solar maximum**, the period of highest solar activity in its 11-year cycle. This is the best possible time to observe solar phenomena, as the Sun will be producing more sunspots, flares, and CMEs.

#### Key Features

- The mission consists of **four identical, suitcase-sized satellites**, which will work together to continuously capture images of the Sun's corona. These small satellites will help track the movement of solar particles and magnetic fields as they travel through space.
- PUNCH will monitor and **analyze solar flares and coronal mass ejections (CMEs)**, which are powerful bursts of radiation and charged particles. Understanding these events is crucial as they can affect Earth's communication networks, power grids, and satellite operations.
- PUNCH will **help scientists predict space weather events more accurately** by closely observing the corona and solar wind. This will allow for better preparation against disruptions caused by solar storms, which can impact GPS systems, radio communications, and even astronaut safety.
- The mission will **use polarization imaging** which will help in understanding how the corona influences the solar wind and its impact on the solar system.
- PUNCH will **work alongside other solar missions such as NASA's Parker Solar Probe and ISRO's Aditya-L1** to provide a more comprehensive understanding of the Sun's behavior. These combined observations will enhance knowledge about the Sun's role in shaping space weather.

### Wallace Line

**News:** The Wallace Line is in news due to recent research shedding new light on the complex biogeographical patterns of Southeast Asia and Australia.

#### About Wallace Line



Source: livescience

- The Wallace Line is a faunal boundary line which **separates the ecozones of Asia and Australia**.
- It was identified by British explorer **Alfred Russel Wallace** in 1863 during his explorations.
- It is an **imaginary boundary line** that intersects the **Lombok Strait** between the Indonesian islands of Bali and **Lombok** to the south, and extends north through the Makassar Strait between Kalimantan (Borneo) and Sulawesi.

- This line is important because it divides animals that belong to **Asia** on one side and **Australia** on the other.
- On the **west side** of the line (near Asia), animals like **orangutans, tigers, and rhinos** live. On the **east side** (near Australia), animals like **tree-kangaroos and the Komodo dragon** are found.
- While the Wallace Line is a **barrier for terrestrial species, it doesn't stop marine life**.
- The area around the Wallace Line, known as **Wallacea**, is a **biodiversity hotspot**.
- Understanding the Wallace Line helps scientists learn more about how **animals evolved and spread across the world**.

### Majuli Island

**News:** A recent survey provided insight into the rising human-wildlife conflict (HWC) in Assam's Majuli River Island district.

About Majuli Island



Figure 1. Source: Kaziranga

- Majuli Island is located on the Brahmaputra River in Assam. It is the largest river island in the world.
- It is formed by the Subansiri River in the north and the Brahmaputra River in the south.
- **Tribes:** Majuli is home to three main tribes: **Mishing, Deori, and Sonowal Kachari**.
- Majuli is also famous for ancient **pottery-making techniques**.
- The island is a **habitat for several rare and endangered species of birds**.
- It is also home to vast rice fields and thriving groves of bamboo, banana, and sugarcane.
- **Rice cultivation** serves as the primary livelihood for Majuli's residents, who grow several distinctive rice varieties, including **Komal Saul and Bao Dhan**.
- **Historical significance:** It is often called the soul of Assam. It has been recognized as the cultural capital of Assam since the 16th century.
- **Religious and cultural significance:** In the 15th century, **Srimanta Sankardeva**, along with his disciple Madhavdeva, established several **satras** (monastic institutions) on Majuli Island.
  - Majuli hosts various religious festivals, with **Raas Mahotsav**, a celebration of Lord Krishna, being one of the most significant.
  - The island is the center of **neo-Vaishnavite culture**, initiated in the **16th century** by **Srimanta Sankardeva** and his disciple **Madhavdeva**.
  - The **Satras (Vaishnavite monasteries)** uphold this spiritual and cultural legacy.
  - The Indigenous **Mising community** is particularly identified for its exquisite weaving patterns.
  - The **Samaguri Satra** is particularly famous for creating vibrant, handcrafted masks used in Bhaona performances.



### Amir Khusrau

**News:** Amir Khusrau, the legendary 13th-century Sufi poet and musician, is in the news due to Prime Minister Narendra Modi's participation in the 25th edition of Jahan-e-Khusrau, an annual Sufi music festival held in his honor.



Figure 2. About Amir Khusrau

- He was born in 1253, likely in Patiyali, Etah district, Uttar Pradesh.
  - Amir Khusrau is credited with developing **qawwali**, a devotional form of Sufi music that continues to be performed at Sufi shrines today.
  - He played a crucial role in shaping **Indian classical music**, influencing styles like **khayal** and **tarana**.
  - He is also said to have invented the **sitar and tabla**, though historical evidence for this claim is debated.
  - Additionally, he contributed to the development of several **ragas** that remain integral to Indian classical music.
- Amir Khusrau was one of the earliest writers to use **Hindavi**, a language that later evolved into modern Hindi and Urdu.
  - His works blended elements of **Persian, Arabic, Turkish, and local Indian dialects**, making them accessible to a wide audience.
  - He also popularised **riddles, proverbs, and folk songs** in Hindavi, which are still enjoyed today.
  - He served as a court poet under **five Delhi Sultans**, including **Muizuddin Qaiqabad, Jalaluddin Khalji, Alauddin Khalji, Qutbuddin Mubarak Shah, and Ghiyasuddin Tughlaq**.
  - He wrote extensively in **Persian**, the official language of the Delhi Sultanate, as well as in Hindavi.
  - Amir Khusrau was a devoted disciple of **Hazrat Nizamuddin Auliya**, one of the most revered Sufi saints of India.
  - He wrote favourably about Hindu philosophical thought in his Persian masnavi **Nuh Siphir** and composed folk songs that resonated with people of all faiths.
  - Some of his most famous compositions include "**Chhaap Tilak**," "**Zehal-e-Miskeen**," and "**Sakal Ban Phool Rahi Sarson**," which are still performed in Sufi gatherings and Bollywood films.

### Idukki Wildlife Sanctuary

**News:** A three-day faunal survey in Idukki Wildlife Sanctuary recorded 14 new birds, 15 butterflies, and 8 odonates, along with 202 moths, 52 ants, 10 mantids, and six cicadas.



#### About Idukki Wildlife Sanctuary

- It is located in the **Idukki district**, Kerala.
- The **terrain is rugged and undulating**, with **altitudes ranging between 450 meters to 750 meters above sea level**.
- It is characterized by **steep hills, deep valleys, plateaus, and riverine forests**.
- **Climate:** Idukki Wildlife Sanctuary experiences a **tropical monsoon climate**, with heavy rainfall and pleasant temperatures throughout the year.
- **River flowing through it:** Two major rivers **flow through and sustain** the sanctuary's rich biodiversity: **Periyar River** and **Cheruthoni River**. These rivers contribute to the **Idukki Dam Reservoir**.
- **Vegetation:** The sanctuary is a treasure trove of **tropical evergreen, semi-evergreen, and moist deciduous forests**.
- **Flora:** The sanctuary boasts an impressive range of plant species, including: **Timber Trees:** Teak, rosewood, and sandalwood, **medicinal Plants:** Wild pepper, neem, and eucalyptus and **flowering Plants:** Orchids and jacaranda add to the sanctuary's beauty.
- **Fauna :**
  - The sanctuary hosts a diverse array of wildlife, including mammals like elephants, Indian bison (gaur), sambar deer, wild boars, wild dogs (dhole), jungle cats, and tigers.
  - It is also home to various reptiles, such as snakes, monitor lizards, and turtles. Among the bird species found here are the Grey Jungle Fowl, Malabar Grey Hornbill, woodpeckers, bulbuls, kingfishers, and eagles.

### Sri Lankamalleswara Wildlife Sanctuary

**News:** The Archaeological Survey of India's epigraphical survey in the Sri Lankamalleswara Wildlife Sanctuary has led to significant discoveries, including three rock shelters, rock paintings, and 30 inscriptions.



About Sri Lankamalleswara Wildlife Sanctuary

- **Location:** It is a wildlife sanctuary headquartered in Kadapa, Andhra Pradesh, India.
- **Rivers:** The sanctuary serves as the catchment area for the **Pennar River**. The Telugu Ganga Canal flows into the eastern flank of the sanctuary, eventually draining into the Pennar River.
- **Vegetation:** It consists of **Southern tropical dry deciduous forest** in the hills, scrub forest in the plains, Southern dry mixed deciduous forest, **Tropical thorn forests** and Tropical dry evergreen forest.
- **Flora:** The area is home to rare and endangered plant species such as **Red Sanders and Sandalwood**. The riparian vegetation is highly rich in floristic diversity, featuring **Terminalia species, Syzygium species (Jamun)**, Wild Mangoes, Anogeissus latifolia, Phoenix species, Bamboo, Hardwickia binata, and more.
- **Fauna:** It has good representation of species like **Common toad, Bullfrog, Common Indian skink, Green vine snake** etc. Endangered mammals like Panther, Jackal, Chinkara, Chowsingha, Sloth bear, etc; make this Sanctuary their home. It is the only home and hope for the rare and endangered bird the **Jerdons courser**.

### Biodiversity Leak

**News:** The issue of biodiversity leakage has gained attention.

About Biodiversity Leak

- Biodiversity leakage is a phenomenon where nature-damaging human activities are displaced due to the protection or restoration of land areas.



- **Biodiversity leakage** occurs when conservation efforts in one area lead to environmental harm elsewhere.
- This happens due to the displacement of activities like deforestation, agriculture, or industrial operations into unprotected regions.
- For example, if a forest is protected, logging companies may shift their operations to another vulnerable area.



#### Measures to Mitigate Biodiversity Leakage

- **Integrated Conservation Planning** – Develop regional strategies to protect biodiversity at a broader scale rather than isolated areas.
- **Stronger Environmental Laws** – Uniform regulations across regions to prevent the shifting of harmful activities.
- **Sustainable Land-Use Policies** – Promote agroforestry, reforestation, and responsible agriculture.
- **Economic Incentives for Conservation** – Financial support for local communities, carbon credits, and eco-tourism.
- **Monitoring and Impact Assessment** – Use satellite imagery and GIS tools to track biodiversity changes.
- **Corporate Sustainability** – Encourage businesses to adopt eco-friendly supply chains and green certifications.
- **Community Engagement** – Involve local populations in conservation and spread awareness.

### Kawal Tiger Reserve

**News:** Kawal Tiger Reserve in Telangana is leveraging technology to address water scarcity for wildlife, particularly during the harsh summer months.

#### About Kawal Tiger Reserve

- Kawal Tiger Reserve is situated in **Telangana** along the **Godavari River**, forming part of the **Deccan Peninsula-Central Highlands**.



- It was declared **Tiger Reserve in 2012**.
- It is linked to **Tadoba-Andhari Tiger Reserve (Maharashtra)** and **Indravati Tiger Reserve (Chhattisgarh)**, making it vital for tiger movement.
- **Vegetation:** It lies within the **Sahyadri Mountain Ranges** and features diverse landscapes, including dense forests, grasslands, rivers, and streams.
- The reserve falls under the **Deccan Plateau Zone (Zone VI)** and consists of **Southern Tropical Dry Deciduous Forests**.
- **Flora:** **Teak and Bamboo** dominate the vegetation, along with species like **Anogeissus latifolia**, **Terminalia arjuna**, and **Butea monosperma**.
- **Fauna:** The region supports a variety of wildlife, including **tigers, leopards, wild dogs, sambar deer, nilgai, blackbuck, and jungle cats**.
- The reserve is also home to **260 bird species, 34 reptile species, and 75 mammal species**.
- **Threats:**
  - **Sand mining, poaching, illegal logging of teak and bamboo, migratory cattle, and vehicular disturbance** threaten the habitat.
  - **Forest fires** frequently occur, damaging the ecosystem.
  - **Water scarcity** due to rapid drainage of rainfall into the Godavari River.
  - **Invasive weeds** like **Lantana camara** and **Cassia tora** degrade the habitat.
  - **Human settlements within the core area** impact wildlife movement and need relocation.

### Civets

**News:** A rare civet cat, usually found in the Seshachalam forests near Tirumala, was recently sighted near Tadepalli in Guntur district, Andhra Pradesh.



About Civets

- Civets are a group of small carnivorous mammals belonging to the **Viverridae family**, including **Genets, Palm Civets, Binturongs, and Oyans**.
- Civets comprise approximately **15 to 20 species** classified into **10 to 12 genera**.
- They are found in **Africa, southern Europe, and Asia**. Some species are native to **India, the Malay Peninsula, Sumatra, and Borneo**.
- **Physical Characteristics:**
  - Civets have **long bodies and short legs**, making them resemble cats in appearance.
  - They possess **thickly furred tails, small ears, and pointed snouts**.
  - Their fur color is typically **buff or grayish**, often marked with **black spots, stripes, or both**.
- They are **mostly solitary animals** and prefer to live in **tree hollows, rocky areas, and other sheltered locations**.
- They are primarily **nocturnal**.
- They are **omnivorous**. Certain species, such as the palm civets, have a particular fondness for palm juice, which has earned them the nickname "toddy cats."
- **Conservation Status:** Several species of civets are **endangered** according to the IUCN Red List of Threatened Species.
  - Among the most threatened are the **Malabar civet (Viverra civettina)**, which is native to **India's Western Ghats**, and the **Sunda otter civet (Cynogale bennetti)**, which inhabits the **Malay Peninsula, Sumatra, and Borneo**.

#### About Malabar Civet

- Malabar Civet is a nocturnal and elusive animal. It is endemic to the Western Ghats of India.
- **IUCN Red List:** Critically Endangered.
- **Wildlife (Protection) Act, 1972:** Schedule I
- **CITES:** Appendix III
- **Threats:** Habitat destruction and Hunting.

### Juanga Tribe

**News:** The National Human Rights Commission (NHRC) has requested an action taken report from the district magistrate-cum-collector of Keonjhar regarding alleged human rights violations of the Juanga tribe, which is classified as a Particularly Vulnerable Tribal Group (PVTG) in the district.



#### About Juanga Tribe

- The Juanga tribe is a **Particularly Vulnerable Tribal Group (PVTG)** in Odisha.
- The Juang tribe primarily inhabits the **hills of Keonjhar, Pallahara in Anugul, and the plains of Dhenkanal** in Odisha.
- The tribe is divided into two groups: **Hill Juang (Thaniya)** and **Plain Juang (Bhagudia)**.
- The Juanga people speak the **Juanga language**, which belongs to the Munda language family.
- Historically, they were known as **Patuas** because they wore **skirts made from leaves**, but in modern times, they prefer wearing **clothing purchased from local markets**.
- The **mandaghar**, or **youth dormitory**, is an **important cultural structure** in Juang villages, serving as a **gathering place for the community**.
- The Juang perform **Changu dances**, which take place in front of the mandaghar.
- Their primary occupations include **shifting cultivation, hunting, gathering forest produce**, and occasional wage labor. Some Juangas practice **subsistence agriculture**, growing crops like millet, pulses, and vegetables.
- **Handicrafts and bamboo products** are also part of their traditional economy.

#### Agriculture Infrastructure Fund (AIF)

**News:** Recently, Punjab has fully utilized the Rs 4,713 crore provided by the Centre through the Agriculture Infrastructure Fund (AIF) scheme.





#### About Agriculture Infrastructure Fund (AIF)

- It is a financing scheme launched by the Government of India in **July 2020** to provide medium to long-term funding for the development of **post-harvest agriculture infrastructure**.
- **Aim:** It is designed to provide medium to long-term debt financing for viable projects that enhance post-harvest management and establish community farming assets.
- **Goal:** Its primary goal is to offer comprehensive financial assistance to farmers, agri-entrepreneurs, and farmer groups, including Farmer Producer Organisations (FPOs), Self Help Groups (SHGs), and Joint Liability Groups (JLGs).
- **Features of AIF:**
  - All loans **up to ₹2 crore** under this financing facility will receive an interest subvention of **3% per annum** for a maximum duration of seven years.
  - An applicant can undertake up to **25 projects** across different locations, with each project eligible for a loan of up to ₹2 crore under the scheme. This limit of 25 projects applies to private sector entities, including farmers, agri-entrepreneurs, and start-ups.
  - However, this restriction does not apply to state agencies, cooperatives, national and state cooperative federations, FPOs, federations of FPOs, SHGs, and federations of SHGs.
  - Multiple projects within the same location are also permitted, subject to an overall cap of ₹2 crore.
  - Additionally, borrowers must contribute

#### Household Consumption Expenditure Surveys (HCES) 2023-24

**News:** The Household Consumption Expenditure Survey (HCES) 2023-24 findings were released by the National Statistics Office (NSO), highlighting trends in household spending on food and non-food items.

Household Consumption Expenditure Surveys (HCES) 2023-24





#### About Household Consumption Expenditure Surveys (HCES)

- It was conducted between August 2023 – July 2024 by NSO under the the Ministry of Statistics & Programme Implementation (MoSPI).
- The survey covered 405 items across food and non-food categories.
- Broad Consumption Categories
  - Food items: Cereals, pulses, dairy, vegetables, fruits, eggs, meat, edible oil, beverages.
  - Non-food items: Fuel, medical expenses, education, rent, clothing, consumer services, entertainment.

#### Findings of the Household Consumption Expenditure Survey (HCES) 2023-24

Average Monthly Per Capita Expenditure (MPCE)	1. Rural: Rs.4,122 (Rs.4,247 with imputed benefits) 2. Urban: Rs. 6,996 (Rs.7,078 with imputed benefits)
Increase in Monthly Per Capita Consumption Expenditure (MPCE)	<i>Increased by 9% in rural areas and 8% in urban areas from 2022-23.</i>
Urban-Rural Gap	The gap reduced from 84% (2011-12) to 70% (2023-24), indicating higher rural consumption growth.
Increased Spending on Non-Food Items	1. Non-food items <i>account for 53% of rural and 60% of urban expenditure.</i> 2. Major contributors: conveyance, clothing, and other essentials. 3. Food's share in monthly spending has declined.
Decline in Consumption Inequality	The Gini coefficient, a measure of income inequality, decreased in both rural and urban areas:

	<ol style="list-style-type: none"><li>1. Rural areas: Declined from 0.266 in 2022-23 to 0.237 in 2023-24</li><li>2. Urban areas: Declined from 0.314 in 2022-23 to 0.284 in 2023-24.</li></ol>
State-Wise Inequality	<ol style="list-style-type: none"><li>1. Highest MPCE: Sikkim</li><li>2. Lowest MPCE: Chhattisgarh</li></ol>

Policy Implications– The increasing focus on non-food expenses may alter the composition of the Consumer Price Index (CPI), influencing inflation evaluations

### Women's Report on Gender Equality (2025)

News: Recently, UN published its UN Women's Report on Gender Equality (2025).

Key Findings of the UN Women's Report on Gender Equality (2025)



Negative Trends:

- Nearly one-quarter of governments reported backlash against women's rights.
- A woman or girl is killed every 10 minutes by a partner or family member.
- Conflict-related sexual violence increased by 50% since 2022, with 95% of victims being women and girls.
- Women still have only 64% of the legal rights of men.
- Despite progress, maternal mortality rates have remained nearly unchanged since 2015.
- 10% of women and girls live in extreme poverty.
- Only 87 countries have ever had a woman leader.
- Three-quarters of lawmakers worldwide are still men.
- Young women (15-24 years old) lag in access to modern family planning.

Positive Developments:

- 88% of countries have passed laws to combat violence against women.
- Most countries have banned workplace discrimination.
- 44% of countries are working to improve education and training for girls and women.
- The proportion of female lawmakers has more than doubled since 1995.

Call to Action (UN Women's Roadmap for Gender Equality by 2030):

- Digital revolution to ensure equal access to technology for women and girls.
- Investments in social protections, including universal health care and quality education.
- Elimination of violence against women and girls.
- Equal decision-making power for women.
- Gender-responsive humanitarian aid in conflicts and crises.

### AiKosha

News: The Central Government took a significant step under its IndiaAI Mission by launching AiKosha along with an AI Compute Portal.

About AiKosha



Source: PIB



- AIKosha is a secured platform designed to provide a comprehensive repository of datasets, models, and use cases to facilitate AI research and innovation in India.
- Aim: It aims to provide accessible AI resources for researchers, startups, and enterprises across India.
- It offers an AI sandbox with an integrated development environment, allowing users to experiment, develop, and refine AI solutions.

#### Key Features

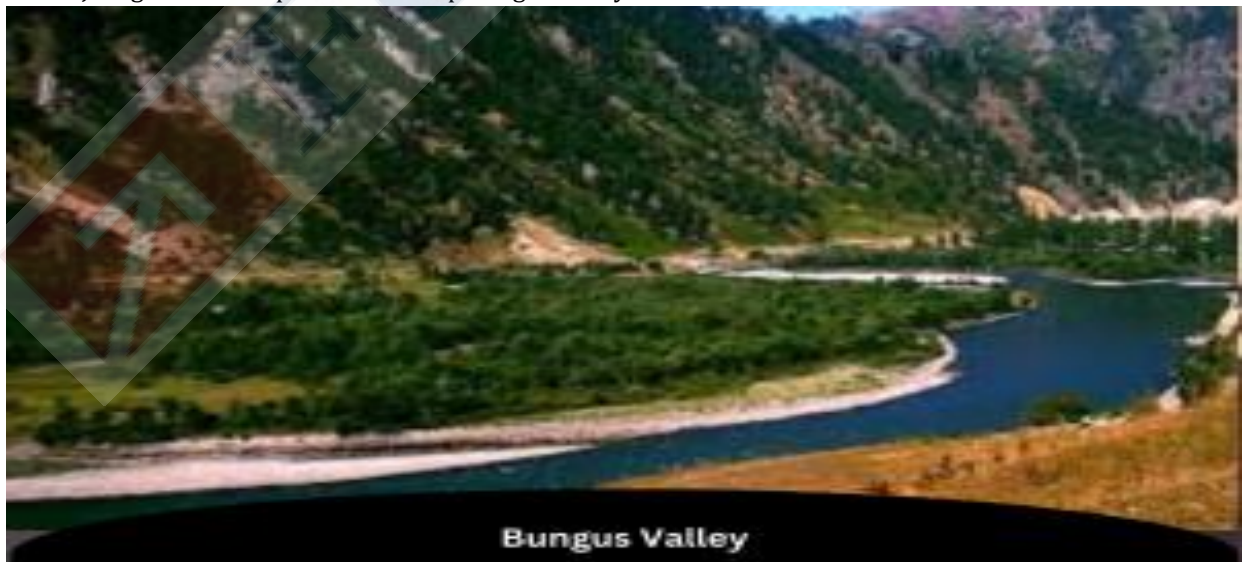
- **Dataset Repository:** It hosts over 300 datasets spanning multiple domains, ensuring a diverse range of high-quality data for AI development.
- **Model Repository:** The platform provides access to more than 80 AI models, allowing researchers and developers to build and deploy AI applications effectively.
- **Use Cases:** It includes a collection of real-world AI implementations, showcasing successful AI-driven solutions in various sectors.
- **Data Encryption:** It ensures that data is encrypted both at rest and in motion, providing a secure environment for AI research.
- **Secure API:** The platform features a secure API to facilitate authenticated and controlled access to datasets and models.
- **Firewall Protection:** It is equipped with real-time firewall protection to filter out malicious traffic and prevent cyber threats.
- **Permission-Based Access:** The platform implements a permission-based access system, ensuring that only authorized users can access specific datasets and tools.

#### AI Sandbox Capabilities

- **Integrated Development Environment (IDE):** It includes an AI sandbox that provides an IDE for experimentation and development.
- **Tools & Tutorials:** The platform offers various tools and tutorials to help users enhance their AI knowledge and skills.
- **AI Readiness Scoring:** It features an AI readiness scoring system to evaluate datasets and determine their suitability for AI applications.

### **Bungus Valley**

News: J&K government plans to develop Bungus Valley near LoC as an ecotourism hub.



#### About Bungus Valley

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- Bungus Valley is situated in the Kupwara district of Jammu & Kashmir.
- It lies within the Handwara sub-district, located in the Trans-Himalayan region of northern India.
- The valley is located at an altitude of approximately 10,000 feet above sea level.
- Bungus Valley consists of two main regions: Bodh Bangus (Big Bangus), which is a large elliptical valley aligned along the east-west axis, and Lokut Bangus (Small Bangus), which lies on the northeastern side of Bodh Bangus.
- To the east, it is bordered by Rajwar and Mawar. To the west, it is flanked by the Shamasbury and Dajlungun Mountains. In the north, it is connected to Chowkibal and Karnah Guli.

#### Ecological Significance

- Bungus Valley is an ecologically rich area with a unique mountain biome.
- It features a grassland biome at lower altitudes and is home to dense Coniferous forests (Budloo), which resemble a Taiga ecosystem.

### Convention on Cluster Munitions

News: Recently, Lithuania withdrew from Convention on Cluster Munitions prohibiting cluster bombs, citing security concerns over Russia. Convention on Cluster Munitions



#### About the Convention on Cluster Munitions

- Genesis– It is an international treaty of more than 100 states, adopted on 30 May 2008, signed on 3 December 2008 and entered into force on 1 August 2010.
- Objective: The Convention on Cluster Munitions (CCM) strictly forbids the use, development, production, acquisition, stockpiling, and transfer of cluster munitions under any circumstances. It also prohibits assisting or encouraging

others to participate in these banned activities.

- The Convention offers a comprehensive international framework to address the harm caused by cluster munitions and their remnants, aiming to prevent their proliferation and future use.
- Membership Status: 124 states committed to the Convention's objectives. 112 states are parties to the Convention and 12 states have signed but not yet ratified.
  - India, U.S.A., Russia, China, Ukraine, and Israel are not signatories due to military and strategic considerations.

### World Spice Organisation (WSO)

News: As per the World Spice Organisation (WSO), despite being the world's largest producer and exporter of a wide variety of spices, India holds a meager 0.7% share in the global seasoning market, which is valued at \$14 billion in 2024. In contrast, China commands 12%, while the U.S. holds an 11% share.

About World Spice Organisation (WSO)



- WSO is a not-for-profit organization established in 2011 in Kochi, Kerala, the spice capital of India.
- It is registered under the Travancore Cochin Literary, Scientific, and Charitable Societies Act, 1956.
- The primary objective of WSO is to facilitate the Spice Industry in addressing challenges related to food safety and sustainability.
- WSO works by engaging all stakeholders, including the general public, industry, academia, and end-users, to achieve its goals.
- The organization also aims to strengthen the Corporate Social Responsibility (CSR) initiatives of the spice industry.
- WSO recognizes that efforts to ensure food safety and sustainability should begin at the farm level, as major challenges such as low productivity and the presence of harmful agrochemicals originate there.
- WSO collaborates with leading national and international organizations such as Spices Board India, Indian Institute of Spice Research (IISR), Rainforest Alliance, GIZ (Germany), and IDH – The Sustainable Trade Initiative (Netherlands).
- WSO also interacts with global spice associations like the American Spice Trade Association (ASTA), European Spice Association (ESA), International Pepper Community (IPC), etc to resolve issues facing the spice industry.
- The organization is also involved in national and international standard-setting processes related to spices, including FSSAI, BIS, ISO, and Codex, ensuring that the industry's interests are represented in regulatory frameworks.
- It is the technical partner of the All India Spices Exporters Forum (AISEF).

**Khanjar-XII Exercise**

News: The 12th edition of the India-Kyrgyzstan Joint Special Forces Exercise, Khanjar-XII, is being held in Kyrgyzstan from March 10 to 23, 2025.

### About Khanjar-XII Exercise

- It is a bilateral military exercise between India and Kyrgyzstan.
- It has been started since 2011 and both nations are hosting it alternately.
- The Indian contingent is represented by troops from the Parachute Regiment (Special Forces), while the Kyrgyzstan contingent consists of the Kyrgyz Scorpion Brigade.
- Aim: To exchange experiences and best practices in Counter-Terrorism and Special Forces Operations in both urban and high-altitude mountainous terrains.
- Focus: The exercise focuses on advanced Special Forces training, including sniping techniques, complex building intervention, and mountain warfare skills.
- Alongside military training, the exercise will also feature cultural exchanges, including the celebration of the Kyrgyz festival Nowruz, fostering deeper ties between the two nations.

### ICC Champions Trophy 2025

News: India secured their third ICC Champions Trophy title after defeating New Zealand.

About ICC Champions Trophy 2025



- It is a One Day International (ODI) cricket tournament that brings together the world's top eight teams.
- It was initially known as the ICC Knockout (1998, Dhaka), and the event was renamed the ICC Champions Trophy in 2002.
- It was held every two years until 2009, then shifted to a four-year cycle.
- Format:
  - Eight teams were divided into two groups of four.
  - Each team played once against the others in their group.
  - The top two teams from each group advanced to the semi-finals.
- Qualification Process:
  - Previously, the top-eight ODI-ranked teams qualified.
  - For 2025, teams qualified based on their performance in the 2023 ICC Men's Cricket World Cup, with Pakistan securing automatic entry as hosts.

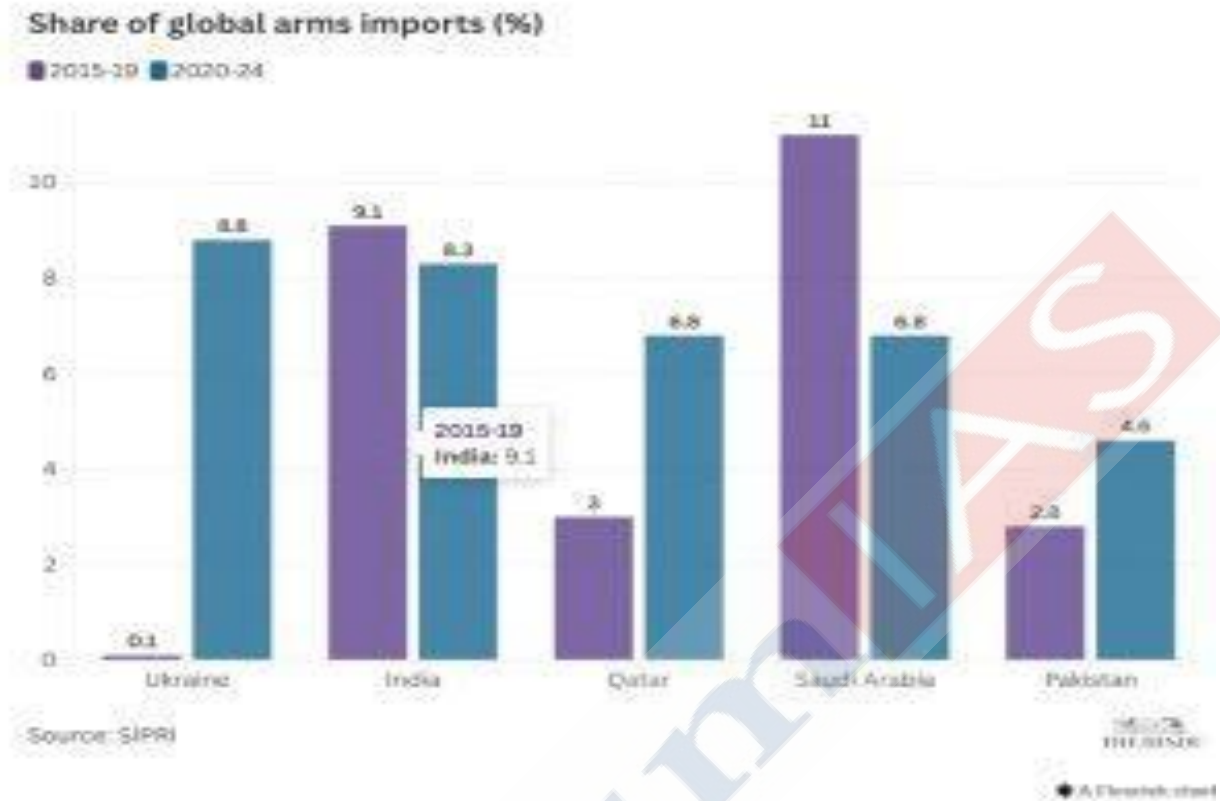
Pakistan, Bangladesh, and New Zealand, while Group B included Australia, Afghanistan, England, and South Africa.

### SIPRI Report (2020-2024)

News: The Stockholm International Peace Research Institute (SIPRI) released its report on global arms transfers for the period 2020-2024, highlighting key shifts in arms imports and exports across various nations.

Key findings of the SIPRI report





- *Ukraine emerged as the largest importer of major arms globally in 2020-2024, with an almost hundredfold increase compared to 2015-2019.*
- *The United States accounted for 45% of Ukraine's arms imports, followed by Germany (12%) and Poland (11%). Overall, Ukraine accounted for 8.8% of global arms imports during this period.*
- *India remained the world's second-largest arms importer, though its imports declined by 9.3% compared to 2015-2019. Despite the reduction, India was still the top export destination for Russian and French arms.*
  - *Russia's Share: 36% of India's arms imports came from Russia, significantly lower than in previous years (55% in 2015-2019 and 72% in 2010-2014)*
  - *Key Acquisitions: India has signed contracts for major military platforms from France, including 36 Rafale fighter jets and six Scorpene-class submarines. Additionally, deals for 26 Rafale-M jets and three more submarines are expected soon.*
- *Pakistan's arms imports rose by 61% between 2015-2019 and 2020-2024.*
- *China strengthened its dominance as Pakistan's top supplier, accounting for 81% of its total arms imports, up from 74% in the previous period.*
- *For the first time since 1990-1994, China dropped out of the top 10 arms importers.*
- *France became the world's second-largest arms exporter. India (28%) and Qatar (9.7%) were the top buyers.*
- *European arms imports rose 155% amid security threats from Russia.*



#### About SIPRI

- About: SIPRI (Stockholm International Peace Research Institute) is an independent global research institute specializing in conflict, armaments, arms control, and disarmament.
- Founded: Established in 1966 in Stockholm, Sweden.
- Role & Importance:
  - Tracks global arms trade trends and their security implications.
  - Analyzes military expenditures and strategic impacts.
  - Offers data-driven insights to guide policymakers on global defense dynamics.

### **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)**

News: The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) marks 55 years since it came into force on March 5, 1970. Treaty on the Non-Proliferation of Nuclear Weapons (NPT)



#### About Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

- It is an international agreement aimed at preventing the spread of nuclear weapons, promoting the peaceful use of nuclear energy, and achieving global nuclear disarmament.
- The NPT was opened for signature in 1968 and entered into force on 5 March 1970.
- Membership: 191 members including the five recognized nuclear-weapon states: U.S.A, Russia, China, France, and the United Kingdom.
- India has not become a signatory to the NPT.
- The treaty is built on three main pillars:
  - Non-Proliferation – Preventing the spread of nuclear weapons and related technology.

- Disarmament – Working towards the elimination of nuclear weapons globally.
- Peaceful Use of Nuclear Energy – Ensuring cooperation in the development of nuclear energy for peaceful purposes under strict safeguards.

#### Key Provisions

- Nuclear-weapon states (NWS) commit not to transfer nuclear weapons or technology to any non-nuclear-weapon state (NNWS).
- Non-Nuclear-Weapon States (NNWS) agree not to acquire or develop nuclear weapons.
- International Atomic Energy Agency (IAEA) safeguards are applied to verify compliance through inspections and monitoring.
- The treaty encourages international cooperation in the peaceful use of nuclear energy while preventing the diversion of nuclear materials for military purposes.

### Dehing Patkai National Park

News: Recently, a camera trap in Dehing Patkai National Park has captured a rare sighting of a Clouded Leopard (*Neofelis nebulosa*), a species listed as Vulnerable on the IUCN Red List.

#### About Dehing Patkai National Park

Source: Naparks

- It is located in the Dibrugarh and Tinsukia districts of Assam.
- It is India's largest stretch of lowland rainforest.
- It is known as the "Amazon of the East."
- In 2004, Dehing Patkai was declared a wildlife sanctuary. In 2021 the Assam Forest Department officially notified it as a national park.
- It was also declared as Dehing Patkai Elephant Reserve under Project Elephant, highlighting its significance for elephant conservation.
- Tribes: The region is home to a diverse mix of ethnic groups, including indigenous Assamese communities such as the Tai Phake, Khamyang, Khampti, Singpho, Nocte, Ahom, Kaibarta, Moran, and Motok, as well as Burmese and non-indigenous Nepali populations.
- Vegetation: The park features a deciduous rainforest with semi-evergreen vegetation and abundant greenery.
- Flora: Species like Hollong, Nahor, Mekai, Paroli, Simul, along with various orchids, ferns, cane, and bamboo are found in the forest.
- Fauna:
  - The rich biodiversity includes diverse species such as slow loris, pig-tailed macaque, stump-tailed macaque, capped langur, Indian leopard, Asian elephant, royal Bengal tiger, gaur, Himalayan black bear, clouded leopard, barking deer, Chinese pangolin etc.
  - Dehing Patkai is a crucial bird habitat, especially for the White-Winged Wood Duck, a globally threatened species.
  - Other bird species include the Lesser Adjutant Stork, White-backed Vulture, Slender-billed Vulture, and Beautiful Nuthatch and several pheasants like the White-cheeked Hill Partridge, Khaleej Pheasant, and Grey Peacock-Pheasant.

### Madhav National Park

News: Recently, the Centre officially declared Madhav National Park in Madhya Pradesh as India's 58th tiger reserve. It became the ninth tiger reserve in Madhya Pradesh. Madhav National Park



#### About Madhav National Park

- It is located in the Shivpuri district of Madhya Pradesh, in the northern part of the state.
- It lies on the northern fringe of the Central Highlands, forming part of the Upper Vindhyan Hills with a mix of plateaus, valleys, and gentle slopes.
- It was declared a National Park in 1958.
- Historical Significance: Madhav National Park was once a hunting ground for the Scindia rulers of Gwalior. It is named after Madho Rao Scindia, a member of the royal family.
  - George Castle, built by the Scindias for King George V, is a key historical site in the park.
  - The Madhav Vilas Palace adds to the area's charm with its grand architecture.
- Vegetation: The forests of the park fall within the category of Northern tropical dry deciduous mixed forests as well as Dry Thorn Forests typical of North – Western Madhya Pradesh.
- Flora: The park features key species like Kardhai, Salai, Dhaora, and Khair.
- Fauna: It is home to antelopes like Nilgai, Chinkara and Chowsinga and Deer including Chital, Sambar and Barking Deer. Animals like the Leopard, Wolf, Jackal, Fox, Wild Dog, Wild Pig, Porcupine, Python etc are also sighted in the park.
- Water bodies– The park has lakes, meadows, and forests. Sakhya Sagar and Madhav Sagar, two lakes in the south, support aquatic life and sustain land animals.
- Madhav National Park is part of Project Tiger, which aims to protect and increase the tiger population in India.

#### Pelicans and Painted Stork

News: After Cyclone Hudhud, painted storks and pelicans now roam freely at Visakhapatnam's zoo, displaying their elegance and charm in a natural setting.



### About Pelicans



Figure 3. Source: Thoughtco

- Pelicans are large, water-dwelling birds known for their distinctive throat pouches and impressive wingspans.
- Pelicans are highly social birds, living in colonies of hundreds.
- Pelicans are carnivorous, primarily feeding on fish. They employ various hunting techniques: Scoop Fishing, Plunge Diving and Cooperative Hunting.
- Habitat: Pelicans primarily inhabit coastal regions, rivers, and large inland water bodies that provide abundant fish. They are found on all continents except Antarctica.

- Conservation status: While most pelican species are classified as Least Concern by the IUCN, some like spot-billed pelican are considered Near-Threatened.

### About Painted Stork (*Mycteria leucocephala*)



- The painted stork is a wading bird commonly found along shorelines.
- Distribution: Native to the Indian subcontinent and Southeast Asia.
- Physical characteristics:
  - A large stork with a long, yellow bill that curves downward at the tip, resembling that of an ibis.
  - Distinct features include a bright orange face, pinkish legs, and a speckled band across the chest.
- They are predominantly non-migratory and most make only local movements and are social in nature.

- Conservation Status: Listed as Near Threatened (NT) by the IUCN.

### Jalantheeswarar Temple (Thiruvooral)

News: The Jalanatheswarar Temple at Thakkolam is in a deteriorating condition and needs restoration.

### About Jalantheeswarar Temple (Thiruvooral)



- Jalantheeswarar Temple, also known as Thiruvooral, is a revered Hindu temple dedicated to Lord Shiva.
- It is located in Thakkolam, a village in Vellore district, Tamil Nadu.
- In this temple, Shiva is worshipped in the form of a Lingam under the name Jalantheeswarar, while his consort Parvati is known as Giriraja Kannikambal.
- This temple is classified as a Paadal Petra Sthalam, as it is mentioned in the Tevaram, the 7th-century Tamil Saiva canonical work

composed by the Nayanar saints.

- The temple is believed to have been originally built by the Pallavas and later expanded during the Chola period.
- The temple has four inscriptions from the 10th and 11th centuries, which provide details about women engaged in temple activities.
- Architectural Features: The temple complex spans approximately 1.5 acres, featuring a three-tiered gopuram (gateway tower) and concentric granite walls. The main sanctum houses the deity Jalantheeswarar in the form of a lingam made of sand.

### Heatwave

News: According to the India Meteorological Department (IMD), there is a high likelihood of heatwave conditions in isolated areas of Odisha from March 13-17, Jharkhand from March 14-17, and Gangetic West Bengal from March 15-17. Heatwave



#### About Heatwave

- A heatwave is a period of unusually high temperatures over a region.
- The threshold for declaring a heatwave depends on the normal temperature in that area at a specific time of the year.
- Heatwaves mainly occur from March to June and sometimes extend into July.
- Regions affected:
  - Interior Odisha, Jharkhand, Gangetic West Bengal, South Rajasthan, North Gujarat.
  - Coastal regions also experience heat waves under specific conditions.
- Parameters measured:
  - Maximum temperature
  - Relative humidity
  - Wind speed & direction
  - Atmospheric pressure
- Climatology of maximum temperatures (1991-2020 data) is used to determine normal temperature trends. Heatwaves are then declared based on daily maximum temperature data.
- A heatwave is declared by the India Meteorological Department (IMD) when:
  - Plains: Maximum temperature reaches 40°C or more.
  - Hilly regions: Maximum temperature reaches 30°C or more.
  - Coastal areas: Temperature departure is 4.5°C or more from normal, and the actual maximum temperature is 37°C or more.

#### Heatwave vs. Severe Heatwave

- Based on departure from the normal temperature
  - Heatwave: When temperature departure is 4.5°C to 6.4°C from normal.
  - Severe heatwave: When departure is more than 6.4°C from normal.
- Based on actual maximum temperature:
  - Heatwave: Above 45°C.
  - Severe heatwave: Above 47°C.
- A heatwave is declared if the above conditions persist for at least two consecutive days in two or more stations of a meteorological sub-division.



## Equinox & Solstices

**News-** March 20, 2025, marks the vernal or spring equinox in the Northern Hemisphere.

About Equinox



Source- National Weather Service

- Equinoxes are astronomical events occurring twice a year when the *Sun appears directly above the Equator at noon*. It results in nearly *equal day and night* durations across the globe.
- They take place in March and September and are the only times when both the North and South Poles receive sunlight simultaneously.
  - **Vernal or Spring Equinox:** Occurs between March 19 and 21, marking the beginning of spring in the Northern Hemisphere and autumn in the Southern Hemisphere.
  - **Autumnal Equinox:** Occurs between September 21 and 24, signaling autumn in the Northern Hemisphere and spring in the Southern Hemisphere.
- **Earth's position during an Equinox–** On equinox days, the *Earth's axial tilt aligns in such a way that both hemispheres receive an equal amount of sunlight*. On all other days, the tilt of the Earth results in uneven distribution of sunlight, affecting seasonal changes.

About Solstices

- Solstices occur when the Earth's axial tilt is at its maximum inclination toward or away from the Sun, leading to significant differences in daylight hours.
  - **Summer Solstice (Northern Hemisphere):** It falls between June 20 and 22, marking the *longest day and shortest night of the year* as the Northern Hemisphere is tilted toward the Sun.
  - **Winter Solstice (Northern Hemisphere):** It falls between December 20 and 23, marking the *shortest day and longest night of the year* as the Northern Hemisphere is tilted away from the sun.
- In the Southern Hemisphere, the solstices are reversed, meaning December experiences the summer solstice while June marks the winter solstice.

## Phansad Wildlife Sanctuary

**News:** The first honey harvest at Maharashtra's Phansad Wildlife Sanctuary marks a significant milestone. It aimed at empowering the local tribal community by promoting sustainable beekeeping practices. **Phansad Wildlife Sanctuary.**



#### About Phansad Wildlife Sanctuary

- Phansad Wildlife Sanctuary is situated in the **Murud and Roha talukas of Raigad district, Maharashtra.**
- It was established **to protect a portion of the coastal woodland ecosystem of the Western Ghats**, encompassing 17,250 acres of forest, grasslands, and wetlands.
- Previously, this area was part of the hunting reserves of the **princely state of Murud-Janjira.**
- **Pockets of open grassland**, known as “**mals**” are scattered in the sanctuary.
- **Vegetation:** The hilltop forests of Phansad Wildlife Sanctuary are predominantly evergreen, featuring species such as **Anjan** (*Memecylon umbellatum*) and **Phansada** (*Garcinia talbotii*).
- **Flora:** The slopes are covered with dry deciduous forests, comprising **Ain, Kinjal, Teak, Hirda, Jamba, Mango**, and various species of **Ficus**.
- The sanctuary is home to a rich diversity of plant life, with a total of 710 species, including 179 tree species, 66 shrubs, and 141 herbs.
- **Fauna:** Phansad Wildlife Sanctuary is home to a rich variety of wildlife.
- The leopard is the major carnivore found in the sanctuary. Other animals include hyena, jungle cat, palm civet, sambar, barking deer, bonnet macaque, wild boar, and the Malabar giant squirrel.
- The sanctuary also hosts **148 species of birds**, including the Pied Hornbill, Three-toed Kingfisher, Malkoha, and Pitta. There are 90 species of butterflies, such as the Common Map, Black Prince, Nawab, and Blue Mormon.
- Additionally, several species of poisonous and non-poisonous snakes are found here.

#### Sillahalla Power Project

News– The Tamil Nadu Pollution Control Board (TNPCB) recently canceled the public hearing for the Silahalla Power Project in the Nilgiris due to strong public opposition and environmental concerns. Sillahalla Power Project.



#### About Sillahalla Power Project

- Type: Pumped storage hydroelectric project by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO).
- Location: Kundah Taluk, Nilgiris district, Tamil Nadu.
- Objective: To generate 1,000 MW electricity to meet peak power demand.
- Associated Rivers: Silahalla stream (tributary of the Kundah River), which ultimately feeds into the Bhavani River (a tributary of the Cauvery River).

#### Nilgiri Biosphere Reserve – Key Facts

- Geographical Location:
  - Situated in: The Nilgiri Hills of the Western Ghats.
  - Spread across: Tamil Nadu, Kerala, and Karnataka.
- Major Protected Areas within the reserve:
  - Tamil Nadu: Mudumalai Wildlife Sanctuary, Mukurthi National Park.
  - Kerala: Wayanad Wildlife Sanctuary, Silent Valley National Park.
  - Karnataka: Bandipur National Park, Nagarhole National Park.
- Vegetation– *Tropical evergreen forests, montane sholas, grasslands, moist deciduous forests, and thorn forests.*
- Flora– It is home to 132 endemic plant species, including rare species like Adenoon, Calacanthus, and Frereia.
- Fauna: It hosts the largest population of *Nilgiri Tahr* and *Lion-tailed macaque*, along with elephants, tigers, gaurs, sambars, and chitals.
- Significance– It is the first *UNESCO-designated Biosphere Reserve in India (1986)* under the Man and Biosphere Programme.



### PM-YUVA 3.0

News: The Ministry of Education's Department of Higher Education has introduced PM-YUVA 3.0, the Prime Minister's Scheme for Mentoring Young Authors. PM-YUVA 3.0



#### About PM-YUVA 3.0

- Launched by: Ministry of Education, Department of Higher Education to nurture young literary talent in India.
- Aim: To train budding authors under the age of 30 to promote a strong reading, writing, and book culture across the country.
- PM-YUVA 3.0 aims to highlight the perspectives of young writers on the following themes:
  - Contribution of Indian Diaspora in Nation Building;
  - Indian Knowledge System; and
  - Makers of Modern India (1950-2025)

#### PM-YUVA 3.0 Features

- Contestants must submit a 10,000-word book proposal, including a 2,000-3,000-word synopsis, chapter plan, 7,000-8,000 words of sample chapters, bibliography, and references.
- 50 authors will be selected by a committee constituted by the National Book Trust (NBT).
- Applicants from PM-YUVA 1.0 and 2.0 are ineligible for PM-YUVA 3.0.
- Selected young authors will interact with renowned writers, participate in literary festivals, and contribute to literature reflecting India's heritage and progress.
- The National Book Trust (NBT), India, will publish the selected books and translate them into other Indian languages, promoting 'Ek Bharat Shreshtha Bharat'.
- Authors will receive a scholarship of ₹50,000 per month for six months (₹3 lakh in total) under the Mentorship Scheme.
- A 10% royalty will be provided on successful publication.
- Authors will be given a platform to promote their books and encourage a reading and writing culture nationwide.

### Phansad Wildlife Sanctuary

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### Kanger Valley National Park

**News–** Kanger Valley National Park has been included in the tentative list of **UNESCO** world heritage sites under the ‘Natural’ category. **Kanger Valley National Park**



#### About Kanger Valley National Park

- **Location**– It is located in Jagdalpur within the *Bastar District of Chhattisgarh*.
- The National Park derives its name from the *Kanger River*, which flows centrally from the Northwest to the Southeast direction.
  - Kanger River is a tributary of the *Kolab River*, which ultimately joins the *Godavari River*.
- **Topography**– It features *low flatlands, gentle slopes, steep inclines, plateaus, deep gorges, valleys, and winding stream courses*.
- *Tirathgarh Falls*, which originates from the Kanger River, presents an enchanting view falling from a height of 150 feet.
- **Caves**– The national park has more than 15 limestone caves, including the famous *Kotumsar, Kailash, and Dandak caves*.
- **Flora**– Mixed *moist deciduous forests*, with a predominance of *Sal, teak, and bamboo* trees
- **Fauna**:
  - Panther, Wildcat, Cheetal (Spotted Deer), Sambhar, Barking Deer, Wild Pig, Jackal, Langur, Rhesus Macaque, Sloth Bear, Python, Hyena, Rabbit, Crocodile and Civet.
  - Rare animals live in this park — *otter, mouse deer, giant squirrel* and *Lethis softshell* turtle.
  - State Bird of Chhattisgarh- *Bastar Hill Myna*, also found.

#### Anthurium Flowers

News– India successfully exported Anthurium flowers from Mizoram to Singapore for the first time.





Source- Business Insider

#### About Anthurium

- It is a *tropical flowering plant* valued for its ornamental appeal and air-purifying properties.
- Grown mostly indoors, it *helps remove toxins like formaldehyde, ammonia, toluene, xylene, and allergens* from the air.
- It is included in *NASA's list of air-purifying plants* due to its ability to improve indoor air quality.
- Geographical distribution:
  - Native Region: Americas – From northern Mexico to northern Argentina and parts of the Caribbean.
  - In India: Widely cultivated in Mizoram and other North-Eastern states.
- Economic & Cultural significance
  - It is a significant contributor to India's floriculture exports: *USD 86.62 million (FY 2023–24)*.
  - '*Anthurium Festival*' is an annual cultural and tourism event celebrated in Mizoram. It showcases the beauty and commercial potential of Anthurium flowers grown in the region.

'Floriculture hubs in India:- Tamil Nadu (21%), Karnataka (16%), Madhya Pradesh (14%), West Bengal (12%).

Major Importers from India: USA, Netherlands, UAE, UK, Canada.

### National Wildlife Health Policy

**News**– The Government of India is drafting a National Wildlife Health Policy (NWHP) to strengthen wildlife disease surveillance, research, and diagnostics. **National Wildlife Health Policy.**



#### About National Wildlife Health Policy

- The *Central Zoo Authority (CZA)* launched the National Wildlife Health Policy (NWHP) to improve wildlife health management and address zoonotic diseases.
- This initiative is an integral part of the *National Wildlife Action Plan (2017-31)* and follows the *One Health approach*, which emphasizes the interconnectedness of human, animal, and environmental health.

#### Key Institutions & Initiatives under NWHP

##### **National Referral Centre for Wildlife (NRC-W)**

- Recently inaugurated in *Junagadh, Gujarat*, NRC-W serves as a *central hub for wildlife health management*.
- It is *India's first dedicated wildlife disease diagnostic and research centre*.
- The centre investigates wildlife mortalities, disease outbreaks, and provides treatment solutions.

##### **National Wildlife Health Information System**

- A proposed initiative under NWHP to streamline disease reporting and surveillance across different regions.
- It will collaborate with the *National Animal Disease Referral Expert System* and the *National Animal Disease Reporting System* to forecast and mitigate potential disease outbreaks.

##### **Central Zoo Authority (CZA)**

- It is a *statutory body* established under the *Wildlife Protection Act, 1972*.
- It was formed in 1992 under the Ministry of Environment, Forest & Climate Change (MoEF&CC).
- It works to enhance wildlife conservation efforts and maintain the health of animals in zoological parks.

#### Alignment with India's Wildlife Conservation Framework

##### **National Wildlife Action Plan (2017-31)**

- It comprises 103 conservation actions and 250 projects.
- It *introduces standard protocols for disease surveillance in tiger reserves and protected areas*.

##### **Wildlife Protection Act, 1972**

- It provides a legal framework for monitoring and controlling wildlife diseases to safeguard biodiversity.

### Sagareshwar Wildlife Sanctuary

**News-** According to a recent study, Sagareshwar Wildlife Sanctuary has a high deer population, with 536 sambars and 295 cheetals (spotted deer), making it one of the most densely populated man-made wildlife sanctuaries. **Sagareshwar Wildlife Sanctuary.**



About Sagareshwar Wildlife Sanctuary

- **Location-** It is located in the *Sangli district of Maharashtra.*
- It holds the distinction of being *India's first man-made wildlife sanctuary.*
- It is an artificially cultivated forest without a perennial water source, and most of its wildlife species have been artificially introduced.
- **Vegetation-** *Southern dry mixed deciduous and southern thorn forests.*
- **Flora-** *Tamarind, Neem, Eucalyptus, Acacia, Agave, and Khair trees.*
- **Fauna:** The Sanctuary is home to a variety of wildlife, including large herbivores such as *Sambar Deer, Blackbucks, Muntjac, Chital, Wild Boar,* and Peacocks. It also supports small carnivores like *hyenas, foxes,* and porcupines.

### World Happiness Report 2025

**News-** The World Happiness Report 2025 was recently released, ranking countries based on the happiness and well-being of their citizens. **World Happiness Report 2025.**





#### About World Happiness Report 2025

- It is an *annual global assessment* that ranks countries based on life satisfaction and happiness levels.
- It considers both statistical data and public perception to evaluate overall well-being.
- **Published by**– *Wellbeing Research Centre at the University of Oxford* in partnership with Gallup, the UN Sustainable Development Solutions Network and an independent editorial board.
- **Criteria for Ranking**– The ranking is based on six key indicators- *social support, GDP per capita, health life expectancy, freedom, generosity and perception of corruption.*

#### Key Findings of the Report

##### Global happiness trends

- Western and Nordic countries continue to dominate the rankings.
- *Costa Rica (6th)* and *Mexico (10th)* entered the top 10 for the first time.
- The U.S. (24th) and the U.K. (23rd) dropped in rankings due to rising loneliness and dissatisfaction.

##### Top & Bottom ranked nations

- **Top 3 countries:** Finland (1st), Denmark (2nd), Iceland (3rd)
- **Bottom 3 countries:** Afghanistan (147th), Sierra Leone, Lebanon.

##### India's ranking

- India ranked *118th out of 147 countries.*
- It ranked below Pakistan (109th) and Nepal (92nd).

#### Exercise AIKEYME

News– India is set to enhance its military and maritime cooperation with African nations through two key initiatives—Exercise AIKEYME (Africa-India Key Maritime Engagement) and IOS Sagar (Indian Ocean Ship Sagar). Exercise AIKEYME.



#### About Exercise AIKEYME

- Aikeyme marks *India's first-ever multilateral naval exercise with 10 African nations*. It focuses on strengthening maritime collaboration, bolstering maritime security, and tackling regional challenges.
- It is scheduled to take place off the coast of *Dar-es-Salaam, Tanzania*, from April 13 to 18, 2025.
- Participating nations– Tanzania (co-host), Comoros, Djibouti, Eritrea, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, and South Africa.
- Aim– To *improve interoperability* between the Indian Navy and African navies, emphasizing joint efforts against piracy and drug trafficking.
- Key Activities: *Visit, Board, Search, and Seizure (VBSS) drills*, arms firing exercises, helicopter operations, search and rescue missions, and *table-top and command post exercises on anti-piracy operations* and information-sharing.

#### About IOS Sagar

- The IOS Sagar initiative is designed to deepen India's maritime collaboration with Indian Ocean Region (IOR) countries.
- It involves the deployment of the *Indian Navy's INS Sunayna*, crewed by Indian sailors alongside 44 personnel from nine African nations.
- The initiative will take place from April 5 to May 8, 2025.
- Key Participating Countries: Sri Lanka, Maldives, Mauritius, Comoros, Kenya, Madagascar, Mozambique, Seychelles, and South Africa.
- Key Activities:
  - The ship will make *port calls* at *Dar-es-Salaam, Nacala, Port Louis, Port Victoria, and Male*.
  - It will conduct joint surveillance of the *Exclusive Economic Zones (EEZs)* of *Tanzania, Mozambique, Mauritius, and Seychelles*.
  - The Personnel will undergo *two-week training sessions in Kochi*, covering sea training, watchkeeping, and other professional naval activities.

### Padmaja Naidu Himalayan Zoological Park

News- Padmaja Naidu Himalayan Zoological Park has become India's first zoo to preserve DNA samples of wildlife. Padmaja Naidu Himalayan Zoological Park.



About Padmaja Naidu Himalayan Zoological Park

- Location- It is situated in Darjeeling, in the Indian state of West Bengal.
- Features:
  - It is the *largest high altitude zoo in India*.
  - It specializes in breeding animals adapted to *alpine conditions*.
  - It has successful captive breeding programs for the *snow leopard, the endangered Himalayan wolf and the red panda*.
  - The zoo serves as the *central hub for Central Zoo Authority of India's red panda program*.
  - It is a member of the *World Association of Zoos and Aquariums (WAZA)*.

About the Project

- Project Name: Popularly known as India's first Frozen Zoo or DNA Cryogenic Conservation Project.
- Objective:
  - To preserve the genetic material of endangered Himalayan species for future research and conservation.
  - To support assisted reproduction methods and protect biodiversity from the risk of extinction.
- Implemented By: Padmaja Naidu Himalayan Zoological Park, in collaboration with the Centre for Cellular and Molecular Biology (CCMB), Hyderabad.



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## Farakka Barrage

News- Farakka Barrage began operations in 1975, marking its 50th anniversary in 2025.



### About Farakka Barrage

- Location: Built on the Ganga River in Murshidabad district, West Bengal, about 18 km from the Bangladesh border.
- Commissioning: The project construction commenced in 1961 and it became operational on April 21, 1975.
- Purpose: It diverts 40,000 cusecs of water into the Farakka Feeder Canal to remove silt from the Bhagirathi-Hooghly River, ensuring the navigability of Kolkata Port.
- Water sharing agreements: India and Bangladesh have signed multiple agreements over Ganga water sharing, including the 1977 Farakka Agreement and the 1996 Ganga Water Treaty.

### Key facts about Hooghly River

- About- The Hooghly River, also called the Bhagirathi-Hoogly and Kati-Ganga River, is a major river in West Bengal.
- Length & Formation- A 260 km-long tributary of the Ganges, formed when the river splits in Murshidabad—one branch becomes the Padma (flowing into Bangladesh), while the other forms the Hooghly.
- Rivers drain into Hooghly- Ajay, Falgu, Jalangi and Churni to the north and Rupnarayan, Mayurakshi, Damodar and Haldi to the south.
- Important cities along its course- Jiaganj, Azimganj, Murshidabad, and Baharampur

### Commission on Genetic Resources for Food and Agriculture (CGRFA)

News- The 20th meeting of the Commission on Genetic Resources for Food and Agriculture (CGRFA-20) is presently taking place in Rome. Commission on Genetic Resources for Food and Agriculture (CGRFA).



#### About Commission on Genetic Resources for Food and Agriculture

- It is the only permanent *intergovernmental* body that addresses the components of biological diversity for food and agriculture.
- It operates under the Food and Agriculture Organization (FAO) of the United Nations.
- It was established in 1983 as the Commission on Plant Genetic Resources for Food and Agriculture.
- Aim- To reach international consensus on policies for the *sustainable use and conservation of genetic resources* for food and agriculture and the fair and equitable sharing of benefits derived from their use.
- Members- 179 countries (*Including India*) and the European Union.
- Meetings- The Commission's regular sessions are held *once every two years*.

### Black Sea

News- US and Russian officials are in Saudi Arabia and holding talks on Ukraine War and Black Sea Ceasefire. The Black Sea ceasefire agreement aims to restore free navigation for shipping.





Source- nautilusshipping

#### About Black Sea

- **Location**– It is a marginal sea of the Atlantic Ocean lying between Europe and Asia.
- **Bordering region:**
  - West: The Balkan Peninsula in Southeastern Europe.
  - East: The Caucasus Mountains.
  - North: The East European Plains, including Russia and Ukraine.
  - South: Anatolia in Turkey, part of Western Asia.
- **Bordering countries:**
  - North: Russia and Ukraine.
  - South: Turkey.
  - West: Bulgaria.
  - East: Georgia.
  - Romania also has access to the Black Sea.

#### Other Geographical features:

- The Black Sea connects to the *Aegean Sea* (Mediterranean) through the *Bosporus Strait*, *Sea of Marmara*, and *Dardanelles Strait*.
- The *Kerch Strait* links it to the *Sea of Azov*.
- Russia has the longest coastline (2,300 km), followed by Turkey (1,329 km) and Ukraine (1,282 km).
- The Crimean Peninsula extends into the Black Sea from the north.
- Major rivers flowing into it include the *Danube*, *Dnieper*, *Southern Bug*, *Rioni*, and *Dniester*.

#### BAANKNET Portal

News- The government launched the upgraded BAANKNET portal to improve transparency, efficiency, and value realization in PSU banks' e-auctions of non-performing assets.



About BAANKNET portal

- It is an advanced *e-auction portal designed for Public Sector Banks (PSBs) and financial institutions to auction properties for recovering Non-Performing Asset (NPA) loans.*
- **Nodal Ministry:** Launched under the Ministry of Finance, Department of Financial Services.
- **Key Features:**
  - Automated KYC & Secure Payments: Integrated KYC verification and secure payment gateways for safe transactions.
  - Nationwide Property Listings: A centralized database for easy property search and sale across India.
  - Smart Auctions and Fair Pricing: Facilitates intelligent auction mechanisms, ensuring fair pricing and maximum value for all listed properties.
  - Bank Verified Titles: Ensures that all property titles are verified by banks, providing authenticity and reliability in the auction process.
  - Widespread Use: Adopted by all 12 PSBs and the Insolvency and Bankruptcy Board of India (IBBI).

### **BHIM 3.0**

News- NPCI BHIM Services Ltd. (NBSL), a subsidiary of the National Payments Corporation of India (NPCI), introduced BHIM 3.0.



#### About BHIM (Bharat Interface for Money)

- It is *Unified Payments Interface(UPI)* based payment interface application that allows real time fund transfer.
- It was launched in 2016.
- Developer: National Payments Corporation of India (NPCI)
- Purpose: To promote cashless transactions and digital payments
- Bank Connectivity: Works with 170+ member banks via IMPS infrastructure
- Key Features:
  - Direct bank-to-bank transfers (unlike mobile wallets)
  - Available 24/7, including holidays
  - Supports Aadhaar-based authentication
  - Available in 20+ Indian languages
  - Works in areas with low or unstable internet connectivity
  - Ensures security with *three-factor authentication (3FA)*
  - Transaction Limit:
    - Maximum ₹40,000 per transaction (subject to change)
    - Daily limit of ₹1,00,000

#### Key features of BHIM 3.0

- Split Expenses: Users can now easily divide bills for shared costs such as rent, dining, and group purchases, enabling instant settlement.
- Family Mode: This feature *allows users to add family members, monitor shared expenses, and assign specific payments for improved financial management.*
- Spends Analytics: A newly introduced dashboard provides a detailed analysis of monthly expenses, automatically categorizing them to simplify budgeting.
- Action Needed Alerts: BHIM 3.0 offers *timely reminders for pending bills, UPI Lite activation, and low balance alerts*, ensuring users stay informed.
- BHIM Vega: Merchants can now accept in-app payments directly within the BHIM app, *eliminating the need for third-party applications* and enhancing transaction efficiency.



### Exercise Bongosagar 2025

**News-** The India-Bangladesh naval exercise 'Bongosagar 2025' and a 'Coordinated Patrol (CORPAT)' took place in the Bay of Bengal recently. **Exercise Bongosagar 2025.**



About Exercise Bongosagar 2025

- It is a *bilateral naval exercise* between India and Bangladesh
- It aimed at enhancing interoperability and operational expertise through a diverse range of maritime operations.
- Initiated in 2019, the 2025 represents the *fifth edition of this exercise*.
- During 2025 (fifth Edition), the Indian Navy was represented by *INS Ranvir*, while the Bangladesh Navy participated with *BNS Abu Ubaidah*.
- The Exercise featured an array of complex operations, including surface firing, tactical maneuvers, underway replenishment, Visit-Board-Search-Seizure (VBSS) cross-boarding, communication drills, quizzes for the operations team and junior officers on professional topics, and a steam past.

#### INS Ranvir

- It is a *Rajput-class guided missile destroyer* that has been upgraded with state-of-the-art weapons and sensors, most of which are indigenously developed.
- It is the *fourth of the five Rajput-class destroyers* built for the Indian Navy and was commissioned on October 28, 1986.

### Exercise Varuna 2025

**News-** The Indian and French Navies are preparing for the 23rd edition of their bilateral naval **exercise, VARUNA 2025.**

About Exercise Varuna

- It is a bilateral naval exercise between India and France.
- **Started in:** 1993. The exercise was named 'VARUNA' in 2001.

- **Varuna 2025 key highlights**

- It is the *23rd edition* of the exercise and will take place in the *Arabian Sea*.
- The exercise will focus on joint operations across sub-surface, surface, and aerial domains, reinforcing interoperability between the two navies.
- **Aircraft carriers in action:** The Indian Navy's *INS Vikrant* and the French Navy's *Charles de Gaulle* will participate. They will be joined by fighter aircraft, destroyers, frigates, and an Indian Scorpene-class submarine, showcasing the operational strength of both forces.
- **Advanced air defence drills:** The exercise will feature mock air-to-air combat scenarios, pitting *French Rafale-M fighters* against *Indian MiG-29K jets*, enhancing tactical coordination and combat readiness.

**Other Exercises between India and France**

- **Exercise Garuda:** It is a *bilateral exercise* between the Indian and French Air Force. The first edition of the exercise was held in 2003.
- **Exercise SHAKTI:** It is a *biennial military exercise* conducted between India and France. It was first conducted in the year 2011.
- **Exercise La Pérouse:** It is a *multilateral maritime exercise* led by the French Navy. The Indian Navy participated in this exercise for the first time in 2021.

**Balochistan**

**News:** The Balochistan train hijacking on March 11, 2025, has drawn global attention as a deadly escalation in Pakistan's longest-running insurgency.

About Balochistan



- Balochistan is the largest and most sparsely populated province of Pakistan.
- It lies in the southwestern region of the country.
- It is bordered by **Iran** to the west, **Afghanistan** to the northwest, **Khyber Pakhtunkhwa and Punjab** to the northeast, **Sindh** to the southeast, and the **Arabian Sea** to the south.

- **Capital:** Quetta

- **History and Ethnic Composition:**

- The region has a rich history dating back to the **Stone and Bronze**

**Ages**, with civilizations like **Mehrgarh (7000 BCE)** flourishing in ancient times.

- Although it was part of **Alexander the Great's empire**, the **Baloch people** themselves migrated to the region around the **14th century CE**.
- Today, the province is home to two major ethnic groups—**Baloch and Pashtuns (Pathans)**—along with a **mixed population of Sindhi origin**. The major languages spoken include **Balochi, Brahui, Pashto, and Sindhi**.
- Balochistan was officially recognized as a separate province in **1970**.
- **Geography and Climate**
  - Balochistan is characterized by **rugged mountain ranges, arid deserts, and coastal plains**.

- The province is divided into four major physical regions:
  - **Upper Highlands** – Includes the **Sulaiman Range** in the east and the **Toba Kakar Range** in the northwest.
  - **Lower Highlands** – Covers the **Makran, Kharan, and Chagai ranges** in the west and **Pab and Kirthar ranges** in the southeast.
  - **Plains** – Found along the coastal region and extending northward into the mountains.
  - **Deserts** – The **Chagai, Kharan, and Makran deserts**, along with the **Lora and Mashkel swamps**.
- Balochistan experiences an **arid climate, with hot summers and cold winters**. Most of the region remains dry due to its limited exposure to the Asian monsoon system.
- **Rivers & Water Bodies:**
  - **Hingol River:** Largest River in Balochistan, draining into the Arabian Sea.
  - **Dasht River:** Major River in southwestern Balochistan.

### Third Battle of Panipat (1761)

**News-** The Chief Minister of Maharashtra described the Third Battle of Panipat as a symbol of Maratha valor during a discussion in the State Assembly. **Third Battle of Panipat (1761).**



About Third Battle of Panipat (1761)

- The Third Battle of Panipat, fought on *14 January 1761*, was one of the largest and bloodiest battles of the 18th century.
- **Location:** Panipat, Haryana – approximately 95 km north of Delhi.
- **Fought between:**
  - **Marathas:** Led by Sadashivrao Bhau and Vishwasrao (son of Nana Saheb).
  - **Afghan Coalition:** Led by Ahmad Shah Abdali, supported by: Rohilla Afghans (Doab region) and Shuja-ud-Daula (Nawab of Oudh).



### Background

- After the 27-year *Mughal–Maratha war (1680–1707)*, the Mughal Empire declined rapidly.
- *Peshwa Baji Rao* expanded Maratha influence into Gujarat and Malwa.
- His son, *Balaji Baji Rao (Nana Saheb)*, went further and captured Punjab in 1758, bringing the Marathas into conflict with the Durrani Empire.
- In 1759, *Ahmad Shah Abdali* returned to India with a large force and allied with Indian Muslim powers, forming a broad anti-Maratha coalition.

### Key Events Leading to the Battle:

- **August 1760:** Marathas captured Delhi.
- **Battle of Kunjpura:** Marathas defeated an Afghan garrison.
- **October 1760:** Abdali crossed the Yamuna, cutting off Maratha supplies.
- **Prolonged Siege:** Food scarcity and starvation weakened the Maratha camp.
- **13 Jan 1761:** Maratha commanders, facing starvation, chose to fight.
- **14 Jan 1761:** The full-scale battle took place and lasted till evening.

### Outcome & Aftermath:

- **Decisive Afghan Victory:** Abdali's forces broke the Maratha lines and claimed a clear win.
- **Massacre of Prisoners:** Around 40,000 Maratha prisoners were executed the day after the battle.
- **Heavy Losses:** Estimated 60,000–70,000 killed; total fatalities including civilians could have reached 100,000.
- **Impact:**
  - Halted Maratha expansion into North India.
  - Led to political instability in Maratha-controlled regions.

### Maratha Revival:

- *Under Peshwa Madhavrao*, the Marathas gradually regained strength.
- In 1771, they launched a northern expedition to re-establish dominance and punish powers who had allied with Abdali.

## Baalpan ki Kavita

**News–** The Union education ministry has launched the “Baalpan ki Kavita” initiative.

About Baalpan ki Kavita

- The Ministry of Education has introduced the Baalpan Ki Kavita initiative *to revive and preserve traditional Indian nursery rhymes and poems for young children.*
- This initiative focuses on compiling a diverse collection of rhymes and poems *across all Bhartiya Bhashas (Indian languages) and English.*
- **Objective–** To provide young learners with *engaging and culturally relevant learning materials*, strengthening their connection with their heritage while making foundational education more enjoyable.
- In *collaboration with MyGov*, the ministry has invited public contributions to this initiative.
- The Participants can submit *existing folklore-based rhymes, well-known traditional poems, or newly composed joyful rhymes and poems.*
- **Submissions are categorized into three age groups:**
  - Pre-primary (ages 3–6)
  - Grade 1 (ages 6–7)
  - Grade 2 (ages 7–8)

- *Entries are welcomed in all Indian languages and English, emphasizing the cultural significance of regional rhymes and poems.*

## India Bio Economy Report 2025

**News-**The India BioEconomy Report 2025 has estimated India's bioeconomy to be valued at over \$165 billion, contributing more than 4.2% of the country's GDP. India BioEconomy Report 2025.

### About India BioEconomy Report

It is an annual publication by the *Department of Biotechnology and BIRAC* that tracks the growth and performance of India's bioeconomy

- The bioeconomy involves the *industrial utilization of biological resources* (plants, animals, and microorganisms) and the replication of natural biological processes to develop goods and services.
- It promotes sustainable alternatives to traditional, resource-intensive production systems

### Applications of Bioeconomy

- *Biofuels, bioplastics, medicines, synthetic biology, and agriculture* are key areas where bioeconomy is making an impact.
  - Example: India's COVID-19 vaccines (Covaxin, Covovax) developed using bioeconomy principles.
  - Example: Ethanol produced by microorganisms from crops like sugarcane and corn is a prime illustration of bioeconomy's role in reducing dependency on hydrocarbon-based fuels.

### Key Findings of the India BioEconomy Report

#### Market Growth:

- India's bioeconomy has *almost doubled from \$86 billion in 2020 to \$165 billion in 2024.*
- The number of companies in the bioeconomy sector has increased by *90%, from 5,365 in 2021 to 10,075 in 2024*, with expectations to double again by 2030.

#### Sectoral Contributions:

- Industrial Sector: *\$78 billion*—driven by biofuels and bioplastics.
- Pharmaceuticals: *35% of total bioeconomy value*, largely led by vaccines.
- Research & IT: The fastest-growing segment, particularly in biotech software development and clinical trials.

#### Regional Contribution:

- *Maharashtra, Karnataka, Telangana, Gujarat, and Andhra Pradesh* contribute over *two-thirds of India's bioeconomy value.*
- The Eastern and Northeastern regions account for less than 6%.

#### Global Comparison:

- India's *bioeconomy-to-GDP share (4.2%)* is comparable to the US and China.
- However, countries like *Spain and Italy* have *bioeconomy contributing over 20% of their GDP.*

#### Policy Initiatives:

- The *BioE3 Policy (Biotechnology for Economy, Environment, and Employment)*, introduced in 2024, aims to position India as a global bio-manufacturing hub and a leading biotech R&D center.
  - The policy focuses on advancing bio-based chemicals, functional foods, precision biotherapeutics, marine & space biotechnology, and climate-resilient agriculture.
- National Bioeconomy Mission (Proposed): Suggested in the report to coordinate policy and funding under one umbrella

### Vertically Launched Short-Range Surface-to-Air Missile

**News-** India recently conducted a successful flight test of the Vertically Launched Short-Range Surface-to-Air Missile (VL-SRSAM) from a defense test facility off the Odisha coast. **Vertically Launched Short-Range Surface-to-Air Missile.**



About Vertically Launched Short-Range Surface-to-Air Missile

- It is an indigenously developed weapon system by the Defence Research and Development Organisation (DRDO).
- This quick-reaction missile is *capable of neutralising various aerial threats at close ranges*, including sea-skimming targets.
- It was *originally designed for the Indian Navy* with a strike range of 40 km, it has now been enhanced to attack targets up to 80 km.
- Additionally, it is being *developed for the Indian Air Force to safeguard its air bases*.
- **Features:**
  - It has a *solid propellant and weighs approximately 170 kg*.
  - It is capable of *reaching Mach 4.5*, it can achieve a *maximum altitude of 16 km*.
  - It employs a *fibre-optic gyroscope-based inertial guidance system* for mid-course flight, while its terminal phase is guided by active radar homing.
  - Designed as an integrated missile and weapon control system (WCS), it *can hold multiple missiles within a twin quad-pack canister configuration*.

### GAIA Mission

**News-** The *European Space Agency (ESA)* has officially decommissioned its Global Astrometric Interferometer for Astrophysics (GAIA) mission after more than a decade of operation. **GAIA Mission.**

About GAIA Mission



- It aimed to create the largest and most precise *3D map of the Milky Way* by surveying about 1% of its 100 billion stars.
- It was launched in 2013.

#### Location and Instruments

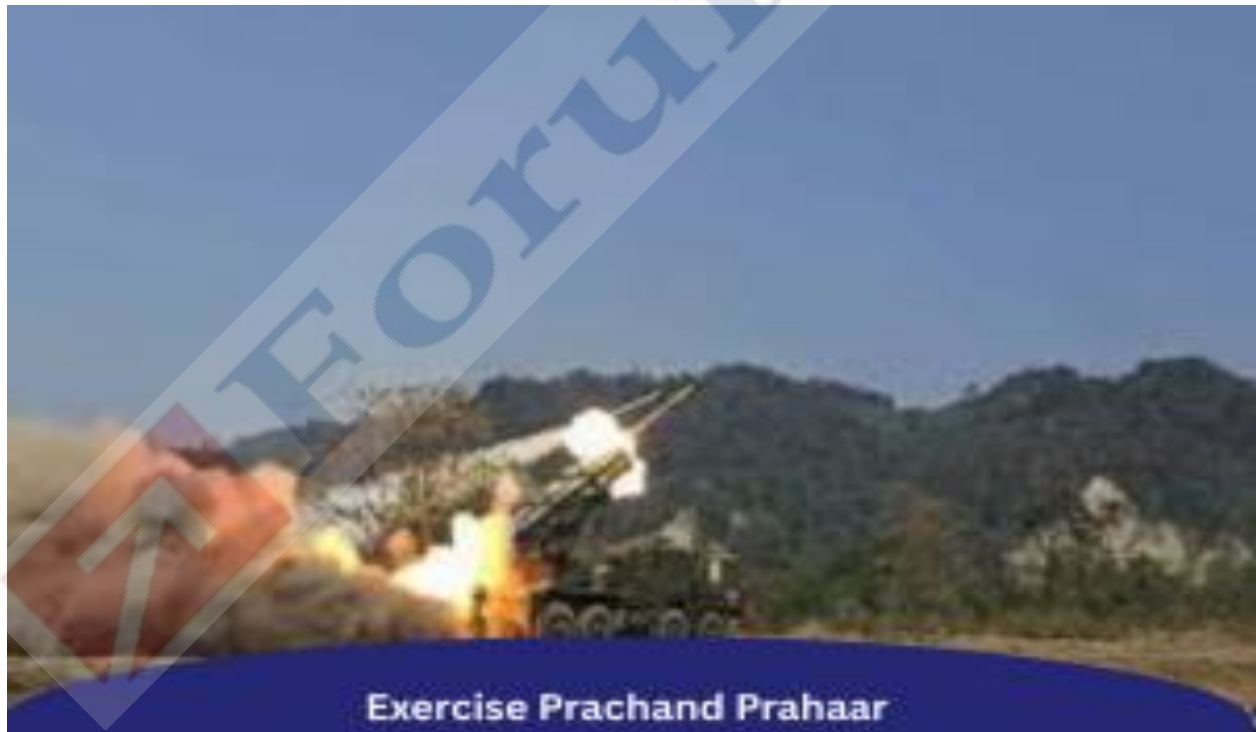
- **Position:** Gaia orbits the Sun at *Lagrange Point 2*, about 1.5 million kilometers (930,000 miles) from Earth.
- **Equipment:** It carried two telescopes and a 1-billion-pixel camera, the largest ever sent to space.
- **Key Instruments:**
  - Astrometer – Measured star positions and motions.
  - Photometer – Measured the brightness of celestial objects.
  - Spectrometer – Analyzed star composition and movement.

#### Major Discoveries and Contributions

- **Milky Way Mapping:** Created a detailed 3D map, revealing the galaxy's shape, structure, and movement.
- **Black Holes:** Identified new types by detecting their gravitational effects.
- **Asteroids:** Tracked over 150,000 asteroids, helping predict future impacts on Earth.
- **Stellar Evolution:** Provided insights into how stars, including the Sun, form and evolve.

### Exercise Prachand Prahhaar

**News–** The Indian Armed Forces recently conducted a multi-domain exercise, Prachand Prahar, in Arunachal Pradesh. **Exercise Prachand Prahhaar.**



About Exercise Prachand Prahhaar

- It is a *tri-service integrated multi-domain warfare exercise*, conducted in the high-altitude areas of Arunachal Pradesh under the *Eastern Army Command*.
- **Continuation of Previous Exercise:** It follows *Exercise Poorvi Prahar (Nov 2024)*, conducted along the India-China border, which focused on the integrated use of aviation assets.

- **Objective:** Enhancing *operational readiness* and *joint integration of the Army, Navy, and Air Force*, while validating surveillance, command, control, and precision firepower in modern warfare.
- **Key Features:**
  - Deployment of *advanced platforms*, including *long-range reconnaissance aircraft, UAVs, armed helicopters*, and space-based assets.
  - Simulated targets neutralized through coordinated strikes involving *fighter aircraft, rocket systems, artillery, and kamikaze drones (loitering munitions)*.
  - Conducted in an *electronically contested environment, replicating real battlefield conditions*.

### Nag Anti-Tank Missile System (NAMIS)

**News-** The Ministry of Defence has signed a contract with Armoured Vehicle Nigam Limited to procure the tracked version of the Nag Missile System (NAMIS), an anti-tank weapon platform. **Nag Anti-Tank Missile System (NAMIS).**



About Nag Anti-Tank Missile System (NAMIS)

- It is an advanced anti-tank weapon system designed as a *mobile platform to launch Nag anti-tank guided missiles (ATGMs)*.
- **Developed By:** Defence Research and Development Laboratory (DRDL), DRDO
- The tracked system is mounted on a *BMP-2 chassis*.

#### **Key Features:**

- **Armed with Nag ATGM:**
  - *Third-generation fire-and-forget missile with lock-on after launch capability.*
  - Designed to destroy heavily armored enemy tanks, including those with composite and reactive armor.
  - All-weather and night-strike capable using Imaging Infrared (IIR) Seeker.
- **Range:** 500 meters to 4 km
- **Thermal Imaging:** Equipped with an advanced sighting system for effective targeting in low-visibility conditions.

### Debrigarh Wildlife Sanctuary

**News**– In a first-of-its-kind initiative, Debrigarh Wildlife Sanctuary hosted the 'Indian Bison Fest' to spread the word about its conservation needs and ecological significance. **Debrigarh Wildlife Sanctuary.**



About Debrigarh Wildlife Sanctuary

- **Location**– It is located in the *Bargarh district of Odisha, near the Hirakud Dam* on the Mahanadi River.
- **Historical Significance**– This sanctuary holds historical significance due to its association with the renowned *freedom fighter Veer Surendra Sai*. During his uprising against British rule, he used Barapathara, a site within the sanctuary, as his base of operations.
- **Vegetation**– The sanctuary primarily features *dry deciduous mixed forests*.
- **Flora**– The major tree species found here include *Sal, Asana, Bija, Aanla, and Dhaura*.
- **Fauna**: Tigers, sloth bears, leopards, hyenas, spotted deer, antelopes, sambar, gaur, nilgai, bison, and langur monkeys.



### Indian Bison (Gaur)



Figure 4Source Tigerreservesinindia

- It is the *largest extant bovine species*.
- It is among the largest wild cattle species, reaching a shoulder height of up to 220 cm.
- **Habitat & Distribution:**
  - Gaurs inhabit *forested hills, grasslands, and tropical deciduous forests* across *South and Southeast Asia*.
  - Globally, their population is estimated to be between *13,000 and 30,000*, with around 85% found in India.
  - Apart from India, they are also found in *Burma and Thailand*.
  - In India, one of their strongest habitats

is the Western Ghats, particularly in the *Wayanad–Nagarhole–Mudumalai–Bandipur complex*

- The gaur is the *State Animal of Goa and Bihar*.
- **Conservation Status:**
  - **IUCN Red List:** Vulnerable
  - **CITES:** Listed in Appendix I
  - **Wildlife Protection Act, 1972:** Schedule I

### **Sarhul Festival**

**News-** Adivasis in Jharkhand and the broader Chhotanagpur region will celebrate the arrival of the new year and spring season with the Sarhul festival soon.



#### About Sarhul Festival

- Sarhul, literally “worship of the Sal tree”, is among the most revered Adivasi festivals. It *signifies nature worship* and marks the arrival of spring.
- Sarhul also symbolizes the marriage between the Earth and the Sun.
- **Region & Tribes:** It is celebrated in *Jharkhand and the Chhotanagpur region* by the *Oraon, Munda, Santal, Khadia, and Ho tribes*.
- **Time of celebration:** It is observed on the *third day of the moon in Chaitra (Hindu calendar)*, marking the arrival of spring (Phaagun) and *continuing till Jeth (June)*.
- **Religious & Cultural Significance:** The festival *honors Sarna Maa*, the deity residing in Sal trees, at Sarna Sthals (sacred groves).

#### National Gene Bank

**News-** The Government of India has announced the creation of a *Second National Gene Bank to conserve 10 lakh crop germplasm*. This initiative aligns with the “Investing in Innovations” theme of the *Union Budget 2025-26*.



#### Gene Bank

- A Gene Bank is a specialized storage facility designed to preserve seeds, pollen, and plant tissues to safeguard plant species from extinction and ensure their availability for future needs.
- These preserved samples play a vital role in crop breeding, scientific research, and biodiversity conservation.

#### **India's First National Gene Bank**

- It was established in 1996 by the *Indian Council of Agricultural Research – National Bureau of Plant Genetic Resources (ICAR-NBPGR)* in New Delhi.
- **Current status:**
  - It is the *second-largest Gene Bank globally*, following the *Svalbard Global Seed Vault in Norway*.
  - It houses *4,71,561 accessions* spanning *2,157 species*.
  - It *supplies plant genetic resources to both public and private entities* engaged in crop improvement and genetic conservation.

#### **National Bureau of Plant Genetic Resources (NBPGR)**

- It is the apex institution under ICAR responsible for plant genetic resource management.
- **Objective:** Conservation, evaluation, and utilization of plant genetic resources to support sustainable agriculture and food security.
- **Headquarters:** New Delhi

### **Operation Brahma- Myanmar**

**News-** After a devastating earthquake ravaged Myanmar recently, India initiated its relief and rescue efforts in the country under the banner 'Operation Brahma.

About Operation Brahma



- India launched this *humanitarian mission* after a powerful 7.7-magnitude earthquake struck Myanmar on March 28, 2025.
- The mission includes rescue teams, medical aid, and essential supplies.
- An 80-member NDRF team with specialized rescue equipment has been sent.
- Two Indian naval ships, *INS Satpura* and *INS Savitri*, have delivered 40 tonnes of aid to Yangon.

#### Why Myanmar Experiences Frequent Earthquakes?

The Myanmar earthquake was caused by “*strike-slip faulting*”( *Sagaing Fault*), between the Indian and Eurasian plates.

#### Sagaing Fault:

- A major active fault extending north to south through central Myanmar.
- It functions as a boundary between the northward-moving Indian Plate and the Eurasian Plate.

#### Key Facts about Myanmar

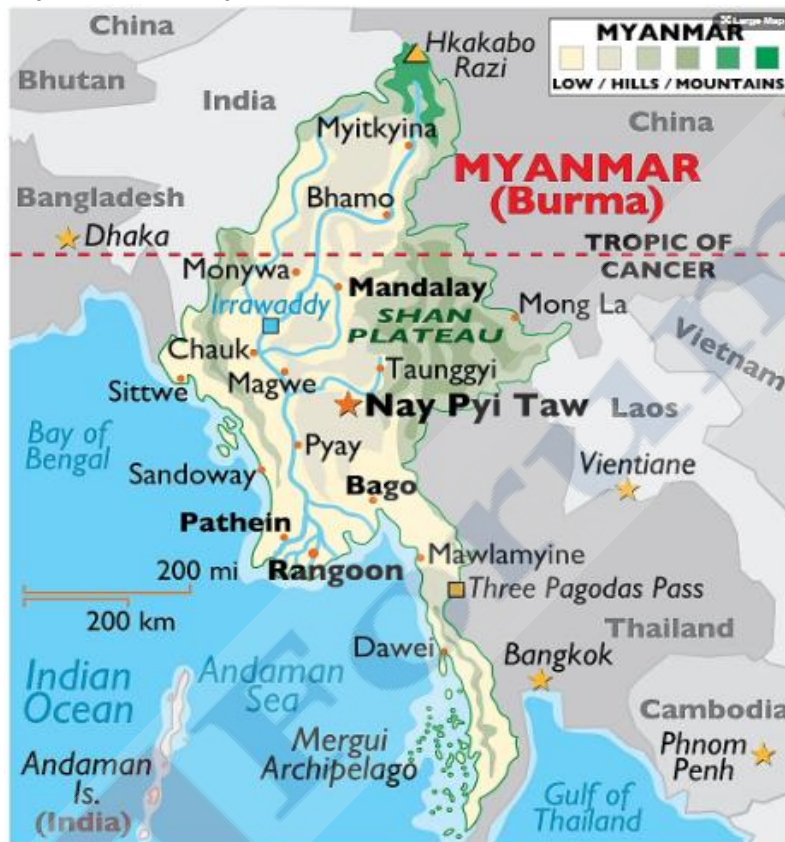


Figure 5 Source- Worldatlas

- **Location**– It is situated in Southeast Asia, between latitudes 10°N to 28.5°N.

- **Capital:** Nay Pyi Taw

- **Borders:**

It shares borders with *India, China, Bangladesh, Thailand, and Laos*.

It is bounded by the *Andaman Sea* and *Bay of Bengal* to the south.

- **Mountain Ranges:**

- Northern Mountains (*Mount Hkakabo*, 5,881 m – highest peak).
- Western Ranges (Patkai, Naga, Chin, Rakhine Hills).
- Shan Plateau (Eastern highlands with rugged terrain, deep valleys).

- **Major Rivers:** *Irrawaddy River* (primary navigable river), *Chindwin*, *Sittang*, and *Salween Rivers*