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## ONE-LINERS-JULY



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## CURRENT AFFAIRS MAGAZINE – JULY

### IMPORTANT DAYS:

| Date | Important Day / Observance | Significance |
|---|---|---|
| **1 July** | **National Doctor's Day – India** | • Commemorates **Dr. Bidhan Chandra Roy**, whose birth and death anniversaries fall on 1 July.• Observed to recognise the contribution of doctors to healthcare, medical education and public health.• Dr. B.C. Roy was a physician, freedom fighter and former Chief Minister of West Bengal. |
| **1 July** | **Chartered Accountants Day – India** | • Marks the establishment of the **Institute of Chartered Accountants of India (ICAI)** on 1 July 1949 under the Chartered Accountants Act, 1949.• ICAI regulates the CA profession and promotes accounting, auditing and ethical standards.• Supports financial transparency, corporate governance and investor confidence. |
| **1 July** | **National Postal Worker Day** | • Recognises the contribution of postal workers in maintaining communication and delivery networks.• Highlights the importance of postal services in providing **last-mile connectivity**, particularly in rural and remote areas.• India Post functions under the Department of Posts, Ministry of Communications. |
| **1 July** | **Canada Day** | • Commemorates the formation of the **Dominion of Canada in 1867** through the British North America Act.• Marks the union of the provinces that formed the Canadian federation.• Celebrated as Canada's national day. |
| **2 July** | **World UFO Day** | • Promotes awareness and public discussion regarding **Unidentified Flying Objects (UFOs)**, now increasingly referred to as Unidentified Anomalous Phenomena (UAPs).• First observed in 2001 and associated with UFO researcher **Haktan Akdogan**.• It is a popular observance rather than an official UN international day. |
| **4 July** | **Independence Day – USA** | • Commemorates the adoption of the **Declaration of Independence on 4 July 1776**.• The Declaration |

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| | | announced the thirteen American colonies' separation from Great Britain.• It became a landmark document in the history of modern democratic political thought. |
| **5 July** | **International Day of Cooperatives** | • Promotes the contribution of cooperatives to economic and social development.• Highlights principles such as voluntary membership, democratic control and member participation.• Cooperatives support livelihoods, employment, financial inclusion and community development. |
| **6 July** | **World Rural Development Day** | • Highlights the importance of rural development, livelihoods, infrastructure, education and healthcare.• Focuses on reducing rural–urban inequalities and improving opportunities in rural communities.• Particularly relevant to farmers, rural workers and rural enterprises. |
| **6 July** | **World Zoonoses Day** | • Commemorates **Louis Pasteur's successful rabies vaccination on 6 July 1885**.• Raises awareness about diseases that can spread between animals and humans.• Emphasises the importance of the **One Health approach**, integrating human, animal and environmental health. |
| **7 July** | **World Kiswahili Language Day** | • Celebrates Kiswahili as an important African language of communication, education and culture.• Recognises its contribution to cultural diversity and international communication.• Widely spoken across East Africa, particularly in countries such as Tanzania, Kenya and Uganda. |
| **7 July** | **Jagannath Rath Yatra** | • Major annual chariot festival associated with **Lord Jagannath, Balabhadra and Subhadra** in Puri, Odisha.• The deities are taken out of the Jagannath Temple on large decorated chariots.• The festival represents an important tradition of Indian religious and cultural heritage. |
| **7 July** | **Global Forgiveness Day** | • Promotes forgiveness, reconciliation and peaceful coexistence.• Encourages individuals and communities to overcome resentment and resolve conflicts.• Highlights forgiveness as a means of strengthening interpersonal and |

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| | | social relationships. |
| **11 July** | **World Population Day** | • Established by the **UNDP in 1989**, inspired by the world population reaching five billion on 11 July 1987.• Focuses on population growth, reproductive health, family planning and demographic changes.• Draws attention to issues affecting women, adolescents, families and vulnerable populations. |
| **11 July** | **World Horse Day** | • Recognises the historical, cultural and economic importance of horses.• Highlights their role in agriculture, transport, sports, culture and livelihoods.• Promotes awareness regarding horse welfare and responsible management. |
| **11 July** | **International Day of Reflection and Commemoration of the 1995 Genocide in Srebrenica** | • Commemorates the victims of the **Srebrenica genocide of 1995** during the Bosnian War.• Promotes remembrance, justice, reconciliation and prevention of future genocides.• Highlights the international responsibility to protect civilian populations from mass atrocities. |
| **12 July** | **International Day of Combating Sand and Dust Storms** | • Raises awareness about the environmental, health and economic impacts of sand and dust storms.• These storms can affect respiratory health, agriculture, transportation and visibility.• Highlights the importance of land management, drought resilience and combating land degradation. |
| **12 July** | **International Day of Hope** | • Promotes hope, resilience and cooperation in addressing global challenges.• Encourages societies to build resilience in the face of conflict, disasters and humanitarian crises.• Supports broader efforts towards peace, sustainable development and human well-being. |
| **12 July** | **Malala Day** | • Observed on the birthday of **Malala Yousafzai** to promote the right of every child to education.• Particularly highlights girls' education and equal educational opportunities.• Malala received the **Nobel Peace Prize in 2014** for her advocacy for children's education. |
| **12** | **NABARD Foundation Day** | • Marks the establishment of the **National Bank for** |

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| **July** | | **Agriculture and Rural Development (NABARD)** in 1982.• Established through an Act of Parliament to strengthen agricultural and rural development finance.• Supports rural credit institutions, farmers, self-help groups and rural enterprises. |
| **14 July** | **Bastille Day – France** | • France's national day commemorates the **Storming of the Bastille on 14 July 1789**.• The event became a powerful symbol of the French Revolution and resistance to absolute monarchy.• Associated with the ideals of **Liberty, Equality and Fraternity**. |
| **15 July** | **World Youth Skills Day** | • Established by the **UN General Assembly in 2014**.• Promotes technical and vocational education, employment-oriented skills and entrepreneurship among young people.• Addresses the gap between education, skills and labour-market requirements. |
| **17 July** | **World Day for International Justice** | • Commemorates the adoption of the **Rome Statute on 17 July 1998**.• Promotes accountability for genocide, crimes against humanity, war crimes and aggression.• Associated with the development of the **International Criminal Court (ICC)** and international criminal justice. |
| **18 July** | **Nelson Mandela International Day** | • Declared by the **UN General Assembly in 2009** and observed on Nelson Mandela's birthday.• Promotes values of peace, reconciliation, human rights and social justice.• Encourages people to contribute to their communities through acts of service. |
| **20 July** | **World Chess Day** | • Commemorates the establishment of the **International Chess Federation (FIDE) in 1924**.• Promotes chess as a tool for strategic thinking, concentration, education and intellectual development.• Recognises chess as a global sport and cultural activity. |
| **20 July** | **International Moon Day** | • Commemorates the **first human landing on the Moon by Apollo 11 on 20 July 1969**.• Neil Armstrong and Buzz Aldrin became the first humans to walk on the lunar surface.• Promotes awareness of lunar exploration and |

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| | | peaceful exploration and use of outer space. |
| **22 July** | **National Flag Adoption Day – India** | • Marks the adoption of the **Indian National Flag by the Constituent Assembly on 22 July 1947**.• The flag is based on the design associated with **Pingali Venkayya**.• The Ashoka Chakra contains **24 spokes** and represents the Dharma Chakra. |
| **22 July** | **Chandrayaan-2 Launch Anniversary** | • **Chandrayaan-2** was launched by ISRO on 22 July 2019.• The mission consisted of an **orbiter, Vikram lander and Pragyan rover**.• Its objectives included studying the lunar surface, mineral composition and lunar exosphere, with particular interest in the Moon's south-polar region. |
| **25 July** | **World Drowning Prevention Day** | • Raises awareness about drowning as a preventable cause of death.• Promotes swimming and water-safety education, supervision, safe access to water and emergency response.• Particularly important for children and communities living near rivers, lakes, ponds and coastal areas. |
| **25 July** | **International Day for Judicial Well-being** | • Highlights the physical and mental well-being of judges and judicial professionals.• Recognises the importance of healthy working conditions for an effective and independent judiciary.• Encourages institutional measures supporting judicial efficiency and professional well-being. |
| **26 July** | **Kargil Vijay Diwas** | • Commemorates India's victory in the **Kargil War of 1999**, conducted under **Operation Vijay**.• Honours the soldiers who fought and sacrificed their lives during the conflict.• The conflict was fought in the high-altitude Kargil sector along the Line of Control. |
| **26 July** | **International Day for Conservation of Mangrove Ecosystem** | • Highlights the ecological importance of mangrove ecosystems.• Mangroves protect coastlines from storms and erosion and provide breeding grounds for fish and other organisms.• They also store significant amounts of carbon and support coastal communities. |
| **27 July** | **A.P.J. Abdul Kalam Death Anniversary** | • Remembers former President **Dr. A.P.J. Abdul Kalam**, who died on 27 July 2015.• He played a major role in India's |

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| | | space and missile programmes and was popularly known as the **"Missile Man of India."**• He strongly promoted scientific education, innovation and youth development. |
| **27 July** | **CRPF Foundation Day** | • Traces its origin to the **Crown Representative's Police**, established on 27 July 1939.• It was renamed the **Central Reserve Police Force (CRPF)** after Independence.• Performs duties including internal security, counter-insurgency, riot control, election security and disaster response. |
| **28 July** | **World Hepatitis Day** | • Raises awareness about viral hepatitis, prevention, testing and treatment.• 28 July marks the birth anniversary of **Dr. Baruch Blumberg**, who discovered hepatitis B virus and developed the first hepatitis B vaccine.• Focuses on reducing deaths and illnesses caused by hepatitis-related liver disease. |
| **28 July** | **World Nature Conservation Day** | • Promotes conservation and sustainable management of natural resources and biodiversity.• Highlights the need to protect forests, water, wildlife, soil and ecosystems.• Encourages responsible use of natural resources for present and future generations. |
| **29 July** | **International Tiger Day / Global Tiger Day** | • Established following the **2010 Saint Petersburg Tiger Summit** to raise awareness about declining tiger populations.• Promotes protection of tiger habitats, prevention of poaching and reduction of human–wildlife conflict.• India launched **Project Tiger in 1973** to conserve wild tiger populations and their habitats. |
| **29 July** | **Guru Purnima** | • Dedicated to honouring teachers, gurus and spiritual mentors.• Celebrated in Hindu, Buddhist and Jain traditions.• Traditionally associated with **Veda Vyasa** and is also known as **Vyasa Purnima**. |
| **30 July** | **International Day of Friendship** | • Established by the **UN General Assembly in 2011**.• Promotes friendship among peoples, countries and cultures.• Seeks to strengthen peace, mutual understanding and solidarity through interpersonal and intercultural |

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| | | relationships. |
| **30 July** | **World Day Against Trafficking in Persons** | • Established by the **UN General Assembly in 2013**.• Raises awareness about human trafficking and the exploitation of vulnerable people.• Emphasises prevention, protection of victims and prosecution of traffickers.• Human trafficking can involve forced labour, sexual exploitation and other forms of exploitation. |
| **31 July** | **World Ranger Day** | • Recognises the contribution of park rangers and protected-area personnel.• Rangers protect wildlife, prevent poaching, manage protected areas and assist in conservation activities.• Highlights the risks faced by conservation personnel while protecting biodiversity and natural ecosystems. |

## MISCELLANEOUS:

### Ayushman Sarathi

- **Ayushman Sarathi** is the official **PM-JAY WhatsApp chatbot**, launched to provide beneficiaries with direct access to Ayushman Bharat services.
- It was developed by the **National Health Authority (NHA)** using secure API-based integration with PM-JAY systems.
- Users can check eligibility, apply for/download **Ayushman Cards**, complete e-KYC, link Aadhaar and lock/unlock cards.
- It also provides hospital-location services, treatment history, wallet information, grievance registration/tracking and callback requests.
- Senior citizens aged **70 years and above** can access services related to the **Ayushman Vaya Vandana Card**.
- **Important GK:** PM-JAY provides health cover of **₹5 lakh per family per year** to eligible beneficiaries; NHA is the implementing authority.

### Malaprabha River

- **Malaprabha** is an important **tributary of the Krishna River** flowing through Karnataka.
- It originates at **Kanakumbi village in Belagavi district** in the Western Ghats at about **792 m elevation**.

- It flows eastward and northeastward before joining the Krishna at **Kudala Sangama in Bagalkot district**.
- Total length is about **304 km**.
- Major tributaries include **Bennihalla, Hirehalla and Tuprihalla**.
- **Renukasagar Dam** is constructed across the river.
- The river basin is associated with the historic temple centres of **Aihole, Pattadakal and Badami**.

### Project BRAHMANK

- **Project BRAHMANK** is a strategic infrastructure initiative of the **Border Roads Organisation (BRO)** in Arunachal Pradesh.
- It was raised on **29 June 2011 at Ranaghat, East Siang district**, and became fully operational on **3 December 2011**.
- It covers strategic road infrastructure across **Siang, East Siang, West Siang, Upper Siang and Shi-Yomi districts**, along with parts of Dhemaji in Assam.
- It improves connectivity for the **Armed Forces** and remote border communities.
- Other major BRO projects in Arunachal Pradesh include **Vartak, Arunank and Udayak**.
- **BRO:** established in **1960**; brought entirely under the **Ministry of Defence in 2015**.
- Motto: **Shramena Sarvam Sadhyam**.

### Interplanetary Coronal Mass Ejections (ICMEs)

- **ICMEs** are massive eruptions of **magnetised plasma from the Sun's outer atmosphere** that travel through interplanetary space.
- When Earth-directed ICMEs interact with Earth's magnetosphere, they can trigger **geomagnetic storms**.
- They can produce spectacular **auroras** at high latitudes.
- Strong ICMEs can disrupt **satellites, GPS, radio communications, aviation systems and electrical grids**.
- Solar activity follows an approximately **11-year cycle**, with ICME activity generally increasing around solar maximum.
- ICMEs are among the most significant causes of severe **space-weather events**.

### Academic Bank of Credit (ABC)

- **Academic Bank of Credit (ABC)** is a digital repository for storing, transferring and redeeming academic credits earned by students.
- It is a **Ministry of Education** initiative regulated by the **UGC**.
- It supports the objectives of **NEP 2020** and the **National Credit Framework (NCrF)**.
- Students can accumulate credits from eligible higher educational institutions and transfer them between programmes/institutions.
- Credits are generally valid for a maximum of **7 years**, subject to discipline-specific provisions.
- **National Academic Depository (NAD)** supports secure storage of academic awards and records.
- ABC also supports **Multiple Entry and Exit** and integration with **SWAYAM**, with up to **40% of credits** potentially earned through SWAYAM.

### Bengal Fox

- **Bengal Fox / Indian Fox / Indian Desert Fox** is scientifically known as ***Vulpes bengalensis***.
- It is primarily associated with **open grasslands, thorn scrub, semi-arid and arid habitats**, rather than dense forests.
- Its range extends across the **Indian subcontinent**, including India, Nepal and Pakistan.
- It is an **edge species**, often occurring between forest and agricultural landscapes.
- It is generally monogamous and has a breeding season around **December–January**.
- **IUCN:** Least Concern.
- **Wildlife Protection Act, 1972:** Schedule II, according to the Vajiram page.
- Major threats include **habitat loss, fragmentation, persecution and disease transmission from feral dogs**.

### Arul Mihu Navasakthi Vinayagar Temple

- The **Arul Mihu Navasakthi Vinayagar Temple** is located in **Victoria, Seychelles**, on **Mahé Island**.
- It is described by Vajiram as the **only Hindu temple in Seychelles**.
- It was built in **1992** by the local Hindu community.
- The temple is dedicated to **Lord Vinayagar/Ganesha**.
- Its architecture strongly reflects the **Dravidian temple style** of South India.
- Its colourful gopuram is nearly **100 feet high**.

- **Static GK:** Victoria is the capital of Seychelles, while Mahé is the country's largest and most populous island.

### Southern Birdwing

- **Southern Birdwing** is scientifically known as ***Troides minos*** and is also called the **Sahyadri Birdwing**.
- It is a large butterfly mainly associated with **South India and the Western Ghats**.
- It is **India's second-largest butterfly species** according to the source.
- It is the **state butterfly of Karnataka**.
- It has a wingspan of approximately **140–190 mm**.
- Adults have glossy black forewings with white-bordered veins and **golden-yellow hindwings**.
- **IUCN:** Least Concern.
- Its first documented sighting in Telangana was reported from the **Kollapur Range of Amrabad Tiger Reserve**.

### UN Economic and Social Commission for Asia and the Pacific (UNESCAP)

- **UNESCAP** is one of the **five regional commissions of the United Nations**.
- It was established in **1947**.
- Headquarters: **Bangkok, Thailand**.
- It promotes economic and social development through **regional and subregional cooperation** in Asia and the Pacific.
- It has **53 member States and 9 associate members**.
- Its areas of work include trade, investment, transport, environment, ICT, disaster-risk reduction, poverty reduction and financing for development.
- The July 2026 report highlighted an annual **climate-finance gap of nearly US$800 billion** for developing Asia-Pacific economies.

### Mount Erebus

- **Mount Erebus** is a **stratovolcano on Ross Island, Antarctica**, in the Ross Sea.
- It is the **world's southernmost active volcano**.
- It belongs to the **McMurdo Volcanic Group** and is associated with the **Terror Rift** of the West Antarctic Rift System.

- It has one of the world's rare **persistent active lava lakes**, active since at least **1972**.
- Its eruptions are generally **Strombolian** in character.
- It rises to about **3,794 m**, making it the second-highest volcano in Antarctica after **Mount Sidley**.
- It is one of the few volcanoes known to release tiny quantities of **gold crystals into the atmosphere**.

### Guru Ravidas

- **Guru Ravidas (c. 1377–1527 CE)** was an important saint of the **Bhakti movement**.
- He was born at **Sir Gobardhanpur near Varanasi, Uttar Pradesh**.
- He is also known as **Raidas, Rohidas and Ruhidas**.
- He is traditionally associated with **Ramananda** as his spiritual teacher and is considered a contemporary of **Kabir**.
- **41 of his devotional compositions** are included in the **Guru Granth Sahib**.
- His teachings emphasised **human dignity, rejection of caste discrimination, social equality and spiritual freedom**.
- His vision of **Beghumpura** represented an ideal society free from sorrow, fear and discrimination.
- He is associated with the **Nirguna Bhakti tradition**.

### Ahom Dynasty and Moidams

- The **Ahom Dynasty** ruled the Brahmaputra Valley from **1228 to 1826**, maintaining sovereignty for nearly six centuries.
- It was founded by **Sukaphaa**, a Shan prince who entered Assam after crossing the **Patkai Mountains**.
- The Ahoms famously defeated the Mughals in the **Battle of Saraighat (1671)** under the leadership of **Lachit Borphukan**.
- Mughal influence in the region was effectively eliminated by **1682**.
- The kingdom eventually came under British control after the **Treaty of Yandabo, 1826**, following the First Anglo-Burmese War.
- **Moidams** are burial mounds of Ahom royalty and nobles.
- **Charaideo**, the first Ahom capital, became the principal necropolis.

- A typical Moidam consists of a **burial vault, hemispherical earthen mound and a brick structure/chaw-chali**, with an enclosing wall and gateway.
- The **Charaideo Moidams** are associated with UNESCO World Heritage recognition.

### Pandya Dynasty

- The **Pandyas** were one of the three major ancient Tamil dynasties, along with the **Cholas and Cheras**.
- Their early political centre was **Korkai**, an important ancient port, before **Madurai** became the major capital.
- The Later Pandyas experienced a golden age during the **13th century**, especially under **Jatavarman Sundara Pandyan**.
- They controlled important **pearl fisheries** along the southern Indian coast between India and Sri Lanka.
- They maintained maritime trade links with **Southeast Asian states**, including Srivijaya.
- Their emblem was the **fish**.
- They are mentioned in **Sangam literature**, Greek/Roman accounts and the **Periplus of the Erythraean Sea**.
- Important cultural centres associated with the Pandya region include **Meenakshi Temple, Madurai** and **Nellaiappar Temple, Tirunelveli**.

### Rani Durgavati

- **Rani Durgavati (1524–1564)** was the queen of the **Gond kingdom of Garha-Katanga**.
- She belonged to the **Chandela dynasty** and was born at **Kalinjar** in present-day Uttar Pradesh.
- She married **Dalpat Shah**, son of Gond ruler **Sangram Shah**.
- After Dalpat Shah's death, she ruled on behalf of her young son **Vir Narayan**.
- She shifted the capital from **Singaurgarh to Chauragarh**, located in the Satpura region.
- She successfully fought against **Baz Bahadur of Malwa**.
- She is especially remembered for resisting the **Mughal expansion under Akbar**.
- The Gond kingdoms included **Garha-Mandla, Deogarh, Chanda and Kherla**.

### Yadava/Seuna Dynasty

- The **Yadavas**, also called the **Seuna Dynasty**, ruled a major Deccan kingdom during the **12th–14th centuries**.
- Their territory at its height extended roughly from the **Tungabhadra to the Narmada**, including Maharashtra, northern Karnataka and parts of Madhya Pradesh.
- **Bhillama** established **Devagiri** as the capital.
- Under **Singhana**, the kingdom reached its height and became an important power in the Deccan.
- The Delhi Sultanate under **Alauddin Khalji invaded Devagiri in 1294**.
- The kingdom was ultimately annexed by the **Khalji Empire in 1317**.
- The **Hemadpanti architectural style**, characterised by stone construction without mortar, is associated with the Yadava period.
- Recent archaeological findings near the **Vena River in Wardha district, Maharashtra** brought the dynasty into news.

### Five New Species of *Impatiens*

- Five new flowering-plant species were discovered in the **Western Ghats of Kerala**:
    - ***Impatiens berchmansiensis***
    - ***Impatiens ninanii***
    - ***Impatiens filcyii***
    - ***Impatiens xanthopetala***
    - ***Impatiens flavispicata***
- All belong to the genus ***Impatiens*** and family **Balsaminaceae**.
- *I. berchmansiensis* → **Vagamon, Idukki**; yellow flowers.
- *I. ninanii* → **Mankulam Viripara, Idukki**; violet flowers and purple-speckled stems.
- *I. filcyii* → **Mamalakkandam, Ernakulam**; pinkish-purple flowers.
- *I. xanthopetala* → **Pambanar, Idukki**; yellow petals.
- *I. flavispicata* → **Mamalakkandam, Ernakulam**; white flowers with a yellow spur.
- The discovery highlights the high **floristic endemism of the Western Ghats**.

### Exosomes

- **Exosomes** are small **extracellular vesicles** released by cells.

- They generally measure about **30–200 nanometres**.
- They are surrounded by a **lipid-bilayer membrane**.
- Their cargo can include **proteins, lipids, RNA and signalling molecules**.
- They participate in **intercellular communication**, allowing cells to transfer biological information.
- They influence **immune responses, cellular activity and genetic-material transfer**.
- Because their contents can reflect the condition of their parent cells, exosomes have potential applications in **disease diagnosis and therapy**, including cancer and neurodegenerative diseases.

### PaleoIndia Portal

- **PaleoIndia Portal** is a digital platform documenting India's **fossil fauna and palaeontological heritage**.
- It was jointly developed by the **Zoological Survey of India (ZSI)** and **National Centre for Sustainable Coastal Management (NCSCM), Chennai**.
- It uses dynamic geological maps supplied by the **Geological Survey of India (GSI)**.
- It covers fossil fauna across **28 States and 8 Union Territories**.
- It currently contains information on **more than 5,000 fossil specimens**.
- The database covers mammals, reptiles, birds, fishes, amphibians, molluscs, arthropods, foraminifera, echinoderms and **ichnofossils**.
- It also allows **real-time data uploads**, including contributions from field researchers and citizen scientists.
- **NCSCM:** established in **2011**, headquartered in **Chennai**, and works on sustainable coastal and marine management.

### Transcaspian Marinka

- **Transcaspian marinka** is a ray-finned freshwater fish scientifically known as ***Schizothorax pelzami***.
- It belongs to the genus ***Schizothorax*** and family **Cyprinidae**.
- Its natural distribution includes **Afghanistan, Turkmenistan and Iran**.
- It inhabits **freshwater rivers, streams, springs and qanats**.
- In Arunachal Pradesh, it is locally known as **Ngarsing** in the Nyishi language.
- **IUCN status:** Least Concern.
- Ray-finned fishes, or **Actinopterygii**, constitute the largest and most diverse group of living fishes.

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### Taal Volcano

- **Taal Volcano** is located in **Batangas Province, Philippines**, about 70 km south of Manila.
- It is classified as a **complex volcano** because it consists of multiple volcanic cones, craters and structures rather than a single cone.
- It is an **active volcano** within the **Pacific Ring of Fire**.
- Its huge caldera contains **Taal Lake**.
- Within Taal Lake lies **Volcano Island**, which contains **Crater Lake** and **Vulcan Point**.
- A **phreatomagmatic eruption** occurs when magma interacts explosively with water, producing steam, ash and fragmented volcanic material.
- Taal has recorded numerous eruptions over the historical period.

### Chandaka Wildlife Sanctuary

- **Chandaka Wildlife Sanctuary** is located on the outskirts of **Bhubaneswar, Odisha**.
- It represents the **northeastern limits of the Eastern Ghats**.
- It was primarily established to conserve **wild elephants and their habitat**.
- **Kumarkhunti Reservoir** is the only water reservoir within the sanctuary and is important for wildlife during summer.
- Vegetation consists of a mixture of **evergreen and deciduous elements**.
- Fauna includes **elephants, chital, barking deer, wild boar, pangolin, sloth bear, Indian wolf, hyena and rhesus monkey**.
- A proposed **Indian gaur translocation programme** was put on hold because of anthropogenic pressure, particularly cattle presence.

### Centralised IT-Enabled System (CITES)

- **CITES** is an **EPFO initiative** designed to modernise provident-fund service delivery through automation and rule-based processing.
- It was designed by the **Centre for Development of Advanced Computing (C-DAC)**.
- It creates a **single centralised national database**.
- Members can perform many services online, including **KYC updates**.
- Members can approach **any EPFO office in India** for queries and clarifications.

- Previous member IDs can be viewed under a single **Universal Account Number (UAN)** linked with KYC.
- It aims to improve **claim processing, transfers, service-history accuracy and settlement speed**.

### SHE-LEAPS Platform

- **SHE-LEAPS** stands for **Self-Help Entrepreneur-Livelihoods and Enterprise Application for Prosperity and Sustainability**.
- It is designed to promote **women-led rural entrepreneurship** among Self-Help Group members.
- It supports enterprise creation, monitoring and performance tracking.
- It seeks to accelerate the **Lakhpati Didi** initiative through data-driven entrepreneurship.
- The mobile application was developed by the **Digital India Corporation** and implemented under the **LokOS platform**.
- Nationwide rollout covers **34 States and Union Territories**.
- It supports both **farm and non-farm enterprises**, financial inclusion and integration of rural producers into formal value chains.
- The platform captures **real-time operational data** throughout the livelihood journey.

### Greece

- **Greece** lies on the southern edge of the **Balkan Peninsula**.
- It borders **Albania, North Macedonia, Bulgaria and Turkey**.
- Major surrounding seas are the **Aegean Sea to the east, Ionian Sea to the west and Mediterranean Sea to the south**.
- Capital: **Athens**.
- About **80% of its terrain is mountainous or hilly**.
- The **Pindus Mountains** form a major mountain system.
- **Mount Olympus**, at about **2,918 m**, is Greece's highest peak.
- **Vikos Gorge** is located in the Pindus range.
- Major rivers mentioned include the **Maritsa, Struma and Vardar**.
- Greece has significant resources including **lignite, bauxite, marble, petroleum and hydropower**.

### National Rainfed Area Authority (NRAA)

- **NRAA** was established in **2006** as an advisory body under the **Ministry of Agriculture & Farmers' Welfare**.
- It focuses on sustainable development of **rainfed areas**, not merely water conservation.
- Its mandate covers agricultural systems, livelihoods, productivity and holistic development of rain-dependent regions.
- Its **Governing Board** is chaired by the **Union Agriculture Minister** and co-chaired by the **Union Rural Development Minister**.
- The Executive Committee includes technical experts and representatives of stakeholder ministries.
- Headquarters: **New Delhi**.
- It was recently associated with conservation of India's wild rice, ***Oryza rufipogon***, in **Sonitpur district, Assam**.

### Animal Discoveries and Plant Discoveries 2025

- The Zoological Survey of India released **Animal Discoveries 2025**, while the Botanical Survey of India released **Plant Discoveries 2025**, during the 111th Foundation Day programme of the Zoological Survey of India in Kolkata.
- India recorded **709 additions to its faunal inventory**, comprising **483 species new to science and 226 species recorded for the first time in India**.
- Kerala recorded the highest number of new animal discoveries with **98**, followed by West Bengal, Karnataka and Arunachal Pradesh.
- Among the major animal groups, **Hymenoptera** contributed the highest number of additions, followed by Lepidoptera, Diptera, Arachnida, Coleoptera and Pisces.
- The floral inventory gained **353 taxa**, comprising 339 species and 14 infraspecific taxa. Of these, 221 were new to science and 132 were new distributional records for India.
- Arunachal Pradesh recorded the highest number of plant discoveries, followed by Uttarakhand and Kerala.
- Important discoveries included *Myotis himalaicus*, *Lycodon irwini*, *Polystichum siangense*, *Miliusa beddomei* and *Hericium indicum*.

**Important GK**

- The **Zoological Survey of India** is India's premier institution for systematic zoological research and faunal exploration.

- The **Botanical Survey of India** is the principal organisation responsible for botanical research, plant exploration and taxonomy.
- The Himalayan region, Western Ghats and Northeastern India remain major centres of species discovery because of their high biodiversity and endemism.

### Caspian Cobra

- The **Caspian Cobra**, scientifically known as *Naja oxiana*, was recently reported from the Upper Forest Range of Chamba district in Himachal Pradesh.
- It belongs to the family **Elapidae**, which includes cobras, kraits and mambas.
- It is native mainly to **Central Asia** and occurs across countries including Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Afghanistan, Iran and parts of Pakistan and India.
- It generally inhabits **arid and semi-arid environments**, including rocky hillsides and scrublands.
- It is regarded as the **most venomous cobra species** and has long cervical ribs that allow it to expand its hood.
- The species is classified as **Near Threatened** on the IUCN Red List.

**Important GK**

- Scientific name: *Naja oxiana*
- Family: **Elapidae**
- Distribution: **Central Asia and adjoining regions**
- Preferred habitat: **Arid and semi-arid regions**
- IUCN status: **Near Threatened**

### INS Trikand

- **INS Trikand** is a frontline **guided missile frigate** of the Indian Navy belonging to the **Talwar class**.
- It is the third and final ship of the second batch of Talwar-class frigates ordered by India.
- The ship was constructed at **Yantar Shipyard in Kaliningrad, Russia** and commissioned on **29 June 2013**.
- It operates as part of the **Western Fleet** under the Western Naval Command headquartered at Mumbai.
- INS Trikand has a displacement of about **4,035 tonnes** and can achieve speeds exceeding **30 knots**.

- Its weapon systems include **BrahMos missiles, Shtil surface-to-air missiles, a medium-range gun, close-in weapon systems and anti-submarine weapons**.
- It recently thwarted a piracy attempt in the **Gulf of Aden**.

**Important GK**

- Class: **Talwar-class frigate**
- Shipyard: **Yantar Shipyard, Russia**
- Commissioned: **2013**
- Fleet: **Western Fleet**
- Naval Command: **Western Naval Command**
- Important operational region: **Gulf of Aden**

### Marburg Virus Disease

- **Marburg Virus Disease** is a severe and often fatal viral disease caused by the **Marburg virus**.
- The virus belongs to the **Filoviridae** family, which also includes the Ebola viruses.
- The natural reservoir is the **Egyptian fruit bat, *Rousettus aegyptiacus***.
- Transmission can occur through direct contact with the blood or body fluids of infected people or animals.
- Symptoms may include high fever, severe headache, muscle pain, vomiting, diarrhoea and haemorrhagic manifestations.
- There is currently **no specific approved vaccine or specific antiviral treatment** according to the source; management primarily involves supportive medical care.
- The disease has a high fatality potential, with the average case fatality rate cited at around **50 percent**.

**Important GK**

- Virus family: **Filoviridae**
- Natural reservoir: **Egyptian fruit bat**
- Scientific name of reservoir: *Rousettus aegyptiacus*
- Similar disease: **Ebola Virus Disease**
- Transmission: **Contact with infected body fluids**

- Human disease: **Zoonotic viral disease**

### Hul Diwas

- **Hul Diwas** is observed on **30 June** to commemorate the **Santhal Rebellion of 1855**.
- The word **Hul** in the Santhali language refers to revolution, uprising or resistance.
- The rebellion began on **30 June 1855 at Bhognadih village**, in present-day Sahibganj district of Jharkhand.
- The principal leaders were **Sidho Murmu and Kanhu Murmu**, while their sisters **Phulo Murmu and Jhano Murmu** also participated in the resistance.
- The rebellion was directed against exploitation by **moneylenders, zamindars, British officials and other intermediaries**.
- Issues included land alienation, excessive taxation, indebtedness and erosion of traditional tribal autonomy.
- The rebellion continued until **January 1856**.

**Important GK**

- Rebellion: **Santhal Rebellion or Santhal Hul**
- Beginning: **30 June 1855**
- Place: **Bhognadih, Jharkhand**
- Leaders: **Sidho Murmu and Kanhu Murmu**
- Important later legislation: **Santhal Parganas Tenancy Act, 1876**
- Nature: **Tribal resistance against colonial and feudal exploitation**

### Trimbakeshwar Temple

- **Trimbakeshwar Temple** is located at Trimbak in **Nashik district of Maharashtra**.
- It is one of the **twelve Jyotirlingas** dedicated to Lord Shiva.
- The temple is situated near **Brahmagiri Mountain**, traditionally associated with the origin of the **Godavari River**.
- The present temple structure was constructed during the reign of **Peshwa Balaji Bajirao**.
- It is built predominantly from **black basalt** and follows the **Hemadpanthi architectural style**.
- The temple complex contains the **Kushavarta Kund**, which is traditionally regarded as the source of the Godavari.

- The Jyotirlinga at Trimbakeshwar has a distinctive **three-faced representation associated with Brahma, Vishnu and Shiva**.

**Important GK**

- Location: **Nashik, Maharashtra**
- Mountain: **Brahmagiri**
- River: **Godavari**
- Architectural style: **Hemadpanthi**
- Religious significance: **One of the twelve Jyotirlingas**

### eSARAS Platform

- **eSARAS** is an online marketplace developed under the **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission** of the Ministry of Rural Development.
- It is designed primarily to market products made by **women Self-Help Groups and their federations**.
- Products include food items, personal-care products, clothing, home and living products and handicrafts.
- The platform enables rural artisans to sell directly to consumers and reduce dependence on intermediaries.
- eSARAS is integrated with the **Open Network for Digital Commerce and UMANG**.
- The **SARAS Shakti Collection** provides a curated range of products for institutional and corporate buyers.
- The platform strengthens digital entrepreneurship and market access for rural women.

**Important GK**

- Ministry: **Ministry of Rural Development**
- Mission: **DAY-NRLM**
- Primary beneficiaries: **Women Self-Help Groups**
- Digital integration: **ONDC and UMANG**
- Main objective: **Market access and rural entrepreneurship**

### Marine Products Export Development Authority

- The **Marine Products Export Development Authority**, commonly known as **MPEDA**, is a statutory body responsible for promoting India's marine-product exports.
- It was established under an Act of Parliament in **1972**, replacing the earlier Marine Products Export Promotion Council.
- Its headquarters is located in **Kochi, Kerala**.
- It regulates and promotes marine-product exports and registers exporters, fishing vessels, processing establishments and related facilities.
- It also works on standards and specifications for marine products intended for export.
- MPEDA has established quality-control laboratories and regional offices across India.
- Its nodal ministry is the **Ministry of Commerce and Industry**.

**Important GK**

- Full form: **Marine Products Export Development Authority**
- Headquarters: **Kochi, Kerala**
- Established: **1972**
- Nodal Ministry: **Ministry of Commerce and Industry**
- Main responsibility: **Promotion and regulation of marine-product exports**

### International Renewable Energy Agency

- The **International Renewable Energy Agency**, or **IRENA**, is an intergovernmental organisation dedicated exclusively to renewable energy.
- It was founded in **2009** to promote the transition towards sustainable energy systems.
- Its headquarters is located in **Abu Dhabi, United Arab Emirates**.
- IRENA serves as a platform for international cooperation and provides knowledge relating to renewable-energy policy, technology, resources and finance.
- India is one of the **founding members** of IRENA.
- IRENA has **170 members**, comprising 169 States and the European Union, according to the source.
- It has official **United Nations observer status**.

**Important GK**

- Headquarters: **Abu Dhabi**

- Established: **2009**
- Focus: **Renewable energy**
- India: **Founding member**
- UN status: **Official observer**
- Main governing body: **IRENA Assembly**

### LokOS Platform

- **LokOS** is a web and mobile digital platform functioning under the **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission**.
- The name combines "Lok", meaning people, with "OS", meaning operating system.
- It provides digital management facilities for **Self-Help Groups, Village Organisations and Cluster Level Federations**.
- The platform maintains information relating to savings, loans, repayments, livelihoods and other financial transactions.
- It generates digital identities linked with Aadhaar and bank information for community institutions and their members.
- LokOS supports the **Lakhpati Didi initiative** through beneficiary tracking and digital monitoring.
- It currently covers **34 States and Union Territories** according to the source.

**Important GK**

- Ministry: **Ministry of Rural Development**
- Mission: **DAY-NRLM**
- Institutions covered: **SHGs, VOs and CLFs**
- Major purpose: **Digital management of rural community institutions**
- Related initiative: **Lakhpati Didi**

### Borjuli Wetland

- **Borjuli Wetland** is located in **Sonitpur district of Assam**.
- It has been declared a **Biodiversity Heritage Site** by the National Biodiversity Authority.
- The wetland is particularly important for its population of *Oryza rufipogon*, the wild ancestor or progenitor of cultivated rice, *Oryza sativa*.

- *Oryza rufipogon* possesses useful characteristics including resistance to pests and diseases and tolerance to flooding and saline conditions.
- These characteristics make it a valuable genetic resource for developing **climate-resilient rice varieties**.
- Biodiversity Heritage Sites are declared under **Section 37 of the Biological Diversity Act, 2002**, by the State Government in consultation with local bodies.
- India's first Biodiversity Heritage Site was the **Nallur Tamarind Grove in Bengaluru**, designated in 2007.

**Important GK**

- Location: **Sonitpur, Assam**
- Important species: *Oryza rufipogon*
- Cultivated rice: *Oryza sativa*
- Legal provision: **Section 37 of Biological Diversity Act, 2002**
- First BHS: **Nallur Tamarind Grove, Karnataka**

### National Water Awards

- The **National Water Awards** were introduced in **2018** to promote awareness regarding water conservation and encourage efficient water management.
- They are instituted by the **Department of Water Resources, River Development and Ganga Rejuvenation**, under the Ministry of Jal Shakti.
- The awards recognise contributions by States, districts, urban local bodies, dam-owning agencies and industries.
- Categories include **Best State, Best District, Best Urban Local Body, Best Implemented Project in the Water Sector and Best Industry for CSR initiatives in the water sector**.
- Winners receive a **trophy and citation**.
- The awards encourage an integrated approach towards management of surface water and groundwater resources.

**Important GK**

- Ministry: **Ministry of Jal Shakti**
- First introduced: **2018**
- Focus: **Water conservation and management**

- Platform mentioned for the seventh edition: **Rashtriya Puraskar Portal**

### Specialised Investment Fund

- The **Specialised Investment Fund**, or SIF, is a new investment product introduced by **SEBI**.
- It is intended to occupy a space between conventional **mutual funds and Portfolio Management Services**.
- The framework was introduced through amendments to the **SEBI Mutual Funds Regulations, 1996**.
- The minimum investment requirement is **₹10 lakh per investor per asset management company**.
- SIFs can use more specialised investment strategies, including equity-oriented, debt-oriented and hybrid strategies.
- Eligible asset management companies must satisfy prescribed experience and asset-management conditions.

**Important GK**

- Regulator: **SEBI**
- Minimum investment: **₹10 lakh**
- Position in investment spectrum: **Between mutual funds and PMS**
- Regulatory framework: **SEBI Mutual Funds Regulations**
- Objective: **Provide more sophisticated investment strategies within a regulated fund structure**

### Nameri Tiger Reserve

- **Nameri Tiger Reserve** is located in **Sonitpur district of Assam**.
- It shares its northern boundary with **Pakke Tiger Reserve in Arunachal Pradesh**.
- The reserve comprises **Nameri National Park, Sonai-Rupai Wildlife Sanctuary and portions of Naduar and Balipara Reserve Forests**.
- The **Jia Bhoroli River** and its tributaries drain the region.
- The Jia Bhoroli is famous for the **Golden Mahseer**, often described as the tiger of Indian rivers.
- Vegetation includes tropical evergreen, semi-evergreen and moist deciduous forests, along with grasslands and cane brakes.
- Important fauna includes elephants, leopards, clouded leopards, wild dogs and other species.
- Nameri is also an important breeding area for the **White-winged Wood Duck**.

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**Important GK**

- State: **Assam**
- District: **Sonitpur**
- Adjacent protected area: **Pakke Tiger Reserve**
- Important river: **Jia Bhoroli**
- Important fish: **Golden Mahseer**
- Important bird: **White-winged Wood Duck**

### Radio Telemetry

- **Radio telemetry** is a technique in which radio signals are transmitted from a remote source to a receiving station for monitoring and analysis.
- In wildlife conservation, a radio transmitter is attached to an animal and researchers detect the transmitted signals to determine its location.
- It has been used since the **1960s** to study animal movement, migration, behaviour and habitat use.
- A basic radio-telemetry system consists of a **transmitter, antenna and receiver**.
- Unlike satellite-based GPS tracking, radio telemetry generally requires researchers to remain within the effective range of the transmitter.
- The technique is also used in weather monitoring, industrial systems and medical monitoring.

**Important GK**

- Main components: **Transmitter, antenna and receiver**
- Wildlife application: **Tracking movement and behaviour**
- Main limitation: **Dependence on signal range**
- Related technology: **GPS-based satellite tracking**

### *Cyttopsis indica*

- ***Cyttopsis indica*** is a newly identified **deep-sea fish** discovered in the Arabian Sea off southern Kerala.
- It was recorded at depths of approximately **350 to 500 metres**.
- It belongs to the genus ***Cyttopsis***, a group of marine fishes commonly known as **dories**.
- It has been given the common name **Indian Dory**.

- Genetic and morphological studies established that it is distinct from previously assumed species occurring in the Indian Ocean.
- The species was discovered by researchers associated with the **Central Marine Fisheries Research Institute** in Kochi.
- CMFRI became part of the **Indian Council of Agricultural Research** system in 1967.

**Important GK**

- Species: *Cyttopsis indica*
- Common name: **Indian Dory**
- Habitat: **Deep waters of the Arabian Sea**
- Depth: **Approximately 350–500 metres**
- Research institution: **CMFRI**
- Headquarters of CMFRI: **Kochi, Kerala**

### New Zealand

- **New Zealand** is an island country in the **South Pacific Ocean**, located southeast of Australia.
- Its two principal islands are the **North Island and South Island**, separated by the **Cook Strait**.
- The capital is **Wellington**.
- New Zealand lies within the **Pacific Ring of Fire**, making it vulnerable to earthquakes and volcanic activity.
- **Mount Cook, or Aoraki**, is the country's highest peak.
- **Mount Ruapehu** is an important active volcano.
- **Tasman Glacier** is the country's largest glacier, while **Lake Taupō** is its largest natural lake.

**Important GK**

- Capital: **Wellington**
- Principal islands: **North Island and South Island**
- Separating water body: **Cook Strait**
- Highest peak: **Aoraki/Mount Cook**
- Active volcano: **Mount Ruapehu**
- Largest natural lake: **Lake Taupō**

- Largest glacier: **Tasman Glacier**
- Region: **Oceania**

### Giant African Snail

- The **Giant African Snail**, particularly *Lissachatina fulica*, is an invasive land snail native to **East Africa**.
- It has spread to many regions through the pet trade, food-related movement and accidental introduction.
- It can feed on more than **500 types of crops and ornamental plants**, making it a serious agricultural pest.
- It thrives in **warm and humid tropical environments** and can occur in agricultural fields, forests, wetlands, urban areas and other habitats.
- It is a **hermaphrodite**, meaning an individual possesses both male and female reproductive organs.
- The species can carry the **rat lungworm parasite, *Angiostrongylus cantonensis***, which can cause eosinophilic meningitis in humans.
- It is considered one of the world's important **invasive alien species**.

**Important GK**

- Scientific name: *Lissachatina fulica*
- Earlier scientific name: *Achatina fulica*
- Native region: **East Africa**
- Type: **Invasive alien species**
- Important health association: **Rat lungworm**
- Human disease: **Eosinophilic meningitis**

### Direct Seeded Rice

- **Direct Seeded Rice**, or DSR, is a rice cultivation method in which seeds are sown directly into the field instead of transplanting nursery-grown seedlings.
- It eliminates the labour-intensive transplanting stage of conventional rice cultivation.
- DSR can reduce water use because continuous flooding is not required.
- The method is generally suitable for **medium-textured to heavy-textured soils**, while poorly drained light soils are less suitable.

- It can reduce cultivation costs and greenhouse-gas emissions.
- Major challenges include higher seed requirements, weed management, exposure of seeds to birds and pests, lodging and uneven crop establishment.
- The technique has particular relevance where farmers face **water scarcity, labour shortages or uncertain rainfall**.

**Important GK**

- Full form: **Direct Seeded Rice**
- Main difference from conventional cultivation: **Direct sowing instead of transplanting**
- Major advantage: **Reduced water and labour requirement**
- Suitable soils: **Medium to heavy textured soils**
- Major challenge: **Weed management**

### Medical Innovations Patent Mitra Platform

- The **Medical Innovations Patent Mitra: I2I Connect** platform was launched by the **Indian Council of Medical Research**.
- It provides government-funded support for **patent filing and technology transfer** relating to biomedical innovations.
- The platform helps researchers protect intellectual property and move innovations from laboratories towards commercial healthcare applications.
- It supports collaboration among researchers, startups, industries and other stakeholders.
- The initiative was launched under the guidance of **NITI Aayog**, in partnership with the **Department of Pharmaceuticals** and with support from the **Department for Promotion of Industry and Internal Trade**.
- The National Medical Commission has asked medical colleges and institutions to use the platform.

**Important GK**

- Launching organisation: **Indian Council of Medical Research**
- Key focus: **Patent protection and technology transfer**
- Related institutions: **NITI Aayog, Department of Pharmaceuticals and DPIIT**
- Sector: **Biomedical research and healthcare innovation**

### Peru

- **Peru** is located on the western side of **South America**, with a coastline along the Pacific Ocean.
- It shares land borders with **Ecuador, Colombia, Brazil, Bolivia and Chile**.
- The capital is **Lima**.
- Its geography is traditionally divided into **Costa, Sierra and Amazonia**.
- The Costa is an arid coastal region, the Sierra consists mainly of the Andes, and Amazonia covers the eastern lowlands.
- **Mount Huascarán**, at 6,768 metres, is the country's highest peak.
- Peru shares **Lake Titicaca** with Bolivia.
- Major rivers include the **Amazon, Ucayali and Madre de Dios**.
- The country possesses significant mineral resources including **copper, silver and gold**.

**Important GK**

- Capital: **Lima**
- Region: **South America**
- Ocean: **Pacific Ocean**
- Highest peak: **Mount Huascarán**
- Major lake: **Lake Titicaca**
- Major mountain system: **Andes**
- Currency: **Sol**
- Important festival: **Inti Raymi**

### *Canscora agni*

- ***Canscora agni*** is a newly discovered plant species from **Sus Hill in Pune district, Maharashtra**.
- It occurs in the **fire-prone savannas of western India**.
- The species is a small herb with **white flowers and distinctive winged stems**.
- Its name, *agni*, refers to fire and reflects the ecological association of the species with fire-prone savanna habitats.
- It differs from the closely related *Canscora alata* in its smaller size, shorter leaves and distinctive stem and floral characteristics.

- Researchers have suggested a **Critically Endangered** classification because it has been found at only one known location.

**Important GK**

- Species: *Canscora agni*
- Location: **Sus Hill, Pune, Maharashtra**
- Ecosystem: **Fire-prone savanna**
- Plant type: **Small herb**
- Conservation concern: **Extremely restricted distribution**

## Rutile

- **Rutile** is a mineral composed predominantly of **titanium dioxide, $TiO_2$**.
- It is the **most common and stable natural form of titanium dioxide**.
- The other important titanium-bearing minerals mentioned with rutile are **ilmenite and leucoxene**.
- Rutile generally occurs as **red to reddish-brown crystals** and can be found in igneous, metamorphic and sedimentary rocks.
- Because of its high specific gravity, it is frequently concentrated in **heavy mineral sands** by stream and wave action.
- India has important rutile deposits in the coastal sands of **Kerala, Tamil Nadu, Odisha and Andhra Pradesh**.
- Rutile is used as a source of titanium and as a white pigment in **paints, plastics and ceramics**.

## Tandulwadi Fort

- **Tandulwadi Fort** is located near **Lalthane village in Palghar district, Maharashtra**.
- The fort is approximately **800 years old** and stands at an elevation of around **1,524 feet**.
- It functioned primarily as a **watch and reconnaissance fort**, allowing observation of surrounding settlements, neighbouring forts and routes towards the Arabian Sea.
- The fort is not a conventional heavily fortified structure and consists mainly of structures distributed across the mountaintop.
- It contains **rock-cut water cisterns** and a small central water pond.
- Its historical associations include the **Gujarat Sultanate, Portuguese and Marathas**.

- It provides views towards **Saphale, Zanzorli Lake and the confluence of the Surya and Vaitarna rivers**.

**Important GK**

- Location: **Palghar, Maharashtra**
- Approximate age: **800 years**
- Elevation: **1,524 feet**
- Historical function: **Watch and reconnaissance fort**
- Associated powers: **Gujarat Sultanate, Portuguese and Marathas**

## Modified UDAN Scheme

- The **Modified UDAN Scheme** is intended to accelerate the next phase of India's regional aviation development.
- It has an indicative allocation of **₹28,840 crore over ten years**.
- The scheme proposes development of **100 aerodromes from existing unserved airstrips**, supported by more than ₹12,000 crore.
- More than **₹2,500 crore** has been earmarked for operations and maintenance support for regional airports during their initial years.
- The scheme also proposes the development of **200 modern helipads**.
- The original **UDAN**, or Ude Desh ka Aam Nagrik, was launched in October 2016 as the Regional Connectivity Scheme.
- The first UDAN flight operated between **Delhi and Shimla on 27 April 2017**.
- The scheme uses mechanisms such as **competitive bidding and Viability Gap Funding** to support regional routes.

**Important GK**

- Full form: **Ude Desh ka Aam Nagrik**
- Original launch: **2016**
- First UDAN flight: **Delhi to Shimla**
- Implementing agency: **Airports Authority of India**
- Ministry: **Ministry of Civil Aviation**
- Key mechanism: **Viability Gap Funding**

### *Micromonospora shyamaprasadii*

- ***Micromonospora shyamaprasadii*** is a newly discovered **bacterial species** from West Bengal.
- It was isolated from the **mulberry rhizosphere**, which is the biologically active soil zone surrounding plant roots.
- The species was named in honour of **Syama Prasad Mookerjee** on his 125th birth anniversary.
- The bacterium belongs to the genus ***Micromonospora*** and family **Micromonosporaceae**.
- Members of this genus are generally **Gram-positive, aerobic and spore-forming**.
- *Micromonospora* species are known for producing **antibiotics and other bioactive compounds**, giving the new species potential pharmaceutical significance.

**Important GK**

- Organism: **Bacterium**
- Genus: *Micromonospora*
- Family: **Micromonosporaceae**
- Habitat: **Mulberry rhizosphere**
- Potential significance: **Antibiotic production**
- Rhizosphere: **Active soil zone surrounding plant roots**

### Seabuckthorn

- **Seabuckthorn**, scientifically known as *Hippophae rhamnoides*, is an important plant of the **trans-Himalayan region**.
- It is commonly called the **Wonder Plant, Ladakh Gold, Golden Bush or Gold Mine of cold deserts**.
- In India, it occurs mainly above the tree line in **Ladakh, Spiti, Lahaul, Kinnaur, Uttarakhand, Sikkim and Arunachal Pradesh**.
- It produces orange or yellow berries that are rich in **vitamin C and other nutrients**.
- The plant can tolerate severe cold and its berries can remain on the shrub during winter.
- Its extensive root system helps in **soil erosion control, land reclamation and nitrogen fixation**.
- **Spiti seabuckthorn** has received a **Geographical Indication tag**.

**Important GK**

- Scientific name: *Hippophae rhamnoides*
- Family: **Elaeagnaceae**
- Habitat: **Cold deserts and high-altitude Himalayan regions**
- Major Indian regions: **Ladakh and Himachal Pradesh**
- Important ecological role: **Soil conservation and nitrogen fixation**
- Important product: **Nutrient-rich berries**

### Laokhowa Wildlife Sanctuary

- **Laokhowa Wildlife Sanctuary** is situated in **Nagaon district of Assam**, on the southern side of the Brahmaputra River.
- It forms an important part of the **Laokhowa–Burachapori ecosystem**.
- It functions as a buffer area associated with the **Kaziranga Tiger Reserve landscape**.
- The sanctuary contains **alluvial grasslands, alluvial forests, moist deciduous forests and tropical semi-evergreen forests**.
- Important fauna includes the **greater one-horned rhinoceros, Asian elephant, Royal Bengal tiger and Asiatic water buffalo**.
- More than **225 species of birds** have been recorded from the sanctuary.
- The area is currently in the news because of an **eviction drive against alleged encroachments**.

**Important GK**

- State: **Assam**
- District: **Nagaon**
- River: **Brahmaputra**
- Ecosystem: **Laokhowa–Burachapori**
- Important mammal: **Greater one-horned rhinoceros**
- Landscape: **Brahmaputra floodplain**

### Matcha Tea

- **Matcha** is a finely powdered green tea produced from specially cultivated and processed leaves of ***Camellia sinensis***.

- Tea plants used for matcha are **shade-grown for approximately three to four weeks** before harvesting.
- Shading reduces sunlight exposure and increases chlorophyll and amino-acid levels, contributing to its characteristic colour and flavour.
- Harvested leaves are steamed, dried and de-stemmed to produce **tencha**, which is subsequently stone-ground into fine powder.
- Unlike conventional green tea, where leaves are infused and discarded, matcha powder is **consumed along with the water**.
- Matcha traditions developed in Japan from earlier powdered-tea practices associated with China and were closely connected with **Zen Buddhist culture**.
- An Assam tea estate recently produced India's first commercially produced matcha tea.

**Important GK**

- Plant: *Camellia sinensis*
- Type: **Powdered green tea**
- Processing stage before grinding: **Tencha**
- Characteristic cultivation method: **Shade growing**
- Important compound associated with umami: **L-theanine**
- Historical association: **China and Japan**

## Financial Stability and Development Council

- The **Financial Stability and Development Council**, or FSDC, is an apex-level forum established by the Government of India in **December 2010**.
- It is **not a statutory body** and does not have a separate statutory fund allocation.
- The Council is chaired by the **Union Finance Minister**.
- Its membership includes the heads of major financial-sector regulators and senior officials from the Ministry of Finance.
- Its functions include monitoring **macroprudential supervision**, promoting financial-sector development and improving coordination among financial regulators.
- A sub-committee of the FSDC functions under the chairmanship of the **Governor of the Reserve Bank of India**.

- Macroprudential policy focuses on the stability of the **financial system as a whole**, rather than only individual financial institutions.

**Important GK**

- Established: **2010**
- Nature: **Non-statutory apex coordination body**
- Chairperson: **Union Finance Minister**
- Sub-committee chairperson: **RBI Governor**
- Main purpose: **Financial stability and inter-regulatory coordination**
- Important concept: **Macroprudential supervision**

### Atal Mission for Rejuvenation and Urban Transformation

- **AMRUT** was launched on **25 June 2015** by the Ministry of Housing and Urban Affairs in 500 selected cities and towns.
- Its original focus included **water supply, sewerage and septage management, storm-water drainage, green spaces and parks and non-motorised urban transport**.
- **AMRUT 2.0** was launched on **1 October 2021** and subsumed the original mission.
- AMRUT 2.0 aims to provide universal coverage of functional water taps in statutory towns and strengthen sewerage and septage management.
- It promotes a **circular economy of water** through recycling and reuse of treated wastewater, rejuvenation of water bodies and rainwater harvesting.
- The mission also includes **Pey Jal Survekshan, a Technology Sub-Mission and Information, Education and Communication activities**.
- The total indicative outlay of AMRUT 2.0 is **₹2.99 lakh crore**, including the Central share.

**Important GK**

- Full form: **Atal Mission for Rejuvenation and Urban Transformation**
- Original launch: **2015**
- AMRUT 2.0 launch: **2021**
- Ministry: **Ministry of Housing and Urban Affairs**
- Major focus: **Urban water supply, sewerage and water security**
- Important concept: **Circular economy of water**

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### Pension Fund Regulatory and Development Authority

- The **Pension Fund Regulatory and Development Authority**, or PFRDA, is a statutory regulator responsible for regulating India's pension sector.
- It was established under the **PFRDA Act, 2013**, which provided statutory status to the authority.
- It functions under the **Ministry of Finance** and is headquartered in **New Delhi**.
- Its principal objective is to promote old-age income security and regulate pension funds while protecting subscribers' interests.
- PFRDA regulates institutions such as **pension funds, Points of Presence, Central Record-keeping Agencies and the NPS Trust**.
- It also regulates and oversees the **National Pension System** and related pension products.
- The authority recently issued regulations for operationalising the **Unified Pension Scheme under the National Pension System**.

**Important GK**

- Full form: **Pension Fund Regulatory and Development Authority**
- Legal basis: **PFRDA Act, 2013**
- Ministry: **Ministry of Finance**
- Headquarters: **New Delhi**
- Main function: **Regulation of pension funds and protection of subscribers**
- Important system: **National Pension System**

### Doctrine of Per Incuriam

- The Supreme Court recently clarified the circumstances in which a judicial decision can be treated as **per incuriam**.
- The Latin expression *per incuriam* means **"through lack of care."**
- The doctrine applies when a judgment has been delivered in ignorance of a relevant statutory provision, rule, regulation or binding judicial precedent that could have affected the decision.
- Such a judgment is not ordinarily treated as a binding precedent because the court failed to consider the applicable law or an authoritative earlier decision.
- The doctrine is closely connected with **stare decisis**, which means that courts should generally follow established judicial decisions.

- Article **141 of the Constitution** provides that the law declared by the Supreme Court is binding on all courts within India.
- The doctrine of per incuriam operates as an exceptional qualification to the general principle of binding precedent under Article 141.
- The Supreme Court clarified that the doctrine applies to the **ratio decidendi**, which constitutes the binding reasoning of a judgment, and not merely to **obiter dicta**, which are observations having persuasive value.
- A judgment cannot be declared per incuriam merely because a later court considers its conclusion to be incorrect. The circumstances must involve ignorance of binding law or an irreconcilable conflict with an earlier decision of an equal or larger bench.

**Important GK**

- **Ratio decidendi** refers to the legal principle necessary for deciding a case and has binding force.
- **Obiter dicta** refers to observations made by a court that are not essential to the decision and generally have persuasive value.
- A bench of equal strength disagreeing with an earlier decision should ordinarily refer the matter to a **larger bench** rather than directly taking a contrary position.

## Sirsa Kinnow

- **Sirsa Kinnow** is a variety of kinnow cultivated in **Sirsa district of Haryana**.
- It recently received a **Geographical Indication tag**, becoming Haryana's first fruit to receive GI recognition.
- Kinnow is a hybrid citrus fruit developed from **King mandarin and Willow Leaf mandarin**.
- The hybrid was developed in **1915 by H. B. Frost** at the University of California Citrus Experimentation Station.
- Kinnow has a round and relatively large fruit with golden-orange skin and a sweet-sour taste.
- It contains substantial juice and is therefore widely used for juice and pulp production.
- Punjab has the largest area under kinnow cultivation in India, while cultivation is also significant in Haryana, Rajasthan, Madhya Pradesh, Himachal Pradesh and Jammu and Kashmir.
- The fruit is capable of tolerating considerable temperature variation, including high summer temperatures and low winter temperatures.

**Important GK**

- Botanical relationship: **Citrus hybrid**

- Parent cultivars: **King mandarin and Willow Leaf mandarin**
- Sirsa: **Haryana**
- GI recognition: **Haryana's first GI-tagged fruit**
- Major producing state: **Punjab**

### Garhwa Fort

- **Garhwa Fort** is located in **Garhwa village in Prayagraj district of Uttar Pradesh**.
- It contains a Hindu temple complex enclosed within fortifications.
- The fortifications were constructed around **1750 CE**, while several temples within the complex are considerably older.
- The temple complex is believed to have been associated with the **Gupta period**.
- Seven inscriptions connected with the reigns of **Chandragupta, Kumaragupta and Skandagupta** have been discovered at the site.
- The site was known as **Bhattagram or Bhattapraya** during the Gupta period.
- The fortifications were constructed by **Baghel ruler Vikramaditya**.
- The complex is protected by the **Archaeological Survey of India** as a monument of national importance.
- One of the important sculptures found at the site represents the **Dashavatara of Vishnu** and dates to approximately the 11th or 12th century.

**Important GK**

- Location: **Prayagraj, Uttar Pradesh**
- Historical association: **Gupta period**
- Later fortification: **18th century**
- Important archaeological organisation: **Archaeological Survey of India**
- Important sculpture: **Dashavatara of Vishnu**

### I-2SEA Submarine Cable System

- The **India–Southeast Asia, or I-2SEA, submarine cable system** is a planned **3,600-kilometre optical-fibre subsea cable system**.
- It is designed to directly connect India's eastern coast with **Singapore and Malaysia**.

- The consortium involves **Lightstorm, Microsoft, Singtel and Tata Communications**.
- The system is expected to become ready for service in the **fourth quarter of 2029**.
- It is specifically designed to meet growing demand from **artificial intelligence infrastructure, cloud computing and high-capacity digital services**.
- It will directly connect Singapore and Kuala Lumpur with India's east coast through connections associated with **Hyderabad and Chennai**.
- Landing stations are planned at **Machilipatnam** and a new landing location in **South Chennai**.
- The cable will use deep burial in selected sections to improve protection and operational reliability.
- The system is intended to carry internet traffic, cloud services, financial data and high-capacity workloads associated with AI training and inference.

**Important GK**

- Total cable length: **3,600 km**
- Countries directly connected: **India, Singapore and Malaysia**
- Indian landing locations: **Machilipatnam and South Chennai**
- Major purpose: **High-capacity digital connectivity**
- Important emerging application: **Artificial intelligence infrastructure**

## Pandavani

- **Pandavani** is a traditional oral storytelling and musical performance tradition originating in **Chhattisgarh**.
- The name literally refers to the **stories of the Pandavas** and the art form narrates episodes from the **Mahabharata**.
- A principal performer generally narrates the story through singing, acting and dialogue while portraying different characters.
- Traditional musical instruments used during performances include the **harmonium, tabla, manjira and dholak**.
- The performer commonly carries a **tambura or ektara**, which can also be used symbolically as different objects during the performance.
- There are two major styles of Pandavani, namely **Vedamati and Kapalik**.
- In the Vedamati style, the performer traditionally narrates the story while seated.

- The Kapalik style involves more dramatic movement, characterisation, gestures and enactment of scenes.
- **Teejan Bai** is one of the most internationally recognised practitioners of Pandavani.

**Important GK**

- State of origin: **Chhattisgarh**
- Literary source: **Mahabharata**
- Nature: **Oral storytelling and musical folk tradition**
- Major styles: **Vedamati and Kapalik**
- Famous exponent: **Teejan Bai**

### Sub-Orbital Launch Vehicle for Experiment

- **Sub-Orbital Launch Vehicle for Experiment**, abbreviated as **SOLVE**, is an ISRO test platform developed for the **Gaganyaan human spaceflight programme**.
- ISRO successfully conducted the first ground test of the SOLVE solid motor at the **Static Test Facility of the Satish Dhawan Space Centre, Sriharikota**.
- SOLVE is intended to conduct **integrated parachute tests** for validating the deceleration system of the Gaganyaan Crew Module.
- During testing, the Crew Module will be carried to an altitude of approximately **10 to 17 kilometres** before being separated from the vehicle.
- A series of **10 parachutes** will be deployed to reduce the Crew Module's velocity before splashdown.
- The solid stage of SOLVE is derived from the **PSLV strap-on motor**, with modifications required for Gaganyaan testing.
- Gaganyaan is intended to demonstrate India's indigenous capability for human spaceflight.
- The planned mission involves sending a crew of **three members** to approximately **400 km Low Earth Orbit** for a three-day mission and safely returning them to Earth.

**Important GK**

- Organisation: **ISRO**
- Programme: **Gaganyaan**
- Test location: **Satish Dhawan Space Centre, Sriharikota**

- Primary purpose: **Crew Module parachute testing**
- Planned Gaganyaan crew: **Three astronauts**
- Planned orbit: **Low Earth Orbit**

### Bandipur Tiger Reserve

- **Bandipur Tiger Reserve** is located in the southern part of **Karnataka**, primarily in the Mysuru and Chamarajanagar districts.
- It lies near the tri-junction of **Karnataka, Tamil Nadu and Kerala**.
- The reserve represents an important ecological transition and is described as an ecological confluence of the **Western Ghats and Eastern Ghats**.
- It forms part of the larger **Nilgiri Biosphere Reserve**.
- Important neighbouring protected areas include **Nagarahole Tiger Reserve, Mudumalai Tiger Reserve and Wayanad Wildlife Sanctuary**.
- The **Kabini River** lies towards its northern side, while the **Moyar River** occurs towards the southern side. The **Nugu River** also flows through the reserve.
- Vegetation includes dry deciduous forests, moist deciduous forests and shrublands.
- Important fauna includes tigers, gaur, sloth bears, dhole and four-horned antelope.
- Bandipur supports one of the largest populations of wild Asian elephants in South Asia.
- **Himavad Gopalaswamy Betta Hill** is the highest point within the reserve.

**Important GK**

- State: **Karnataka**
- Biosphere reserve: **Nilgiri Biosphere Reserve**
- Important rivers: **Kabini, Moyar and Nugu**
- Highest point: **Himavad Gopalaswamy Betta**
- Major fauna: **Tiger and Asian elephant**

### Arrow-3 Missile Defence System

- **Arrow-3** is an **exo-atmospheric anti-ballistic missile defence system** jointly developed by **Israel and the United States**.
- It is designed to intercept long-range ballistic missiles before they re-enter Earth's atmosphere.

- The system forms part of the **Arrow Weapon System**.
- Arrow-3 uses a **two-stage solid-fuel interceptor** along with launcher, radar and battle-management components.
- It uses **hit-to-kill technology**, meaning the interceptor destroys the incoming target through direct physical impact rather than relying primarily on an explosive warhead.
- The interceptor can engage threats at altitudes exceeding the atmosphere and is designed for high-altitude interception.
- The estimated flyout range of the interceptor is approximately **2,400 kilometres**.
- Germany is deploying Arrow-3 as part of its expanding missile-defence architecture.

**Important GK**

- Developers: **Israel and United States**
- Defence category: **Ballistic missile defence**
- Interception zone: **Exo-atmospheric**
- Interception principle: **Hit-to-kill**
- Propulsion: **Two-stage solid fuel**

### Teesta River

- The **Teesta River** originates from the **Tso Lhamo Lake** region of North Sikkim at an elevation of approximately 5,280 metres.
- It is a glacier-fed river with contributions from glaciers and high-altitude lakes.
- The river flows through **Sikkim and West Bengal** before entering Bangladesh.
- In Bangladesh, the Teesta eventually joins the **Brahmaputra**, known locally as the **Jamuna**.
- Major tributaries include **Lachung Chhu, Dik Chhu, Rangpo Chhu and Rangit**.
- Approximately **83 percent of the Teesta basin lies in India**, while the remaining portion lies in Bangladesh.
- The river cuts through the Himalayan and Siwalik landscape before reaching the plains.
- The Teesta is central to the **India–Bangladesh water-sharing issue** and has major implications for irrigation, agriculture and regional water security.

**Important GK**

- Origin: **Tso Lhamo Lake, Sikkim**

- Countries: **India and Bangladesh**
- Final major river system: **Brahmaputra**
- Bangladesh name of Brahmaputra: **Jamuna**
- Important tributary: **Rangit**
- Basin distribution: **Predominantly India**

### Qatar

- **Qatar** is located on the northeastern coast of the **Arabian Peninsula**.
- It occupies the **Qatar Peninsula**, extending into the Persian Gulf.
- Qatar has only one land boundary, with **Saudi Arabia** to the south.
- The remaining sides are surrounded by the **Persian Gulf**.
- The capital is **Doha**.
- The terrain is predominantly flat and desert-like, with sand dunes particularly prominent in the southern part.
- **Qurain Abu al-Bawl** is the highest point of the country.
- **Sabkhas**, or salt flats, are an important geographical feature.
- Qatar possesses substantial reserves of **petroleum and natural gas**.

**Important GK**

- Capital: **Doha**
- Region: **Arabian Peninsula**
- Only land neighbour: **Saudi Arabia**
- Surrounding water body: **Persian Gulf**
- Highest point: **Qurain Abu al-Bawl**
- Important resources: **Petroleum and natural gas**

### Panchganga River

- The **Panchganga River** is an important tributary of the **Krishna River** in Maharashtra.
- It originates in the **Sahyadri mountain ranges**.

- The river is formed through the confluence of five rivers: **Kasari, Kumbhi, Tulsi, Bhogawati and Saraswati**.
- Their confluence occurs at **Prayag Sangam near Kolhapur**.
- From there, the Panchganga flows for approximately 80 kilometres before joining the Krishna at **Kurundvad**.
- The river basin is agriculturally important, particularly for **sugarcane cultivation**.
- Major dams associated with the basin include **Radhanagari, Kalammawadi, Kode Budruk and Tulashi**.
- Increasing pollution has been associated with the discharge of untreated municipal sewage from Kolhapur.

**Important GK**

- State: **Maharashtra**
- Major river system: **Krishna**
- Source region: **Sahyadri**
- Five contributing rivers: **Kasari, Kumbhi, Tulsi, Bhogawati and Saraswati**
- Confluence with Krishna: **Kurundvad**

## INS Mahendragiri

- **INS Mahendragiri** is the sixth and final ship of the **Project 17A Nilgiri-class stealth guided-missile frigates** of the Indian Navy.
- It was designed by the **Warship Design Bureau** and built by **Mazagon Dock Shipbuilders Limited in Mumbai**.
- The ship uses a **Combined Diesel or Gas propulsion system**, combining diesel engines and gas turbines.
- It is equipped with a **Controllable Pitch Propeller** and an Integrated Platform Management System.
- Its weapon and sensor suite supports **anti-air, anti-surface and anti-submarine warfare**.
- The frigate can also undertake maritime security, power projection, humanitarian assistance and disaster relief, search and rescue and sustained maritime presence missions.
- Project 17A ships are equipped with systems including **MF-STAR radar, BrahMos supersonic cruise missiles and Barak-8 surface-to-air missiles**.

**Important GK**

- Project: **Project 17A**
- Class: **Nilgiri class**
- Designer: **Warship Design Bureau**
- Builder: **Mazagon Dock Shipbuilders Limited**
- Propulsion: **CODOG**
- Major roles: **Anti-air, anti-surface and anti-submarine warfare**

### Telecom Regulatory Authority of India

- The **Telecom Regulatory Authority of India**, or TRAI, was established under the **TRAI Act, 1997**.
- It regulates India's telecommunications sector and seeks to promote orderly growth, fair competition and consumer protection.
- Its regulatory functions include matters relating to **tariffs, quality of service, interconnection and consumer protection**.
- TRAI issues regulations, recommendations and orders concerning telecom services.
- Its composition includes a Chairperson, up to two full-time members and two part-time members.
- Members are appointed by the Central Government and ordinarily hold office for three years or until attaining 65 years of age, whichever is earlier.
- The **Telecommunications Dispute Settlement and Appellate Tribunal**, or TDSAT, was established following amendments to the TRAI framework.
- TDSAT adjudicates specified disputes involving licensors, licensees, service providers and consumers and hears appeals against TRAI orders.

**Important GK**

- Established: **1997**
- Legal basis: **TRAI Act, 1997**
- Major functions: **Regulation, consumer protection and tariff-related oversight**
- Appellate body: **TDSAT**
- Nature: **Telecom sector regulator**

### Indiahandmade

- **Indiahandmade** is a government-backed digital marketplace intended to connect India's handloom and handicraft producers with consumers through the digital economy.

- It was developed by the **Digital India Corporation under the Ministry of Textiles** and launched in **2023**.
- The platform enables weavers and artisans to sell directly to consumers, reducing dependence on intermediaries.
- It provides digital tools and greater online visibility to traditional producers.
- The marketplace covers products including apparel, furnishings, paintings, furniture, religious items, stationery, musical instruments, jewellery, bags and footwear.
- It gives special visibility to **GI-tagged products and One District One Product items**.
- The platform is intended to contribute to the financial and social empowerment of artisans and weavers.

**Important GK**

- Ministry: **Ministry of Textiles**
- Technology organisation: **Digital India Corporation**
- Launch year: **2023**
- Main beneficiaries: **Handloom weavers and handicraft artisans**
- Related concepts: **GI products and ODOP**

## Chief Labour Commissioner Central

- The **Chief Labour Commissioner (Central)** organisation functions under the **Ministry of Labour and Employment**.
- It was established in **1945** following recommendations of the **Royal Commission on Labour in India**.
- Its initial responsibilities included prevention and settlement of industrial disputes, enforcement of labour laws and promotion of worker welfare.
- Its major present functions include **conciliation and mediation of industrial disputes, enforcement of labour laws, quasi-judicial functions and verification of trade union membership**.
- Its jurisdiction primarily concerns establishments falling within the **Central Government sphere**.

**Important GK**

- Ministry: **Ministry of Labour and Employment**
- Established: **1945**

- Recommended by: **Royal Commission on Labour in India**
- Major functions: **Conciliation, labour-law enforcement and worker welfare**

### Antariksh Venture Capital Fund

- The **Antariksh Venture Capital Fund** is a dedicated investment fund intended to provide capital to Indian space-sector companies.
- It is registered with **SEBI as a Category II Alternative Investment Fund**.
- **IN-SPACe**, under the Department of Space, is the key investor.
- The fund is sponsored and managed by **SIDBI Venture Capital Limited**.
- It is intended to provide capital to Indian space companies at different stages of development and support the commercialisation of new technologies.
- The fund focuses exclusively on Indian space-sector companies having a **Technology Readiness Level of 4 or above**.
- IN-SPACe functions as a single-window, independent nodal agency for facilitating, authorising and supervising space activities undertaken by non-governmental entities.

**Important GK**

- Regulator: **SEBI**
- Fund category: **Category II AIF**
- Key investor: **IN-SPACe**
- Investment manager: **SIDBI Venture Capital Limited**
- Target sector: **Indian space industry**
- Minimum technology threshold mentioned: **TRL 4**

### Masala Bonds

- **Masala Bonds** are rupee-denominated bonds issued outside India by Indian entities.
- They allow Indian entities to raise funds from international investors while keeping the borrowing denomination in **Indian rupees**.
- The first masala bonds were issued by the **International Finance Corporation in October 2013** under its offshore rupee programme.
- Because the bonds are denominated in rupees, the exchange-rate risk is generally borne by the **foreign investor rather than the Indian issuer**.

- Both government and private entities can issue such bonds subject to applicable regulations.
- The funds may be used for productive purposes such as infrastructure, affordable housing, refinancing rupee loans and corporate working capital.
- Certain uses, including land acquisition and specified real-estate or securities-market activities, are restricted unless specifically permitted.

**Important GK**

- Currency denomination: **Indian rupee**
- Place of issuance: **Outside India**
- First issuer: **International Finance Corporation**
- First issuance: **October 2013**
- Exchange-rate risk: **Primarily borne by foreign investors**
- Major purpose: **Raising foreign capital in rupee denomination**

### Eurasian Lynx

- The **Eurasian lynx**, scientifically known as *Lynx lynx*, is a medium-sized wild cat and the largest species within the lynx group.
- It has a short body, long legs, large feet, retractable claws and characteristic black tufts at the tips of its ears.
- Its geographical range extends from **Western Europe through Russia and Central Asia to the Himalayan and Tibetan regions**.
- It occurs in boreal and mixed forests, alpine tundra, mountains, rocky areas and open forests.
- The species is generally solitary, territorial and primarily active during dawn and dusk.
- It is strictly carnivorous.
- Threats include habitat loss, reduction of prey populations and hunting.
- The species is classified as **Least Concern by the IUCN**.
- The species was recently photographed for the first time in **Sikkim**.

**Important GK**

- Scientific name: *Lynx lynx*
- Family: **Felidae**

- Habitat: **Boreal forests, mountains and alpine environments**
- Behaviour: **Solitary and territorial**
- IUCN status: **Least Concern**

### National Highways Logistics Management Limited

- **National Highways Logistics Management Limited**, or NHLML, is a wholly owned company of the **National Highways Authority of India**.
- It was formerly known as **Cochin Port Road Company Limited**.
- It operates under the broader framework of the **Ministry of Road Transport and Highways**.
- NHLML works on transport logistics, infrastructure development and asset monetisation.
- Its activities include development of **Multimodal Logistics Parks, ropeways, optical-fibre networks, wayside amenities, port-connectivity roads, warehousing zones and passenger transport terminals**.
- It is also involved in solarisation and other allied infrastructure initiatives.

**Important GK**

- Parent organisation: **NHAI**
- Ministry: **Ministry of Road Transport and Highways**
- Former name: **Cochin Port Road Company Limited**
- Major focus: **Logistics infrastructure and asset monetisation**
- Important project category: **Multimodal Logistics Parks**

### Global Passport Index

- The **Global Passport Index** evaluates passports on more than the number of countries that can be accessed without a visa.
- It also considers benefits related to **mobility, investment and quality of living**.
- It is published by **Global Citizen Solutions**.
- The index uses three major categories: **Enhanced Mobility, Investment and Quality of Living**.
- The respective weightages are 50 percent, 25 percent and 25 percent.
- The index uses 14 indicators and draws upon quantitative information from international institutions.

- India's position in the 2026 index was reported as **125th**.
- The strongest passports listed were Sweden, Switzerland, Finland, Germany, Denmark and the Netherlands.

**Important GK**

- Publisher: **Global Citizen Solutions**
- Major categories: **Mobility, Investment and Quality of Living**
- India's 2026 rank: **125**
- Important distinction: **Global Passport Index is broader than a simple visa-free-access ranking**

### Nigeria

- **Nigeria** is located on the western coast of **Africa** and is commonly described as the **Giant of Africa**.
- It shares land borders with **Niger, Chad, Cameroon and Benin**.
- Its southern coastline lies along the **Gulf of Guinea**.
- The capital is **Abuja**, while Lagos is the largest city.
- Major drainage systems include the **Niger–Benue basin, Lake Chad basin and Gulf of Guinea basin**.
- The **Niger River** and the **Benue River**, its major tributary, are the country's principal rivers.
- The **Cameroonian Highlands** constitute an important mountainous region.
- Nigeria has substantial reserves of **petroleum and natural gas**.

**Important GK**

- Capital: **Abuja**
- Largest city: **Lagos**
- Major rivers: **Niger and Benue**
- Coast: **Gulf of Guinea**
- Important resources: **Petroleum and natural gas**
- Region: **West Africa**

### Ulhas River

- The **Ulhas River** is a west-flowing river located entirely within **Maharashtra**.

- It originates in the **Sahyadri ranges of Raigad district**.
- It flows westwards and ultimately drains into the **Arabian Sea near Vasai Creek**, north of Mumbai.
- The river is approximately **122 kilometres long**.
- Its basin covers approximately **4,637 square kilometres** and includes parts of Thane, Raigad and Pune districts.
- The river passes through or near important urban centres such as **Kalyan, Thane and Navi Mumbai**.
- Major tributaries include Pej, Barvi, Bhivapuri, Murbari, Kalu, Shari, Bhasta, Salpe, Poshir and Shilar.
- Important dams in the basin include **Barvi, Bhatsa, Tansa and Middle Vaitarna**.

**Important GK**

- State: **Maharashtra**
- Source: **Sahyadri ranges**
- Drainage: **Arabian Sea**
- Length: **122 km**
- Important urban centres: **Kalyan, Thane and Navi Mumbai**

### Mahabodhi Temple

- The **Mahabodhi Temple** is located at **Bodh Gaya in Bihar**, on the banks of the Niranjana River.
- It marks the place where **Gautama Buddha attained enlightenment**.
- It is one of the four most sacred Buddhist pilgrimage sites, along with **Lumbini, Sarnath and Kushinagar**.
- The original shrine is associated with **Emperor Ashoka**, while the surviving principal structure dates mainly to the **Gupta period**.
- The temple is one of India's important surviving ancient **brick structures**.
- It was recognised as a **UNESCO World Heritage Site in 2002**.
- The **Vajrasana**, or Diamond Throne, marks the location associated with Buddha's meditation and enlightenment.
- A descendant of the **Bodhi Tree** is located adjacent to the temple.
- The temple's principal tower rises to approximately **55 metres** and has a pyramidal form.

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**Important GK**

- Location: **Bodh Gaya, Bihar**
- River: **Niranjana**
- Associated ruler: **Ashoka**
- Major architectural period: **Gupta period**
- UNESCO World Heritage Site: **2002**
- Four major Buddhist sites: **Lumbini, Bodh Gaya, Sarnath and Kushinagar**

### Changpa Community

- The **Changpa** are a semi-nomadic pastoral community primarily associated with the **Changthang region of the Trans-Himalayas**.
- In India, they are mainly found in **Ladakh**.
- Traditional Changpa pastoralism is closely associated with **pashmina goats**, which produce fine cashmere fibre.
- The community follows **Tibetan Buddhism**.
- The Changpa have been recognised as a **Scheduled Tribe** in India.
- Their traditional conical yak-skin tents are called **reboo**.
- Nomadic Changpas are known as **Phalpa**, while settled Changpas are referred to as **Fangpa**.
- Traditional festivals and rituals include **Jyabten** and **Tangpe Chona**.
- Their livelihood is closely connected with high-altitude pastoralism and pashmina production.

**Important GK**

- Region: **Changthang, Ladakh**
- Community type: **Semi-nomadic pastoral**
- Important livestock: **Pashmina goats**
- Traditional tent: **Reboo**
- Constitutional status: **Scheduled Tribe**

### Angel Tax

- The term **Angel Tax** historically referred to taxation on certain investments received by unlisted companies when shares were issued at a price substantially above their fair market value.

- The provision originated under **Section 56(2)(viib) of the Income Tax Act, 1961**.
- It was introduced in **2012** with the stated objective of preventing the use of share transactions for laundering unaccounted money.
- Startups meeting specified conditions were subsequently provided exemptions.
- The source notes that the Government has **abolished Angel Tax for all classes of investors**, making the historical framework particularly important for understanding the change.
- Venture capital funds pool investor money and invest in startups and other businesses with high growth potential, generally carrying relatively high risk.

**Important GK**

- Historical legal provision: **Section 56(2)(viib)**
- Income-tax legislation: **Income Tax Act, 1961**
- Introduced: **2012**
- Historical purpose: **Prevent misuse of share premiums for unaccounted-money transactions**
- Current relevance: **Angel Tax has been abolished**

## Airports Authority of India

- The **Airports Authority of India**, or AAI, is a statutory organisation responsible for major aspects of civil aviation infrastructure and air traffic management in India.
- It came into existence on **1 April 1995** through the merger of the former **National Airports Authority and International Airports Authority of India**.
- AAI is responsible for development, operation and maintenance of airports and civil enclaves.
- It also provides **Air Traffic Management Services** across Indian airspace and adjoining oceanic areas under its responsibility.
- Its functions include airport development, passenger terminals, cargo infrastructure, runways, taxiways, navigation aids, communication systems and other aviation infrastructure.
- AAI also manages a large network of international, domestic, customs and civil enclave airports.
- The **International Civil Aviation Organization**, or ICAO, is a specialised UN agency established in 1947 through the Chicago Convention framework and sets international standards for civil aviation.

**Important GK**

- Established: **1 April 1995**

- Created through merger of: **National Airports Authority and International Airports Authority of India**
- Major functions: **Airport infrastructure and air traffic management**
- International aviation organisation: **ICAO**
- Chicago Convention: **1944**

### Himalayan Pangolin

- The **Himalayan pangolin**, scientifically known as *Manis aurita*, has been revalidated as a distinct living species separate from the Chinese pangolin, *Manis pentadactyla*.
- It is considerably larger in body and skull size than the Chinese pangolin but has comparatively smaller ears.
- It possesses a shorter and broader nasal bone and enlarged olfactory structures that assist in locating ants and termites.
- Its confirmed distribution includes the **southern Himalayan foothills, Nepal, South Tibet and Northeast India**, including Assam.
- The species has experienced demographic contraction in the past, with research linking an important contraction to climatic changes associated with the **Little Ice Age**.
- Major threats include habitat degradation, illegal wildlife trade and genetic problems associated with inbreeding.
- Pangolins are among the world's most heavily trafficked mammals because of demand for their scales, skin and meat.

**Important GK**

- Scientific name: *Manis aurita*
- Distribution: **Southern Himalayan foothills**
- Diet: **Ants and termites**
- Major threat: **Illegal wildlife trade**
- Important comparison: **Distinct from Chinese pangolin, *Manis pentadactyla***

### Leucine

- **Leucine** is an **essential amino acid** and belongs to the group of **branched-chain amino acids**, along with isoleucine and valine.

- Essential amino acids cannot be synthesised adequately by the human body and therefore must be obtained through the diet.
- Leucine contributes to **muscle growth, tissue repair and energy production**.
- Research highlighted its role in protecting mitochondrial proteins from premature degradation.
- Leucine interacts with the protein **SEL1L**, which is involved in identifying and removing damaged or misfolded proteins.
- There are **20 standard amino acids** involved in protein formation.
- Humans require **nine essential amino acids**: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine.

**Important GK**

- Category: **Essential amino acid**
- BCAA group: **Leucine, isoleucine and valine**
- Major biological roles: **Protein synthesis, muscle growth and tissue repair**
- Essential amino acids in humans: **Nine**

## Norwegian Sea

- The **Norwegian Sea** is a marginal sea associated with the **North Atlantic and Arctic Ocean region**.
- It lies northwest of Norway and is bordered by the broader waters surrounding **Iceland and Greenland**.
- The **Barents Sea** lies to its northeast.
- The Norwegian Sea is separated from the Greenland Sea by the **Jan Mayen Ridge**.
- A submarine ridge extending between **Iceland and the Faroe Islands** forms an important geographical boundary towards the Atlantic.
- The region has significant oceanographic importance because warm waters associated with the **North Atlantic Current** move towards the Norwegian and Barents seas.
- The cold **East Iceland Current** transports colder water towards Iceland.
- Interaction between warm and cold water masses contributes to productive fishing grounds.
- The Norwegian Sea forms a transition zone between **boreal and Arctic climatic conditions**.

**Important GK**

- Region: **North Atlantic and Arctic transition**

- Important neighbouring sea: **Barents Sea**
- Important ridge: **Jan Mayen Ridge**
- Warm current: **North Atlantic Current**
- Cold current: **East Iceland Current**
- Ecological significance: **Highly productive fishing grounds**

### Bintang Adipurna

- **Bintang Adipurna** is the **highest civilian honour of Indonesia**.
- It is formally described as the **First Class of the Star of the Republic of Indonesia**.
- It is conferred by the **President of Indonesia**.
- The award recognises exceptional service to the unity, continuity and prosperity of the Republic of Indonesia.
- Foreign dignitaries may receive the honour for contributing to friendship and mutual respect between Indonesia and their respective countries.
- The insignia includes a gold star and the **Garuda Pancasila**, which represents Indonesia's national identity and the five principles of Pancasila.
- The ceremonial sash uses Indonesia's national colours, **red and white**.
- Prime Minister Narendra Modi was conferred the honour for strengthening India–Indonesia relations.

**Important GK**

- Country: **Indonesia**
- Nature: **Highest civilian honour**
- Conferred by: **President of Indonesia**
- National symbol on insignia: **Garuda Pancasila**
- National colours: **Red and white**

### Guwahati Declaration

- The **Guwahati Declaration** was adopted by BRICS countries following the **BRICS Heads of Anti-Drug Agencies Meeting** held in Guwahati, Assam.
- It focuses on strengthening cooperation against **illicit drug trafficking and related transnational organised crime**.

- The declaration calls for timely exchange of information, intelligence and best practices among participating countries.
- It also promotes the use of **digital tools, innovative technologies and data-driven approaches** in combating drug trafficking.
- It emphasises reducing drug demand, promoting healthy lifestyles and protecting vulnerable groups, particularly children and young people.
- The meeting was held under **India's 2026 BRICS chairship**.
- The BRICS grouping currently consists of **11 members** according to the source, with additional partner countries.

**Important GK**

- Venue: **Guwahati, Assam**
- Grouping: **BRICS**
- Major concern: **Illicit drug trafficking and transnational organised crime**
- India's role: **2026 BRICS chairship**
- Approach: **Intelligence sharing, technology and demand reduction**

### Egyptian Vulture

- The **Egyptian Vulture**, scientifically known as *Neophron percnopterus*, is one of the world's smallest vulture species.
- It is distributed across parts of **southern Europe, Africa, the Middle East, Central Asia and the Indian subcontinent**.
- In India it has historically been associated with open landscapes, villages, temple areas, grazing lands and rocky habitats.
- It feeds on carrion as well as insects, small reptiles, amphibians and other organic material.
- Major threats include habitat loss, declining food availability, collisions with electricity infrastructure and poisoning.
- The species is classified as **Endangered on the IUCN Red List**.
- Vultures play an important ecological role by rapidly removing animal carcasses and thereby reducing the potential spread of pathogens.

**Important GK**

- Scientific name: *Neophron percnopterus*

- Family: **Accipitridae**
- IUCN status: **Endangered**
- Feeding habit: **Scavenging and opportunistic feeding**
- Ecological role: **Carcass disposal and ecosystem sanitation**

### Vihar Lake

- **Vihar Lake** is a man-made reservoir in **North Mumbai, Maharashtra**.
- It is located near Vihar village on the **Mithi River**, within the broader area of the Sanjay Gandhi National Park landscape.
- The reservoir was constructed between **1856 and 1860** by the British administration to address Mumbai's drinking-water requirements.
- It receives water from the **Powai–Kanheri hill ranges** in its catchment.
- It is the largest lake in Mumbai within the **Salsette island system**.
- It lies between **Tulsi Lake and Powai Lake**.
- The lake contributes to Mumbai's drinking-water supply, with the water undergoing treatment at **Bhandup**.
- Heavy rainfall can cause the reservoir to overflow, making it relevant to urban flood and water-management discussions.

**Important GK**

- Location: **North Mumbai**
- River associated with location: **Mithi**
- Construction period: **1856–1860**
- Important neighbouring lakes: **Tulsi and Powai**
- Major function: **Drinking-water supply**

### Sudan

- **Sudan** is located in **Northeast Africa**.
- It shares land borders with **Egypt, Eritrea, Ethiopia, South Sudan, Central African Republic, Chad and Libya**.
- Its eastern coastline lies along the **Red Sea**.

- The capital is **Khartoum**.
- The country's terrain consists largely of plains and plateaus drained by the **Nile River system**.
- Its climate ranges from desert conditions in the north to semi-arid and tropical savannah conditions farther south.
- **Jabal Marrah** is the highest point.
- The Nile is the dominant river system, flowing generally from south to north through the country.
- Sudan possesses petroleum as well as deposits of gold, copper, iron ore, chromium and other minerals.

**Important GK**

- Capital: **Khartoum**
- Region: **Northeast Africa**
- Coast: **Red Sea**
- Highest point: **Jabal Marrah**
- Major river system: **Nile**
- Number of land neighbours: **Seven**

## Performance Grading Index

- The **Performance Grading Index**, or PGI, is an education-sector assessment framework developed by the **Department of School Education and Literacy under the Ministry of Education**.
- It evaluates the relative performance of States, Union Territories and districts in school education.
- **PGI 2.0 for States and Union Territories** uses 70 indicators carrying a total weightage of **1,000 points**.
- It has two broad categories, namely **Outcome** and **Governance and Management**.
- The six domains for States and Union Territories include learning outcomes and quality, access, infrastructure and facilities, equity, governance processes, and teacher education and training.
- PGI-D evaluates districts using **600 points across 70 indicators**.
- The district framework covers areas such as learning outcomes, classroom transactions, infrastructure, student entitlements, school safety, child protection, digital learning and governance.
- PGI is aligned with the objectives of **National Education Policy 2020**.

- Data is drawn from systems including **UDISE+, PARAKH Rashtriya Sarvekshan, PM POSHAN, PRABANDH and Vidyanjali**.

**Important GK**

- Ministry: **Ministry of Education**
- Implementing department: **Department of School Education and Literacy**
- PGI-S/UT total: **1,000 points**
- PGI-D total: **600 points**
- Major policy alignment: **National Education Policy 2020**
- Important data source: **UDISE+**

### Kwar Hydroelectric Project

- The **Kwar Hydroelectric Project** is a **540 MW hydropower project** located on the **Chenab River in Kishtwar district of Jammu and Kashmir**.
- The project is designed as a **run-of-river scheme**.
- It includes a proposed **109-metre-high dam**.
- The underground power house will contain **four generating units of 135 MW each**.
- The project is expected to generate approximately **1,975 million units of electricity annually**.
- It is being developed by **Chenab Valley Power Projects Private Limited**.
- CVPPL is a joint venture between **NHPC Limited and Jammu and Kashmir State Power Development Corporation**, with equity contributions of 51 percent and 49 percent respectively.
- The project area was recently affected by a landslide following heavy rainfall.

**Important GK**

- River: **Chenab**
- Location: **Kishtwar, Jammu and Kashmir**
- Installed capacity: **540 MW**
- Project type: **Run-of-river**
- Developer: **Chenab Valley Power Projects Private Limited**
- Joint venture partners: **NHPC and JKSPDC**

### Costa Rica

- Costa Rica is a small country located in **Central America**.
- It shares land borders with **Nicaragua to the north** and **Panama to the south**.
- The **Pacific Ocean** lies to its west, while the **Caribbean Sea** lies to its east.
- Its capital city is **San José**.
- The country's important mountain systems include the **Cordillera Volcánica** and the **Cordillera de Talamanca**.
- Important volcanoes include **Arenal, Poás and Irazú**.
- **Mount Chirripó**, located in the Cordillera de Talamanca, is the highest point of Costa Rica at approximately **3,821 metres**.
- **Lake Arenal** is the country's largest lake.
- Important rivers include the **Reventazón, Tempisque and Sierpe**. The **San Juan River forms part of the border between Costa Rica and Nicaragua**.
- India and Costa Rica recently held their **first Joint Economic and Trade Committee meeting**.

**Important GK**

- Costa Rica is located in **Central America**.
- Its capital is **San José**.
- Its western coastline is along the **Pacific Ocean**, while its eastern coastline is along the **Caribbean Sea**.
- Its highest point is **Mount Chirripó**.
- The **San Juan River** is associated with the Costa Rica–Nicaragua boundary.

## TribeX Platform

- The **TribeX Platform** was launched by the **Ministry of Tribal Affairs** as a digital learning platform dedicated to tribal arts, culture, traditional knowledge and skill development.
- It provides structured learning opportunities through **free certificate courses** and **UGC-recognised postgraduate diploma programmes** relating to tribal languages, art forms, crafts and traditional knowledge.
- The platform also functions as a digital repository for documenting and preserving **tribal languages, oral traditions, performing arts, cultural practices and indigenous knowledge systems**.

- It currently offers **20 free certificate courses** covering areas such as paintings, handicrafts, handlooms, artefacts and traditional musical instruments.
- The platform integrates a **Learning Management System** and a **Repository Management System** for learning, documentation and progress monitoring.
- Its **Heritage Archive contains more than 5,000 multimedia resources**, including audio, video and literature relating to tribal festivals, socio-cultural practices and oral traditions.
- The initiative aims to combine **cultural preservation with education, skill development and livelihood opportunities**.

**Important GK**

- Nodal ministry: **Ministry of Tribal Affairs**.
- Primary focus: **Tribal heritage, traditional knowledge and skill development**.
- The platform includes both **learning facilities and a digital cultural repository**.
- The Heritage Archive contains more than **5,000 multimedia resources**.

### Behali Wildlife Sanctuary

- **Behali Wildlife Sanctuary** is located in **Biswanath district of Assam**, at the foothills of the **Eastern Himalaya**.
- It lies to the **north of the Brahmaputra River** and is situated near the Assam–Arunachal Pradesh boundary.
- The sanctuary is an important **elephant corridor** because of its proximity to **Kaziranga National Park**.
- It forms part of the **Sonitpur Elephant Reserve**, which was notified in **2003**.
- The vegetation includes **tropical wet evergreen and semi-evergreen forests**, with some remaining patches of primary rainforest.
- The sanctuary supports species such as **Asian elephant, tiger, Bengal slow loris, white-winged duck, hog deer and Chinese pangolin**.
- The **black softshell turtle and red-necked vulture**, both important conservation species, are also associated with the area.
- Behali has been recognised as an **Important Bird Area** and supports birds such as the **wreathed hornbill, rufous-necked hornbill, great hornbill, woolly-necked stork and lesser adjutant**.

**Important GK**

- State: **Assam**.
- District: **Biswanath**.
- Physiographic setting: **Foothills of the Eastern Himalaya**.
- Important river: **Brahmaputra**.
- Important conservation landscape: **Sonitpur Elephant Reserve**.
- Important neighbouring protected area: **Kaziranga National Park**.
- Forest types: **Tropical wet evergreen and semi-evergreen forests**.
- Special designation: **Important Bird Area**.

### Hemophagocytic Lymphohistiocytosis

- **Hemophagocytic Lymphohistiocytosis**, commonly abbreviated as **HLH**, is a rare but potentially life-threatening disorder involving excessive activation of the immune system.
- In HLH, immune cells become excessively active and can begin damaging healthy tissues and organs.
- Severe inflammation can affect the **liver, spleen, bone marrow and brain**.
- HLH is broadly divided into **primary or familial HLH** and **secondary or acquired HLH**.
- Primary HLH is associated with **inherited genetic abnormalities** and generally appears during infancy or childhood.
- Secondary HLH may develop because of infections, autoimmune diseases, blood cancers or immune-system abnormalities.
- Important infectious triggers include **Epstein–Barr virus and cytomegalovirus**, along with certain bacterial, fungal and parasitic infections.
- Symptoms may include persistent fever, extreme weakness, enlargement of the liver and spleen, swollen lymph nodes, skin rashes, anaemia, low blood-cell counts, jaundice and neurological complications.
- Treatment depends upon the underlying cause and severity and may involve **immunotherapy, corticosteroids, chemotherapy or cancer-directed medicines and antimicrobial treatment**.

**Important GK**

- HLH is an **immune-system disorder**, not a conventional infectious disease.
- Primary HLH is associated mainly with **genetic abnormalities**.

- Secondary HLH can be triggered by **infections, autoimmune diseases and malignancies**.
- Important organs affected include the **liver, spleen, bone marrow and brain**.

### Astra Mk-I

- **Astra Mk-I** is an indigenous **Beyond Visual Range Air-to-Air Missile**, or BVRAAM, developed by the **Defence Research and Development Organisation**.
- India and Indonesia recently reached an agreement concerning the supply of **Astra Mk-I missiles**, representing an important development in India's defence exports.
- The missile is designed to engage airborne targets beyond the range at which they can be visually identified by the pilot.
- Astra Mk-I uses **inertial guidance, mid-course guidance updates and terminal active radar homing**.
- It is powered by a **single-pulse smokeless solid-fuel motor**.
- The missile can attain speeds of approximately **Mach 4.5** and operate at altitudes of up to around **20 kilometres**.
- The source gives the operational range in the broad range of approximately **80 to 110 kilometres**, while upgraded configurations have greater range.
- Astra Mk-I is being integrated with the **Su-30MKI** and is planned for integration with platforms such as **Tejas Mk-I and Rafale**.
- Astra Mk-II is designed with a significantly greater range than Astra Mk-I.

**Important GK**

- Category: **Beyond Visual Range Air-to-Air Missile**.
- Developer: **DRDO**.
- Guidance: **Inertial guidance, mid-course update and terminal active radar homing**.
- Propulsion: **Solid-fuel motor**.
- Important aircraft association: **Su-30MKI**.
- Astra Mk-II is intended to provide **greater range than Astra Mk-I**.

### Khadakwasla Dam

- **Khadakwasla Dam** is constructed across the **Mutha River** near Pune in Maharashtra.
- It is situated approximately **21 kilometres from central Pune**.

- The dam is also associated with the names **Chaskaman Dam** and **Peacock Dam**.
- Detailed construction work began in **1869** under Captain Fife of the Royal Engineers during the British period.
- The reservoir created by the dam is known as **Khadakwasla Lake**, historically also referred to as **Lake Fife**.
- The dam is approximately **1.6 kilometres long** and **31.8 metres high**.
- It has **11 radial sluice gates** and six irrigation outlets.
- Water from the reservoir is used for **drinking water, industrial requirements and irrigation**.
- The project also has hydroelectric power-generation facilities.

**Important GK**

- River: **Mutha River**.
- State: **Maharashtra**.
- Location: **Near Pune**.
- Construction began: **1869**.
- Major function: **Water supply and irrigation**.
- Historical name associated with the reservoir: **Lake Fife**.

### Hummus Trail

- The **Hummus Trail** is an informal term used for a travel route in India that has become particularly popular among **Israeli tourists and young Israelis after completion of military service**.
- The route extends across several parts of India rather than constituting a formally designated tourism route.
- Important destinations associated with the trail include **Leh and Ladakh, Kasol, Bhagsu, Dharamkot, Tosh and Kullu** in Himachal Pradesh.
- It also includes **Mathura, Vrindavan and Pushkar**, as well as destinations in southern India such as **South Goa, Gokarna and Vattakanal near Kodaikanal**.
- The concentration of Israeli visitors has influenced the cultural landscape of some destinations, with **Hebrew signage, Israeli-owned cafés, restaurants, stores and hostels** becoming visible in certain locations.
- The phenomenon is also relevant from a tourism, cultural-interaction and public-policy perspective because some locations have faced concerns relating to drug abuse and other activities.

**Important GK**

- Nature of the term: **Informal tourism route**.
- Major foreign tourist group associated with it: **Israeli tourists, particularly young post-service travellers**.
- Important Indian destinations: **Ladakh, Himachal Pradesh, Rajasthan, Goa, Karnataka and Tamil Nadu**.
- It is not an officially notified government tourism corridor.

## INS Surat

- **INS Surat** is a stealth guided-missile destroyer of the Indian Navy and the **fourth and final vessel of the Visakhapatnam-class under Project 15B**.
- The ship was designed by the **Warship Design Bureau** and constructed by **Mazagon Dock Shipbuilders Limited in Mumbai**.
- It has approximately **75 percent indigenous content**.
- The ship was commissioned into the Indian Navy in **January 2025**.
- It has a displacement of approximately **7,400 tonnes** and a length of about **164 metres**.
- The ship uses **Combined Gas and Gas propulsion**, consisting of four gas turbines.
- It can attain a top speed of approximately **30 knots** and has an endurance of about **8,500 nautical miles**.
- INS Surat incorporates indigenous **artificial-intelligence-enabled systems** for improving operational efficiency.
- Its weapons include **BrahMos supersonic cruise missiles, Barak-8 medium-range surface-to-air missiles, torpedo tubes, a 76 mm gun and close-in weapon systems**.
- It can operate helicopters such as the **ALH or MH-60R**.

**Important GK**

- Project: **Project 15B**.
- Class: **Visakhapatnam-class destroyer**.
- Shipyard: **Mazagon Dock Shipbuilders Limited**.
- Commissioned: **January 2025**.
- Propulsion: **COGAG**.

- Major weapons: **BrahMos and Barak-8**.
- Major capability: **Stealth, air defence, anti-surface and anti-submarine warfare**.

### Prambanan Temple

- **Prambanan Temple** is the largest Hindu temple complex in Indonesia and is located in **Sleman, Yogyakarta, on the island of Java**.
- It was constructed during the **9th century** under the **Sanjaya dynasty**, which ruled parts of Central Java.
- The temple complex is dedicated to the Hindu **Trimurti consisting of Shiva, Vishnu and Brahma**.
- It is locally associated with the name **Roro Jonggrang**, meaning the Temple of the Slender Virgin.
- UNESCO designated Prambanan as a **World Heritage Site in 1991**.
- Its architecture combines indigenous **Javanese traditions with influences associated with South Indian architectural traditions, particularly the Pallava style**.
- The temple walls contain important **bas-reliefs depicting episodes from the Ramayana**.
- The principal complex consists of **240 temples**, including eight major and eight minor temples in the central compound.
- The **Shiva Temple** is the largest and centrally positioned temple and rises to approximately **47 metres**.
- Buddhist temples and shrines are also present around the broader complex.

### Important GK

- Country: **Indonesia**.
- Location: **Yogyakarta, Java**.
- Dynasty: **Sanjaya dynasty**.
- Religious tradition: **Hinduism**.
- Principal deities: **Shiva, Vishnu and Brahma**.
- UNESCO World Heritage Site: **1991**.
- Important artistic feature: **Ramayana bas-reliefs**.

### Yak

- The **yak** belongs to the **Bovini tribe**, which also includes cattle, buffaloes and bison.

- Wild yaks are adapted to extremely high-altitude environments and generally inhabit alpine regions at elevations of approximately **5,000 to 7,000 metres**.
- Their distribution includes the **Himalayan region, Tibetan Plateau, Mongolia and parts of South-Central Asia**.
- In India, yaks are reared in **Arunachal Pradesh, Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Ladakh**.
- Their thick shaggy coat provides insulation against severe cold.
- Large hearts and lungs, compact bodies and reduced sweating help them cope with **cold and low-oxygen conditions** at high altitude.
- Yaks are herbivores and feed primarily on **grasses and alpine vegetation**.
- Their economic importance includes transport, milk, meat, fibre and support for high-altitude pastoral communities.
- The conservation status mentioned for the yak is **Vulnerable under the IUCN Red List**, **Appendix I under CITES** and **Schedule I under the Wildlife Protection Act, 1972**.
- Scientists have developed an **IoT-based monitoring system** to track the health and movement of high-altitude yaks near India's international borders.

**Important GK**

- Taxonomic group: **Bovini**.
- Habitat: **High-altitude Himalayan and Tibetan environments**.
- Diet: **Herbivorous**.
- Major adaptation: **Physiological adaptation to cold and hypoxia**.
- IUCN status: **Vulnerable**.
- CITES: **Appendix I**.
- Indian legal protection: **Schedule I under the Wildlife Protection Act, 1972**.

## Sub-Mission on Agricultural Mechanization

- The **Sub-Mission on Agricultural Mechanization**, or **SMAM**, was launched during **2014–15** to increase access to agricultural machinery, particularly among farmers who face financial and structural barriers.
- It is a **Centrally Sponsored Scheme** implemented under the broader framework of the **Rashtriya Krishi Vikas Yojana**.

- The programme focuses particularly on **small and marginal farmers, women farmers, Scheduled Castes, Scheduled Tribes, Farmer Producer Organisations, Self-Help Groups and rural entrepreneurs**.
- It seeks to reduce physical drudgery, improve agricultural productivity and increase access to modern farm machinery.
- One of its important interventions is the establishment of **Custom Hiring Centres**, where farmers can hire agricultural machinery rather than purchasing expensive equipment.
- The scheme also supports hubs for **high-technology and high-value agricultural machinery**.
- It promotes performance testing and certification of agricultural machinery and supports awareness and adoption through information and communication activities.

**Important GK**

- Launch period: **2014–15**.
- Nature: **Centrally Sponsored Scheme**.
- Ministry: **Ministry of Agriculture and Farmers Welfare**.
- Important institutional mechanism: **Custom Hiring Centres**.
- Main objective: **Making agricultural mechanization accessible to underserved farmers**.

### Partnership on Cyber, Critical Technologies and Supply Chains

- India and Australia launched the **Australia–India Partnership on Cyber, Critical Technologies and Supply Chains**, abbreviated as **PACTS**.
- It replaces the **2020 Framework Arrangement on Cyber and Cyber Enabled Critical Technology Cooperation**.
- The partnership seeks to strengthen cooperation in **cybersecurity, critical technologies, resilient supply chains and defence research**.
- The supply-chain pillar focuses on diversification and creation of **secure, resilient and trusted technology supply chains**.
- It also includes cooperation on the security of **undersea cables** through the Quad Partnership for Cable Connectivity and Resilience.
- The critical-technology pillar covers areas such as **artificial intelligence, space technology, telecommunications, biotechnology and advanced materials**.
- The cybersecurity pillar focuses on cybercrime, critical infrastructure protection, cyber resilience, cybersecurity dialogue and data governance.

- The digital-resilience pillar seeks to expand cooperation on **Digital Public Infrastructure across the Indo-Pacific**.
- The defence-research pillar strengthens cooperation between Australia's **Defence Science and Technology Group** and India's **DRDO**, including collaboration involving defence start-ups and research in maritime surveillance and advanced materials.

**Important GK**

- Countries: **India and Australia**.
- Replaced framework: **2020 Cyber and Cyber Enabled Critical Technology Cooperation Framework**.
- Major areas: **Cybersecurity, critical technologies, supply chains, digital resilience and defence research**.
- Important technologies: **Artificial intelligence, semiconductors, quantum technology, biotechnology and space technology**.
- Indian institutions involved include the **National Security Council Secretariat, Ministry of External Affairs and Ministry of Defence**.

### ULLAS Programme

- **ULLAS** stands for **Understanding Lifelong Learning for All in Society** and forms part of the **New India Literacy Programme**, also known as **Nav Bharat Saksharta Karyakram**.
- It is a **Centrally Sponsored Scheme** aligned with the objectives of **National Education Policy 2020**.
- The programme targets adults aged **15 years and above** who did not have adequate access to formal schooling.
- Its objective is to provide **foundational literacy and numeracy**, while also developing practical life skills.
- Important life-skill components include **financial literacy, digital literacy, legal literacy, healthcare awareness, childcare, education and family welfare**.
- The programme also includes **basic education, vocational skills and continuing education**.
- It is implemented through volunteer participation and promotes social responsibility.
- Learners can access educational content in regional languages through the **DIKSHA portal and ULLAS mobile application**.

- The implementation period is **2022 to 2027**, with a target of providing foundational literacy and numeracy to **five crore learners**.
- Uttarakhand was recently recognised as the **sixth fully literate state** under the programme, following Mizoram, Goa, Tripura, Himachal Pradesh and Sikkim; Ladakh was also listed among the fully literate regions.

**Important GK**

- Full form: **Understanding Lifelong Learning for All in Society**.
- Programme: **New India Literacy Programme**.
- Target age group: **15 years and above**.
- Implementation period: **2022–2027**.
- Target: **Five crore learners**.
- Policy alignment: **National Education Policy 2020**.
- Important digital platforms: **DIKSHA and ULLAS mobile application**.

## Malaria

- **Malaria** is a potentially life-threatening disease caused by parasites of the genus **Plasmodium**.
- It is transmitted primarily through the bite of an infected **female Anopheles mosquito**.
- Malaria is not normally transmitted through casual person-to-person contact, although transmission can occur through infected blood or contaminated needles.
- Important risk groups include **infants, children below five years, pregnant women, travellers and people with HIV/AIDS**.
- Common symptoms include **fever, chills and headache**, while severe disease can cause seizures, respiratory difficulty, jaundice, dark urine and death.
- **Artemisinin-based Combination Therapies** are important in treating *Plasmodium falciparum* malaria.
- **Chloroquine** is used for susceptible *P. vivax* infections, while **primaquine** is important for preventing relapse in *P. vivax* and *P. ovale* infections.
- The World Health Organization recently prequalified a malaria treatment for **newborns and infants**, representing an important development in paediatric malaria treatment.

**Important GK**

- Causative organism: **Plasmodium parasite**.

- Vector: **Female Anopheles mosquito**.
- Important species: ***P. falciparum* and *P. vivax***.
- Important treatment for *P. falciparum*: **Artemisinin-based combination therapy**.
- Relapse prevention in *P. vivax* and *P. ovale*: **Primaquine**.

### *Mitrephora rashmiae*

- ***Mitrephora rashmiae*** is a newly discovered flowering tree species from the **Upper Subansiri district of Arunachal Pradesh**.
- It belongs to the **custard apple family, Annonaceae**.
- It represents only the **second species of the genus *Mitrephora* recorded from the Eastern Himalayan Biodiversity Hotspot**.
- A notable biological feature is that the same tree produces both **male and bisexual flowers**.
- Its flowers are characterised by a **pale-yellow colour with purple stripes** and a dome-shaped floral structure formed by the inner petals.
- Only **one seven-metre-tall tree** has so far been located in the wild.
- Because additional specimens have not yet been found, the species has been classified as **Data Deficient**.

**Important GK**

- Species: ***Mitrephora rashmiae***.
- Family: **Annonaceae**.
- Location: **Upper Subansiri, Arunachal Pradesh**.
- Biodiversity region: **Eastern Himalaya**.
- Conservation assessment mentioned: **Data Deficient**.
- Important botanical feature: **Male and bisexual flowers on the same tree**.

### Pinaka Long Range Guided Rocket

- The **Pinaka Long Range Guided Rocket**, or **LRGR**, is an extended-range precision-guided rocket developed for the Indian Army's **Pinaka Multiple Launch Rocket System**.
- The system was successfully flight-tested by the **Defence Research and Development Organisation** at the **Integrated Test Range, Chandipur**.

- Development involved the **Armament Research and Development Establishment**, the **High Energy Materials Research Laboratory**, the **Research Centre Imarat** and the **Defence Research and Development Laboratory**.
- The rocket has a maximum strike range of approximately **120 kilometres**.
- It is **backward compatible**, allowing it to be fired from existing Pinaka launch systems without major structural modifications.
- Its guidance system significantly improves accuracy and makes it particularly useful in **mountainous terrain**, where precision engagement is important.
- A guided Pinaka launcher carries **eight guided rockets**, partly because of the additional electronic systems required.
- The system can engage targets such as **enemy artillery positions, command nodes and logistics installations** at extended ranges.

**Important GK**

- System: **Pinaka Multiple Launch Rocket System**.
- Developer: **DRDO laboratories**.
- Maximum range mentioned: **Approximately 120 km**.
- Test site: **Integrated Test Range, Chandipur**.
- Major advantage: **Precision strike at extended range**.
- Important feature: **Compatibility with existing Pinaka launchers**.

## Wildlife Institute of India

- The **Wildlife Institute of India**, or **WII**, is an autonomous institution established in **1982** under the **Ministry of Environment, Forest and Climate Change**.
- It is located in **Dehradun, Uttarakhand**.
- Its primary purpose is to strengthen scientific knowledge, research, training and management relating to wildlife conservation in India.
- WII provides academic programmes, professional training and advisory services relating to wildlife science and management.
- Its research covers areas including **biodiversity, endangered species, wildlife management, wildlife forensics, eco-development, spatial modelling and climate-related studies**.

- The institute also trains forest officers and wildlife managers from India and other developing countries, particularly from **South and Southeast Asia**.
- Its governance structure includes a **Society chaired by the Union Minister for Environment and Forests** and a Governing Body chaired by the **Secretary of the Ministry**.

**Important GK**

- Established: **1982**.
- Location: **Dehradun, Uttarakhand**.
- Ministry: **Ministry of Environment, Forest and Climate Change**.
- Nature: **Autonomous institution**.
- Main functions: **Wildlife research, training, conservation management and advisory services**.

## Mugger Crocodile

- The **Mugger crocodile**, scientifically known as ***Crocodylus palustris***, is a freshwater crocodile found across parts of the Indian subcontinent.
- It inhabits **rivers, lakes, marshes and other freshwater environments**.
- Its distribution extends across India and neighbouring countries, including **Sri Lanka, Pakistan, Nepal and parts of Iran**.
- The mugger has a characteristically **broad snout**, considered the broadest among living crocodiles.
- It is a hole-nesting species and generally lays eggs during the **annual dry season**.
- Its diet includes fish, frogs, crustaceans, insects and other animals.
- Major threats include **habitat destruction and illegal hunting**.
- Its conservation status is **Vulnerable under the IUCN**, **Appendix I under CITES** and **Schedule I under the Wildlife Protection Act, 1972**.
- The species was in the news after deaths of mugger crocodiles in the **Chandraloi River in Kota district, Rajasthan**, were linked to the banned organochlorine pesticide **Aldrin**.
- Aldrin is environmentally persistent and can accumulate through food chains, causing harmful effects on wildlife and humans.

**Important GK**

- Scientific name: ***Crocodylus palustris***.
- Habitat: **Freshwater ecosystems**.

- IUCN status: **Vulnerable**.
- CITES: **Appendix I**.
- Indian legal protection: **Schedule I**.
- Important pesticide mentioned: **Aldrin**.
- Major ecological concern: **Persistent pesticide contamination and biomagnification**.

### National Institute of Science Education and Research

- The **National Institute of Science Education and Research**, or **NISER**, was established in **2006**.
- It is an autonomous institute under the **Department of Atomic Energy**.
- It is located approximately **20 kilometres south of Bhubaneswar in Odisha**.
- NISER is affiliated with the **Homi Bhabha National Institute**, a deemed research university associated with the Department of Atomic Energy.
- Its principal objective is to develop scientific human resources for future knowledge-based sectors.
- It provides integrated undergraduate and postgraduate education in basic sciences and offers **five-year integrated MSc and PhD programmes**.
- The institute promotes theoretical and experimental research across frontier areas of science.
- NISER also undertakes science outreach and contributes expertise to government science-policy processes.

**Important GK**

- Established: **2006**.
- Location: **Odisha**.
- Administrative department: **Department of Atomic Energy**.
- Academic affiliation: **Homi Bhabha National Institute**.
- Major focus: **Science education and advanced scientific research**.

### Neonatal Sepsis

- **Neonatal sepsis** is a potentially life-threatening bloodstream infection occurring in newborn babies, particularly those below **90 days of age**.
- Premature and low-birth-weight infants are particularly vulnerable.

- Bacterial infections are the most common cause, with organisms such as **Escherichia coli, Listeria and certain Streptococcus species** being important pathogens.
- Severe infections caused by **Herpes simplex virus** can also affect newborns.
- **Early-onset sepsis** occurs within the first 72 hours of life, while **late-onset sepsis** develops after 72 hours.
- Early-onset infection has traditionally been associated with transmission from the maternal genital tract.
- Symptoms can include temperature abnormalities, breathing difficulties, feeding problems, reduced movement, seizures, vomiting, jaundice and changes in heart rate.
- Treatment generally requires hospitalisation and **intravenous antibiotics**.
- The international **NeoSep 1 trial** examining antibiotic combinations for newborns with sepsis has expanded to India, with recruitment beginning at **JIPMER, Puducherry**.

### Drishti-10 Starliner

- **Drishti-10 Starliner** is an indigenous **Medium Altitude Long Endurance unmanned aerial vehicle** designed primarily for **intelligence, surveillance and reconnaissance**.
- It is based on Israel's **Hermes 900** platform developed by Elbit Systems.
- In India, it is manufactured by **Adani Defence and Aerospace** at its Hyderabad facility under a technology-transfer arrangement.
- The UAV is intended to strengthen India's **maritime and border surveillance capabilities**.
- It can remain airborne for up to approximately **36 hours**.
- It has a potential payload capacity of approximately **450 kilograms**, allowing carriage of sophisticated sensors, communication systems and radar equipment.
- The platform has been certified according to **NATO STANAG 4671**, an airworthiness standard for unmanned aircraft systems.
- It supports satellite communication and operations beyond the direct line of sight.
- The system was in the news after an Indian Navy Drishti-10 Starliner crashed near **Porbandar in Gujarat**, following which a Board of Inquiry was ordered.

**Important GK**

- Category: **MALE UAV**.
- Full form: **Medium Altitude Long Endurance**.

- Indian manufacturer: **Adani Defence and Aerospace**.
- Original platform: **Hermes 900**.
- Primary role: **Intelligence, surveillance and reconnaissance**.
- Maximum endurance mentioned: **36 hours**.
- Certification: **NATO STANAG 4671**.

### Chief of Defence Staff

- The **Chief of Defence Staff**, or **CDS**, is the highest-ranking serving military officer in the Indian Armed Forces and serves as the **permanent Chairman of the Chiefs of Staff Committee**.
- The CDS functions as the principal military adviser to the **Minister of Defence** on tri-service matters.
- The CDS also heads the **Department of Military Affairs** within the Ministry of Defence.
- The office was created to improve **tri-service integration, jointness and coordination among the Army, Navy and Air Force**.
- The position was created following recommendations associated with the **Kargil Review Committee and subsequent Group of Ministers' deliberations**.
- General **Bipin Rawat** became India's first Chief of Defence Staff.
- The CDS is a **four-star officer** and is positioned above the individual service chiefs in the tri-service hierarchy.
- The position is distinct from the **Chairman of the Chiefs of Staff Committee as a rotating arrangement**, because the CDS is the permanent Chairman of that committee.

**Important GK**

- Full form: **Chief of Defence Staff**.
- Rank: **Four-star General or equivalent**.
- Major responsibility: **Tri-service integration and jointness**.
- Permanent Chairman: **Chiefs of Staff Committee**.
- Department headed: **Department of Military Affairs**.
- First CDS: **General Bipin Rawat**.
- The **Kuiper Belt**, also known as the **Edgeworth-Kuiper Belt**, is a broad region of small icy bodies beyond the orbit of **Neptune**.
- It forms a relatively flat ring around the Sun.

- Objects within it are called **Kuiper Belt Objects** or **trans-Neptunian objects**.
- The region contains icy bodies, dwarf planets, asteroids and comets.
- It is considered a remnant of the early Solar System and provides information about planetary formation.
- The Kuiper Belt is considered an important source of many **short-period comets**.
- **Pluto** is one of the best-known Kuiper Belt objects.
- In **2006**, the International Astronomical Union reclassified Pluto as a dwarf planet.
- The Kuiper Belt should not be confused with the **Oort Cloud**, which is a much more distant and approximately spherical reservoir of icy bodies.

### Khawthlangtuipui River

- **Khawthlangtuipui River**, also known as the **Karnaphuli River**, is a transboundary river flowing through **India and Bangladesh**.
- It originates in the **Lushai Hills of Mizoram**.
- It flows southwards through the **Chittagong Hill Tracts of Bangladesh**.
- It ultimately drains into the **Bay of Bengal near Chittagong**.
- Important tributaries include the **Kawrpui or Thega River, Tuichawng River and Phairuang River**.
- The river is important for irrigation, inland navigation, fisheries and hydropower.
- The **Kaptai Dam** is located on the river in Bangladesh.
- Kaptai Dam supports the country's major hydroelectric power generation and forms **Kaptai Lake**, the largest artificial lake in Bangladesh.

### Phu Quoc Island

- **Phu Quoc**, also called **Pearl Island**, is a Vietnamese island located in the **Gulf of Thailand**.
- It is part of an archipelago of **22 islands**.
- The island is geographically closer to **Cambodia** than to mainland Vietnam.
- It is Vietnam's largest island.
- A substantial part of the island is protected under **Phú Quốc National Park**.
- Phú Quốc National Park is recognised as a **UNESCO Biosphere Reserve**.
- **Mount Chua**, reaching approximately 630 metres, is the island's highest point.

- The island experiences a tropical climate with a broadly defined **dry season from November to April** and **rainy season from May to October**.
- Traditional fishing communities, including **Ham Ninh**, form an important part of the island's cultural landscape.
- Phu Quoc is known for fish sauce, black pepper, beaches and marine tourism.

### Lymphatic Filariasis

- **Lymphatic filariasis**, commonly known as **elephantiasis**, is a parasitic neglected tropical disease.
- It is caused by filarial nematodes belonging to the family **Filarioidea**.
- Three major causative species are **Wuchereria bancrofti, Brugia malayi and Brugia timori**.
- *Wuchereria bancrofti* accounts for approximately **90 percent of cases**.
- The disease is transmitted through infected mosquitoes, with the source specifically highlighting the **female Culex mosquito**.
- Adult worms inhabit the lymphatic vessels and interfere with normal lymphatic function.
- Chronic infection can cause **lymphoedema, elephantiasis and hydrocele**.
- Many infected individuals remain asymptomatic for long periods.
- The WHO-recommended strategy for interruption of transmission includes **Mass Drug Administration**.
- MDA involves providing preventive medicines to the entire population at risk, usually through periodic community-level campaigns.
- West Bengal launched an MDA campaign with an objective of eliminating lymphatic filariasis from the state by **2030**.

### Sheathia meghalayensis

- ***Sheathia meghalayensis*** is a newly discovered species of **freshwater red algae**.
- It was discovered near **Crinoline Waterfalls in the East Khasi Hills of Meghalaya**.
- The algae grows on submerged rocks in a cool, clear freshwater stream at an elevation of approximately **1,600 metres**.
- Freshwater red algae are sensitive to water quality and can serve as **bioindicators of clean and oxygen-rich freshwater ecosystems**.
- They can contain compounds with antiviral, antioxidant, anti-inflammatory and anti-tumour properties.

- Before this discovery, two *Sheathia* species had been recorded from Northeast India, namely ***Sheathia indonepalensis*** **and** ***Sheathia assamica***.
- The newly discovered species is known from only one location.
- Its estimated area of occurrence is approximately **four square kilometres**, with fewer than 100 mature individuals.
- Researchers have proposed a **Critically Endangered** classification.

### Parrot Bornavirus 4

- **Parrot Bornavirus 4 (PaBV-4)** is an **enveloped single-stranded RNA virus**.
- It belongs to the genus **Orthobornavirus** and family **Bornaviridae**.
- It infects parrots and other **psittacine birds**, including macaws, cockatoos, parakeets and conures.
- PaBV-4 is associated with **Proventricular Dilatation Disease (PDD)**.
- PDD affects the digestive and nervous systems of infected birds and can be fatal.
- Symptoms can include weight loss, regurgitation, vomiting, passage of undigested seeds, enlargement of the proventriculus and neurological abnormalities.
- Transmission is believed to occur mainly through contact with infected birds, droppings and feather dust.
- Infected birds can shed the virus without obvious clinical symptoms.
- There is currently **no specific antiviral treatment or vaccine** for PaBV-4.
- Management therefore focuses on supportive treatment, biosecurity, quarantine and reducing transmission between birds.
- Scientists have identified and genetically characterised PaBV-4 in India for the first time.

### Chandraprabha Wildlife Sanctuary

- **Chandraprabha Wildlife Sanctuary** is located in **Chandauli district of Uttar Pradesh**.
- It covers approximately **78 square kilometres**.
- The sanctuary lies on the **Naugarh and Vijaigarh hillocks** on the northern slope of the **Kaimur Range**.
- It is named after the **Chandraprabha River**.
- The Chandraprabha River is a tributary of the **Karamnasha River**, and the river system ultimately joins the **Ganga**.

- The sanctuary was established in **1957**.
- **Asiatic lions were introduced in 1958**, but the reintroduction eventually failed.
- The landscape contains deciduous forests interspersed with grasslands.
- Important fauna includes leopard, sloth bear, chinkara, chital, hyena, fox and jackal.
- The sanctuary was recently associated with the discovery of a new disease-causing fungal genus named **Hyalokamalomyces**.

### Trachynotothrips vyaghravahini

- ***Trachynotothrips vyaghravahini*** is a newly identified species of **thrips**.
- It was discovered in the **Western Ghats of Karnataka**, inside the flowers of a tropical plant.
- The name *vyaghravahini* is derived from Sanskrit words associated with a **tiger and flowing river**.
- Thrips are very small, slender-bodied insects.
- Adult thrips generally possess four narrow wings with fringed edges.
- Many thrips are plant feeders and attack flowers, leaves, fruits, twigs and buds.
- They feed by puncturing plant tissues and sucking plant juices.
- Heavy infestation can produce silvery or brownish damage to leaves.
- Some thrips species can act as **vectors of plant diseases**.
- Some species are beneficial predators of mites, small insects and other thrips.

### Manas Tiger Reserve

- **Manas Tiger Reserve** is located in **Assam** along the Himalayan foothills.
- To its north, the **Manas River and its tributaries separate it from Royal Manas National Park in Bhutan**.
- To the west, the **Sankosh River** separates it from Buxa Tiger Reserve in West Bengal.
- Manas has the unusual distinction of being a **Natural World Heritage Site, Biosphere Reserve, Elephant Reserve and Important Bird Area**.
- Its vegetation includes scrub forests, semi-evergreen forests, mixed deciduous forests, grasslands and riparian vegetation.
- Important plant communities include **sal forests and alluvial savannah woodlands**.

- Important fauna includes the **tiger, greater one-horned rhinoceros, swamp deer, pygmy hog and Bengal florican**.
- Invasive plant species have significantly affected its grassland ecosystem, with the source reporting substantial loss of grassland cover over three decades.

### Global Liveability Index 2026

- The **Global Liveability Index** is published by the **Economist Intelligence Unit**.
- The index evaluates how suitable cities are for living based on everyday living conditions rather than economic size or tourism popularity.
- The 2026 edition assessed **173 cities** using 30 indicators.
- The indicators are grouped into five broad categories:
    - **Stability: 25 percent**
    - **Healthcare: 20 percent**
    - **Culture and Environment: 25 percent**
    - **Education: 10 percent**
    - **Infrastructure: 20 percent**
- The global average liveability score remained at **76.1 out of 100**.
- **Copenhagen** remained the world's most liveable city.
- Among Indian cities, the rankings were **New Delhi at 120, Mumbai at 121, Chennai at 123 and Bengaluru at 127**.
- Healthcare recorded the strongest year-on-year improvement among the five categories.

### National Disaster Management Authority

- The **National Disaster Management Authority**, or **NDMA**, is India's apex statutory body for disaster management.
- It was established under the **Disaster Management Act, 2005**.
- The **Prime Minister of India is the ex-officio Chairperson** of NDMA.
- The authority is assisted by a Vice-Chairperson and members.
- Its responsibilities include laying down national policies, plans and guidelines for disaster management.

- NDMA approves the **National Disaster Management Plan** and provides guidelines to central and state authorities.
- It coordinates implementation of disaster-management policies and supports disaster-risk reduction and capacity building.
- At the state and district levels, **State Disaster Management Authorities and District Disaster Management Authorities** operate within the institutional framework.
- NDMA deals with disasters including floods, earthquakes, cyclones, droughts, landslides, avalanches, tsunamis, forest fires, pest attacks and nuclear, chemical and biological emergencies.
- Its headquarters is in **New Delhi**.

### Greater One-Horned Rhinoceros

- The **greater one-horned rhinoceros**, also called the **Indian rhinoceros**, is scientifically known as ***Rhinoceros unicornis***.
- It is the largest among the three Asian rhinoceros species.
- It is primarily associated with **grasslands, riverine forests, wetlands and swampy habitats**.
- Its present distribution is concentrated mainly in **India and Nepal**, particularly along the Himalayan foothills.
- **Kaziranga National Park in Assam** contains the largest population.
- It is characterised by a **single horn** and thick grey-brown skin with folds that give it an armour-like appearance.
- It is primarily solitary, although females remain with calves.
- It is herbivorous and feeds on grass, leaves, fruits, branches, aquatic vegetation and crops.
- Major historical threats include hunting and habitat loss.
- Its IUCN status is **Vulnerable**.
- The Union Government approved a **DNA-based indexing system** for the species, aimed at strengthening individual identification and conservation management.

### Vikramshila University

- **Vikramshila University** was an important ancient Buddhist centre of learning located at **Antichak in Bhagalpur district of Bihar**.
- It was founded by **King Dharmapala of the Pala dynasty** during the late eighth or early ninth century CE.

- It was established partly in response to concerns about the declining standards of learning at Nalanda.
- Vikramshila became particularly prominent as a centre of **Tantric and Vajrayana Buddhism**.
- Subjects included Buddhist philosophy, logic, grammar, metaphysics, Sanskrit, law and traditional sciences.
- It was an important centre for the spread of **Vajrayana Buddhism**.
- The ancient site lies near the **Ganga River**.
- The Archaeological Survey of India is developing the ancient site.
- The Bihar Government has identified **202.14 acres at Antichak** for establishing a Central University at the historic site.
- The revival project was approved by the Centre in 2015 with an initial allocation of **₹500 crore**, although implementation was delayed by land-acquisition issues.

### Nagara Style of Temple Architecture

- **Nagara architecture** is the classical temple architectural tradition associated primarily with **northern India**.
- It is traditionally contrasted with the **Dravida style** of southern India.
- A major feature of Nagara temples is the **shikhara**, the superstructure or tower above the sanctum.
- The **garbha griha** is the sanctum sanctorum containing the principal deity.
- Nagara temples may also contain **mandapas**, or pillared halls, and a circumambulatory passage.
- Five broad modes of shikhara design mentioned in the source are **Valabhi, Phamsana, Latina, Shekhari and Bhumija**.
- **Valabhi and Phamsana** represent early Nagara modes derived from barrel-roofed architectural forms.
- **Latina** is characterised by a single slightly curved tower.
- **Shekhari and Bhumija** are composite forms with attached miniature spires.
- The **shikhara** symbolically represents the cosmic order and divine presence.
- Nagara architectural forms are not rigid categories; regional variations and innovations exist across northern India.

### Australian Grass Owl

- The **Australian Grass Owl**, also known as the **Eastern Grass Owl**, is scientifically known as ***Tyto longimembris***.
- It belongs to the owl family **Tytonidae**.
- It is distributed across parts of eastern, southern and Southeast Asia, New Guinea, Australia and the western Pacific.
- In Australia, it is mainly associated with **Queensland**.
- Preferred habitats include **grasslands, savannas, floodplains and agricultural fields**.
- Unlike most owls, it has a notable preference for **ground-level roosting and nesting**.
- It constructs nests concealed within tall grass.
- It has long slender legs and a characteristic heart-shaped facial disc.
- The species is classified as **Least Concern by the IUCN**.
- A rare sighting was reported at **Maguri Motapung Beel in Tinsukia district of Assam**.
- Maguri Motapung Beel is a freshwater wetland on the southern bank of the **Dibru River**, which is connected to the Brahmaputra system.
- The wetland covers approximately **9.6 square kilometres** and was recognised as an **Important Bird and Biodiversity Area in 1996**.
- It supports approximately 110 bird species and is an important stopover for migratory birds.

## Hyperkeratosis

- **Hyperkeratosis** is a condition involving excessive thickening of the skin because of increased production of **keratin**.
- Keratin is a structural protein found in the outer layer of the skin and helps protect the body.
- Hyperkeratosis can affect the hands, feet, mouth, nose, nails and other body regions.
- It may be **non-pressure-related** or **pressure-related**.
- Non-pressure-related hyperkeratosis is often associated with genetic factors.
- Pressure-related hyperkeratosis can result from irritation, inflammation, friction or pressure.
- Other contributing factors include allergies, autoimmune disorders, infections, certain medicines, sun exposure and **vitamin A deficiency**.
- Examples include **calluses, corns, actinic keratosis, plantar warts, psoriasis and epidermolytic hyperkeratosis**.

- Symptoms may include thickened skin, dryness, scaling, colour changes, itching and pain.
- Hyperkeratosis among monkeys at Jaipur's **Galtaji Temple** was associated with feeding practices involving sweets.

### Eärendil-1

- **Eärendil-1** is a demonstration satellite planned by the US private space company **Reflect Orbital**.
- The US **Federal Communications Commission** authorised the company to launch and operate the test satellite.
- Its primary purpose is to test a technology involving a large **deployable reflective mirror** capable of directing sunlight towards selected locations on Earth after sunset.
- The satellite is planned for a **non-geostationary low Earth orbit**.
- Its planned orbital altitude is approximately **600–650 kilometres**.
- The deployable reflector is designed to be highly reflective and motorised so that its orientation can be adjusted.
- The proposed technology could potentially extend the useful operating hours of solar panels.
- It has also been proposed for applications involving emergency response, humanitarian operations, industrial activity and agriculture.
- The concept is essentially an orbital **heliostat**, using reflected sunlight rather than generating electricity directly.

### Convention on International Trade in Endangered Species of Wild Fauna and Flora

- The **Convention on International Trade in Endangered Species of Wild Fauna and Flora**, commonly called **CITES**, is an international agreement regulating trade in wild animals and plants.
- CITES was adopted in **1973** and entered into force in **1975**.
- It is also known as the **Washington Convention**.
- The CITES Secretariat is headquartered in **Geneva, Switzerland**.
- The convention currently has **185 Parties**, comprising 184 countries and the European Union, according to the source.
- Its objective is to ensure that international trade in wild species is **legal, sustainable and traceable** and does not threaten their survival.
- It regulates international trade through a system of **permits and certificates**.
- It covers live and dead specimens, their parts and derivatives, including processed products.

- **Appendix I** contains species threatened with extinction for which commercial international trade is generally prohibited except under exceptional circumstances.
- **Appendix II** contains species that are not necessarily threatened with extinction but whose trade requires regulation to prevent levels of exploitation that could threaten their survival.
- **Appendix III** contains species listed at the request of a country seeking cooperation from other Parties in controlling international trade.
- CITES is legally binding on its Parties, but it does not replace national legislation; each country must implement its provisions through domestic law.

### New Species of Jumping Spiders

- Researchers from India and Sri Lanka discovered **three new species of jumping spiders** belonging to the genus ***Onomastus***.
- The three species are:
    - ***Onomastus brahmagiri***, discovered in the **Brahmagiri Hills of the Western Ghats**.
    - ***Onomastus silentvalley***, discovered in the **shola forests of Silent Valley National Park, Kerala**.
    - ***Onomastus wijesinghei***, discovered in the **montane forests of Sri Lanka**.
- The genus *Onomastus* belongs to one of the oldest lineages of jumping spiders.
- The genus is restricted to the **Oriental biogeographic region**.
- The newly described species are associated with isolated montane forests.
- Their restricted distribution and limited dispersal ability support the **sky-island concept**.
- The sky-island concept explains how isolated mountain habitats can function like islands, promoting geographical isolation, speciation and high endemism.

### Negotiated Dealing System–Order Matching

- **Negotiated Dealing System–Order Matching (NDS-OM)** is an electronic platform used for secondary-market trading in **Government securities**.
- It was launched by the **Reserve Bank of India in 2005**.
- It is a screen-based, anonymous order-matching system.
- Securities traded through the system include **Central Government securities, State Government securities and Treasury Bills**.
- Eligible participants include banks, primary dealers, insurance companies and mutual funds.

- NDS-OM also contains a **Request for Quote** segment that enables bilateral negotiation.
- Direct members have current accounts with the RBI and can directly settle transactions.
- Indirect members do not have current accounts with the RBI and settle through eligible direct members.
- Most foreign institutional investors have traditionally accessed the system indirectly, while eligible resident entities may have direct access.
- Trades are settled on a **T+1 basis** and guaranteed by the **Clearing Corporation of India Limited**.
- Bloomberg recently connected its terminal directly to NDS-OM for electronic trading in Indian government bonds.

### Special Assistance to States for Capital Investment Scheme

- **Special Assistance to States for Capital Investment (SASCI)** is a Central Government scheme providing financial assistance to States and Union Territories for capital expenditure.
- It is administered by the **Ministry of Finance**.
- The scheme was launched in **2020–21**, during the economic stress caused by the COVID-19 pandemic.
- A key feature is the provision of **50-year interest-free loans** to States and Union Territories.
- The scheme aims to encourage capital expenditure and infrastructure creation.
- It also contains incentives linked to **reforms and capital investment** by states.
- Projects are generally identified based on proposals submitted by the concerned state governments.
- Tourism-related projects can receive support under the scheme with emphasis on developing an **end-to-end tourism experience**, strengthening the tourism value chain and ensuring sustainable operation and maintenance.
- The Centre recently approved all **28 major projects proposed by the Delhi Government** under the scheme.

### Māori

- The **Māori** are the indigenous people of **New Zealand**.
- They belong culturally to the **Polynesian** peoples.
- Māori ancestors reached New Zealand in the **early 13th century**.
- The majority of Māori live on New Zealand's **North Island**.

- The Māori language belongs to the **Polynesian group of the Eastern Oceanic branch of the Austronesian language family**.
- Māori is an **official language of New Zealand**.
- A **marae** is a sacred communal meeting ground central to Māori social and cultural traditions.
- The **haka** is a traditional Māori performance and war dance characterised by powerful movements, facial expressions and rhythmic chanting.
- Traditional Māori facial tattooing is known as **ta moko**.
- Māori identity is closely connected with ancestry, land and communal traditions.
- **Waka** means canoe or vessel but has a broader cultural meaning representing shared journeys, unity and cooperation.
- The Treaty of Waitangi and subsequent political developments remain important to understanding modern Māori rights and cultural revival.

### Dudhwa Tiger Reserve

- **Dudhwa Tiger Reserve** is located in **Lakhimpur-Kheri district of Uttar Pradesh**, along the **India–Nepal border**.
- It includes **Dudhwa National Park, Kishanpur Wildlife Sanctuary and Katerniaghat Wildlife Sanctuary**.
- The landscape represents the **Terai-Bhabar ecosystem** of the Upper Gangetic Plains biogeographic province.
- The **Sharda River** flows near Kishanpur Wildlife Sanctuary.
- The **Geruwa River** flows through Katerniaghat Wildlife Sanctuary.
- The **Suheli and Mohana streams** flow through Dudhwa National Park.
- These rivers and streams are part of the broader **Ghaghara River system**.
- Vegetation is dominated by **North Indian moist deciduous forests**, with extensive sal forests.
- Important fauna includes **tiger, leopard, swamp deer, rhinoceros, chital, hog deer, barking deer, sambar, wild boar and ratel**.
- The reserve supports approximately **400 bird species**, including floricans and black-necked storks.
- The fourth rhino census reported an increase in the rhino population of Dudhwa Tiger Reserve to **53**.

### DigiLocker

- **DigiLocker** is a flagship digital-governance initiative of the **Ministry of Electronics and Information Technology** under the Digital India programme.
- It was launched in **2015**.
- It provides a secure digital platform for storing, accessing and sharing electronic documents and certificates.
- Documents available through DigiLocker can be used for purposes such as identity verification, educational records, driving-related documentation and passport applications.
- Digitally issued documents available through the system are treated at par with physical originals under the applicable legal framework.
- The platform supports India's broader objective of creating **paperless and citizen-centric digital governance**.
- Security measures mentioned include **2048-bit RSA SSL encryption, multi-factor authentication, OTP verification, consent mechanisms, timed logouts and security audits**.
- **Multi-factor authentication** requires authentication through more than one independent category of credentials.
- DigiLocker is therefore not merely a digital storage facility; it also functions as a trusted mechanism for accessing and presenting digitally issued government documents.

### Greater Tunb Island

- **Greater Tunb Island** is a strategically important island in the **Persian Gulf**, close to the entrance of the **Strait of Hormuz**.
- It has an area of approximately **10.3 sq. km**.
- Iran has controlled the island since **1971** and maintains military facilities, including naval installations and an airstrip.
- Greater Tunb, together with **Lesser Tunb and Abu Musa**, overlooks the approaches to the Strait of Hormuz.
- The three islands are subject to a long-standing territorial dispute between **Iran and the United Arab Emirates**.
- The Strait of Hormuz is a major global maritime chokepoint through which approximately **one-fifth of global oil supply** passes.
- The strategic importance of Greater Tunb therefore arises from its location near one of the world's most important energy and maritime routes.

## CURRENT AFFAIRS MAGAZINE – JULY

### SwaYaan Initiative

- **SwaYaan** is a national initiative of the **Ministry of Electronics and Information Technology (MeitY)** aimed at developing and strengthening India's **Unmanned Aircraft Systems and drone ecosystem**.
- It was launched in **2022**.
- The initiative supports India's objective of becoming a **global drone hub by 2030**.
- The programme works through a network of around **30 premier academic and research institutions**, including IITs, IISc, IIITs, NITs, IIITDM, C-DAC and NIELIT centres.
- The initiative covers five major technical areas: **Drone Electronics, Guidance-Navigation-Control Algorithms and Simulation, Aeromechanics, Drone Applications and Allied UAS Technologies**.
- Under SwaYaan, the **National Innovation Challenge for Drone Research (NIDAR)** was launched jointly by MeitY and the Drone Federation India.
- The initiative combines academic education, research, industrial participation, mentoring and knowledge-sharing to develop India's indigenous drone capabilities.

### UMANG Portal

- **UMANG** stands for **Unified Mobile Application for New-age Governance**.
- It is a unified digital platform through which citizens can access government services provided by **Central, State and local governments**.
- UMANG is part of the **Digital India programme** and is associated with the **Ministry of Electronics and Information Technology**.
- It provides access through mobile applications, web platforms and authorised service centres.
- The platform supports **23 Indian languages**.
- Its objective is to bring multiple government services onto a common digital interface instead of requiring citizens to use separate departmental platforms.
- The platform aims to provide more than **2,000 services covering over 220 departments**.
- The topic was in the news because researchers identified significant security vulnerabilities in the UMANG portal.

### Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme

- The **PMFME Scheme** was launched on **29 June 2020** as a **Centrally Sponsored Scheme**.
- It is implemented by the **Ministry of Food Processing Industries**.

- The scheme focuses on the **formalisation and upgradation of micro food-processing enterprises**.
- It is linked with the **Atmanirbhar Bharat Abhiyaan** and the **Vocal for Local** approach.
- The original scheme period was **2020–21 to 2025–26**, with an outlay of **₹10,000 crore**.
- It provides financial, technical and business assistance for establishing new food-processing units and upgrading existing ones.
- Individual micro enterprises can receive a **35% credit-linked capital subsidy**, subject to a maximum of **₹10 lakh per unit**.
- SHG members engaged in food processing can receive **seed capital of ₹40,000 per member**, subject to the prescribed ceiling.
- Common infrastructure created by FPOs, SHGs, cooperatives and government agencies can receive a **35% credit-linked capital subsidy**, subject to a maximum of **₹3 crore**.
- The scheme also provides **branding and marketing support** and capacity-building programmes.
- The Centre was considering extending the scheme beyond its original period because of its performance.

### Mobile Phone Manufacturing Scheme

- The **Mobile Phone Manufacturing Scheme (MPMS)** was approved by the Union Cabinet with a budgetary outlay of **₹62,500 crore**.
- Its objective is to substantially increase domestic mobile-phone production, deepen **domestic value addition**, strengthen supply-chain resilience and improve India's global competitiveness.
- The scheme seeks to encourage the development of **Indian mobile-phone brands**, technological capabilities, patents, product design and domestic R&D.
- Its implementation period is **five years, from FY 2026–27 to FY 2030–31**.
- Eligible manufacturers can receive incentive support based on sales at differentiated rates ranging from **2.25% to 5%**.
- An additional incentive of up to **1.5%** is linked to domestic sourcing of key components and sub-assemblies.
- Indian brands undertaking product design and R&D can receive an additional incentive of **3% on eligible sales**.
- The scheme is therefore aimed not merely at increasing assembly capacity but at moving India towards **greater technological sovereignty and higher domestic value addition**.

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### CapaCITIES Programme

- **CapaCITIES** stands for the **Capacity Building Project on Low Carbon and Climate Resilient City Development in India**.
- It was launched in **2016** to strengthen the capacity of Indian cities to undertake **low-carbon and climate-resilient urban development**.
- The programme is funded by the **Embassy of Switzerland to India and Bhutan**.
- Its implementation involved **ICLEI South Asia, South Pole and econcept**, with the **National Institute of Urban Affairs** serving as a knowledge partner.
- The first phase covered **2016–19**, while the second phase covered **2019–23**.
- It supported cities including **Coimbatore, Tiruchirappalli, Tirunelveli, Ahmedabad, Rajkot, Vadodara, Udaipur and Siliguri**.
- The programme helped cities develop institutional capacity for climate planning, climate budgeting and low-carbon urban development.
- Permanent **Net-Zero and Climate Action Cells** were established in six project cities.
- The broader objective is to integrate **climate resilience and low-carbon development into urban governance and planning**.

### Operation Southern Readiness 26-2

- **Operation Southern Readiness 26-2** is a multinational maritime training engagement hosted by the **Indian Navy at Southern Naval Command, Kochi**.
- It is conducted in partnership with the **Combined Maritime Forces (CMF)** under the Indian Navy-led **Combined Task Force 154 (CTF 154)**.
- CTF 154 is the dedicated training task force of the CMF.
- The exercise brings together personnel from CMF partner countries for professional maritime-security training, practical exercises and exchange of operational best practices.
- Training areas include **Maritime Law, Maritime Domain Awareness, information sharing, counter-narcotics, force protection, asymmetric threats and maritime uncrewed systems**.
- It also covers **damage control, firefighting, maritime communications, survival at sea and boarding procedures**.
- The exercise strengthens India's role in **regional maritime capacity building and cooperative maritime security**.

- The **Combined Maritime Forces** is a multinational maritime partnership involving more than 40 countries.

### Malvan Anti-Submarine Warfare Shallow Water Craft

- **INS Malvan** is the second vessel of the **Mahe-class Anti-Submarine Warfare Shallow Water Craft**.
- It has been indigenously designed and constructed by **Cochin Shipyard Limited**.
- The vessel derives its name from **Malwan in Maharashtra** and also carries forward the legacy of the earlier **INS Malwan**, an Indian naval minesweeper.
- It has a displacement of approximately **1,100 tonnes**.
- It uses **waterjet propulsion**.
- Its weapon and sensor package includes **lightweight torpedoes, anti-submarine rockets, advanced radar and sonar systems**.
- It is designed for **anti-submarine warfare in coastal waters, underwater surveillance, Low Intensity Maritime Operations and mine warfare**.
- More than **80% of its content is indigenous**, supporting the Aatmanirbhar Bharat objective in naval shipbuilding.
- The Mahe-class vessels are particularly relevant because India's shallow coastal waters require specialised platforms for detecting and engaging submarines.

### Kulasekarapattinam Spaceport

- **Kulasekarapattinam Spaceport** is being developed at **Kulasekarapattinam in Thoothukudi district, Tamil Nadu**, near Tiruchendur.
- It will become India's **second major spaceport after Satish Dhawan Space Centre at Sriharikota**.
- The facility is primarily intended for **commercial launches of Small Satellite Launch Vehicles (SSLVs)**.
- It will contain approximately **35 facilities**, including a launch pad, rocket integration facilities, ground-range facilities, checkout facilities and a mobile launch structure.
- The spaceport is planned over approximately **2,350 acres**.
- Its planned capacity is around **24 satellite launches per year** using the mobile launch structure.
- Its geographical location is strategically useful because rockets can be launched directly southward over the **Indian Ocean**, reducing the need for a curved trajectory around Sri Lanka.

- This can reduce fuel requirements for launches into **polar orbits**.
- The estimated project cost mentioned by Vajiram & Ravi is approximately **₹986 crore**.
- The **SSLV** is a three-stage launcher with three solid-propulsion stages and a liquid-propulsion **Velocity Trimming Module** as its terminal stage.
- SSLV is designed for **low-cost, flexible and rapid-response launches**, particularly for small satellites.

### PARIVARTAN Scheme

- **PARIVARTAN** stands for **Programme for Accelerated Renewal and Incentivization of Vehicle Assets for Reducing Transport Air Pollution and Network Emissions**.
- It aims to replace **old and highly polluting trucks and buses in the National Capital Region** with cleaner **BS-VI-compliant or electric vehicles**.
- The implementing ministry is the **Ministry of Road Transport and Highways**.
- The scheme is funded by the **National Capital Region Planning Board**.
- The states and Union Territory involved include **Delhi, Haryana, Uttar Pradesh and Rajasthan**.
- Incentives include **Motor Vehicle Tax concessions, registration-fee waivers, 5% interest subvention on vehicle loans and a minimum 8% OEM discount** on eligible new vehicles.
- Eligible replacement vehicles can also receive **fuel-voucher support**, while electric replacement vehicles can receive one-time financial assistance.
- The scheme incorporates **Certificate of Deposit trading** associated with vehicle scrappage.
- Implementation is supported through digital integration involving **VAHAN, V-Scrap, DigiELV and the Public Financial Management System**.
- Its broader environmental objective is to reduce vehicular emissions and contribute to improved air quality.

### E-Commerce Council of India

- The **E-Commerce Council of India (ECCI)** was launched by the **Internet and Mobile Association of India (IAMAI)**.
- It is described as a national platform intended to bring together stakeholders from India's digital-commerce ecosystem.
- Its membership ecosystem includes **policymakers, e-commerce marketplaces, brands, retailers, logistics companies, technology firms, payment providers, startups, exporters, MSMEs, experts and academic institutions**.

- Its areas of focus include **e-commerce, cross-border trade, logistics and supply chains, mobility, travel technology, MSME enablement, digital payments, consumer trust and artificial intelligence**.
- The ECCI is therefore relevant to India's broader **digital economy, e-commerce regulation and digital-business ecosystem**.
- IAMAI was established in **2004** as a not-for-profit industry association under the **Societies Registration Act, 1860** and represents a wide range of digital-sector industries.

### World Artificial Intelligence Cooperation Organization

- **World Artificial Intelligence Cooperation Organization (WAICO)** is a proposed international intergovernmental organisation focused on **international cooperation and global AI governance**.
- Twenty-nine countries signed an agreement in **Shanghai** to establish the organisation.
- Its headquarters is located in **Shanghai, China**.
- The organisation was first proposed by **China in July 2025**.
- Its stated principles include cooperation under the purposes of the **UN Charter**, extensive consultation, joint contribution and shared benefit.
- The organisation adopts a **people-centred approach to artificial intelligence governance**.
- India was notably **absent from the founding membership** despite being one of the five founding BRICS countries.

### Amrit Bharat Station Scheme

- The **Amrit Bharat Station Scheme (ABSS)** was launched by the **Ministry of Railways** for long-term redevelopment and modernisation of railway stations.
- It follows a **master-planning approach**, with station development undertaken according to individual requirements and passenger demand.
- Its objectives include improving **multimodal connectivity, accessibility, passenger amenities and overall station infrastructure**.
- Development components include improved entry and exit points, waiting halls, toilets, platforms, roofing, lifts, escalators and Wi-Fi facilities wherever required.
- The scheme also incorporates local economic development through **One Station One Product** kiosks.
- The redevelopment approach seeks to make stations more accessible, cleaner, greener and more comfortable for passengers.

- On 18 July 2026, **75 redeveloped railway stations across 20 states** were virtually inaugurated under the scheme.

### MH-60R Seahawk

- The **MH-60R Seahawk**, commonly known as the **Romeo**, is a multi-mission naval helicopter manufactured by **Lockheed Martin**.
- It is designed primarily for **anti-submarine warfare and anti-surface warfare**.
- It also performs maritime surveillance, search and rescue, medical evacuation and shipborne operations.
- India signed an agreement with the United States in **2020 to procure 24 MH-60R helicopters** for the Indian Navy.
- The helicopter is equipped with advanced systems including the **AN/AQS-22 Airborne Low-Frequency Sonar, sonobuoys and multi-mode radar**.
- It can carry **Mk 54 lightweight torpedoes** for anti-submarine missions.
- For surface warfare, it can employ **AGM-114 Hellfire missiles, torpedoes and machine guns**.
- Its maximum speed is approximately **330 km/h**, with an operational range of around **830 km**.
- It is one of the major platforms strengthening the Indian Navy's **underwater surveillance and anti-submarine warfare capability**.

### Arun-3 Hydroelectric Project

- The **Arun-3 Hydroelectric Project** is a **900 MW run-of-the-river hydropower project in Nepal**.
- It is being developed on the **Arun River** in Sankhuwasabha district of eastern Nepal.
- The Arun is a tributary of the **Koshi River**.
- The project includes a concrete gravity dam approximately **70 metres high** and an **11.74-km head-race tunnel**.
- The underground powerhouse contains **four generating units of 225 MW each**.
- It is being developed on a **Build-Own-Operate-and-Transfer basis** by SAPDC, associated with **Satluj Jal Vidyut Nigam**.
- The project is linked to India-Nepal energy cooperation.
- Nepal is entitled to **21.9% of the electricity generated as free power** during the initial 25 years of commercial operation.

- Surplus electricity is intended for export to India through the **Dhalkebar–Muzaffarpur transmission corridor**.
- Once completed, it is expected to become **Nepal's largest hydroelectric facility**.

### Semicon 2.0

- **Semicon 2.0** represents the second phase of India's semiconductor-development programme under the **India Semiconductor Mission**.
- The Union Cabinet cleared the second phase with an outlay of approximately **₹1.27 lakh crore**.
- The programme aims to expand India's capabilities in **semiconductor fabrication, assembly, testing and packaging**.
- Over its five-year period, the government expects the initiative to attract approximately **₹4 lakh crore in investment**, generate **₹2 lakh crore in production** and support **₹1 lakh crore in exports**.
- The first phase of the India Semiconductor Mission was approved in **December 2021 with an outlay of ₹76,000 crore**.
- An important policy change in the first phase allowed capital support of up to **50% of project cost** for qualifying large semiconductor projects.
- Semicon 2.0 is intended to strengthen India's **domestic semiconductor ecosystem, technological capability and electronics value chains**.
- It complements the Mobile Phone Manufacturing Scheme by linking chip manufacturing with downstream electronics and mobile-device production.

### Mobile Phone Manufacturing Scheme

- The **Mobile Phone Manufacturing Scheme** has an approved outlay of **₹62,500 crore**.
- It seeks to increase domestic mobile-phone manufacturing while promoting **domestic value addition, component manufacturing, indigenous design and technological capability**.
- The scheme is planned for **five years from FY 2026–27 to FY 2030–31**.
- Eligible manufacturers can receive incentives based on sales, with differentiated incentive rates.
- Additional support is linked to **domestic sourcing of components and sub-assemblies**.
- Indian brands undertaking product design and research and development can receive additional incentives.
- The scheme is designed to move India beyond simple assembly towards **higher domestic value addition and greater electronics manufacturing capability**.

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### Investment Friendliness Index 2026

- The **Investment Friendliness Index 2026** is the first such index released by **NITI Aayog**.
- It evaluates the ability of Indian **States and Union Territories to attract investment**.
- It covers **28 States and 8 Union Territories**.
- The framework uses **84 indicators** and combines secondary data with perception-based information collected through investor surveys.
- Eight pillars are assessed: **infrastructure, business climate, resources, government policy, regulatory ease, institutional environment, financial health and environmental resilience**.
- The index uses a **100-point scale**.
- States and Union Territories are classified as **Top Performers, Frontrunners, Emerging Performers and Aspiring States**.
- The five Top Performer states were **Gujarat, Maharashtra, Tamil Nadu, Goa and Odisha**.
- **Gujarat ranked first overall and among large states**, followed by Maharashtra and Tamil Nadu.
- **Uttarakhand** ranked first among the Hilly and Northeastern States.
- **Goa** ranked first among City States and Union Territories.

### FIFA World Cup 2026 and Falkland Islands

- The **Falkland Islands**, also known as the **Malvinas Islands**, are an archipelago in the **South Atlantic Ocean**.
- They are an internally self-governing **British Overseas Territory**.
- The archipelago consists of **East Falkland, West Falkland and 776 smaller islands**.
- The two principal islands are separated by **Falkland Sound**.
- The capital and principal settlement is **Stanley**, located on East Falkland.
- The islands lie approximately **480 km northeast of the southern tip of South America** and a similar distance east of the Strait of Magellan.
- Argentina claims sovereignty over the islands and refers to them as the **Islas Malvinas**.
- The issue became prominent during the **1982 Falklands War** between Argentina and the United Kingdom.
- The topic came into the news in connection with the **2026 FIFA World Cup**, after Argentina displayed a political message concerning the islands following its semi-final victory over England.

## CURRENT AFFAIRS MAGAZINE – JULY

### Kudankulam Nuclear Power Plant Cybersecurity

- The **Kudankulam Nuclear Power Plant (KKNPP)** is located in **Tirunelveli district of Tamil Nadu**.
- It is India's largest nuclear power-generation facility and is a major **India-Russia civil nuclear cooperation project**.
- A ransomware group known as **World Leaks** allegedly published internal documents associated with the plant on the dark web.
- The incident highlighted the vulnerability of **critical infrastructure to ransomware and cyberattacks**.
- Nuclear facilities require protection not only of physical infrastructure but also of **industrial control systems, operational technology networks and sensitive information systems**.
- The incident is relevant to India's broader **critical-infrastructure cybersecurity and national-security framework**.

### Directorate General of Shipping

- The **Directorate General of Shipping (DG Shipping)** is the apex maritime authority of the Government of India for matters relating to **merchant shipping**.
- It was established in **September 1949** and functions as an attached office of the **Ministry of Ports, Shipping and Waterways**.
- Headquarters: **Mumbai**.
- Its responsibilities include implementation of shipping legislation and policy, vessel registration, surveys and certification, merchant-navy officer examinations, seafarer certification, maritime education and training, and enforcement of international maritime conventions.
- It also has responsibility for protecting the rights of Indian seafarers and ensuring compliance of Indian and foreign vessels operating in Indian waters.
- The Strait of Hormuz issue brought the DG Shipping into focus because it directed shipowners to avoid deploying Indian seafarers on vessels undertaking voyages through the Strait until further orders.

### Narwar Fort

- **Narwar Fort** is located in **Shivpuri district of Madhya Pradesh** and stands atop the **Vindhya Range**.
- The fort covers nearly **8 sq km** and rises about 500 feet above the surrounding plains.
- It was constructed by the **Kachwaha Rajputs in the 10th century**.

- It was subsequently associated with the **Parihara and Tomara Rajputs**, followed by Mughal control.
- The Maratha chief **Scindia** conquered it in the early 19th century.
- The architecture is predominantly Rajput, with flat ceilings, fluted columns and multifold arches.
- **Madhav National Park** lies nearby.

### Museum of Word

- **Museum of Word, or Shabdalok**, is India's first **immersive language museum**.
- It is located at the **National Library campus in Kolkata, West Bengal**.
- It was developed by the **National Library under the Union Ministry of Culture**.
- The museum uses digital displays, holograms and motion-sensor technology to present India's linguistic heritage.
- It has **nine galleries** covering the evolution of Indian languages, scripts and literature.
- It covers India's **22 officially recognised languages** and traces their development from oral traditions and manuscripts to printed and electronic texts.

### Aral Sea

- The **Aral Sea** is a **saline lake in Central Asia**, located between **Kazakhstan and Uzbekistan**.
- It lies east of the **Caspian Sea**.
- It was once the world's **fourth-largest inland body of water**.
- The **Syr Darya and Amu Darya** historically supplied water to the Aral Sea.
- Its dramatic shrinkage began in the **1960s**, when Soviet authorities diverted the two rivers for irrigation.
- By the 1980s, the lake had lost approximately **80% of its volume**, causing severe ecological degradation and the emergence of the **Aralkum Desert**.
- The exposed lake bed has become a source of greenhouse gases; a recent study estimated that more than **200 teragrams of carbon** had been released from exposed sediments.

### Electronic Gold Receipts

- **Electronic Gold Receipts (EGRs)** are exchange-traded securities representing ownership of physical gold stored in **SEBI-regulated vaults**.
- They can be held in **demat accounts**, traded on exchanges and subsequently converted into physical gold through the prescribed mechanism.

- EGR transactions follow a **T+1 settlement cycle**.
- They are available in gold purities of **995 and 999**.
- Denominations include **10 mg, 100 mg, 1 g, 10 g, 100 g and 1 kg**.
- The system aims to make gold ownership more **transparent, standardised and secure**, while reducing concerns regarding physical storage and purity.

### Mexico

- **Mexico** is located in the southern part of **North America**.
- It shares land borders with the **United States, Guatemala and Belize**.
- The **Pacific Ocean** lies to its west and south, while the **Gulf of Mexico and Caribbean Sea** lie to its east.
- Capital: **Mexico City**.
- Mexico forms part of the **Pacific Ring of Fire**, making it prone to earthquakes and volcanic activity.
- Important peninsulas are the **Baja California Peninsula and Yucatán Peninsula**.
- Important rivers include the **Rio Grande and Colorado River**.
- The **Sierra Madre** is the major mountain system.
- Mexico is rich in petroleum, silver, copper, gold, lead, zinc, natural gas and other minerals.

### Hoollongapar Gibbon Wildlife Sanctuary

- **Hoollongapar Gibbon Wildlife Sanctuary** is located in **Jorhat district, Assam**.
- It is named after the **hoolock gibbon**, the only ape species found in India.
- The **Bhogdoi River** creates a waterlogged region along the sanctuary's boundary.
- The vegetation is predominantly evergreen, with **hollong trees forming the upper canopy and nahar trees forming the middle canopy**.
- The sanctuary supports the **western hoolock gibbon**, Bengal slow loris, stump-tailed macaque, pig-tailed macaque, Assamese macaque and capped langur.
- It also supports elephants, tigers, leopards and more than **200 bird species**, including the white-winged wood duck, Bengal florican and great hornbill.

### Kolleru Wildlife Sanctuary

- **Kolleru Wildlife Sanctuary** is located in the **West Godavari and Krishna districts of Andhra Pradesh**.

- It was established in **1999** under the Wildlife Protection Act, 1972.
- It protects part of the **Kolleru Lake wetland**, which became a **Ramsar Site in 2002**.
- Kolleru Lake receives water from the **Budameru and Tammileru rivers** and is connected with the **Krishna and Godavari river systems** through numerous channels.
- The sanctuary is an important habitat and migratory stopover for wetland birds.
- It supports more than **150 species of resident and migratory birds**.

### Semi-Cryogenic Engine

- ISRO successfully conducted a **hot test of the SE2000 semi-cryogenic engine**, marking progress towards its use in future heavy-lift launch vehicles.
- The engine has a planned thrust of approximately **2,000 kN**.
- It uses **liquid oxygen (LOX) as oxidiser and refined kerosene (RP-1) as fuel**.
- Unlike a conventional cryogenic engine using liquid hydrogen and liquid oxygen, a semi-cryogenic engine combines LOX with kerosene.
- Kerosene has higher density, is comparatively easier to store and handle, and can reduce propulsion-system complexity.
- The technology is intended to enhance the payload capability of existing launch vehicles such as **LVM3** and is also intended for future systems including the **Next Generation Launch Vehicle**.

### Senegal

- **Senegal** is a **West African country** with its western coast along the **Atlantic Ocean**.
- It shares land borders with **Mauritania, Mali, Guinea and Guinea-Bissau**.
- Capital: **Dakar**.
- The **Cap-Vert Peninsula** contains the westernmost point of mainland Africa.
- Major geographical regions include the **Sahelian Zone, Sudanian Zone and Casamance Region**.
- The **Senegal River forms part of the boundary between Senegal and Mauritania**.
- Other important water features include the **Gambia River and Saloum Delta**.
- Senegal possesses resources including **phosphate, gold, titanium and zirconium**.

### QDENGA (TAK-003)

- **QDENGA (TAK-003)** is a **live-attenuated tetravalent dengue vaccine** developed by the Japanese pharmaceutical company **Takeda**.

- It became the **first dengue vaccine approved in India**.
- It is approved for individuals aged **4 to 60 years**.
- It targets all four dengue virus serotypes: **DENV-1, DENV-2, DENV-3 and DENV-4**.
- The vaccination schedule consists of **two doses administered three months apart**.
- According to the source, it does not require pre-vaccination screening and can be administered irrespective of previous dengue infection.

### Moldova

- **Moldova** is a **landlocked country in Eastern Europe**.
- It lies between the **Prut and Dniester rivers** and east of the **Carpathian Mountains**.
- It is bordered by **Romania to the west and Ukraine to the north, east and south**.
- Capital: **Chișinău**.
- Its official language is **Romanian**.
- The **Moldovan leu** is its currency.
- The historical region of **Bessarabia** is central to Moldova's geographical and political history.
- Moldova is particularly known for its **vineyards and wine production**.

### White Rabbit Technology-Based Indian Standard Time Dissemination Network

- The **White Rabbit Technology-based IST Dissemination Demonstration Network** was commissioned at the **Regional Reference Standard Laboratory, Bengaluru**.
- It was jointly developed by the **Department of Consumer Affairs, CSIR-National Physical Laboratory and ISRO**.
- It disseminates Indian Standard Time using **Precision Time Protocol-based White Rabbit technology**.
- White Rabbit can synchronise clocks over optical fibre with an accuracy of **less than one nanosecond**.
- It is designed for highly accurate time synchronisation in sectors such as **banking, financial markets, telecommunications, power systems, transportation and digital governance**.
- The system has successfully demonstrated secure transmission of IST between **RRSL Bengaluru and the National Stock Exchange in Chennai**.

- Its strategic importance lies in reducing dependence on foreign satellite-based timing services such as GPS.

### Digital Local Pass System

- The **Digital Local Pass System** enables eligible highway users to purchase monthly toll passes digitally through the **RajmargYatra application**.
- It was initially rolled out at the **Mundka-Bakkarwala Toll Plaza on Urban Extension Road-II in Delhi**.
- Residents living within a **20-km radius** of an eligible toll plaza can obtain a monthly pass allowing unlimited travel through that plaza.
- The system uses verified information from **DigiLocker and VAHAN** and employs GIS-based validation.
- The RajmargYatra application provides highway information, toll-plaza information, nearby facilities, weather updates and grievance-related services.
- The system is issued by the **National Highways Authority of India**.

### Central Bureau of Narcotics

- The **Central Bureau of Narcotics (CBN)** is a central government organisation dealing with the international trade of **narcotic drugs, psychotropic substances and precursor chemicals**.
- It functions under the **Department of Revenue, Ministry of Finance**.
- Headquarters: **Gwalior**.
- The **Narcotics Commissioner** heads the organisation.
- CBN supervises the **licit cultivation of opium poppy** in India.
- India's three notified opium-growing states are **Rajasthan, Madhya Pradesh and Uttar Pradesh**.
- District Opium Officers issue licences for cultivation under conditions notified by the Central Government.
- CBN also undertakes enforcement under the **NDPS Act, 1985**, issues import-export authorisations for specified narcotic substances and provides NOCs for selected precursor chemicals.

### Kala Sanskriti Vikas Yojana

- **Kala Sanskriti Vikas Yojana (KSVY)** is an umbrella scheme of the **Ministry of Culture** for promotion, preservation and development of Indian art and culture.
- It provides financial assistance to cultural organisations, artists, NGOs and institutions.

- Major components include **Guru-Shishya Parampara/Repertory Grant, Financial Assistance for Promotion of Art and Culture, Scholarships and Fellowships, Tagore Cultural Complexes, assistance to veteran artists, Seva Bhoj Yojana and National Gandhi Heritage Site Mission**.
- The scheme supports cultural festivals, exhibitions, workshops and performances.
- It also supports cultural infrastructure such as **auditoriums, museums and cultural centres**.
- Special attention is given to intangible heritage including **music, dance, crafts and traditional rituals**.
- The scheme promotes participation from rural areas, tribal communities and other underrepresented groups.

### WTO Agreement on Fisheries Subsidies

- The **WTO Agreement on Fisheries Subsidies (AFS)** was adopted by consensus at the **12th WTO Ministerial Conference in Geneva in June 2022**.
- It is the **first multilateral WTO agreement with an environmental sustainability objective**.
- It prohibits certain harmful fisheries subsidies, particularly those supporting **illegal, unreported and unregulated fishing and fishing of overfished stocks**.
- It entered into force on **15 September 2025** after acceptance by two-thirds of WTO members.
- India became the **123rd WTO member** to deposit its Instrument of Acceptance.
- The agreement covers **marine wild-capture fishing and fishing-related activities at sea**.
- **Aquaculture and inland fisheries are outside its scope**.
- It seeks to protect marine ecosystems while also protecting the livelihoods of traditional and small-scale fishers.

### e-Shram Portal

- **e-Shram** was launched by the **Ministry of Labour and Employment on 26 August 2021**.
- It creates the **National Database of Unorganised Workers (NDUW)**.
- It includes categories such as migrant workers, construction workers, gig workers, platform workers, agricultural workers, domestic workers and street vendors.
- Registered workers receive a **Universal Account Number linked with Aadhaar**.
- Eligible workers are generally **16–59 years old** and should not be members of EPFO, ESIC or government-funded NPS.

- The portal connects workers with social-security schemes, employment, skill development, apprenticeships and pension opportunities.
- Construction-worker data can be shared with **Building and Other Construction Workers Welfare Boards**.
- A **Data Sharing Portal** facilitates secure sharing of beneficiary information with States and Union Territories.

### Tenzing Norgay National Adventure Award

- The **Tenzing Norgay National Adventure Award (TNNAA)** is India's highest national honour for outstanding achievements in **adventure activities**.
- It is conferred by the **Ministry of Youth Affairs and Sports**.
- It recognises qualities such as endurance, risk-taking, teamwork and effective decision-making under challenging conditions.
- The award carries a **bronze statuette, certificate, blazer with silken tie or saree and ₹15 lakh prize money**.
- It has a status equivalent to the **Arjuna Award** and is presented along with the National Sports Awards.
- The four categories are **Land Adventure, Water (Sea) Adventure, Air Adventure and Lifetime Achievement**.
- Ordinarily, not more than one award is given in each category.

### Disporum yobinorum

- ***Disporum yobinorum*** is a **newly discovered flowering plant species** from **Vijaynagar in Changlang district, Arunachal Pradesh**.
- Vijaynagar lies close to the **Myanmar border**, adjoining Myanmar's Kachin State.
- The species occurs in **moist, shaded evergreen forests along streams** at elevations of approximately **1,100–1,500 metres**.
- Fewer than **40 individuals** have been recorded and the species is known from a single location.
- Researchers recommended treating it as **Data Deficient under IUCN criteria**.
- The species name honours the **Yobin community**, also known as the Lisu in Myanmar and China.

### Harishchandragad Fort

- **Harishchandragad Fort** is a hill fort in **Ahilyanagar district, Maharashtra**, situated in the **Western Ghats** at approximately **1,422 metres**.
- Its origins date to the **6th century**, associated with the Kalchuri dynasty.
- The fort contains caves believed to have been carved around the **11th century**.
- The Marathas captured the fort in **1747**.
- The **Harishchandreshwar Temple**, dedicated to Shiva, is built in the **Hemadpanti style**.
- The **Konkan Kada**, a semicircular overhanging cliff, is one of the fort's major geographical features.
- The **Brocken Spectre** can occasionally be observed from the Konkan Kada, where an observer's shadow appears projected onto clouds with a rainbow-like halo.

### Okinotori Island

- **Okinotori**, also called **Parece Vela**, is a tiny, uninhabited **Japanese atoll in the Philippine Sea**.
- It belongs to the **Ogasawara Islands** administered by Japan.
- It is Japan's **southernmost island**, approximately 1,700 km south of Tokyo.
- It lies south of the **Tropic of Cancer** and approximately midway between **Taiwan and Guam**.
- At high tide, only two small rocky outcrops remain above sea level.
- Okinotori forms part of the underwater **Palau-Kyushu Ridge**.
- Japan claims an **Exclusive Economic Zone** around it, but China disputes Japan's interpretation of the feature and its associated maritime rights.
- Its location makes it strategically important for **maritime routes and military considerations in the western Pacific**.

### Mission Golden Spice

- **Mission Golden Spice** is an integrated **Lakadong Turmeric Value Chain Enhancement Project** for Meghalaya.
- It is a **five-year roadmap for 2025–2030**.
- The mission is anchored by the **Ministry of Development of North Eastern Region and North Eastern Council**.
- It operates through convergence with the Ministries of Agriculture, Food Processing Industries and Commerce, along with **APEDA, Spices Board, National Turmeric Board, ICAR, MeitY, NABARD and SFAC**.

- It has two phases: **Value Chain Strengthening**, followed by **Expansion and Scale-up**.
- **Lakadong turmeric** is primarily cultivated in the **Jaintia Hills of Meghalaya**.
- It is known for its high **curcumin content of approximately 7–12%**.
- Lakadong turmeric received a **GI tag in 2024**.

### Allographa

- ***Allographa*** is a genus of **script lichens**, belonging to the family **Graphidaceae**.
- Researchers recently identified new *Allographa* species from the **Western Ghats**.
- Lichens represent a symbiotic association between a **fungus and a photobiont**, generally a green alga or cyanobacterium.
- The fungal partner provides structure and protection, while the photobiont performs photosynthesis and supplies food.
- Lichens are important as **bioindicators of ecosystem health** because they are sensitive to pollution, climate change and habitat disturbance.
- They also contribute to **soil formation and nutrient cycling** and provide food or habitat for some organisms.

### Electric Vertical Take-Off and Landing Aircraft

- An **electric vertical take-off and landing (eVTOL) aircraft** is a battery-powered aircraft capable of taking off and landing vertically before transitioning to forward flight.
- An IIT Madras-incubated startup launched India's first eVTOL aircraft prototype.
- eVTOL aircraft do not require conventional long runways.
- Most designs use **multiple electric motors and propellers**, rather than one large rotor as in a conventional helicopter.
- **Distributed electric propulsion** is an important technological feature.
- Potential applications include **air taxis, medical emergency services, cargo transportation, delivery services and recreational mobility**.
- eVTOLs are associated with the emerging concept of **Urban Air Mobility**.

### Salal Dam

- **Salal Dam**, also known as the **Salal Hydroelectric Power Station**, is a **690 MW run-of-the-river hydropower project** on the **Chenab River**.

- It is located in **Reasi district of Jammu and Kashmir**.
- Construction began in **1970** and commercial operation started in **1987**.
- It was the **first hydropower project built by India under the Indus Water Treaty regime in Kashmir**, according to the source.
- The project is developed and owned by **NHPC**.
- The dam is approximately **100 metres high and 1,200 metres long**, with a reservoir capacity of about **1,200 million cubic metres**.
- Jammu and Kashmir receives **12.5% of the generated electricity**, while the remaining power is transmitted to the Northern Grid.

### SMILE Scheme

- **SMILE** stands for **Support for Marginalized Individuals for Livelihood and Enterprise**.
- It is an **umbrella Central Sector Scheme** of the **Ministry of Social Justice and Empowerment**.
- It was launched in **2022**.
- Its objective includes creating a **begging-free India** through rehabilitation, livelihood support and convergence among Central, State, local and implementing agencies.
- The scheme contains separate components for the **comprehensive rehabilitation of transgender persons** and persons engaged in begging.
- It aims to cover **295 cities by 2030–31**, with particular attention to metropolitan, religious, tourist and historical destinations.
- The **SMILE-Beggary National Portal** supports digital registration, monitoring and tracking of rehabilitation centres and shelter homes.

### Hedychium zubeengargianum

- *Hedychium zubeengargianum* is a newly identified species of **ginger lily** discovered in **Shillong, Meghalaya**.
- It was identified by botanists of the **Botanical Survey of India, Eastern Regional Centre, Shillong**.
- The species had been growing in the institute's botanical garden since at least 2018, but its original collection record could not be traced.
- It was named after **Zubeen Garg**, the music personality from Meghalaya.
- India has around **41 taxa of Hedychium**, with major diversity in the **Northeast and Western Ghats**.

- It differs from the closely related *Hedychium gracile* through its **creamy-white fragrant flowers, yellow anthers, densely hairy flowering stalk and earlier flowering season**.

### Borophene

- **Borophene** is a two-dimensional allotrope of **boron** consisting of a single-atom-thick sheet of boron atoms.
- Unlike graphene, borophene is **highly polymorphic**, meaning its atomic arrangement can vary according to synthesis conditions.
- Different borophene structures were experimentally confirmed in **2015** after being theoretically predicted earlier.
- It possesses **high strength, flexibility, low weight, electrical and thermal conductivity, high capacitance and metallic characteristics**.
- Its properties can vary according to direction, making it useful for specialised technological applications.
- Indian researchers demonstrated its use as an additive in **castor oil** for sustainable lubrication.
- Adding only **0.1% borophene by weight** reportedly reduced friction by around **42%** compared with pure castor oil while improving wear resistance and load-bearing capacity.
- During operation, borophene contributes to the formation of a protective **tribofilm** on contacting surfaces.

### Mission Vatsalya Scheme

- **Mission Vatsalya** is a **Centrally Sponsored Scheme** implemented by States and Union Territories.
- It is administered by the **Ministry of Women and Child Development**.
- It focuses on **Children in Need of Care and Protection (CNCP)** and **Children in Conflict with Law (CCL)**.
- Its objective is to provide **care, protection, rehabilitation and reintegration** for children living in difficult circumstances.
- The scheme promotes **family-based and community-based care** along with institutional support where necessary.
- It operates within the statutory framework of the **Juvenile Justice (Care and Protection of Children) Act, 2015**.
- Mission Vatsalya subsumed the earlier **Child Protection Services scheme**.

### Samudra Pradakshina

- **Samudra Pradakshina** was the **first-ever tri-service, all-women circumnavigation sailing expedition** undertaken by personnel of the Indian Armed Forces.
- It brought together women officers from the **Indian Army, Indian Navy and Indian Air Force**.
- The expedition was led by **Lieutenant Colonel Anuja Varudkar**, with **Squadron Leader Shraddha P. Raju** serving as Deputy Expedition Leader.
- It was flagged off from the **Gateway of India, Mumbai, on 11 September 2025**.
- Nine women officers sailed aboard the **Indian Army Sailing Vessel (IASV) Triveni**.
- The voyage lasted **314 days** and covered approximately **25,500 nautical miles**.
- The expedition crossed the **Equator twice**, crossed the **International Date Line**, crossed all meridians of longitude and rounded the **Cape Leeuwin, Cape Horn and Cape of Good Hope**.
- The crew also successfully navigated the challenging **Drake Passage**.
- Rounding Cape Horn resulted in membership of the **Cape Horner fraternity**, traditionally associated with sailors who have completed this demanding maritime passage.

### Karlapat Bauxite Block

- The **Karlapat Bauxite Block** is located in **Kalahandi district of Odisha**.
- It is a **greenfield mining block**, meaning it has not previously been commercially mined.
- It contains an estimated resource of approximately **207 million tonnes**, comprising proved and possible reserves.
- The block covers approximately **9.6 square kilometres** and has an average ore thickness of around **12 metres**.
- The deposit has approximately **45.2% alumina content** and relatively low silica content.
- Odisha contains a major share of India's bauxite resources and accounts for approximately **41% of India's bauxite resources** according to the source.
- Important bauxite-bearing districts of Odisha include **Kalahandi, Koraput, Rayagada, Kandhamal, Balangir, Keonjhar, Malkangiri and Sundargarh**.
- Bauxite is the principal commercial ore used for producing **aluminium**.

### Sal Borer

- **Sal borer** is a destructive beetle pest affecting **sal trees (*Shorea robusta*)**.
- It belongs to the order **Coleoptera** and family **Cerambycidae**, commonly known as the longhorn beetle family.

- It attacks both **standing sal trees and freshly felled timber**.
- Weak, unhealthy or low-vitality trees are particularly susceptible.
- An infestation is considered epidemic when affected sal trees exceed **1% of the total number of trees**.
- Sal is naturally distributed across parts of **Uttarakhand, Uttar Pradesh Terai, Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh and West Bengal**.
- Sal generally prefers a **warm and humid climate**, well-drained soil and substantial annual rainfall.

### National Chambal Sanctuary

- **National Chambal Sanctuary**, also known as the **National Chambal Gharial Wildlife Sanctuary**, is a tri-state riverine protected area.
- It extends across **Madhya Pradesh, Uttar Pradesh and Rajasthan** along the **Chambal River**.
- The sanctuary primarily protects the **gharial**, **red-crowned roof turtle** and **Ganges river dolphin**.
- It supports the **largest wild population of gharials**.
- The landscape contains **ravines, sandy beaches, hills and riverine habitats**.
- It forms part of the **Kathia-Gir dry deciduous forest ecoregion**.
- Other fauna include mugger crocodiles, smooth-coated otters, striped hyenas, Indian wolves, Indian narrow-headed softshell turtles, three-striped roof turtles and crowned river turtles.
- Illegal **sand mining** is a major threat to the riverine ecosystem.

### Kawal Tiger Reserve

- **Kawal Tiger Reserve** is located in **Telangana** and forms part of the **Deccan Peninsula–Central Highlands** landscape.
- It is associated with the **Godavari River catchment**.
- Important local rivers and streams include the **Peddavagu and Kadam**.
- The reserve lies at the southern end of the **Central Indian Tiger Landscape** and has ecological linkages with **Tadoba-Andhari Tiger Reserve in Maharashtra and Indravati Tiger Reserve in Chhattisgarh**.
- Its dominant vegetation is **Southern Tropical Dry Deciduous Forest**.
- Important vegetation includes **teak and bamboo**, along with several other dry-deciduous species.
- Wildlife includes tiger, leopard, wild dog, wolf, nilgai, chinkara, blackbuck, sambar and chital.

- The **National Tiger Conservation Authority** identified Kawal as a priority recipient site for tiger recovery.

### PM-YASASVI Scheme

- **PM-YASASVI** stands for **Prime Minister Young Achievers Scholarship Award Scheme for Vibrant India**.
- It is an umbrella scholarship programme under the **Ministry of Social Justice and Empowerment**.
- It targets students belonging to **Other Backward Classes, Economically Backward Classes and De-notified Tribes**.
- The scheme seeks to reduce financial barriers and improve access to quality education.
- The income ceiling mentioned by the source is **₹2.5 lakh annual family income**.
- It incorporates four major scholarship components:
    - Pre-Matric Scholarship.
    - Post-Matric Scholarship.
    - Top Class Education in Schools.
    - Top Class Education in Colleges.
- The scheme was launched in **2021**.

### Methane

- **Methane ($CH_4$)** is a hydrocarbon and the principal component of **natural gas**.
- It is a potent greenhouse gas with a much greater short-term warming effect than carbon dioxide.
- Important anthropogenic sources include **agriculture, energy and waste**.
- In agriculture, **rice cultivation and livestock** are important sources.
- Methane has an atmospheric lifetime of roughly **12 years**, considerably shorter than that of carbon dioxide.
- Despite its shorter atmospheric lifetime, methane is highly effective at trapping infrared radiation.
- A recent study identified **Indian rice fields as major methane hotspots**, highlighting the importance of agricultural methane mitigation.

### Tetragonula yikhumensis

- *Tetragonula yikhumensis* is a newly identified **stingless bee species** discovered in **Wokha district, Nagaland**.

- It was named after **Yikhum village**, where it was first collected.
- It is a **subterranean nesting species**, with colonies found more than two metres below ground.
- The species has a body length of approximately **5.59 mm**, making it the largest stingless bee recorded in India according to the source.
- Its nests contain separate chambers for **honey, pollen and brood**.
- The nests are protected by hard layers of **batumen** and connected to the surface through narrow tunnels.
- The discovery increased the number of known stingless bee species in India from **25 to 26**.
- The Lotha community locally refers to these bees as **"litsuk" or ground bees**.

### Aerosols

- **Aerosols** are tiny solid or liquid particles suspended in the atmosphere.
- Natural sources include **desert dust, sea spray, volcanic ash and forest fires**, while anthropogenic sources include vehicles and industrial activity.
- **Primary aerosols** enter the atmosphere directly as particles.
- **Secondary aerosols** are formed in the atmosphere through chemical reactions involving precursor gases.
- Aerosols can either **reflect incoming solar radiation or absorb radiation**, thereby affecting Earth's energy balance.
- Black-carbon-rich, strongly absorbing aerosols can produce substantial atmospheric warming.
- Aerosols also influence **cloud formation, rainfall, weather patterns, climate and human health**.
- The study highlighted **South Asia** as particularly affected by climate impacts from dust-pollution aerosols.

### Picrorhiza kurroa

- ***Picrorhiza kurroa*** is a perennial medicinal herb commonly known as **Kutki**.
- It possesses **rhizomes** and naturally occurs in alpine and sub-alpine regions of the Himalayas.
- Its typical altitude range is approximately **2,700–4,500 metres**.
- In India, it occurs across parts of the **Himalayan region**, with its distribution extending from Kashmir to Sikkim.
- It prefers moist, relatively sheltered slopes and porous soils suitable for horizontal rhizome growth.

- Its medicinally important parts include the **roots and rhizomes**.
- It has traditionally been used for several medicinal purposes, particularly in relation to **liver-related conditions**.
- IUCN status: **Endangered**.
- CITES status: **Appendix II**.

### Kusha Missile

- **Kusha** is India's indigenous **long-range Surface-to-Air Missile system** being developed by the **DRDO**.
- It is also associated with the **Extended Range Air Defence System** programme.
- The system is designed to engage aerial threats including **fighter aircraft, unmanned aerial vehicles and missiles**.
- Project Kusha is planned as a **three-tier air-defence architecture**.
- The proposed interceptor variants are **M1, M2 and M3**, with approximate engagement ranges of **150 km, 250 km and up to 350–400 km**, respectively.
- The system is designed to integrate with India's **Integrated Air Command and Control System**.
- The maiden flight test was conducted from **APJ Abdul Kalam Island, Odisha**.
- It is intended to become an important component of India's future **long-range, network-centric air-defence architecture**.

### Ratle Hydroelectric Project

- The **Ratle Hydroelectric Project** is an **850 MW run-of-the-river hydropower project** on the **Chenab River**.
- It is located in **Kishtwar district, Jammu and Kashmir**.
- The project lies **downstream of the Dulhasti project and upstream of the Baglihar project**.
- It is implemented by **Ratle Hydroelectric Power Corporation Limited**, a joint venture between **NHPC and Jammu & Kashmir State Power Development Corporation**.
- NHPC holds **51% equity**, while JKSPDC holds **49%**.
- The project includes a large concrete gravity dam and an underground powerhouse.
- The powerhouse will contain **four 205 MW Francis turbine units and one 30 MW auxiliary unit**.
- Expected annual generation is approximately **3,137 GWh**.

- The project has been an important issue in the context of the **Indus Waters Treaty** and India-Pakistan water relations.

### Romania

- **Romania** is located in **Southeastern Europe**.
- It shares borders with **Ukraine, Moldova, Bulgaria, Serbia and Hungary**.
- It has a coastline along the **Black Sea**.
- Capital: **Bucharest**.
- The **Carpathian Mountains** dominate much of its physical geography.
- Important rivers include the **Danube, Prut, Tisza and Argeș**.
- **Mount Moldoveanu** is the highest peak in Romania.
- Romania joined **NATO in 2004** and the **European Union in 2007**.
- Important mineral resources include petroleum, gold, silver and uranium.

### Black Sea

- The **Black Sea** is an inland sea located between **Southeastern Europe and Western Asia**.
- It is connected to the Mediterranean through the **Bosporus, Sea of Marmara and Dardanelles**.
- The **Kerch Strait** connects it with the **Sea of Azov**.
- Six countries directly border it: **Ukraine, Russia, Georgia, Türkiye, Bulgaria and Romania**.
- Important rivers draining into the Black Sea include the **Danube, Dnieper, Southern Bug, Dniester and Rioni**.
- The **Crimean Peninsula** projects into the northern part of the sea.
- The Black Sea has relatively low salinity because of its restricted connection with the Mediterranean.
- Its maritime geography makes it strategically important for **energy transport, trade, food exports and regional security**.

### Crime and Criminal Tracking Network & Systems

- **CCTNS** stands for **Crime and Criminal Tracking Network & Systems**.
- It was conceptualised by the **Ministry of Home Affairs in 2009**.
- The project seeks to integrate police stations and higher police offices through a common digital platform.

- It enables the collection, updating and sharing of **crime and criminal information in near real time**.
- It provides citizen-centric police services and facilitates searches across the national crime and criminal database.
- It covers **all States and Union Territories** and more than **15,000 police stations**.
- It provides both **vertical connectivity** within police organisations and **horizontal connectivity** between State and Central law-enforcement agencies.

### East Asia Summit

- The **East Asia Summit (EAS)** is a **leader-led Indo-Pacific forum for strategic dialogue**.
- It was established in **2005**, with the first summit held in **Kuala Lumpur, Malaysia**.
- It currently has **19 members**, comprising the 11 ASEAN countries and **Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States**.
- **Timor-Leste** became the latest member following its ASEAN accession.
- India is a **founding member**.
- ASEAN leads the forum and its chair rotates annually among ASEAN members.
- Its six priority areas are **environment and energy, education, finance, global health and pandemic diseases, natural disaster management and ASEAN connectivity**.

### Arunachaleswarar Temple

- **Arunachaleswarar Temple**, also known as **Annamalaiyar Temple**, is located at the base of **Arunachala Hill in Tiruvannamalai, Tamil Nadu**.
- It is dedicated to **Lord Shiva** in the form of Arunachalesvara.
- The present structural complex developed substantially under the **Cholas**, with later additions by the **Hoysalas and Vijayanagara-Nayaka rulers**.
- It is a major example of **Dravidian temple architecture**.
- The temple complex covers approximately **25 acres**.
- It has **four major gopurams**.
- The eastern gopuram is approximately **66 metres high and 11 storeys tall**.
- The complex contains five precincts and a prominent **thousand-pillared hall** associated with the Vijayanagara period.

## CURRENT AFFAIRS MAGAZINE – JULY

### Portfolio Management Service

- **Portfolio Management Services (PMS)** are professional investment-management services regulated by **SEBI**.
- A registered portfolio manager manages a client's portfolio of **equity, debt and other securities**.
- Only eligible corporate entities, companies or LLPs registered with SEBI can provide PMS.
- The minimum investment prescribed for PMS is **₹50 lakh per client**.
- **Discretionary PMS** allows the portfolio manager to make investment decisions independently.
- **Non-discretionary PMS** allows the manager to provide recommendations while the investor retains the final decision.
- Under **advisory PMS**, the manager provides investment advice while the investor executes transactions.
- PMS providers must meet disclosure and compliance requirements and use an independent custodian for client assets.

### State of Food Security and Nutrition in the World 2026

- The **State of Food Security and Nutrition in the World (SOFI)** is the UN system's flagship report on hunger, food insecurity and malnutrition.
- The 2026 report is jointly produced by **FAO, IFAD, UNICEF, WFP and WHO**.
- It tracks progress towards **SDG 2, Zero Hunger**.
- The report estimated that **7.8% of the world's population experienced hunger** and around **2.1 billion people experienced moderate or severe food insecurity**.
- Progress remained uneven, with major disparities affecting women, young children and rural populations.
- India's prevalence of undernourishment declined from **21.1% in 2004–06 to 9.8% in 2023–25**.
- The cost of a healthy diet in India increased substantially over the period examined by the report.

### Bornadi Wildlife Sanctuary

- **Bornadi Wildlife Sanctuary** is located in **Udalguri and Baksa districts of Assam**.
- It lies along the **foothills of the Eastern Himalayas** and forms part of the India-Bhutan transboundary ecological landscape.
- The sanctuary is named after the **Bornadi River**, which flows along its western boundary.

- The **Nalapara River**, originating in Bhutan, flows along its eastern edge.
- It was established in **1980** primarily to protect the **pygmy hog and hispid hare**.
- Vegetation includes tropical semi-evergreen and moist and dry deciduous forests.
- Other important fauna include **Asian elephant, tiger, Indian bison, hog deer and wild boar**.
- Recent camera-trap evidence confirmed the return of the **dhole** to the sanctuary.

### BHAVYA Rasayan Scheme

- **BHAVYA Rasayan** is intended to establish **three dedicated chemical parks** in India.
- The scheme has a total financial outlay of **₹3,030 crore**.
- ₹3,000 crore is allocated for common infrastructure and basic utilities, while ₹30 crore is for administrative expenditure.
- It will operate from **FY 2026–27 to FY 2030–31**.
- The Centre can provide up to **₹1,000 crore per chemical park**.
- Each selected State must contribute at least **₹500 crore per park**.
- Each park must have at least **2,000 acres of contiguous, encumbrance-free land**.
- Infrastructure can include **Common Effluent Treatment Plants, Treatment Storage and Disposal Facilities, water systems, solvent-recovery facilities, steam networks, pipelines, logistics and warehousing**.
- The objective is to develop an integrated chemical-industry ecosystem covering **upstream, downstream and ancillary industries**.

### Start-up Village Entrepreneurship Programme

- **Start-up Village Entrepreneurship Programme (SVEP)** was launched in **2016**.
- It is a sub-scheme of **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission**.
- It promotes **non-farm rural enterprises** to generate employment and reduce poverty and unemployment.
- The programme supports **Self-Help Groups and their family members** in establishing and expanding small enterprises.
- Support includes financing, business-management training, institutional assistance, soft skills and business-development services.
- It also facilitates banking linkages and convergence with other government schemes.

- Implementation takes place through **State Rural Livelihood Missions**.
- At block level, **Block Resource Centres–Enterprise Promotion** coordinate activities, supported by **Community Resource Persons–Enterprise Promotion**.
- By June 2026, the programme had supported approximately **4.32 lakh rural enterprises**.

### Spain

- **Spain** occupies most of the **Iberian Peninsula in southwestern Europe**.
- It shares land borders with **Portugal, France and Andorra**, while **Gibraltar** is a British Overseas Territory located on its southern margin.
- Spain has coastlines along the **Mediterranean Sea, Bay of Biscay and Atlantic Ocean**.
- Capital: **Madrid**.
- The **Pyrenees Mountains** form a natural barrier between Spain and France.
- The **Meseta Central** is the major interior plateau.
- Important rivers include the **Ebro**, which drains into the Mediterranean, and the **Tagus**, which is shared with Portugal.
- The **Strait of Gibraltar** separates Spain from Morocco.
- The **Tabernas Desert** in Andalusia is identified by the source as mainland Europe's only true desert.

### Ceratocaudia antiqua

- ***Ceratocaudia antiqua*** is a newly identified species of **long-necked dinosaur** discovered in the **Kaladongar Formation of the Kachchh Basin in Gujarat**.
- It lived approximately **170–180 million years ago during the Jurassic Period**.
- It was comparatively small for a long-necked dinosaur, measuring approximately **seven metres**.
- Its most distinctive feature is a **curved, horn-like crest on the front tail vertebrae**.
- Its neck vertebrae and lower leg bones also display distinctive anatomical characteristics.
- The species belongs to the **macronarian group of sauropod dinosaurs**.
- The discovery makes it one of the earliest diagnosable members of this lineage in India.

### Lake Mansarovar

- **Lake Mansarovar** is a high-altitude **freshwater lake in the Tibet Autonomous Region of China**.
- It lies at approximately **4,590 metres** above sea level and covers around **410 square kilometres**.

- It is regarded as sacred in **Hinduism, Buddhism, Jainism and Bon** traditions.
- It lies adjacent to **Lake Rakshastal**, a saline lake.
- The two lakes are connected by the **Ganga Chhu channel**.
- **Mount Kailash** lies to the north, while **Mount Gurla Mandata** is the highest major peak in the surrounding region.
- The wider Kailash-Mansarovar region is associated with the headwaters of four major Asian river systems: the **Indus, Sutlej, Brahmaputra and Ganga system through the Karnali**.
- The lake is an important geographical feature associated with the **Kailash Mansarovar Yatra**.

### Chenab River

- The **Chenab River** is one of the principal tributaries of the **Indus River system**.
- It is formed by the confluence of the **Chandra and Bhaga rivers** in **Lahaul and Spiti district of Himachal Pradesh**.
- In its upper reaches, it is also known as the **Chandrabhaga**.
- It subsequently flows through **Jammu and Kashmir** before entering Pakistan.
- Important tributaries include **Tawi, Miyar Nalla, Marusudar, Kalnai and Bhut Nalla**.
- Major hydropower projects on the river include **Salal, Baglihar and Dulhasti**.
- The Chenab is one of the western rivers governed by the **Indus Waters Treaty framework** between India and Pakistan.

### Kuldiha Wildlife Sanctuary

- **Kuldiha Wildlife Sanctuary** is located in **Balasore district, Odisha**.
- It lies within the **Chota Nagpur Plateau region** and covers approximately **300 sq. km**.
- It is connected with **Similipal National Park** through the Sukhupada and Nato hill systems.
- The sanctuary has rolling hills, valleys and plateau landscapes that create varied local microclimates.
- It contains **mixed deciduous forests**, with sal and bamboo among the important vegetation.
- Fauna include **elephants, leopards, deer, Indian bison and Malabar giant squirrels**.
- The area also contains ancient **rock shelters bearing petroglyphs**, adding archaeological significance to its ecological importance.

### Kheybar Shekan Missile

- **Kheybar Shekan** is an Iranian **long-range, solid-fuel ballistic missile** belonging to the **Khorramshahr missile family**.
- It is described as the **fourth generation** of the Khorramshahr family.
- The missile is approximately **4 metres long** and weighs around **1,500 kg**.
- Its reported range is approximately **1,450 km**.
- It uses the locally developed **Arond engine**, integrated within the fuel tank to reduce overall length and improve concealment.
- Its solid-fuel propulsion allows comparatively rapid launch preparation, easier storage and greater operational concealment.
- It can be launched from a **mobile platform** and is reportedly ready for launch in less than 15 minutes.
- It carries a high-explosive warhead of approximately **550 kg**.
- The missile uses **satellite guidance and manoeuvrable warheads**, making interception more difficult.

### Tripura Sarinda

- **Tripura Sarinda**, also known as **Sarinda Uakhrap**, is a traditional **bowed string musical instrument** associated with the indigenous communities of Tripura.
- It is primarily made from **bamboo**, with an oval-shaped wooden resonating chamber covered by a thin skin.
- The instrument is approximately **65–70 cm long**.
- Its three upper pegs are used to tighten the strings, which may be made of **metal, Muga thread or animal gut**.
- It is played using a bow traditionally made from **horse hair**.
- Among the **Bodos**, it is known as **Serja or Serenja**.
- The Sarinda is known by names such as **Foli** in several other Indian regions.
- Tripura Sarinda has received a **GI tag**.

### Mahanadi River

- The **Mahanadi** is one of India's major **east-flowing Peninsular rivers** and is the third-largest Peninsular river after the **Godavari and Krishna**.

- It originates from the **Sihawa Hills in Dhamtari district of Chhattisgarh**, at an elevation of about 442 metres.
- It initially flows northwards before turning east towards the plains.
- It enters the plains of Odisha near **Cuttack** and forms a delta before draining into the **Bay of Bengal** through several channels near Paradip.
- Its total length is approximately **860 km**.
- The basin extends mainly across **Chhattisgarh and Odisha**, with smaller portions in Jharkhand, Maharashtra and Madhya Pradesh.
- Major tributaries include **Seonath, Jonk, Hasdeo, Mand, Ib, Ong and Telen**.
- Important projects include **Hirakud Dam, Gangrel Dam, Tandula Dam, Kalma Barrage, Sondur Dam and Hasdeo Bango Dam**.
- The **Daya and Bhargavi**, distributaries of the Mahanadi system, contribute substantially to the freshwater inflow of **Chilika Lake**.

### Undavalli Caves

- The **Undavalli Caves** are important examples of ancient **rock-cut architecture** in India.
- They are located at **Undavalli village in Guntur district, Andhra Pradesh**, overlooking the **Krishna River**.
- The caves were carved into **solid sandstone**.
- The complex is generally associated with the **Vishnukundina period**, although the source also discusses Gupta architectural influence.
- The caves are believed to have originally functioned as a **Buddhist monastery**.
- The first floor retains features associated with a Buddhist vihara.
- The largest cave has **four storeys** and contains a huge reclining image of **Lord Vishnu** carved from a single block.
- Shrines associated with **Brahma, Vishnu and Shiva** are also present.
- The complex subsequently acquired a Hindu religious character.

### INSAT-3DR

- **INSAT-3DR** is an advanced **meteorological satellite developed by ISRO**.
- It was launched on **8 September 2016** aboard **GSLV-F05**.

- Its major functions include **weather forecasting, cyclone tracking, disaster warning and environmental monitoring**.
- It carries an **Imaging System and Atmospheric Sounder**.
- It also carries a **Data Relay Transponder and Search and Rescue Transponder**.
- From geostationary orbit, it provides **half-hourly multispectral images** over the Indian region.
- Its improved capabilities include **middle-infrared imaging for nighttime observation of low clouds and fog**.
- It also has two thermal infrared bands for improved estimation of **Sea Surface Temperature**.
- The satellite provides continuity and augmentation of India's meteorological satellite services.

### United Nations Commission on International Trade Law

- **UNCITRAL** is a subsidiary body of the **United Nations General Assembly**, established in **1966**.
- It is the core UN legal body dealing with **international trade law**.
- Its principal objective is the **progressive harmonisation and unification of international trade law**.
- It develops modern and harmonised rules relating to **international commercial transactions**.
- It has **70 member States**, elected by the UN General Assembly.
- Members represent five regional groups: **African States, Asian States, Eastern European States, Latin American and Caribbean States, and Western European and Other States**.
- Members serve **six-year terms**, with half of the membership being renewed every three years.
- **India is a founding member**.
- Headquarters: **New York**, with annual sessions held alternately in **Vienna**.

### Sarnath

- **Sarnath** is located near **Varanasi in Uttar Pradesh** and is one of the most important Buddhist pilgrimage sites.
- It is traditionally identified as the place where **Gautama Buddha delivered his first sermon** after attaining enlightenment.
- This event is associated with the setting in motion of the **Dharmachakra Pravartana**.
- The UNESCO-inscribed property comprises two principal components: **Chaukhandi Stupa** and the **Archaeological Remains of Sarnath**.

- Important remains include the **Dhamekh Stupa, Dharmarajika Stupa, Mulagandhakuti Vihara and Ashokan Pillar**.
- The archaeological sequence covers approximately **16 centuries**, from the 5th–4th centuries BCE to the 12th century CE.
- Sarnath became India's **45th UNESCO World Heritage Site** and Uttar Pradesh's fourth.

### Tanzania

- **Tanzania** is an **East African country** located just south of the Equator.
- It shares land borders with **Kenya, Uganda, Rwanda, Burundi, Democratic Republic of the Congo, Zambia, Malawi and Mozambique**.
- Its eastern coast lies along the **Indian Ocean**.
- **Dodoma** is the legislative capital, while **Dar es Salaam** is the administrative capital.
- Major lakes include **Lake Victoria, Lake Tanganyika and Lake Nyasa (Lake Malawi)**.
- **Mount Kilimanjaro**, Africa's highest peak, is located in Tanzania.
- Important rivers include the **Great Ruaha, Rufiji and Kagera**.
- Important offshore islands include **Zanzibar, Pemba and Mafia**.
- Tanzania possesses significant mineral resources including **gold, diamonds, iron, coal, nickel, tanzanite and uranium**, besides natural gas.

### Sone River

- The **Sone or Son River** is an important southern tributary of the **Ganga**.
- It originates in the **Amarkantak Hills of the Maikal Range in Madhya Pradesh**.
- It flows through **Madhya Pradesh, Uttar Pradesh, Jharkhand and Bihar**.
- After flowing towards the Bansagar reservoir, it changes direction towards the east and runs broadly parallel to the **Kaimur Range**.
- It joins the **Ganga approximately 30 km upstream of Patna**.
- Major tributaries include **Banas, Gopad, Rihand, Kanhar and North Koel**.
- Important projects include **Bansagar Dam, Rihand Dam and Indrapuri Barrage**.
- The Sone valley is bounded by the **Kaimur Range to the north and Chota Nagpur Plateau to the south**.

### ASEAN Regional Forum

- The **ASEAN Regional Forum (ARF)** was established in **1994** as a platform for political and security dialogue in the Indo-Pacific.
- It facilitates dialogue on **regional security issues, confidence building and preventive diplomacy**.
- Its approach is based on **consensus, consultation and dialogue**.
- The ARF has **27 members**, comprising ASEAN states, ASEAN dialogue partners and other participating countries.
- Its membership includes **India, China, Japan, Russia, United States, Australia, Canada, New Zealand, Republic of Korea and the European Union**, among others.
- The **ASEAN Chair** chairs the forum in a given year.

### South China Sea

- The **South China Sea** is a marginal sea of the **western Pacific Ocean**.
- It is bordered by **China, Taiwan, the Philippines, Malaysia, Indonesia, Brunei and Vietnam**.
- It connects with the **East China Sea through the Taiwan Strait** and with the **Philippine Sea through the Luzon Strait**.
- Major island groups include the **Paracel Islands and Spratly Islands**.
- The region experiences a **tropical monsoon climate**.
- It is one of the world's most important maritime trade routes, carrying substantial volumes of **oil and commercial shipping** between the Middle East, Africa and East Asia.
- Major ports associated with the region include **Hong Kong, Singapore and Kaohsiung**.
- The **Scarborough Shoal** is a major disputed maritime feature involving **China and the Philippines**.

### Panama

- **Panama** is a country in **Central America**, situated on the **Isthmus of Panama**.
- It borders **Costa Rica to the west and Colombia to the east**.
- The **Caribbean Sea** lies to the north and the **Pacific Ocean** to the south.
- Capital: **Panama City**.
- **Lake Gatun** is an artificial lake crucial to the operation of the **Panama Canal**.
- The **Tuira River** is the country's longest river.
- The **Cordillera Central** runs through the central part of the country.

- The **Darién Gap** is located along the Panama-Colombia border and forms a major break in the Pan-American Highway.

### PRAXIS Mission

- **PRAXIS** stands for **Planetary Rings Autonomous EXploration with In-situ Sampling**.
- It is a NASA mission concept selected for **2026 NASA Innovative Advanced Concepts (NIAC) Phase I funding**.
- It is designed to directly study and sample particles from **planetary ring systems**.
- Potential targets include the rings of **Saturn, Uranus and Neptune**, as well as rings associated with smaller bodies such as **Chariklo and Chiron**.
- It proposes a **bio-inspired robotic explorer** equipped with AI-based autonomous capabilities.
- The spacecraft would use a deployable boom to perform **touch-and-go sampling** of ring particles.
- Miniaturised instruments would analyse particle characteristics such as **size, porosity and composition**.
- The concept differs fundamentally from missions that only remotely observe planetary rings because PRAXIS is designed for **in-situ sampling of ring particles**.

### Nalabana Wildlife Sanctuary

- **Nalabana Wildlife Sanctuary**, also known as Nalbana Bird Sanctuary, is the core protected area of the **Chilika Lake Ramsar wetland** in Odisha.
- It is an island of approximately **15.53 sq. km** located in the central portion of Chilika Lake.
- It was declared a bird sanctuary in **1987**.
- It supports a major concentration of migratory birds visiting Chilika.
- Species recorded include **Asian dowitcher, spoon-billed sandpiper and Pallas's fish eagle**.
- During the monsoon, much of the sanctuary becomes **submerged**, leaving only some trees and structures above water.
- **Chilika Lake** is a shallow **brackish-water lagoon** with an estuarine character.
- It is connected to the **Bay of Bengal** through a channel and receives freshwater from the **Daya and Bhargavi rivers**.
- Chilika became India's **first Ramsar-designated wetland in 1981**.

### Asiatic Wild Dog

- The **Asiatic wild dog**, commonly called the **dhole**, is a wild carnivore belonging to the family **Canidae**.
- It is also known as the **Indian wild dog, whistling dog, red dog and mountain wolf**.
- In India, major populations occur in the **Western Ghats, Eastern Ghats, Central Indian landscape and Northeast India**.
- It inhabits forests, mountains, scrublands, steppes and other habitats.
- Dholes are highly social animals and generally live in **packs of 2–25 individuals**.
- They communicate using a distinctive **whistling sound**.
- A recent study found that dholes in Central India are **hypercarnivores**, with more than 70% of their diet consisting of meat.
- Their major prey includes **sambar and chital**, while livestock constitutes a relatively small proportion of their diet.
- IUCN status: **Endangered**.

### Central Reserve Police Force

- The **CRPF** is one of India's principal Central Armed Police Forces responsible for maintaining **internal security**.
- It functions under the **Ministry of Home Affairs**.
- It was originally established as the **Crown Representatives Police on 27 July 1939**.
- It became the **Central Reserve Police Force on 28 December 1949** after enactment of the CRPF Act.
- Its functions include **counter-insurgency operations, riot control, protection of critical infrastructure, disaster response and support for UN peacekeeping operations**.
- Its specialised units include the **Rapid Action Force and CoBRA**.
- CRPF is the only central armed police force with **six all-women battalions**, according to the source.
- Headquarters: **New Delhi**.
- Motto: **Seva Evam Nishtha**.

### Dark Eagle Hypersonic Missile

- **Dark Eagle**, also called the **Long Range Hypersonic Weapon**, is a **non-nuclear, ground-launched hypersonic missile system of the US Army**.

- It is described as the US Army's first operational hypersonic missile system.
- It is designed for engaging **high-value, time-sensitive and heavily defended targets**.
- Its reported range is up to **3,500 km**.
- The system uses the **Common Hypersonic Glide Body**, which can travel at speeds exceeding Mach 5 while performing manoeuvres.
- A two-stage **solid-fuel booster** accelerates the glide body into the upper atmosphere.
- The system is mobile and includes **four Transporter Erector Launchers**, with each launcher capable of carrying two missiles.
- It is designed to penetrate sophisticated missile-defence systems through **speed, manoeuvrability and an unpredictable glide trajectory**.

### Gobind Sagar Lake

- **Gobind Sagar** is a man-made reservoir in **Bilaspur district, Himachal Pradesh**.
- It was created by the construction of the **Bhakra Dam on the Sutlej River**.
- The reservoir is approximately **90 km long** and covers around **170 sq. km**.
- The Bhakra Dam is one of the world's high gravity dams.
- The **Beas-Sutlej Link** transfers water from the Beas into Gobind Sagar to help maintain reservoir levels.
- Water from the reservoir supports irrigation in **Himachal Pradesh, Punjab, Haryana and Rajasthan**.
- The reservoir supports significant aquatic biodiversity, including around **50 fish species and subspecies**.
- It was recognised as a **waterfowl refuge in 1962**.

### Atmanirbhar Panchayat Programme

- The **Atmanirbhar Panchayat Programme** is an initiative of the **Ministry of Panchayati Raj**.
- It aims to help Gram Panchayats and Block Panchayats identify local assets and develop them into **bankable, revenue-generating projects**.
- The central objective is to strengthen **Own Source Revenue (OSR)** of Panchayati Raj Institutions.
- Financing can involve **Public-Private Partnerships, CSR contributions, convergence with government schemes and bank finance**.

- **NABARD and HUDCO** are institutional partners.
- The target is to develop **350 projects over four years**, beginning with 50 projects in the first year.
- The **SAMARTH Panchayat Portal** provides digital management of the OSR lifecycle, including taxpayer registration, demand generation, online payment, collection and monitoring.
- **Chhattisgarh and Himachal Pradesh** were already onboarded on the portal.

### National Apprenticeship Promotion Scheme 2.0

- **NAPS-2** is implemented by the **Ministry of Skill Development and Entrepreneurship**.
- It has been implemented nationally from **2022–23**.
- The original **National Apprenticeship Promotion Scheme** was launched in **August 2016**.
- NAPS-2 provides **partial stipend support** to eligible apprentices.
- Government support is transferred directly to beneficiaries through **Direct Benefit Transfer**.
- Training takes place in actual workplaces, providing apprentices with **hands-on industry exposure**.
- A dedicated online platform manages registration, contract approval, monitoring and benefit disbursement.
- **Third-Party Aggregators** assist particularly in mobilising apprentices and establishments, including MSMEs.

### Atal Beemit Vyakti Kalyan Yojana

- **ABVKY** is an unemployment-relief scheme implemented by the **Employees' State Insurance Corporation** for workers covered under the ESI Act.
- It was introduced on **1 July 2018**.
- The scheme was extended from **1 July 2026 to 30 June 2027**.
- It provides relief equal to **50% of average daily earnings** calculated using the previous four contribution periods.
- The benefit can be received for a maximum of **90 days of unemployment**.
- It can be availed **only once during the insured person's lifetime**.
- The insured person must generally have completed at least **two years of insurable employment** and the prescribed contribution requirements.
- The benefit is not available in circumstances such as **voluntary abandonment, voluntary retirement, illegal strike, superannuation or re-employment during the benefit period**.

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### Bab el-Mandeb Strait

- **Bab el-Mandeb**, meaning the **"Gate of Tears"**, is a strategic maritime strait at the southern entrance of the **Red Sea**.
- It lies between **Yemen and the Horn of Africa**.
- It connects the **Red Sea with the Gulf of Aden**, and consequently with the Indian Ocean.
- It separates the **Arabian Peninsula from Africa**.
- It forms an important maritime link between the **Indian Ocean and Mediterranean Sea through the Red Sea and Suez Canal**.
- The strait is approximately **30 km wide**.
- The Yemeni island of **Perim** divides it into two channels.
- The strait is critical for international trade because ships travelling between **Europe and Asia** and vessels carrying Middle Eastern oil to Europe and North America use this route.

### Blue Straggler Stars

- **Blue Straggler Stars** are unusual stars observed mainly in **old and dense stellar systems such as globular clusters**.
- They appear **hotter, bluer, brighter and more massive** than other stars at the same evolutionary stage.
- They appear to remain on or near the **main sequence beyond the expected turn-off point**.
- Their unusual evolution may result from **mass transfer from a companion star**, stellar mergers or interactions involving multiple stars.
- In a mass-transfer scenario, a star can acquire material from an evolved companion and become more massive and hotter.
- The phenomenon provides information about **stellar evolution and interactions in dense star clusters**.

### Bhargavastra

- **Bhargavastra** is an indigenous **counter-swarm drone system** developed to address the growing threat posed by coordinated drone swarms.
- It was developed by **Economic Explosives Limited**.
- The system combines **unguided micro-rockets and precision-guided micro-missiles**.

- Its micro-rockets have a lethal radius of approximately **20 metres**, while guided micro-missiles can engage targets up to around **2.5 km**.
- It can detect larger UAVs at around **10 km** and smaller drones at approximately **6 km**.
- Its detection architecture combines **radar, EO/IR sensors and passive RF sensors**.
- It is designed to operate across varied environments, including **deserts and high-altitude areas above 5,000 metres**.
- It combines **kinetic interception with electronic jamming**, providing a layered counter-drone capability.
- Its importance lies in offering a comparatively economical response to **low-cost drones and drone swarms**.

### Museum Grant Scheme

- The **Museum Grant Scheme** is a **Central Sector Scheme of the Ministry of Culture**.
- It was launched in **2013**.
- It provides financial assistance for establishing new museums and strengthening or modernising existing museums.
- It also supports **digitisation of museum collections** and capacity building for museum professionals.
- Eligible institutions include Central and State Governments, PSUs, societies, autonomous bodies, local bodies, academic institutions and eligible trusts.
- Museums are divided into **three categories** based on ownership and institutional status.
- Category I museums can receive up to **₹15 crore**, while Category II and Category III museums have different financial ceilings.
- Separate financial support is available for **digitisation and professional training**.

### National Biodiversity Authority

- The **National Biodiversity Authority (NBA)** is an autonomous statutory body established under the **Biological Diversity Act, 2002**.
- Headquarters: **Chennai, Tamil Nadu**.
- Its core responsibilities include **biodiversity conservation, sustainable use of biological resources and fair and equitable benefit sharing**.
- It performs **regulatory, advisory and facilitative functions**.

- Foreign individuals and companies seeking access to Indian biological resources or associated traditional knowledge for research or commercial purposes require prescribed approval from the NBA.
- Prior approval is also required for applying for certain **intellectual property rights based on Indian biological resources or associated traditional knowledge**.
- The institutional structure operates at three levels: **NBA at the national level, State Biodiversity Boards at the state level and Biodiversity Management Committees at the local level**.
- The NBA constituted an **Expert Committee on Invasive Alien Species** to address ecological and socio-economic risks associated with invasive species.

### Andromeda Galaxy

- **Andromeda Galaxy**, also designated **M31**, is a large spiral galaxy approximately **2.5 million light-years from Earth**.
- It is the **closest major galaxy to the Milky Way** and can be observed with the naked eye under suitable conditions.
- It is a **barred spiral galaxy** and lies in the **constellation Andromeda**.
- Recent observations using the **Hubble Space Telescope** indicate that its star-formation activity has been declining for about **500 million years**.
- Andromeda is moving towards the Milky Way at approximately **110 km/s**.
- The Hubble Space Telescope was launched by **NASA in 1990** aboard the Space Shuttle Discovery.
- Hubble observes wavelengths extending from **ultraviolet through visible to near-infrared** and is one of NASA's **Great Observatories**.

### Malvi Camel

- **Malvi** is one of India's **nine recognised camel breeds**.
- It is primarily distributed in the **Malwa region of Madhya Pradesh**, particularly Mandsaur, Neemuch, Ratlam and Gwalior, and adjoining parts of Rajasthan.
- It is regarded as the **smallest among India's camel breeds**.
- The breed is valued for **milk production, transportation and agricultural work**.
- Female Malvi camels can yield approximately **4–5 kg of milk per cycle**.
- It is adapted to the semi-arid and comparatively humid conditions of the Malwa region.
- The breed is currently facing conservation concerns because of declining populations.

## SHetA2 Therapy

- **SHetA2** is a small-molecule therapy being investigated for **HPV-induced cervical dysplasia and cervical cancer**.
- It targets host proteins including **mortalin, Hsc70 and GRP78**, which are involved in maintaining the cancer-causing HPV-E7 oncoprotein.
- The therapy disrupts the interaction between **HPV-E7 and host-cell proteins**, allowing the harmful E7 protein to be destroyed through cellular defence mechanisms.
- It has been evaluated in an **oral capsule form**.
- The treatment is particularly relevant to patients who have developed **precancerous cervical lesions**.
- **HPV** has more than 100 types; some cause warts while certain high-risk types can cause cancers.

## Kikai Caldera

- **Kikai Caldera** is a massive **submarine volcanic caldera** located in the **East China Sea, south of Kyushu, Japan**.
- It is approximately **19 km in diameter**.
- Around **7,300 years ago**, it produced one of the largest known volcanic eruptions of the **Holocene Epoch**.
- The eruption had a **Volcanic Explosivity Index of 7** and produced approximately 150 cubic kilometres of ash.
- Pyroclastic flows travelled approximately **150 km across the sea**, affecting Japan and the Korean Peninsula.
- The caldera remains **volcanically active**, and recent research has indicated renewed magma activity and possible lava-dome formation.

## Pithora Painting

- **Pithora painting** is a traditional tribal wall-art form of Gujarat, especially associated with **Panchmahal and Chhota Udaipur**.
- It is traditionally practised by the **Rathwa, Bhil and Bhilala communities**.
- The paintings are associated with **Pithora De**, a tribal deity linked with prosperity, marriage and well-being.
- Traditionally, the paintings are created on **house walls** during important occasions such as weddings, births and festivals.

- Specialist ritual painters are known as **Lakharas**, working under the guidance of a priest called **Badwa**.
- Natural pigments derived from plants, minerals and organic materials are traditionally used.
- The art depicts deities, horses, animals, agricultural activities, hunting and tribal life.
- **Pithora painting received a GI tag in 2026.**

### Soliga Tribe

- **Soligas** are an indigenous forest-dwelling tribal community mainly found in **Karnataka and Tamil Nadu**.
- They live around the **Biligiri Rangaswamy Hills and Male Mahadeshwara Hills**.
- The term **Soliga** is associated with the meaning **"children of bamboo."**
- Their language, **Sholaga**, belongs to the **Dravidian language family**.
- Kannada and Tamil are also spoken by members of the community.
- The Soligas have traditionally depended on **shifting cultivation and collection of minor forest produce**.
- They have a strong tradition of ecological knowledge and coexistence with forests.
- They were the first tribal community living inside a tiger reserve to have their **forest rights recognised by a court**, according to the source.

### Bhavani River

- The **Bhavani River** is a major tributary of the **Cauvery River** and flows mainly through **Kerala and Tamil Nadu**.
- It originates in the **Nilgiri Hills of the Western Ghats** and emerges from **Bhavani Lake**.
- It subsequently enters Kerala, passes through the vicinity of **Silent Valley National Park**, and returns to Tamil Nadu.
- It joins the Cauvery at **Bhavani in Tamil Nadu**, near the Bhavani Sangameshwarar Temple.
- Its length is approximately **217 km**.
- Its drainage basin extends across parts of **Tamil Nadu, Kerala and Karnataka**.
- Major tributaries include **East Varagar and West Varagar**.
- Important dams include **Bhavanisagar Dam and Kodiveri Dam**.

### DAANVEER Initiative

- **DAANVEER** is a citizen-participation initiative launched by the **Ministry of Panchayati Raj**.
- It enables individuals and organisations to voluntarily donate **computers to Gram Panchayats**.
- Donations are facilitated through the **Meri Panchayat mobile application**, which is integrated with the **DigiHaat marketplace**.
- It provides pre-approved computer bundles according to State-specific technical specifications.
- Donors can track the process from **dispatch to installation** and receive a digital certificate of appreciation.
- The objective is to strengthen **digital infrastructure and digital service delivery at the Gram Panchayat level**.
- The initiative was developed with the **National Informatics Centre and DigiHaat**.

### Raimona National Park

- **Raimona National Park** is located in **Kokrajhar district, Assam**, within the **Bodoland Territorial Region**.
- It lies along the **India-Bhutan border** at the foothills of the **Eastern Himalayas**.
- It forms a transboundary conservation landscape with **Phibsoo Wildlife Sanctuary and Jigme Singye Wangchuck National Park in Bhutan**.
- The **Sankosh River** forms its western boundary.
- The **Saralbhanga River** lies towards the east and the **Pekua River** forms the southern boundary.
- It contains tropical forests, riverine grasslands, bamboo and wetland ecosystems.
- Important fauna include **golden langur, elephant, Bengal tiger, wild bison, clouded leopard and wild buffalo**.
- The park supports numerous bird and butterfly species.

### Pradhan Mantri Viksit Bharat Rozgar Yojana

- **PM-VBRY** is an employment-generation scheme aimed at increasing formal-sector employment and expanding **EPFO coverage**.
- **Part A** supports first-time employees registered with EPFO.
- Eligible first-time employees with monthly salaries up to **₹1 lakh** can receive one month's EPF wage, subject to a maximum of **₹15,000**, paid in two instalments.
- Payments are made through **DBT using the Aadhaar Bridge Payment System**.

- **Part B** provides incentives to employers for generating additional employment.
- Employers can receive up to **₹3,000 per month per additional employee** for two years, subject to the scheme conditions.
- For the **manufacturing sector**, employer incentives extend to the third and fourth years.
- The scheme therefore combines employment generation with greater formalisation of the labour market.

### Sooty Bark Disease

- **Sooty Bark Disease** is a fungal disease primarily affecting **maple trees**.
- It is caused by ***Cryptostroma corticale***.
- The fungus can remain dormant within trees for years and become active under **hot and dry conditions**.
- Affected trees develop characteristic **black, sooty patches** beneath the bark because of extensive spore formation.
- The disease can cause rapid wilting and eventually tree mortality.
- Its spores can pose a **human-health risk when inhaled**.
- The fungus is endemic to the **Great Lakes region of North America** and is considered an introduced disease in Europe.

### Danube River

- The **Danube** is the **second-longest river in Europe**, after the Volga.
- It flows approximately **2,850 km** from Germany to the **Black Sea**.
- It originates from the confluence of the **Brigach and Breg rivers** near Donaueschingen in Germany.
- It passes through or forms boundaries involving **10 European countries**.
- It drains into the Black Sea through the **Danube Delta**.
- Major tributaries include the **Inn, Drava, Sava, Tisza, Prut and Siret**.
- Important European capitals located along the Danube include **Vienna, Bratislava, Budapest and Belgrade**.
- The Danube Delta is a major biodiversity region and a **UNESCO World Heritage Site**.

### Machilipatnam Anti-Submarine Warfare Warship

- **INS Machilipatnam** is the **seventh Mahe-class Anti-Submarine Warfare Shallow Water Craft**.

- It has been constructed by **Cochin Shipyard Limited** for the Indian Navy.
- The Mahe-class vessels are designed specifically for **anti-submarine warfare in shallow and coastal waters**.
- Their role includes detection and engagement of submarines and underwater surveillance.
- The platform strengthens the Indian Navy's ability to counter **underwater threats in littoral zones**.

### Vitamin A

- **Vitamin A** is a **fat-soluble vitamin** primarily stored in the **liver**.
- It comprises compounds including **retinol, retinal and retinyl esters**.
- Preformed vitamin A is obtained mainly from animal products, while **provitamin A carotenoids such as beta-carotene** are obtained from plant foods.
- It is important for **vision, immune function, cell growth and fetal development**.
- Vitamin A deficiency can cause **night blindness and xerophthalmia** and may contribute to hyperkeratosis.
- Excessive intake can also cause serious toxicity.
- A recent study associated higher vitamin-A levels with better lung function among people with asthma.

### Pradhan Mantri Vidyalaxmi Scheme

- **PM Vidyalaxmi** is a flagship initiative of the **Ministry of Education** aimed at improving access to higher education for meritorious students facing financial constraints.
- It provides education loans for **degree and diploma courses** in designated Quality Higher Education Institutions.
- Eligible institutions include highly ranked institutions under **NIRF** and specified government higher educational institutions.
- Loans up to **₹7.5 lakh** receive a **75% credit guarantee** from the Government of India.
- Students with annual family income up to **₹8 lakh** can receive **3% interest subvention on loans up to ₹10 lakh**.
- Students with family income up to **₹4.5 lakh** continue to receive the applicable full interest-subvention support.
- The scheme is aligned with **National Education Policy 2020 and SDG 4**.

### e-Zero FIR System

- The **e-Zero FIR System** enables automated registration of **Zero FIRs for specified cyber-financial crimes**.
- It applies to financial cybercrime complaints involving fraud above **₹10 lakh** reported through the **1930 helpline or National Cybercrime Reporting Portal**.
- The system operates under **Section 173 of the Bharatiya Nagarik Suraksha Sanhita, 2023**.
- The complaint automatically triggers a Zero FIR at the relevant e-Crime Police Station.
- It is then routed to the appropriate territorial cybercrime police station.
- The system integrates the **I4C National Cybercrime Reporting Portal and NCRB's CCTNS**.
- The victim is required to visit the cybercrime police station within the prescribed period to complete conversion into a regular FIR.

### Himalayan Chandra Telescope

- The **Himalayan Chandra Telescope (HCT)** is a **2-metre optical-infrared telescope**.
- It is located at the **Indian Astronomical Observatory in Hanle, Ladakh**, at an elevation of approximately **4,500 metres**.
- The site has exceptionally clear skies and low atmospheric water vapour, making it suitable for **optical, infrared, sub-millimetre and millimetre observations**.
- It achieved **First Light on 26 September 2000** and was dedicated to the nation in 2001.
- It is remotely operated from **CREST of the Indian Institute of Astrophysics at Hosakote near Bengaluru**.
- Its instruments include **HFOSC, uTIRSPEC and HESP**.
- Research using HCT has included comet spectroscopy, exoplanet atmospheres and planetary science.

### Smooth-Coated Otter

- The **smooth-coated otter** is the only extant species of the genus ***Lutrogale***.
- It occurs across parts of **South and Southeast Asia, China and India**, with a small population also recorded in Iraq.
- It inhabits **freshwater wetlands, rivers, lakes, mangroves, peat swamps and rice paddies**.
- It is the **largest otter species in Southeast Asia**.
- It is a strong swimmer and commonly hunts in groups.

- A recent study identified a significant population around the **Mettur Dam and stretches of the Cauvery River in Salem district, Tamil Nadu**.
- Major threats include **habitat loss, water pollution and poaching**.
- IUCN status: **Vulnerable**.

### Alanine Aminotransferase

- **Alanine aminotransferase (ALT)** is also known as **serum glutamic-pyruvic transaminase (SGPT)**.
- It is found predominantly inside **liver cells**, though smaller quantities occur in the kidneys, heart and muscles.
- It participates in **amino-acid metabolism**, transferring an amino group from alanine to alpha-ketoglutarate.
- Under normal conditions, only small quantities are present in the blood.
- When liver cells are damaged or inflamed, ALT leaks into the bloodstream, causing elevated serum ALT levels.
- ALT is therefore an important component of **liver-function testing** and can provide an early indication of liver injury.
- A normal ALT value does not necessarily exclude significant liver disease.

### Kh-101 Missile

- **Kh-101**, NATO designation **AS-23A Kodiak**, is a Russian **air-launched, long-range, subsonic cruise missile**.
- It is designed primarily against ground targets such as buildings, bunkers and military installations.
- It is carried by Russian strategic bombers including the **Tu-95MS and Tu-160**.
- It uses a **turbofan engine** and has a maximum speed of approximately **Mach 0.76**.
- Its reported range is approximately **2,500–3,000 km**.
- It incorporates low-observable design features to reduce its **radar cross-section**.
- Guidance combines **inertial navigation, satellite navigation and terrain mapping**.
- **Kh-102** is the nuclear-capable variant associated with the Kh-101 family.

### Moken People

- The **Moken** are traditionally described as **sea nomads** living around the coasts of **Thailand and Myanmar in the Andaman Sea**.

- They have traditionally moved between islands according to **seasons and tides**.
- Their traditional wooden boats are known as **kabang**.
- Fishing, diving and shellfish collection form important components of their traditional livelihood.
- Moken children develop exceptional underwater abilities through prolonged exposure to the marine environment.
- Studies have associated their underwater visual ability with their capacity to **constrict their pupils and adjust their vision underwater**.
- Their traditional knowledge is closely linked to the marine ecosystem and reef environments.

### INS NIPUN

- **INS Nipun** is the Indian Navy's **second Diving Support Vessel** built by **Hindustan Shipyard Limited**.
- It is designed for **deep-sea diving, underwater salvage and rescue operations**.
- It possesses **Deep Sea Saturation Diving** capability.
- It is equipped with dynamic-positioning systems, saturation-diving equipment, submarine-rescue machinery and deep-sea intervention systems.
- It can serve as a **mother ship for a Deep Submergence Rescue Vessel (DSRV)** used to evacuate submarine personnel during emergencies.
- Approximately **75% of its content is indigenous**.

### Urban Challenge Fund

- The **Urban Challenge Fund (UCF)** is a centrally sponsored scheme of the **Ministry of Housing and Urban Affairs**.
- It supports transformative and **bankable urban projects through competitive challenge-mode selection**.
- The Central financial assistance is **₹1 lakh crore**.
- It operates from **FY 2025–26 to FY 2030–31**, with an extendable implementation period.
- Its three broad verticals are **Creative Development of Cities, Cities as Growth Hubs, and Water and Sanitation**.
- Central assistance is capped at **25% of the project cost**.
- At least **50% of project costs** must be mobilised through market-based sources such as municipal bonds, bank loans and PPPs.

- A **₹5,000-crore Credit Repayment Guarantee Scheme** supports first-time market borrowing by smaller cities, Northeastern and hilly-state ULBs.
- The guarantee can cover up to **₹7 crore or 70% of the loan amount, whichever is lower**.

### NAKSHA Project

- **NAKSHA** stands for **National Geospatial Knowledge-based Land Survey of Urban Habitations**.
- It is a **GIS-based urban land-parcel mapping initiative** operating under the **Digital India Land Records Modernization Programme**.
- It aims to create accurate digital maps and comprehensive geospatial databases for **urban and peri-urban land records**.
- It integrates **aerial surveys, field surveys and GIS technology**.
- The **Survey of India** is the technical partner responsible for aerial surveys.
- **NICSI** provides technical support.
- It was launched by the **Department of Land Resources under the Ministry of Rural Development**.
- The project is intended to improve land governance, urban planning, property transactions and reduction of land disputes.

### Crete Island

- **Crete** is the **largest island of Greece** and the fifth-largest island in the Mediterranean.
- It lies in the southern **Aegean Sea**, approximately 160 km south of mainland Greece.
- It covers approximately **8,336 sq. km**.
- The **Sea of Crete** lies to its north and the **Libyan Sea** to its south.
- The island is approximately **260 km long** from east to west.
- **Heraklion** is its capital and largest city.
- Crete is characterised by mountain ranges, fertile plains and extensive coastlines.
- It was the centre of the **Minoan civilisation**, one of Europe's earliest advanced civilisations.

### Cloudburst

- A **cloudburst** is an extremely intense and localised episode of rainfall.
- According to the **India Meteorological Department**, it occurs when an area of approximately **20–30 sq. km receives 10 cm or more of rainfall within one hour**.

- Cloudbursts can occur in plains but are particularly common in **hilly and mountainous regions**.
- They generally involve strong convection and rapidly rising warm, moist air.
- In mountainous areas, **orographic lifting** can force moist air upward.
- The resulting **cumulonimbus clouds** can become extremely tall and produce intense rainfall.
- Cloudbursts can trigger **flash floods, landslides and debris flows**, particularly in mountainous terrain.

### Arctic Council

- The **Arctic Council** was established through the **Ottawa Declaration in 1996**.
- It is an intergovernmental forum focused on **environmental protection, sustainable development and scientific cooperation in the Arctic**.
- Its eight member States are **Canada, Denmark, Finland, Iceland, Norway, Sweden, Russia and the United States**.
- It has **six Permanent Participant groups** representing Indigenous peoples of the Arctic.
- Non-Arctic States can participate as **Observers**.
- **India became an Observer in 2013**.
- Observer States do not have decision-making powers within the Council.
- The Council operates largely through **consensus** and is not a treaty-based international organisation.

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