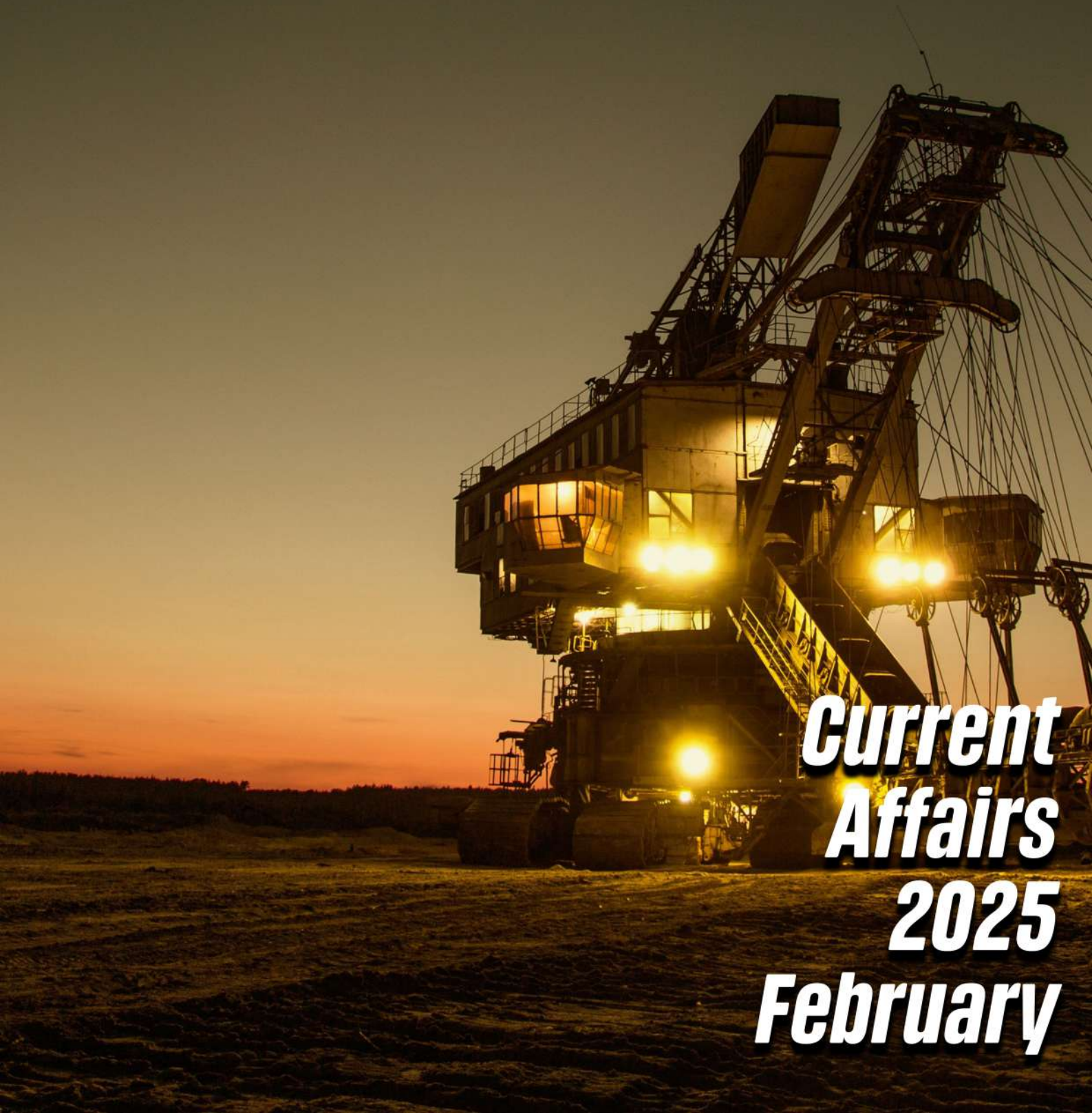




IAS HUB

SROTHAS

A Monthly Magazine For UPSC Civil Service Examination



***Current
Affairs
2025
February***

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RIGHT TO PROPERTY AS A HUMAN RIGHT: SUPREME COURT RULING

Supreme Court's Observation

The Supreme Court recently reinforced that the Right to Property is a Human Right. It directed that individuals who lost their land for the 20,000-acre Bengaluru-Mysore Infrastructure Corridor (BMIC) project two decades ago must be compensated based on the market value prevailing in April 2019.

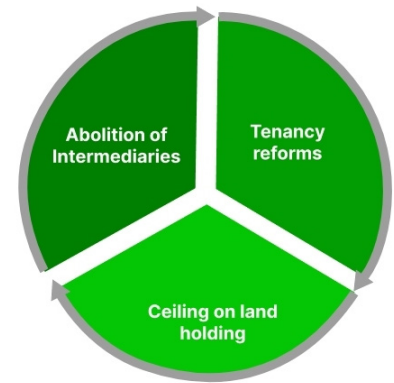
Historical Context

- Government of India Act, 1935: Secured the right to property with safeguards against expropriation without compensation and acquisition for non-public purposes.
- Constitution of India (Initial Phase): Initially, the right to property was a fundamental right under Articles 31 and 19(1)(f), ensuring protection of property rights.

Land Reforms and Amendments

Socio-economic conditions necessitated land reforms to support public welfare and agrarian reforms:

- Abolition of intermediaries.
- Ceiling on land holdings.
- Permanent rights for cultivating tenants.
- Regulated landlord shares and enhanced rights for tillers.
- Consolidation of scattered landholdings for efficiency.



Key Constitutional Amendments and Cases

- **First Amendment Act, 1951:** Introduced Articles 31A and 31B to shield land reform laws from judicial review under Articles 14, 19, and 31.
- **Twenty-Fifth Amendment Act, 1971:** Curtailed the fundamental right to property, allowing property acquisition for public use with compensation determined by Parliament. It also protected laws implementing Directive Principles under Article 39(b) or (c).
- **Golak Nath Case:** Supreme Court ruled that Parliament cannot amend the Constitution to take away fundamental rights.
- **Kesavananda Bharti Case:** Upheld Article 31C but subjected it to judicial review. Justice H.R. Khanna held that the Right to Property is not part of the Constitution's basic structure.
- **Minerva Mills Case:** Limited Parliament's amendment power to maintain harmony between Fundamental Rights and DPSPs.
- **44th Amendment Act, 1978:** Abolished the Right to Property as a fundamental right, replacing Articles 19(1)(f) and 31 with Article 300A, making it a constitutional right instead.

Present Legal Status of Right to Property

- Article 300A (inserted by the 44th Amendment Act, 1978): Ensures that no person shall be deprived of property except by lawful authority. The law must be just, fair, and reasonable.



- The Right to Property is now a legal and constitutional right, not a fundamental right, and has the following implications:
- Can be regulated or modified by Parliament without a constitutional amendment.
- Protects against executive action but not legislative action.
- Violations cannot be directly challenged in the Supreme Court under Article 32; the affected party can approach the High Court under Article 226.

Recent Judicial Interpretations

- **Vidya Devi v. The State of Himachal Pradesh (2020):** The Supreme Court ruled that the state cannot claim land under adverse possession without following due process.
- **Ultra-Tech Cement Ltd. v. Mast Ram (2024):** The Supreme Court recognized the Right to Property as a human right and mandated timely compensation.
- **Property Owners Association v. State of Maharashtra (2024):** The Supreme Court ruled that the government cannot claim private properties as “community resources.”
- **BMIC Land Acquisition Case (2025):** Reinforced that the Right to Property is a human right and a constitutional right under Article 300A. The Court mandated that property acquisition must follow due legal process, and compensation should align with the prevailing market value rather than the value at the time of acquisition.



POTASH MINING IN INDIA

Recently, surveys by the Geological Survey of India (GSI) identified potash reserves in Rajasthan, offering an opportunity to reduce India's reliance on imports.

Potash refers to potassium-bearing minerals primarily used in fertilizers. It is one of the three key nutrients essential for agriculture—Nitrogen (N), Phosphorus (P), and Potassium (K) (N-P-K). Over 90% of potash is used to improve plant health, boost nutrition, and enhance crop yields.

Types of Potash Fertilizers

1. Sulphate of Potash (SOP): A premium, chloride-free fertilizer ideal for high-value crops such as fruits, vegetables, and leafy plants.
2. Muriate of Potash (MOP): Contains chloride, making it less suitable for some crops but commonly used for carbohydrate-rich crops like wheat, rice, and maize.

Potash Reserves in India

1. Rajasthan: Identified reserves are located in the northwestern Nagaur-Ganganagar basin, including Ganganagar and Hanumanagarh. Other potential districts are Nagaur, Churu, and Bikaner.
2. Punjab: Deposits have been found in Muktsar Sahib (Kabarwala) and Fazilka (Sherewala, Ramsara, Shergarh, Dalmir Khera), covering approximately 18 sq. km.

Exploration Challenges

Despite abundant reserves, potash mining in India has faced delays due to prolonged feasibility studies. According to the National Mineral Inventory (NMI) 2020, India's total potash resources are estimated at 23,091 million tonnes, with Rajasthan contributing 89% of this total.

Importance of Potash for India

1. Reducing Import Dependence:

- India currently imports over 90% of its potash requirements, mainly from Canada, Russia, and Belarus.
- Domestic production can reduce reliance on global suppliers and strengthen India's fertilizer security.

2. Agricultural Productivity:

- Potash, especially MOP, is vital for improving soil fertility, increasing crop yield, and enhancing drought resistance.
- Ensuring a stable and affordable potash supply is crucial for India's large agriculture sector.

3. Economic and Strategic Benefits:

- Developing domestic potash mines can reduce fertilizer subsidy costs and improve fiscal savings.
- Indigenous production shields India from supply chain disruptions and global price volatility.

4. Employment & Industrial Growth:

- Potash mining projects in states like Rajasthan can create jobs and promote economic development.
- This growth benefits related industries such as fertilizer, chemical, and manufacturing sectors.

5. Energy & Water Efficiency:

- Potash enhances soil water retention, reducing irrigation demands in drought-prone areas.
- It supports nutrient absorption, promoting efficient and sustainable agricultural practices.

6. Geopolitical Leverage:

- Reducing dependence on imports from geopolitically sensitive regions such as Russia and Belarus bolsters India's trade flexibility.
- Strengthens India's strategic autonomy in critical agricultural inputs.

7. Sustainable Agriculture & Climate Resilience:

- Potash-rich soil enhances crop resistance to climate change impacts like heat stress and saline conditions.
- Promotes eco-friendly fertilizer practices, contributing to environmental sustainability and soil health.

Domestic potash production aligns with India's Atmanirbhar Bharat vision, enhancing self-reliance in fertilizer supply and reducing import costs.



National Youth Parliament Scheme 2.0

The Minister of State in the Ministry of Parliamentary Affairs provided information about the National Youth Parliament Scheme 2.0 to the Rajya Sabha.

- The primary objectives are to deepen democratic values, foster discipline and respect for diverse viewpoints, and enhance students' understanding of parliamentary procedures. Additionally, it aims to expand their knowledge of government functioning, constitutional principles, and the essence of democratic living.
- The web-portal of NYPS 2.0 enables all the citizens of the country to participate in the Youth Parliament programme through 3 different ways:

NYPS 2.0 Launched

- INSTITUTION PARTICIPATION**
For All Educational Institutions
- GROUP PARTICIPATION**
For Formal/Informal Group of Citizens of the Country
- INDIVIDUAL PARTICIPATION**
For Individual Citizens of the Country

- ✓ Participation through web-portal
- ✓ Online Self Learning Module
- ✓ Digital Certificates for All Participants

- **Institution Participation:** All educational institution can participate in this category by organizing the Youth Parliament sittings as per the guidelines available on the portal.
- The students from classes VI to XII may be selected for the “Kishore Sabha” sub-category and Under Graduate and Post Graduate level students may be selected for the “Tarun Sabha” sub-category.
- **Group Participation:** A group of citizens can participate in this category by organizing the Youth Parliament sittings as per the guidelines available on the portal.
- **Individual Participation:** An individual citizen can participate in this category by attempting a quiz on the theme of ‘Bhartiya Democracy in Action’.
- The e-training material viz. Literature on Youth Parliament, Model Debate, Model Questions, Model List of Business, Model Scripts, Video Tutorials, etc. are available as training resources on the web-portal of NYPS 2.0.

PRASHAD SCHEME

A Parliamentary committee has asked the government to develop a “clear-cut Standard Operating Procedure (SOP)” and obtain prior clearances and approvals from relevant authorities for timely completion of projects in the Spiritual Tourism Circuits under the PRASHAD scheme.

- Pilgrimage Rejuvenation and Spirituality Augmentation Drive

POLITY

(PRASAD) scheme was launched by the Ministry of Tourism in 2014.

- It is an initiative that aimed at transforming the cultural preservation and spiritual travelling across identified pilgrimage destinations.

Objective

- Upgrading and maintaining the strength of the infrastructure of pilgrimage destinations that includes the roads, water supply, sanitation and waste management system
- Improving the travel conditions for the travelers by improving the connectivity through road, rail and airways
- Starting conservation projects that help in preserving and conserving the pilgrimage sites of cultural and spiritual significance
- Advocating the cultural, religious and spiritual significance of pilgrimage sites attracting domestic and international tourists
- Creating opportunities for the local communities through skill development and livelihood generation programmes that relate with pilgrimage tourism
- Adopting sustainable development practices that promote eco-friendly tourism



सत्यमेव जयते

PRASAD Scheme Pilgrimage Rejuvenation and Spiritual Augmentation Drive

NAKSHA Programme

The Union Minister of Rural Development and Agriculture & Farmers' Welfare is inaugurating the NAKSHA Programme at Raisen, Madhya Pradesh.



- The National Geospatial Knowledge-based Land Survey of Urban Habitations (NAKSHA) programme aims to create and update land records in urban areas to ensure accurate and reliable documentation of land ownership.
- This initiative will empower citizens, improve ease of living, enhance urban planning, and reduce land-related disputes.
- This IT-based system for property record administration will foster transparency, efficiency and support sustainable development.
- The Survey of India is the technical partner for NAKSHA programme, which is responsible for conducting aerial surveys and providing orthorectified imagery, through third party vendors, to State and Union Territory governments.
- The end-to-end web-GIS platform will be developed by the Madhya Pradesh State Electronic Development Corporation (MPSEDC) and storage facilities will be provided by the National Informatics Centre Services Inc. (NICS).
- States and Union Territory governments are scheduled to conduct field surveys and ground truthing using the orthorectified imagery, ultimately leading to the final publication of urban and semi-urban land records.

DIGITAL BRAND IDENTITY MANUAL (DBIM)

The Government of India launched the Digital Brand Identity Manual (DBIM) and hosted the First CIO Conference 2025 under the Gov.In: Harmonisation of Digital Footprint initiative.

- This initiative is aimed at standardizing and integrating all government digital platforms under a single, cohesive digital identity to enhance service delivery and citizen engagement.
- Aim to Ensure consistency in design, accessibility, and governance across digital platforms, Improve efficiency and transparency in e-governance, Enable secure and future-ready digital infrastructure.
- The Digital Brand Identity Manual (DBIM) is a framework for standardizing the digital identity of government websites, portals, and social media platforms. It ensures a unified, accessible, and citizen-centric digital experience across ministries and departments.

National Assessment and Accreditation Council Halt to Physical Inspections of Colleges

National Assessment and Accreditation Council (NAAC) recently announced an immediate halt to physical inspections of colleges.

- National Assessment and Accreditation Council (NAAC) was established in 1994 as an autonomous institution of the University Grants Commission (UGC).
- Its primary objective is to ensure and enhance the quality of higher

NAAC

**NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL**



- education through a rigorous accreditation process.
- It conducts assessment and accreditation of Higher Educational Institutions (HEI) such as colleges, universities or other recognised institutions to derive an understanding of the 'Quality Status' of the institution.
- It evaluates institutions based on various parameters such as curricular aspects, teaching-learning processes, infrastructure, governance, and innovation.
- It functions through its General Council (GC) and Executive Committee (EC), comprising educational administrators, policymakers, and senior academicians from a cross-section of the Indian higher education system.
- The Chairperson of the UGC is the President of the GC of the NAAC; the Chairperson of the EC is an eminent academician nominated by the President of the GC (NAAC).
- At present, the assessment and accreditation by NAAC is done on a voluntary basis.
- Headquarters: Bengaluru

RESTRUCTURED NATIONAL BAMBOO MISSION

The Minister of State for Agriculture and Farmers Welfare informed the Lok Sabha about the restructured National Bamboo Mission.

- The restructured National Bamboo Mission was launched as a Centrally Sponsored Scheme in 2018-19.
- It provides assistance to both the Government & private sectors for the propagation and cultivation of bamboo in non-forest land, bamboo treatment, establishment of markets, incubation centers, value added product development & processing and development of tools & equipment.
- The funding pattern is 60:40 between Centre and State Government for all States except NE & Hilly States, where it is 90:10 and 100% in case of Union Territories/Bamboo Technology Support Groups (BTSGs) and National Level Agencies.

Major objectives:

- o To increase the availability of quality planting materials, area expansion of bamboo cultivation.
- o To improve post-harvest management, primary treatment and seasoning, preservation technologies, market infrastructure, product development, promote skill development and re-align efforts to reduce dependency on import of bamboo and bamboo products.
- It is being implemented through the state nodal department which is nominated by the State/UT governments concerned.

National Commission for Safai Karamcharis

The Union Cabinet approved a three-year extension of tenure for the National Commission for Safai Karamcharis (NCSK).

- National Commission for Safai Karamcharis was first set up in 1994 under the National Commission for Safai Karamcharis Act, 1993.
- It was functioning as a statutory body till 2004, when the law lapsed.
- Since then, the commission is acting as a non-statutory body under the Social Justice Ministry with its tenure being extended from time to time.
- The NCSK gives recommendations to the Government regarding specific programmes for welfare of Safai Karamcharis, study and evaluate the existing welfare programmes for Safai Karamcharis, investigate cases of specific grievances etc.
- The NCSK has been assigned the work to monitor the implementation of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
- It is the only body keeping track of sewer deaths in the entire country.



Devolution Index

The Ministry of Panchayati Raj will release the comprehensive Devolution Index Report on 13th February, 2025, at Indian Institute of Public Administration (IIPA), New Delhi.

- Devolution Index is a result of meticulous research and empirical analysis, providing insights into the progress of decentralization across States and Union Territories.
- The Index evaluates six critical dimensions: Framework, Functions, Finances, Functionaries, Capacity Building, and Accountability of the Panchayats
- The Index specifically examines how 'free' Panchayats are to make and implement independent decisions, reflecting the true spirit of Article 243G of the Constitution.
- This article empowers State legislatures to devolve powers and responsibilities to Panchayats across 29 subjects listed in the Eleventh Schedule.
- It serves as a tool for strengthening cooperative federalism and local self-governance, enabling States to identify areas for improvement and adopt best practices for more empowered and effective Panchayats.
- For citizens, it provides transparency in tracking Panchayat functioning and resource allocation.
- For elected representatives, it offers data-driven insights for advocacy and reform.
- For government officials, it serves as a roadmap for implementing effective decentralization policies.
- Policymakers can use it to assess the overall health of local governance and identify where reforms are most urgently needed.
- The initiative aligns with the vision of Viksit Bharat, where Panchayats serve as the foundation for rural transformation, driving inclusive growth and sustainable development at the grassroots level.

Competitive and Cooperative Federalism

The government has emphasized various initiatives to foster competitive and cooperative federalism and its benefits.

- Competitive Federalism is a system of horizontal (state-state) and vertical (Centre-state) competition to attract investment, improve governance, and enhance services.
- The 15th Finance Commission (FC) has introduced indicators like tax & fiscal efforts to evaluate state performance, that determines fund allocation.

Examples of state-specific welfare schemes that operate alongside central schemes include:

- o Rythu Bandhu (Telangana): A direct income support scheme for farmers.
- o KALIA (Odisha): A farmer assistance scheme complementing the central PM Kisan Yojana.
- o Vibrant Gujarat Summit: Focused on attracting global investment.
- o Cooperative Federalism fosters Centre-state collaboration for effective governance, balanced development, and shared best practices.
- FC's performance-based fund allocation encourages states to work in alignment with national SDGs.
- Key examples include the Goods and Services Tax (GST), Ayushman Bharat, and PM-KISAN, that require Centre-state cooperation.
- The All India Services (IAS and IPS) enable a uniform governance structure across states.
- The States Reorganization Act, 1956 established five Zonal Councils for regional cooperation, facilitating discussions on inter-state issues.

Soil Health Card Scheme

The soil health card scheme has completed its decade.

- The soil health card scheme was launched in 2015 to assist State Governments to issue soil health cards to all farmers.
- It provides information to farmers on nutrient status of their soil along with recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility.
- It contains status of the soil with respect to 12 parameters, namely N, P, K, S (Macro-nutrients); Zn, Fe, Cu, Mn, Bo (Micro – nutrients); and pH (Acidity or Basicity), EC (Electrical Conductivity) and OC (Organic Carbon).
- Soil samples are taken generally two times in a year, after harvesting of Rabi and Kharif Crop respectively or when there is no standing crop in the field.
- A farmer will get the soil card once in every 3 years.
- Village Level Soil Testing Labs can be set up to provide test results by individual entrepreneurs i.e. rural youth and community based entrepreneurs, including Self Help Groups (SHGs), Schools, Agriculture Universities etc.
- Soil Health Card scheme has been merged in Rashtriya Krishi Vikas Yojana (RKVY) scheme as one of its components under the name 'Soil Health & Fertility' from the year 2022-23.
- To streamline the implementation/monitoring of the scheme and to provide easy access to Soil Health Card to the farmers, SHC Mobile App has been built with additional features.
- The scheme monitors the soil of the farmers well and gives them a formatted report. So, they can decide well which crops they should cultivate and which ones they should skip.
- The authorities monitor the soil on a regular basis. One in every 3 years, they provide a report to farmers. So farmers need not worry if the nature of the soil changes due to certain factors. Also, they always have updated data about their soil.



Pradhan Mantri Shram Yogi Maandhan Yojana : Budget 2025

The Budget 2025-26 allocation under the PM Shram Yogi Maandhan Yojana increased by 37% compared to last year.

- It is a government scheme meant for the old-age protection and social security of unorganized workers.
- It is a Central Sector Scheme administered by the Ministry of Labour and Employment and implemented through Life Insurance Corporation of India and CSC eGovernance Services India Limited (CSC SPV).
- LIC is the Pension Fund Manager and responsible for pension pay out.
- The amount collected under the PM-SYM are invested as per the investment pattern specified by the Government of India.

Eligibility:

- Should be an Indian Citizen
- Unorganised Workers (working as street vendors, agriculture-related work, construction site workers, workers in industries of leather, handloom, mid-day meal, rickshaw or auto wheelers, rag picking, carpenters, fishermen, etc.
- Age group of 18-40 years
- Monthly income is below Rs. 15000 and not a member of EPFO/ESIC/NPS (Govt. funded).
- It is a voluntary and contributory pension scheme.
- Each subscriber under the PM-SYM shall receive minimum assured pension of Rs 3000/- per month after attaining the age of 60
- The subscriber's contributions to PM-SYM shall be made through 'auto-debit' facility from his/ her savings bank account/Jan- Dhan account.
- The subscriber is required to contribute the prescribed contribution amount from the age of joining PM-SYM till the age of 60 years.
- It is a pension scheme on a 50:50 basis where prescribed age-specific contributions shall be made by the beneficiary and the matching contribution by the Central Government.
- During the receipt of pension, if the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension received by the beneficiary as a family pension. Family pension is applicable only to spouse.
- If a beneficiary has given regular contributions and died due to any cause (before age 60 years), his/her spouse will be entitled to join and continue the scheme subsequently by payment of regular contributions or exit the scheme as per provisions of exit and withdrawal.
- Even if the subscriber wants to opt out of the scheme before 10 years, the share of the subscriber will be given back along with the interest amount accrued.
- If the subscriber opts out after 10 years but before 60 years of age, the share of the subscriber contribution, adding the accumulated interest will be given back to the candidate.

UNION BUDGET 2025



The Union Budget 2025-26 was presented by the Union Finance Minister in the Parliament recognising 4 engines of development- agriculture, Micro, Small and Medium Enterprises (MSME), investment and exports.

- The Union Budget 2025-26, with the theme Sabka Vikas, aims to stimulate balanced growth across all regions.

1st Engine- Agriculture:

- Prime Minister Dhan-Dhaanya Krishi Yojana: Announced to cover 100 low agricultural productivity districts, benefiting 1.7 crore farmers, enhancing irrigation, and post-harvest storage facilities.
- A 'Rural Prosperity and Resilience' programme will be launched with states to address agricultural underemployment through skilling, investment, and technology.
- Atma Nirbharta in Pulses: A 6-year mission focusing on Tur, Urad, and Masoor announced launched, ensuring climate-resilient seeds and remunerative prices.
- Central agencies (NAFED and NCCF) will be prepared to procure these 3 pulses from farmers over the next 4 years.
- Enhanced Kisan Credit Card (KCC) Limit: Raised from ₹3 lakh to ₹5 lakh to facilitate credit flow for 7.7 crore farmers.
- National Mission on High Yielding Seeds: To strengthen research, ensuring availability of 100+ high-yielding and pest-resistant seed varieties.
- Mission for Cotton Productivity: A 5-year initiative promoting sustainable farming, increasing extra-long staple cotton production, and improving quality.
- Makhana Board in Bihar: To be established to enhance production, processing, and value addition of



Makhana.

- Comprehensive Program for Fruits and Vegetables: To promote efficient supply chains and ensure better market prices for farmers.
- Fisheries Development: New framework for sustainable fishing in the Indian Exclusive Economic Zone and High Seas, focusing on Andaman & Nicobar and Lakshadweep.
- Urea Plant in Assam: A new urea plant in the premises of Brahmaputra Valley Fertilizer Corporation Ltd (BVFCL) with 12.7 lakh metric ton capacity to boost agricultural productivity.

2nd Engine- MSMEs:



- Revised MSME Classification: Investment and turnover limits increased to 2.5 times, expanding credit opportunities for small businesses.
- Micro Enterprise Credit Cards: Rs 5 lakh credit facility for 10 lakh micro enterprises, promoting financial inclusion and economic participation.
- Credit Cover for MSMEs: Guarantee cover increased from ₹5 crore to ₹10 crore, enabling higher loan access.
- Focus Product Scheme for Leather and Footwear: Expected to generate 22 lakh

jobs and ₹4 lakh crore turnover, and exports of over ₹ 1.1 lakh crore.

- Toy Sector Development: Clusters and innovation-based manufacturing fostering 'Made in India' brand in global markets.
- National Institute of Food Technology: A National Institute of Food Technology, Entrepreneurship and Management to be established in Bihar, promoting food processing, skilling, and entrepreneurship.
- Fund of Funds for Startups: To be established with an expanded scope and an additional contribution of ₹10,000 crore.

3rd Engine- Investment

- Urban Challenge Fund: ₹1 lakh crore allocated to support 'Cities as Growth Hubs,' 'Creative Redevelopment of Cities,' and 'Water and Sanitation,' with ₹10,000 crore allocated for 2025-26.
- Jal Jeevan Mission: With total budget outlay enhanced to Rs 67,000 Crore and extension till 2028, ensuring universal piped water coverage with enhanced funding for rural water projects.
- 15 crore households representing 80% of India's rural population have benefitted by the mission.



- Maritime Development Fund: ₹25,000 crore fund (49% contribution by the Government), supporting long-term financing for shipbuilding, ports, and logistics infrastructure.
- Expansion of IITs: Additional infrastructure for 6,500 more students, boosting India's technical education capacity.
- PM Research Fellowship: 10,000 fellowships for advanced research in IITs and IISc.
- Day Care Cancer Centers: To be set up in all district hospitals in the next 3 years, with 200 Centres in 2025-26, ensuring affordable cancer treatment accessibility.
- Bharatiya Bhasha Pustak Scheme: Digital Indian lan-

- guage books to enhance school and higher education accessibility.
- Nuclear Energy Mission for Viksit Bharat: To be set up with a ₹20,000 crore outlay for Small Modular Reactors (SMRs), with at least 5 indigenously developed SMRs operational by 2033.
 - Amendments to the Atomic Energy Act and the Civil Liability for Nuclear Damage Act will be taken up for active partnership with the private sector.
 - UDAN – Regional Connectivity Scheme: A revised UDAN scheme will enhance regional connectivity to 120 new destinations, aiming to carry 4 crore passengers over the next 10 years.
 - It will also support helipads and smaller airports in hilly, aspirational, and North East regions.
 - Greenfield Airport in Bihar: Greenfield airports will be developed in Bihar, alongside the expansion of Patna airport and a brownfield airport at Bihta (Patna).
 - Western Koshi Canal ERM Project: Financial support for irrigation infrastructure in Mithilanchal, Bihar.
 - Tourism for Employment-led Growth: The top 50 tourist destinations across the country will be developed in partnership with states through a challenge mode.



4th Engine- Export Promotion:

- Export Promotion Mission: It will be established, with sectoral and ministerial targets, led collaboratively by the Ministries of Commerce, MSME, and Finance.
- BharatTradeNet (BTN): A unified digital platform facilitating international trade documentation and financing solutions.
- National Framework for GCC: Policy incentives to promote outsourcing hubs (Global Capability Centres) in emerging Tier-2 cities.
- Warehousing Facility for Air Cargo: Development of storage infrastructure for high-value perishable exports.

Taxation and Financial Reforms:

Direct Taxes: No Income Tax for annual incomes up to ₹12 lakh, extended to ₹12.75 lakh for salaried taxpayers with deductions.

Income (in ₹)

- o ₹0 – ₹4 lakh = Nil
- o ₹4 – ₹8 lakh = 5%
- o ₹8 – ₹12 lakh = 10%
- o ₹12 – ₹16 lakh = 15%
- o ₹16 – ₹20 lakh = 20%
- o ₹20 – ₹24 lakh = 25%
- o Above ₹24 lakh = 30%

World Economic Forum Annual Meeting 2025

HOTEL DAVOS



WORLD ECONOMIC FORUM
Annual Meeting
Davos 2025

The 2025 World Economic Forum (WEF) Annual Meeting concluded in Davos, Switzerland, bringing together global leaders to discuss pressing issues under the theme “Collaboration for the Intelligent Age.”

India at the 2025 WEF:

- India secured over Rs 20 lakh crore in investment commitments, with Maharashtra securing nearly 80% of the total.
- Telangana secured Rs 1.79 lakh crore investment, Kerala emphasized its industrial transformation, and Uttar Pradesh highlighted its vision to become a USD 1 trillion economy by 2029 with Zero poverty.
- The meeting stressed that sustainability is vital for business resilience, urging companies to align growth with global sustainability goals for profitability and societal impact.
- The 2025 WEF highlighted that Artificial Intelligence and green tech offer both opportunities and challenges.
- Responsible AI frameworks and ethical balance with progress is key to improving supply chains, reducing emissions, and enhancing transparency.
- Emphasized that global challenges require multi-sectoral partnerships for impactful solutions. Effective collaborations could unlock USD 12 trillion in market opportunities by 2030.
- Stressed the need for urgent climate action, ensuring decarbonization includes a fair transition for workers and communities.

REVISED MARKET INTERVENTION SCHEME

The Government has revised the Market Intervention Scheme (MIS) guidelines, increasing the procurement limit from 20% to 25% and expanding procurement agencies.

Revised Market Intervention Scheme (MIS):

- Increased Procurement Limit: Procurement coverage raised from 20% to 25% of total production.
- Direct Benefit Transfer (DBT) Option: States can now pay farmers directly for the price difference between the Market Intervention Price (MIP) and market price.
- Expanded Procurement Agencies: Farmer Producer Organizations (FPOs), Farmer Producer Companies (FPCs), State-nominated agencies, and Central Nodal Agencies (NAFED, NCCF) will procure TOP (Tomato, Onion, Potato) crops.
- Reimbursement of Storage & Transport Costs: Central Nodal Agencies (CNA) will reimburse costs for transporting crops from producing to consuming States.



Tobin Tax

U.S. President Donald Trump's administration is considering imposing a Tobin Tax on capital flows, a move that could disrupt global financial markets.

- The Tobin Tax is a tax on foreign exchange transactions aimed at discouraging short-term speculative trading.
- It is a small levy (0.1%-0.5%) on currency conversions to reduce volatility in financial markets.
- Proposed in 1972 by James Tobin, a Nobel Prize-winning economist, in response to currency market fluctuations after the collapse of the Bretton Woods system.
- Aimed at “throwing sand in the wheels” of currency speculation to stabilize exchange rates.
- Applied on currency transactions to deter short-term speculation.
- Low tax rate to prevent market disruption.
- Revenue generated can be used for public welfare or development projects



Purchasing Managers' Index

India's Purchasing Managers' Index (PMI) rose for first time after three quarters.



- It is an indicator of business activity – both in the manufacturing and services sectors.
- It is a survey-based measure that asks the respondents about changes in their perception of some key business variables from the month before.
- It is calculated separately for the manufacturing and services sectors and then a composite index is constructed.
- The index helps in determining whether the market conditions, as seen by purchasing managers, is expanding, contracting or staying the same.
- There are two types of PMI — Manufacturing PMI and Services PMI.
- PMI data for India is released by S&P Global, a global major in financial information and analytics.

Trickle-Down vs. Trickle-Up Approach

Jasmine Shah's book, The Delhi Model highlights Delhi's trickle-up economics, contrasting it with India's traditional trickle-down approach.

Trickle-Down Economics:

- Focuses on wealth accumulation at the top, assuming benefits will gradually reach lower income groups.
- Prioritizes corporate tax cuts, subsidies for big businesses, and deregulation.
- E.g. India's corporate tax cuts (2019) reduced revenue for social programs.
- Trickle-Up Economics:
- Directly invests in lower and middle-income groups to boost demand and economic growth.
- Prioritizes public welfare, education, healthcare, and employment programs.
- E.g. Delhi's economic model reduced unemployment (1.9%) and public debt-to-GSDP ratio (3.9%).

SC/ST ACT TO INCLUDE INTELLECTUAL PROPERTY

In the Principal Secretary Government of Maharashtra v. Kshipra Kamlesh Uke Case, 2024, the Supreme Court upholds the Bombay High Court's ruling, expanding the definition of "property" in the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 to include intellectual property.

- The aggrieved sought compensation for the theft of their research data, laptops, and intellectual property under the provisions of the SC/ST Act, 1989.
- The Bombay High Court ruled that the term "property" should be interpreted broadly to include intellectual property such as data, electronic material, and intellectual rights, whether tangible or intangible.
- Patents, copyrights, and designs, are property, even though they lack physical existence, and are capable of being valued for compensation under the SC/ST Act, 1989.
- The SC/ST Act, 1989 defines specific offenses against SC/ST members, including physical violence, harassment, and social discrimination.
- The SC/ST Act, 1989, does not allow anticipatory bail, unless a prima facie case is made against the accused.
- It mandates special courts for swift trials and SC/ST Protection Cells at the state level, led by senior police officers, to oversee its implementation.



Fall In Indian Rupee

The Indian rupee is falling continuously against the US dollar, hitting a record low due to US President new tariffs on imports from China, Mexico, and Canada. The exchange rate is the value of one currency in terms of another, determining how much domestic currency is needed to buy one unit of foreign currency.

- Exchange rates fluctuate based on demand and supply in the currency market, influenced by trade, investments, and monetary policies.
- Impact of Falling Rupee on Indian Economy

Negative Impacts:

- Higher Import Costs: India imports 80% of its crude oil, making fuel, raw materials, and essential goods more expensive.
- Inflation Surge: Costlier imports increase input costs, leading to higher inflation and reduced purchasing power.
- Widening Current Account Deficit (CAD): Rising trade deficit and costlier dollar-denominated imports worsen India's CAD, pressuring forex reserves.



- FII Outflows: A weak rupee reduces investor confidence, leading to stock market declines and capital flight.

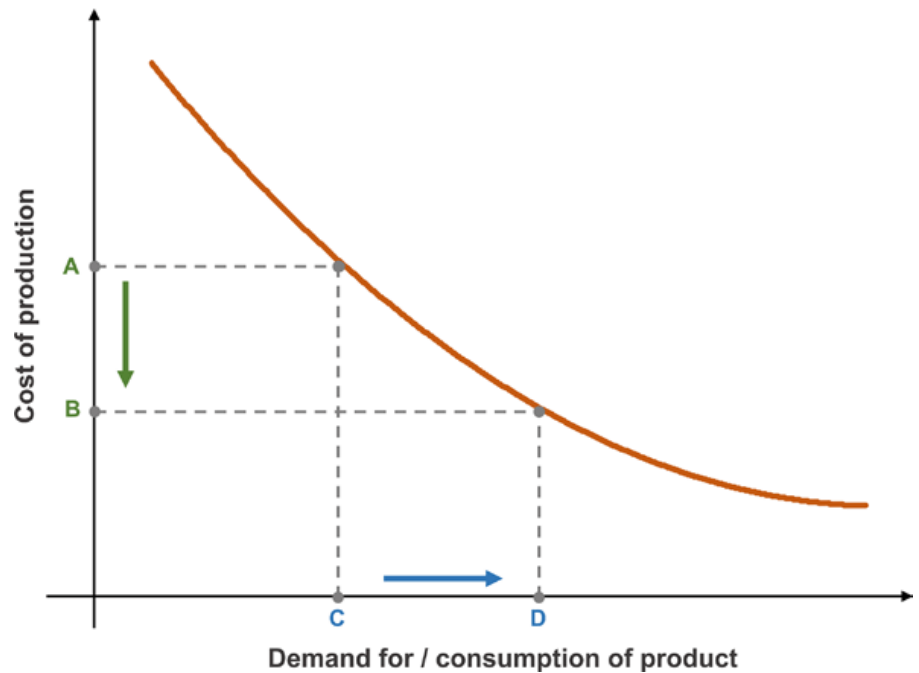
Positive Impacts:

- Stronger Export Competitiveness: A weaker rupee makes Indian exports cheaper, boosting IT, pharma, and textile exports.
- Higher Remittances: NRIs sending money to India benefit from better exchange rates, increasing remittance inflows.

Jevons Paradox

The Jevons Paradox has resurfaced in economic discussions after the DeepSeek AI launch led to a selloff in global tech stocks, raising concerns over AI chip demand.

- Jevons Paradox states that when a resource becomes more efficient and cheaper to use, overall consumption increases instead of decreasing.
- Proposed by William Stanley Jevons in 1865, observing that improved coal efficiency led to higher coal consumption instead of savings.
- Factors Influencing Jevons Paradox:
 - Cost Reduction: Lower usage costs drive higher demand.
 - Increased Accessibility: Efficiency makes resources more widespread.
 - Economic Growth: Higher productivity spurs industrial expansion.
 - Elastic Demand: When demand is highly responsive to price changes, consumption rises sharply.



African-Asian Rural Development Organization

21st African-Asian Rural Development Organization (AARDO) concluded and reaffirmed that development is strongest when rooted in community, driven by local knowledge, technology and south-south cooperation.

- It is an autonomous inter-governmental Organization comprising country governments of Africa and Asia which was established in 1962.
- The organization was set up with a view to promote coordinated efforts, exchange of experiences and cooperative action for furthering the objectives of development of the rural areas.
- The membership of the organization is open to all countries of the Afro-Asian region provided that it is a full or associate member of the United Nations or any of its specialised agencies, organisations and foundations concerned with the development of rural communities.
- Currently it comprises 32 countries of Africa and Asia as full members and 3 associate members.
- Functions is to collaborate with the appropriate international and regional organizations, including UN agencies, the national bodies, governmental or non-governmental, To organize and facilitate the conduct of international, regional and in-country training programmes to strengthen the institutional capacity of Afro-Asian member countries in sustainable agriculture and rural development, To initiate research and action research studies of specific or common interest and disseminate disaggregated data/statistics and information to member countries, To provide technical and financial support to its member countries to undertake pilot projects for experimentation and replication
- It enjoys observer status with international organisations like Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), United Nations Conference on Trade and Development (UNCTAD), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Development Programme (UNDP).
- Headquarters: New Delhi, India



Cooperation for Sustainable Development

INTERNATIONAL CRIMINAL COURT

U.S. President Donald Trump recently signed an executive order imposing sanctions on the International Criminal Court over investigations of Israel, a close U.S. ally.

- It is the only permanent international criminal tribunal.
- It was established in 2002 by an international agreement, the Rome Statute, on 17 July 1998.
- The Rome Statute sets out the Court's jurisdiction, structures, and functions.
- The Statute entered into force on 1 July 2002.
- Mandate: ICC investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community genocide, war crimes, crimes against humanity and the crime of aggression.
- As a court of last resort, it seeks to complement, not replace, national Courts.
- Members: There are 125 member countries, but dozens of governments are not ICC parties, including China, India, Israel, Russia and the United States.
- Funding: The Court is funded by contributions from the States Parties and by voluntary contributions from Governments, international organizations, individuals, corporations, and other entities.
- Judges: The court has 18 judges, each from a different member country, elected to non-renewable 9-year terms.
- The Presidency: Consists of three judges (the President and two Vice-Presidents) elected from among the judges. It represents the Court to the outside world and helps with the organization of the work of the judges.
- Judicial Divisions: 18 judges in 3 divisions, the Pre-Trial Division, the Trial Division, and the Appeals Division.
- Office of the Prosecutor (OTP): It is responsible for receiving referrals and any substantiated information on crimes within the jurisdiction of the Court.
- Registry: The core function of the Registry is to provide administrative and operational support to the Chambers and the Office of the Prosecutor.
- Unlike the International Court of Justice (ICJ), which hears disputes between states, the ICC handles prosecutions of individuals.



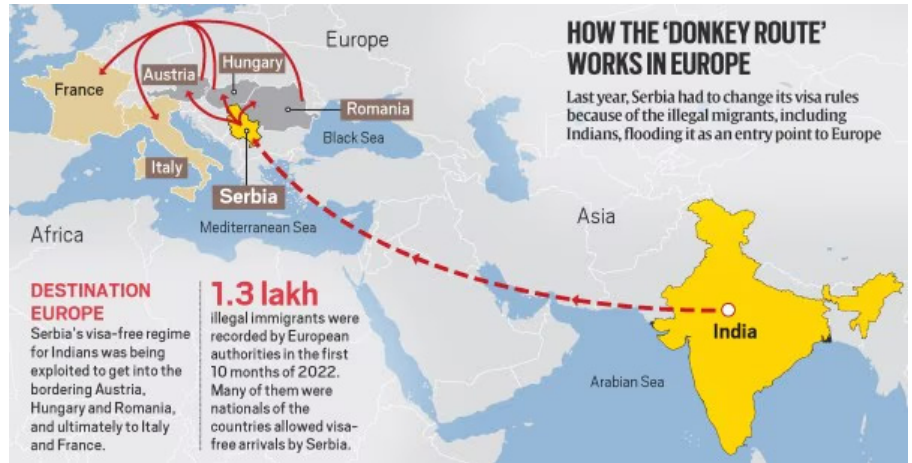
The ICC is only competent to hear a case if:

- o the country where the offence was committed is a party to the Rome Statute; or
- o The perpetrator's country of origin is a party to the Rome Statute.
- o The ICC may exercise its jurisdiction if the national court is unable or unwilling to do so.
- The ICC only has jurisdiction over offences committed after the Statute's entry into force on 1 July 2002.

Donkey Route

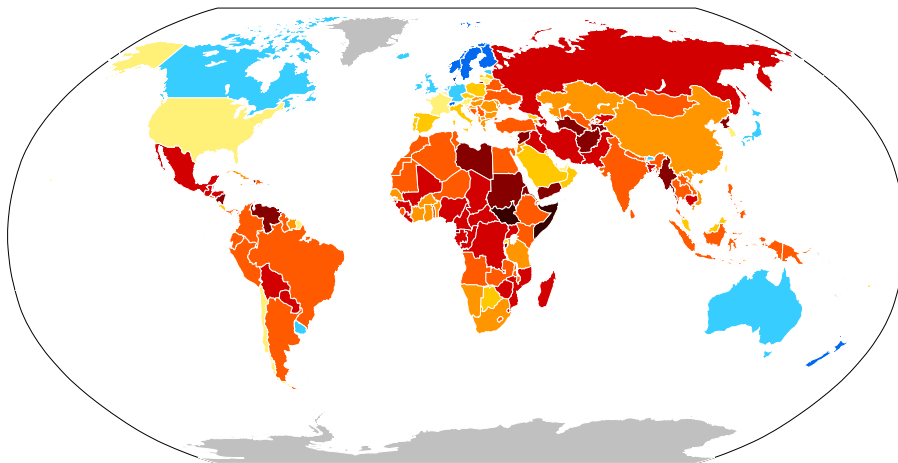
Indian deportees from the US, arriving in Amritsar, recently shared their harrowing experiences using the “donkey route” for illegal immigration.

- Donkey Route named after a Punjabi idiom referring to an arduous, unplanned journey, it involves crossing multiple international borders, often through treacherous terrain, under false promises of legal entry.
- It typically involves illegal border crossings via indirect routes with multiple stops in different countries.
- For instance, individuals might obtain a tourist visa for the European Union’s Schengen Area, allowing free movement across 26 countries, and then illegally enter the UK with the help of “consultants” or “agents.”
- These agents often charge hefty fees for services ranging from fake documentation to smuggling via shipping containers.



Corruption Perceptions Index 2024

India ranked 96th in the Corruption Perceptions Index (CPI) for 2024, down from 93rd in 2023, with a score of 38, a decline from 39 in 2023.



- CPI is Published annually by the non-governmental organization Transparency International since 1995.
- It ranks 180 countries based on perceived levels of public sector corruption, using a scale from 0 (highly corrupt) to 100 (very clean).
- Denmark topped the CPI 2024 as the least corrupt nation, followed by Finland and Singapore. Among India’s neighbors,

- Pakistan (135), Sri Lanka (121), and Bangladesh (149) ranked poorly, while China stood at 76.
- While 32 countries have significantly reduced their corruption levels since 2012, 148 countries have either stagnated or worsened during the same period, highlighting the ongoing challenge.
- According to the Transparency International, Corruption hampers climate action by misusing funds meant for mitigation and adaptation, with fossil-fuel interests obstructing policies.
- It also links to declining democracy, instability, and human rights violations, necessitating urgent global action.

Gaza Relocation Plan

The Arab League rejected U.S. President Donald Trump's Gaza relocation plan recently, saying it is unacceptable.

- The Arab League, or League of Arab States, is a voluntary association of countries whose peoples are mainly Arabic-speaking or where Arabic is an official language.
- It is a regional organization of Arab states in the Middle East and parts of Africa.
- It was formed in Cairo in 1945 with 6 members: Egypt, Iraq, Transjordan (later renamed Jordan), Lebanon, Saudi Arabia, and Syria, with Yemen
- The league was chartered in response to concerns about postwar colonial divisions of territory as well as strong opposition to the emergence of a Jewish state on Palestinian territory.
- The main aims of the League are to strengthen relations and to coordinate collaboration between member states, to safeguard their independence and sovereignty, and to provide collective consideration of the affairs and interests of the member states.
- Headquarters: Cairo, Egypt.
- Official language: Arabic
- Members: It currently has 22 member states: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.
- There are 4 nations that were conferred observer status by the League: Brazil, Eritrea, India and Venezuela.



Asian Fisheries and Aquaculture Forum

- The 14th Asian Fisheries and Aquaculture Forum (14AFAF) is being organized in New Delhi during February 12-14, 2025.



- 14th AFAF has brought together key players from the fisheries and aquaculture sectors and will host around 1,000 delegates from 24 countries, including researchers, policymakers, industry leaders, and stakeholders. Theme of 14th AFAF: "Greening the Blue Growth in Asia-Pacific"
- It is being jointly organized by the Asian Fisheries Society

(AFS), Kuala Lumpur; Indian Council of Agricultural Research (ICAR), New Delhi; the Department of Fisheries (DoF), Government of India; and the Asian Fisheries Society Indian Branch (AFSIB), Man-

galore.

- Asian Fisheries and Aquaculture Forum:
- It is a triennial event of the Asian Fisheries Society which has a strong legacy of fostering global collaboration in the sector.
- Since its inception, the forum has been successfully hosted in multiple countries across Asia.
- This prestigious event is being hosted in India for the 2nd time after the 8AFAP held at Kochi in 2007.
- The forum will provide a platform to showcase India's contributions, strengthen international partnerships and promote innovative approaches for sustainable, resilient, and economically viable fish production systems.
- With a rapidly expanding blue economy, progressive government policies and significant scientific advancements, India has emerged as a key player in sustainable fisheries and aquaculture.
- Today, India occupies 2nd position in total fish production and also aquaculture production globally.
- Headquarters: Kuala Lumpur, Malaysia.

SAFTA

The Solvent Extractors' Association of India (SEA) has requested the Government to regulate the inflow of edible oils from Nepal and other SAARC countries due to misuse of SAFTA norms.

- SAFTA is the free trade arrangement of the South Asian Association for Regional Cooperation (SAARC).
- The agreement came into force in 2006, succeeding the 1993 SAARC Preferential Trading Arrangement.
- SAFTA signatory countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- SAFTA recognizes the need for special and differential treatment for LDCs in its preamble.
- The objectives of this Agreement are to promote and enhance mutual trade and economic cooperation among Contracting States by, inter-alia:
 - o Eliminating barriers to trade in, and facilitating the cross-border movement of goods between the territories of the Contracting States;
 - o Promoting conditions of fair competition in the free trade area, and ensuring equitable benefits to all Contracting States, taking into account their respective levels and pattern of economic development;
 - o Creating effective mechanism for the implementation and application of this Agreement, for its joint administration and for the resolution of disputes; and
 - o Establishing a framework for further regional cooperation to expand and enhance the mutual benefits of this Agreement.



India-Qatar

India and Qatar elevated their bilateral relations to a strategic partnership in February focusing on trade, energy, and investments.

- Both nations set a target to double bilateral trade to \$30 billion by 2030 and agreed on major economic collaborations.

India-Qatar Summit 2025:

- Energy Cooperation: Qatar Energy and Petronet LNG signed a 20-year deal for LNG supply starting in 2028.
- Investment Boost: Qatar Investment Authority pledged \$10 billion in Indian infrastructure, startups, and green energy.
- Digital & Financial Integration: UPI rollout in Qatar and a revised Double Taxation Avoidance Agreement signed.
- Strategic Partnership Agreement: Strengthens ties in trade, investment, security, and innovation.
- Trade Expansion: Commitment to double bilateral trade from \$14 billion to \$30 billion by 2030



Bay of Bengal Inter-Governmental Organisation

India assumed chairmanship of Bay of Bengal (BOB) Inter-Governmental Organisation from Bangladesh at the 13th Governing Council Meeting at Malé, Maldives.

- Bay of Bengal Inter-Governmental Organisation was set up in 2003.
- It is a unique regional fisheries body, specifically mandated to assist the member countries in increasing the livelihood opportunities and improving the quality of life of the small-scale/ artisanal fisher



- folk in the Bay of Bengal region.
- The Organisation evolved from the erstwhile Bay of Bengal Programme of the Food and Agriculture Organization (FAO) of the United Nations (UN) founded in 1979.
- It has set international benchmarks in execution of programs and activities in the field of small-scale fisheries that has translated into measurable benefits for the member countries.
- The current members of the Organisation are Bangladesh, India, Maldives and Sri Lanka while Indonesia, Malaysia, Myanmar and Thailand are cooperating non-contracting parties.
- Objective of Bay of Bengal Inter-Governmental Organisation is to increase awareness and knowledge of the needs, benefits and practices of marine fisheries management; Enhance skills through training and education; transfer appropriate technologies and techniques for development of the small-scale fisheries; establish regional information networking; and promote women's participation in marine fisheries value chain.
- The Virus Binds Not Just To Human ACE2 But Also To Multiple Mammalian Species, Meaning It Could Spread Through An Intermediate Animal Before Reaching Humans.
- There Are No Confirmed Cases Of HKU5-Cov-2 In Humans Yet, So Its Symptoms Are Unknown.
- The Discovery Was Made By A Team Of Virologists Led By Shi Zhengli, Often Referred To As "Batwoman" For Her Extensive Research On Coronaviruses At The Wuhan Institute, China.

4TH NO MONEY FOR TERROR CONFERENCE

The Union Minister of State for Home Affairs participated in the 4th No Money for Terror (NMFT) Conference in Germany.

- India emphasized global unity in combating terrorism, reiterated its proposal for a permanent NMFT Secretariat at New Delhi.
- No Money for Terror (NMFT) Conference was launched in 2018 by France.
- Previous Conferences: France (Paris, 2018), Australia (2019) and India (2022).
- It aims to enhance international cooperation in curbing terror financing.







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Winter Birding Festival 2025

The recently conducted third annual Deepor Beel Winter Birding Festival 2025 saw an increase in the number of both migratory and residential birds compared to the count done in 2024.

Deepor Beel:

- It is a perennial freshwater lake located on the outskirts of Guwahati, in the Kamrup district of Assam.
- It lies in a former channel of the Brahmaputra
- It covers an area of 4.1 sq.km.



ENVIRONMENT

- It is the only major stormwater storage basin for the city of Guwahati.
- The lake's outflow is the Khandajan rivulet, which joins the Brahmaputra.
- It was recognised as a Ramsar Site in 2002 and as an Important Bird and Biodiversity Area (IBA) in 2004. It is the only Ramsar site in Assam.
- This lake is a staging site on migratory flyways, and some of the largest concentrations of aquatic birds in Assam can be seen, especially in winter.
- Some globally threatened birds are supported, including Spot-billed Pelican, Lesser Greater Adjutant Stork, and Baer's Pochard.
- About 50 fish species and aquatic resources provide livelihood support to about 1,200 households residing in about 12 villages on the fringes of the wetland.
- The Rani and Garbhanga hills, the habitat of the Asiatic elephants on the southern side of the beel, are part of this ecosystem.

Ocean Coordination Mechanism

The Ocean Coordination Mechanism (OCM) was launched to address critical marine challenges in the Caribbean and North Brazil Shelf, aiming to enhance sustainable ocean governance and protect biodiversity.

- Ocean Coordination Mechanism (OCM) is a collaborative framework for sustainable marine resource management in the Wider Caribbean region.
- Launched by: Intergovernmental Oceanographic Commission of UNESCO (UNESCO-IOC).
- Implementing Agency: UNESCO-IOC Sub commission for the Caribbean and Adjacent Regions (IOCARIBE).
- Funding from the Global Environment Facility (GEF) through the UNDP/GEF PROCARIBE+ Project.
- Ocean Covered: Caribbean Sea and North Brazil Shelf Large Marine Ecosystem.
- Aim is to promote sustainable fisheries, ecosystem restoration, pollution control, blue carbon development, marine spatial planning, and marine protected areas.
- Focuses on cross-country collaboration, integrates traditional knowledge with scientific research, and prioritizes vulnerable communities.

India has added four new Ramsar sites

India has added four new Ramsar sites, taking the total to 89. Tamil Nadu leads with 20 wetlands, while Sikkim and Jharkhand added their first Ramsar sites, marking a significant step in wetland conservation.



- Therthangal Bird Sanctuary Tamil Nadu Established on December 15, 2010, to conserve avian species and wetland habitats.
- Covers 29.29 hectares, home to diverse flora like Aponogeton nutans, Hydrilla verticillata, and Tamarindus indica.
- Popular among birdwatchers during the migratory season (October to March).
- Sakkarakottai Bird Sanctuary Tamil Nadu Established on April 17, 2012, to protect avifauna and wetland ecosystems.
- Spreads over 230.490 hectares, hosting flora like Neem, Palmyra Palm, and Gloriosa superba.
- Home to diverse fauna, including Lion-tailed Macaque, Giant Squirrel, and migratory birds.
- Khecheopalri Wetland Sikkim Sacred for both Buddhists and Hindus, believed to be a wish-fulfilling lake.
- Local name: Sho Dzo Sho ('Oh Lady, Sit Here').
- Part of the revered Demazong valley and Buddhist pilgrimage circuit.
- Unique feature: Birds prevent leaves from floating on the lake by picking them up.
- Home to diverse bird species like house swifts, fishing eagles, and Brahminy kites.
- Integral to ecotourism and biodiversity conservation efforts in Sikkim.
- Udhwa Lake Jharkhand : Comprises two large water bodies: Pataura Jheel (155 ha) and Brahma Jamalpur Jheel (410 ha).
- Notified as a bird sanctuary in 1991 due to its rich avian biodiversity.
- Attracts migratory birds during winter, starting as early as September.
- Located near the sacred Ganga River stream, enhancing its scenic beauty and ecological significance.
- Provides an ideal habitat for nesting, roosting, and survival of resident and migratory birds.

WORLD WETLANDS DAY 2025

The Union Ministry of Environment, Forest and Climate Change (MoEFCC) organised the World Wetlands Day 2025 celebrations at the Parvati Arga Ramsar Site.

- World Wetlands Day is celebrated annually on February 2.
- This date marks the adoption of the Ramsar Convention in 1971.
- It aims to spread awareness about conserving the wetlands, one of the most critical ecosystems on the planet.
- This year, the theme was “Protecting Wetlands for Our Common Future”.
- India has been a party to the Convention since 1982, designating 89 Ramsar sites.
- Wetlands are regions covered by water either perennially or seasonally, such as marshes and lakes.

**World
Wetlands Day**
2 February 2025

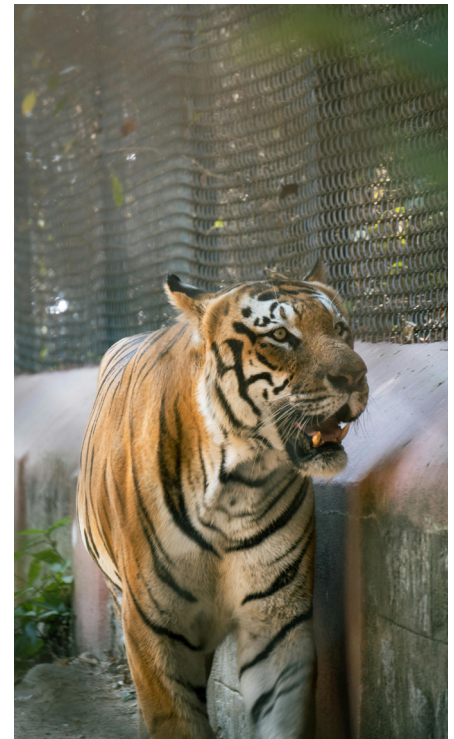


**Protecting wetlands
for our common future**

SATKOSIA TIGER RESERVE

Odisha's first captive breeding of sambar will be undertaken at the Satkosia division of Satkosia Tiger Reserve.

- Satkosia Tiger Reserve is located in the heartland of Odisha and spread over four districts viz. Angul, Cuttack, Boudh and Nayagarh.
- It comprises two adjoining sanctuaries, namely Baisipalli Sanctuary and Satkosia Gorge Sanctuary.
- The reserve has an area of 963.87sq km with 523.61sq km as core area.
- The area is also a part of the Mahanadi elephant reserve. The river Mahanadi flows through the valleys in the middle of the reserve.
- Satkosia is the meeting point of two biogeographic regions of India; the Deccan Peninsula and the Eastern Ghats.
- The terrain is hilly, with moderate to steep slopes and narrow valleys. The average elevation of the terrain varies between 37 m and 932 m, with the lowest point being at Katrang and the highest point being at Sunakhania.
- The forest vegetation comprises North Indian tropical moist deciduous forests and Moist peninsular low-level Sal.
- The reserve has a low population of tiger, leopard, elephant, spotted deer, sambar, chowsingha, barking deer, bison, wild dog, sloth bear, jackal, giant squirrel, and porcupine.
- It is the natural habitat of two endangered species, viz., the fresh water crocodile and the gharial.



Most Famous Tiger Dead

‘Chhota Bheem’, one of the most famous tigers of Bandhavgarh Tiger Reserve, died while undergoing treatment for multiple fractures at Bhopal’s Van Vihar recently.

- Bandhavgarh Tiger Reserve is nestled in the Satpura and Vindhya mountain ranges in the Umaria district of Madhya Pradesh.
- The name “Bandhavgarh” is derived from the ancient Bandhavgarh Fort, which sits atop a hill in the park.
- According to legend, the fort was gifted by Lord Rama to his brother Lakshmana, hence the name “Bandhavgarh” (Brother’s Fort).
- It is spread over 1536 sq. km., which includes the 716 sq. km. core zone and 820 sq. km. of the buffer zone.

- It is known to have one of the highest densities of tigers in the world.
- The habitat is characterized by valleys, hills, and plains with the Bandhavgarh fort prominently seen as a major landmark.
- The flora of the region comprises majorly Sal forests, mixed forests and grasslands.
- Apart from tigers, the park is home to other significant species such as leopards, sloth bears, Indian bison (gaur), Asiatic elephants, and a variety of deer species, including sambar and chital.



PONG DAM LAKE WILDLIFE SANCTUARY

The 2025 annual bird count at Pong Dam Lake Wildlife Sanctuary recorded an unprecedented surge in waterfowl, with a total of 1,53,719 birds of 97 species, according to officials.

- Pong Dam Lake (also known as Maharana Pratap Sagar) is a manmade reservoir formed due to the



construction of Pong Dam on Beas River in the wetland zone of Shivalik hills in Kangra district of Himachal Pradesh.

- It is one of the largest man-made wetlands in Northern India.
- It covers an area of almost 307 sq km.
- It was designated a Ramsar site in 2002.
- It consists of submerged vegetation, grasslands, and forests, including species like eucalyptus, acacia and shisham.
- Given the site's location on

the trans-Himalayan flyway, more than 220 bird species have been identified, with 54 species of waterfowl.

- Avifauna include Bar-headed geese, Pintails, common pochards, coots, Grebes, Cormorants, Herons, Storks, angle fowls, peafowl, Grey partridges, etc.
- It is also home to animals like Sambar, Barking Deer, Wild Bear, Nilgai, Clawless Otter and Leopards.

Watershed Yatra

Union Minister Rural Development launched the “Watershed Yatra”, a national-level mass outreach campaign to promote community participation in watershed development under WDC-PMKSY 2.0.

- A nationwide outreach campaign to mobilize community participation in watershed development and conservation.
- Part of the Watershed Development Component of Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY 2.0).
- Focuses on improving water conservation, soil health, and agriculture sustainability.
- Spanning 805 projects, 6673 Gram Panchayats, and 13587 villages across 26 states and 2 UTs.
- Involves Shramdaan (voluntary labor), Bhoomi Poojan, and Watershed Mahotsav to engage local communities.
- Encourages collaborative efforts between government, private sector, and citizens.
- Rewards top-performing projects with an additional ₹20 lakh per project, with a total allocation of ₹70.80 crore.
- Linked to MY Bharat portal, providing certificates to youth volunteers to encourage participation.
- Learning Management System (LMS) developed for training and knowledge dissemination.



Kuno National Park

Five cheetahs were released into the wild in Kuno National Park (KNP) in Madhya Pradesh's Sheopur district recently.

- Kuno National Park is located in the Morena and Sheopur districts in Madhya Pradesh.
- It is nestled near the Vindhyan Hills.
- It covers an area of 750 sq.km.



- It derives its name from the meandering Kuno River (one of the tributaries of the Chambal River) that graces the region.
- Initially established as a wildlife sanctuary, it was in 2018 that the government changed its status into a national park.
- It was selected under 'Action Plan for Introduction of Cheetah in India'.
- Kuno is primarily a grassland region, though a few rocky outcrops are found here too.
- Kardhai, Salai and Khair trees

- dominate the forested area of Kuno National Park, which is mostly mixed forest.
- The park has a total of 123 tree species, 71 shrub species, 32 exotic and climbing species, and 34 bamboo and grass species.
- The protected area of the forest is home to the jungle cat, Indian leopard, sloth bear, Indian wolf, striped hyena, golden jackal, Bengal fox, and dhole, along with more than 120 bird species.

Aravali Safari Park Project

Haryana's proposed Aravali Safari Park, featuring wildlife enclosures, hotels, and restaurants, faces debate over its impact on ecology, groundwater, and wildlife conservation.



- Aravali Safari Park Project is envisioned as the world's largest safari park (approx 10,000 acres) and aims to support eco-tourism and compensatory afforestation.
- Inspired by UAE's Sharjah Park, it is planned for compensatory afforestation to mitigate the loss of 26,000 acres of tropical forests in Great Nicobar.
- It will only be developed in areas where forest density is less than 40%.
- Forest (Conservation) Act,

1980 was amended in 2023 to bring it under the 'forest' activity, and allowing zoos to be built in forest areas.

സമാഹരിച്ചത്: പ്രൊഫ. സുരേഷ് ശങ്കർ
70 അടി ഉയരമുള്ള കോഴ്സ് താഴെ 10-ാം തവണ സൗകര്യം

രക്ഷിതാക്കളുടെ ശ്രദ്ധയ്ക്ക്

- സ്കൂൾ വിദ്യാർത്ഥികൾക്കായി സിവിൽ സർവീസ് ടാലന്റ് ഡെവലപ്മെന്റ് കോഴ്സിന്റെ രജിസ്ട്രേഷൻ ആരംഭിച്ചിരിക്കുന്നു!

എട്ടാം മുതൽ പന്ത്രണ്ടാം ക്ലാസ് വരെയുള്ള വിദ്യാർത്ഥികൾക്ക് ഐ.എ.എസ്, ഐ.പി.എസ്, ഐ.എഫ്.എസ് തുടങ്ങിയ ഉയർന്ന സിവിൽ സർവീസ് പദവികൾ ലക്ഷ്യമാക്കി വിദ്യാർത്ഥികളെ സജ്ജമാക്കുന്നതിനായി ഐ.എ.എസ് ഹബ്ബ് എം.ജി.ഒ.സി.എസ്.എം സിവിൽ സർവീസ് അക്കാദമി ഈ പ്രത്യേക കോഴ്സ് സംഘടിപ്പിക്കുന്നു.

കേരളത്തിലെ പ്രഗത്ഭരായ സിവിൽ സർവീസ് പരിശീലകരുടേയും വിദഗ്ദ്ധരുടേയും നേതൃത്വത്തിൽ നടക്കുന്ന ഈ കോഴ്സ്, വിദ്യാർത്ഥികളുടെ വിശകലനശേഷിയും കരിയർ ബോധവും വർദ്ധിപ്പിക്കുന്നതോടൊപ്പം, സിവിൽ സർവീസിലേക്ക് എത്താൻ ആവശ്യമായ ശക്തമായ അടിസ്ഥാനം സൃഷ്ടിക്കുന്നു.

ഐ.എ.എസ്, ഐ.പി.എസ്, ഐ.എഫ്.എസ് പോലുള്ള സിവിൽ സർവീസ് ഉദ്യോഗങ്ങൾ ലക്ഷ്യമിടുന്ന വിദ്യാർത്ഥികൾക്കായി പ്രശസ്ത അധ്യാപകർ, വിദഗ്ദ്ധർ എന്നിവർ പങ്കെടുക്കുന്ന പ്രദർശനങ്ങൾ, കരിയർ റൈഡ്സ് സെഷനുകൾ, മോട്ടിവേഷണൽ ക്ലാസുകൾ എന്നിവ കോഴ്സിന്റെ ഭാഗമായി ഉണ്ടായിരിക്കും.

ഐ.എ.എസ് ഹബ്ബ് എം.ജി.ഒ.സി.എസ്.എം സിവിൽ സർവീസ് അക്കാദമി തിരുവനന്തപുരം ആസ്ഥാനമായി പ്രവർത്തിക്കുന്ന കേരളത്തിലെ ആദ്യത്തെ സിവിൽ സർവീസ് അക്കാദമിയാണ്.

നിങ്ങളുടെ കുട്ടികളുടെ ഭാവിയ്ക്ക് ഇന്ന് തന്നെ നിർണ്ണയിക്കുക!

കൂടുതൽ വിവരങ്ങൾക്ക് ഉടൻ രജിസ്റ്റർ ചെയ്യുക 95677 44544



സമാഹരിച്ചത്: പ്രൊഫ. സുരേഷ് ശങ്കർ

കയ്യേറ്റം സിവിൽ

കാലടി • പൊതുവെ അറിയപ്പെടാത്ത തടസ്സം ഉള്ള രാജ്യം പലിശയ്ക്ക് ആവശ്യപ്പെട്ടിട്ടുള്ള കൂടുതൽ കടം എടുക്കുന്നതിനുള്ള അടിയന്തിരമായി പ്രതിരോധം വാഗ്ദാനം ചെയ്തത് 50 അലം കയ്യേറ്റം നൽകി. കടം തടസ്സം കൾ മാറ്റി വെട്ടിപ്പും നിലകൊണ്ട് കൾ അട്ടെന്റ് ഇന്റർ ക്ഷണ ദിനം ഉണ്ടാക്കി

ശ്രീ. കിട്ടി

332-ാം സഹായം ലഭിച്ചു. അധ്യാപകർക്കും കുട്ടികൾക്കുമായി വാഗ്ദാനം ചെയ്തിരിക്കുന്നു.

Glacier Meltdown

A recent study revealed that 110 glaciers in Arunachal Pradesh's eastern Himalayas have disappeared over 32 years (1988-2020), with glacial cover shrinking by 309.85 sq. km.



- Glacial retreat occurs when glaciers melt faster than the accumulation of new ice and snow, leading to reduced ice cover and formation of glacial lakes.
- It is a key indicator of global climate change, affecting water resources, ecosystems, and disaster risks.
- Reasons Behind Glacier Meltdown:
 - Rising Global Temperatures: The eastern Himalayas are warming faster than the global average (0.1°–0.8°C per decade).
 - Increased Carbon Emissions: Accelerates atmospheric heating, leading to faster ice melting.
 - Changing Precipitation Patterns: More rainfall instead of snowfall, disrupting glacial accumulation.
 - Anthropogenic Activities: Deforestation, infrastructure projects, and tourism add to local warming.
 - Black Carbon Deposits: From burning fossil fuels, reduces glacier reflectivity, increasing heat absorption.

Thames River

A new study has learned that climate change is increasing the potential for algal blooms in the United Kingdom's River Thames despite a four-decade-long decline in phosphorus loads.

- Thames River is a 346-km river that flows through southern England.
- It is the longest river in England and the second longest in the United Kingdom, after the River Severn.
- Its source is at Thames Head, near Kemble in the Cotswold Hills,

Gloucestershire County.

- It flows into the North Sea via the Thames Estuary.
- The Nore is the sandbank that marks the mouth of the Thames Estuary and the confluence point of the Thames and the North Sea.
- The Thames' basin covers an area of approximately 16,130 sq.km.
- The river passes numerous popular cities along its way, such as London, Reading, Hendley-on-Thomas, Windsor and Oxford, where it is also called the Isis River.
- It provides two-thirds of London's drinking water.
- It has been a vital transportation route since ancient times, facilitating trade and commerce between London and other parts of England.
- There are 16 bridges that cross the River Thames in Greater London alone, most prominently the Golden Jubilee Bridges and the Millennium Bridges for pedestrians.
- Main Tributaries: Lea, Leach, Churn, Coln, Windrush, Kennet, Evenlode, Ock, and Loddon.



Mount Taranaki

Mount Taranaki, now known by its Maori name Taranaki Maunga, in New Zealand has achieved a human status.



- It is a snow-capped dormant volcano and the second highest mountain (8,261 feet) located in North Island of New Zealand.
- It is a stratovolcano (also called a composite cone) – and is made up of alternating layers of ash and lava flow.
- It was created by subduction of the Pacific Plate below the Australian Plate.
- It has two official names – Mount Egmont and Mount Taranaki.
- It is located in Egmont National Park.
- It is one of the most symmetrical volcanic cones in the world.
- There is a circular ring plain of volcanic material formed from lahars and landslides.
- Mount Taranaki has become the third natural feature in New Zealand to be bestowed with an individual (human) status, after Te Urewera National Park and Whanganui River.
- The Indigenous Maori people of New Zealand respect the snow-covered Taranaki Maunga as a sacred ancestor.

Kolleru Lake

The Southern Zonal Bench of the National Green Tribunal (NGT) recently restrained the Andhra Pradesh Government from proceeding with the six infrastructure projects in Kolleru wetland area.

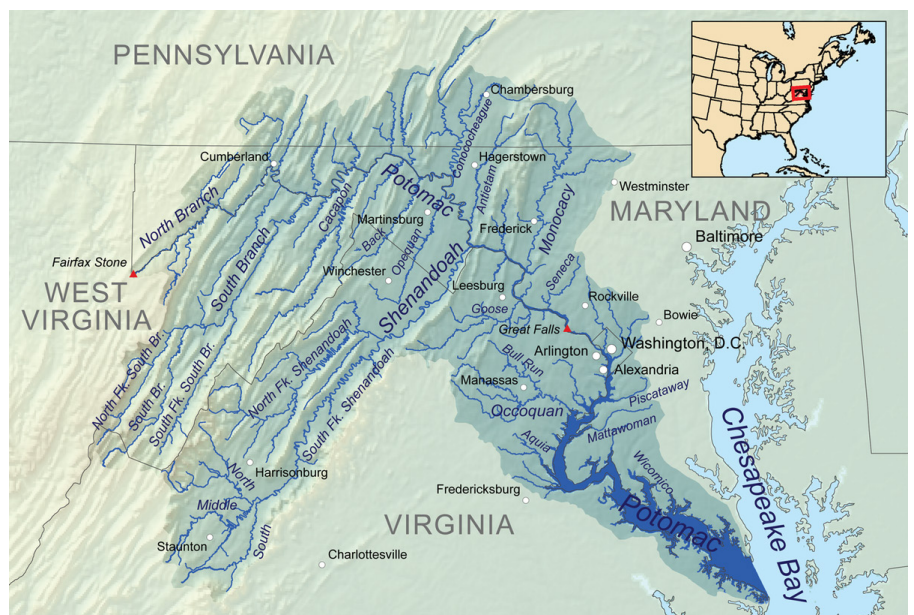
- It is a large, natural, shallow, freshwater lake located in northeastern Andhra Pradesh.
- It lies between the Krishna and Godavari deltas near the city of Eluru. The lake serves as a natural flood-balancing reservoir for these two rivers.
- It is the largest shallow freshwater lake in Asia.
- It covers an area of 308 sq.km.
- The lake drains into the Bay of Bengal through the Upputeru river. Occasionally, small amounts of salt water enter the otherwise freshwater lake through this river.
- It was declared a wildlife sanctuary in November 1999 and a Ramsar Site in November 2002.
- It serves as a habitat for migratory birds. It regularly supports more than 50,000 waterfowls, due to which it has been selected as an Important Bird Area (IBA).
- Kolleru Lake falls on the migratory route called the Central Asian Flyway (CAF).
- Major bird species found here include Siberian cranes, pelicans, and painted storks



Potomac River

A US military helicopter and a passenger plane collided mid-air over Washington, crashing into the Potomac River and leaving no known survivors.

- Potomac River originates in the Potomac River Highlands of West Virginia, US and flows through Virginia, Maryland, Washington, D.C., and emptying into the Chesapeake Bay.
- Chesapeake Bay is the largest estuary in the US and the third largest in the world.
- An estuary is a semi-enclosed coastal area where freshwater from rivers meets saltwater from the ocean, creating a unique ecosystem.
- The Potomac River, often referred to as “America’s River,” holds profound historical, cultural, and ecological significance.



is moving.

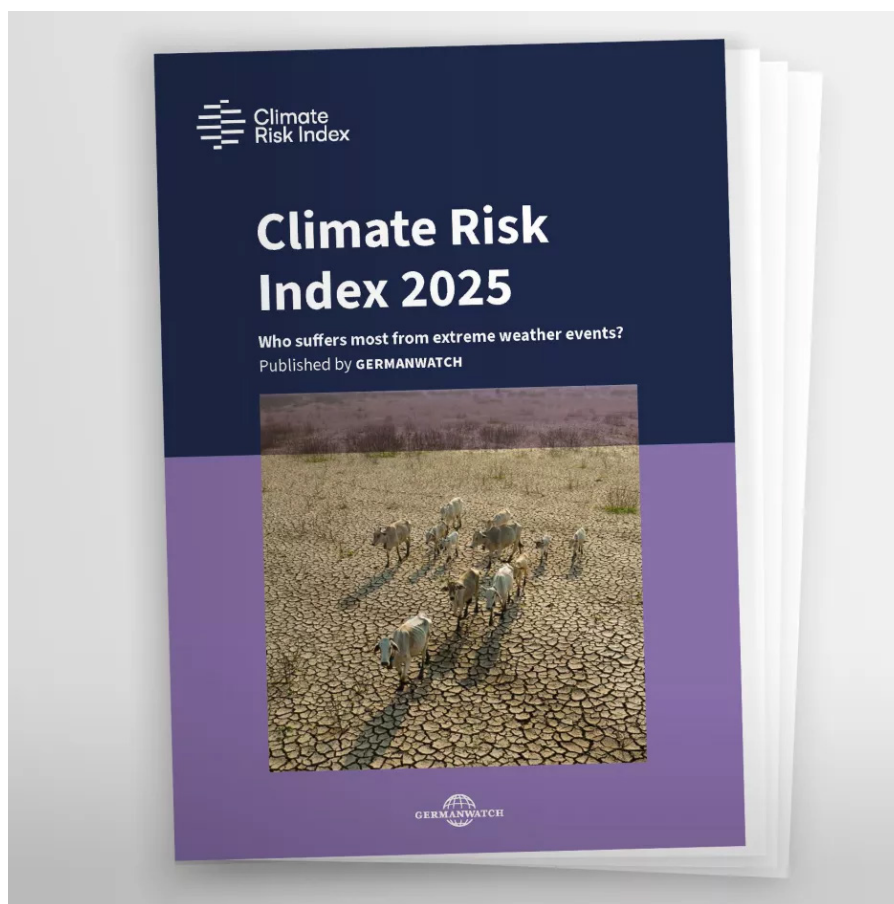
- Magma movement can also act as the ‘driving mechanism’ for swarms, creating the earthquakes as magma-filled cracks push their way through the Earth’s crust.
- In such a case the earthquakes commonly occur near the crack tip (ahead of the magma where the crack is starting to open), or off to the side of the crack.
- A slow-slip event is essentially an earthquake in slow-motion, and typically involves centimetres to tens of centimetres of movement along a fault, over weeks to years.
- We commonly see slow slip events at the Hikurangi subduction zone, usually at least one or two per year

Climate Risk Index 2025

The international environmental think tank ‘Germanwatch’ has released the Climate Risk Index (CRI) 2025.

Findings of Climate Risk Index 2025:

- Between 1993 and 2022, over 765,000 lives were lost, resulting in economic losses of USD 4.2 trillion.
 - The floods, droughts, and storms were the leading causes of global displacement.
 - In 1993-2022, Dominica, China, and Honduras were the top-3 countries affected by extreme weather events.
 - Myanmar, Italy, and India were among the other highly impacted countries.
 - Pakistan, Belize, and Italy were the top-3 affected in 2022.
 - 7 of the 10 worst-affected countries are low- and middle-income countries (LMICs).
 - Impact on India: India ranked 6th most affected country (1993-2022), accounting for 80,000 fatalities (10% of global) due to extreme weather events and 4.3% of global economic losses (USD 180 billion).
- India has faced severe floods (1993, 2013, 2019), intense heat waves (~50°C in 1998, 2002, 2003, 2015), and destructive cyclones like Gujarat (1998), Odisha (1999), Hudhud (2014), and Amphan (2020).
- Climate Risk Index ranks countries based on their vulnerability to extreme weather events, assessing human and economic losses caused by climate-induced disasters.
- Released annually since 2006, covering data from the past 30 years.
- CRI assesses the impacts of extreme weather events on countries across six key indicators: economic losses, fatalities, and affected people, both in absolute and relative terms.



International Association of Aids to Marine Navigation

India has been elected Vice President of the International Association of Aids to Marine Navigation (IALA) during its first General Assembly in Singapore.

- India is hosting the IALA Council meeting in December 2025 and the IALA Conference & General Assembly in September 2027 in Mumbai.
- IALA is a global organization dedicated to harmonizing marine aids to navigation (AtoN), ensuring safe, efficient, and environmentally responsible maritime operations.
- Founded in 1957 as a non-governmental organization (NGO).
- Became an Intergovernmental Organization (IGO) on August 22, 2024, after ratification by 34 states.
- Headquarters: Saint-Germain-en-Laye, France.



ZAGROS MOUNTAINS

A geologist said that a hilly area surrounding the Zagros Mountains in Iraq is being pulled into Earth.



- Zagros Mountains is a major mountain range in West Asia.
- Scientists estimate that these Mountains were formed during orogenic episodes triggered by the sliding of the Arabian Plate underneath the Eurasian Plate during the Miocene and Pliocene Epochs.
- Historically, the Zagros Mountains have acted as a natural barrier between several cultures and empires of the ancient and modern worlds alike.
- It extends for a distance of 1,500 kilometers in a north-

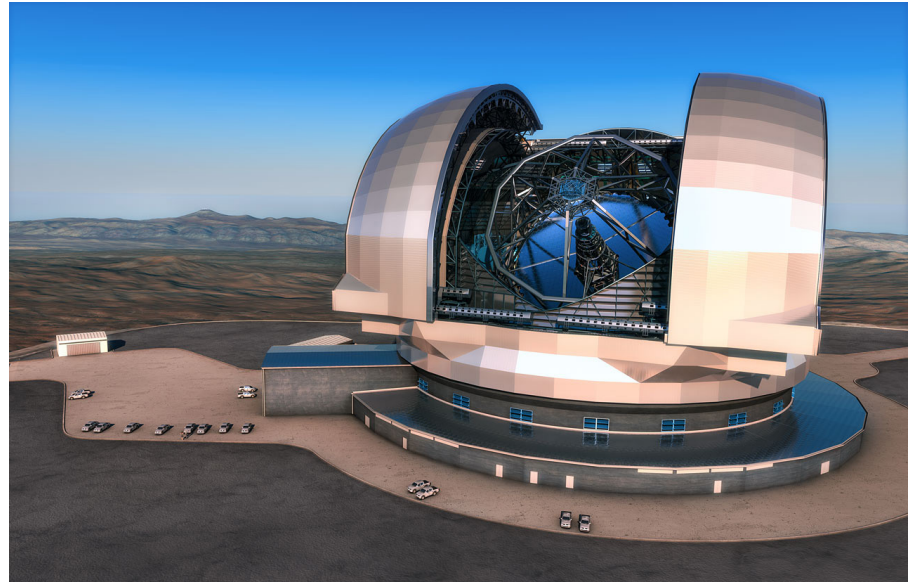
west to southeast direction from the border areas between eastern Turkey and northern Iraq across the Iranian Plateau, ending at the Strait of Hormuz in southern Iran.

- Mount Dena, with a peak achieving an elevation of 14,465 feet, is the highest peak in the Zagros Mountain system.
- The most commonly seen geological structural materials of the Zagros Mountains are Limestone and shale rocks from the Mesozoic Era and Paleogene Period.
- A semi-arid temperate climate prevails in the region, wherein the bitter winters are severely cold and experience deadly temperatures drop, while summers are highly arid.
- It consists of temperate broad-leaved forests, dominated by oak and pistachio trees, as well as dense ground covers of steppe vegetation.

Extremely Large Telescope

Lurking in the barren Atacama Desert, the Extremely Large Telescope (ELT), a colossal machine nears completion

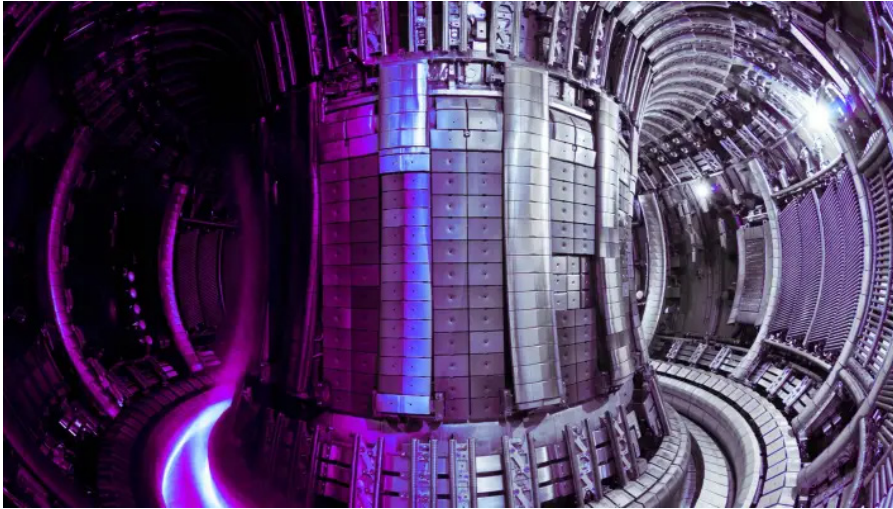
- It will be the world's largest optical telescope, with a primary mirror.
- It is being built by the European Southern Observatory (ESO) in Chile at a cost of 1.3 billion euros (around \$1.4 billion).



- It will be capable of detecting—and possibly even imaging—terrestrial planets in the habitable zones of other stars.
- The ELT is under construction atop Cerro Armazones, which is a mountaintop in Chile's Atacama Desert.
- The giant ELT dome will house the telescope and its interior structure, providing protection from the extreme environment of the Atacama Desert.
- The main structure of the telescope will hold its five mirrors and optics, including the enormous 39-metre primary mirror.
- The primary mirror, rather than being a single slab of glass, is made up of 798 hexagonal segments, each of which is 5 feet (1.5 m) across and 2 inches (5 cm) thick.
- European Southern Observatory (ESO) is the pre-eminent inter-governmental science and technology organisation in astronomy.
- It is supported by 16 European countries: Austria, Belgium, the Czech Republic, Denmark, France, Finland, Germany, Ireland, Italy, the Netherlands, Portugal, Poland, Spain, Sweden, Switzerland and the United Kingdom.
- Chile has been its host and partner country for many decades.
- It carries out an ambitious programme focused on the design, construction, and operation of powerful ground-based observing facilities for astronomy to enable important scientific discoveries.
- ESO operates three unique, world-class observing sites in Chile: La Silla, Paranal and Chajnantor.
- Headquarters: Garching, Germany

World Record For Nuclear Fusion

A world record for nuclear fusion has been smashed after the WEST Tokamak reactor, in southern France, was able to maintain plasma for more than 22 minutes.



- Nuclear fusion is the process by which two light atomic nuclei combine to form a single heavier one while releasing massive amounts of energy.
- The process releases energy because the total mass of the resulting single nucleus is less than the mass of the two original nuclei.
- The leftover mass becomes energy.
- Fusion reactions take place in a state of matter called plasma

— a hot, charged gas made of positive ions and free-moving electrons with unique properties distinct from solids, liquids or gases.

- The sun, along with all other stars, is powered by this reaction.
- The devices designated for the task of doing this here on Earth—nuclear fusion reactors— are called tokamaks.
- Tokamaks are often also called ‘artificial suns’ due to the fact that these doughnut-shaped machines replicate processes that occur in the sun.
- There are currently over 200 tokamaks in operation across the globe with the scientific milestones achieved in these devices developing a roadmap for the operation of the International Thermonuclear Experimental Reactor, or ITER, the world’s largest fusion experiment.
- A commercial tokamak will aim to use the thermal energy of plasma heated by fusion to heat water, create steam, and, in turn, spin a turbine that generates electricity.
- Fusion can involve many different elements in the periodic table. However, researchers working on fusion energy applications are especially interested in deuterium-tritium (DT) fusion.
- DT fusion produces a neutron and a helium nucleus. In the process, it also releases much more energy than most fusion.

DeepSeek AI

Chinese AI startup DeepSeek has launched generative AI models (known as DeepSeek) that rival global leaders like OpenAI, Google, and Meta while offering competitive performance at a significantly lower cost.

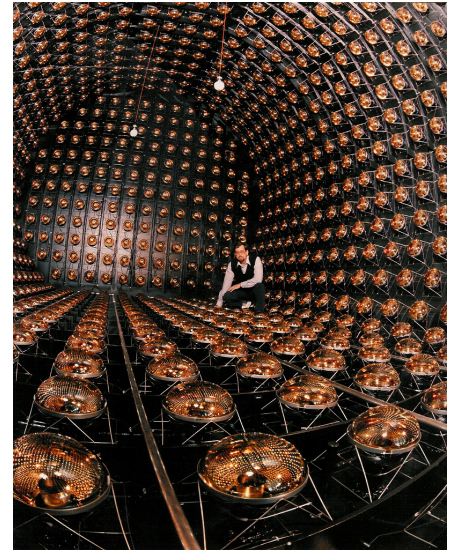
- DeepSeek is a free AI-powered chatbot similar to ChatGPT, providing text-based assistance via web, mobile, and API.
- Deepseek (AI firm) was founded by Liang Wen-feng in May 2023 that specialises in open-source Large Language Models (LLMs).
- DeepSeek-V3 excels in coding, translation, and writing, while DeepSeek-R1 outperforms OpenAI’s o1 in reasoning, math, and logic.



Neutrinos

Chinese scientists recently placed special detectors deep in the South China Sea to explore the possibility of building a huge underwater observatory to find neutrinos.

- Also called ghost particles, neutrinos are nearly massless, electrically neutral subatomic particles that interact extremely weakly with matter.
- Their tendency not to interact very often with other particles makes detecting them very difficult.
- First predicted in 1930, they weren't discovered in experiments until 1956, and scientists thought they were massless until recently.
- They belong to the family of particles called leptons, which are not subject to the strong force. Rather, neutrinos are subject to the weak force that underlies certain processes of radioactive decay.
- Neutrinos come from all kinds of different sources and are often the product of heavy particles turning into lighter ones, a process called "decay."
- They are the most common particles in the universe.
- Approximately 100 trillion neutrinos pass completely harmlessly through your body every second.
- Neutrinos play crucial roles in the standard model of particle physics, in stellar physics and black holes, and even in cosmology and the nature of the Big Bang.



In-Vitro Gametogenesis (IVG)

Researchers have developed In-Vitro Gametogenesis (IVG) that enables lab-based reproduction from stem cells that has many benefits compared to In-Vitro Fertilization (IVF).



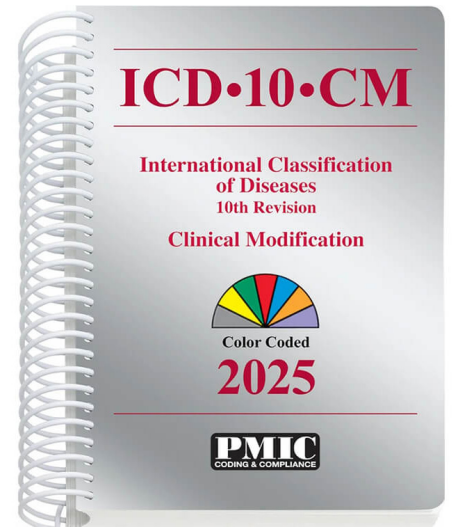
- IVG is a new reproductive technology that creates eggs and sperm from stem cells collected from skin, hair, or blood.
- These lab-grown gametes can be fertilized to create an embryo, which is implanted into a surrogate to carry the pregnancy.
- Scientists in Japan successfully produced mice using IVG, while the UK researchers expect human trials within three years.
- It could allow same-sex couples, older individuals, and infertile people to have biological children without the need of a donor as in case of IVF.

HEALTH

International Classification of Diseases

The World Health Organization (WHO) has released the 2025 edition of the International Classification of Diseases 11th Revision (ICD-11).

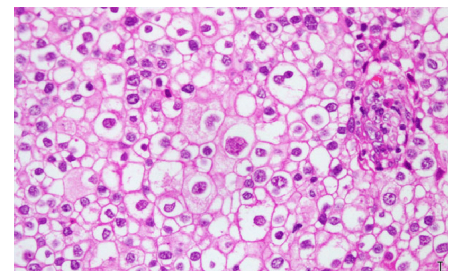
- International Classification of Diseases is a flagship World Health Organization product that serves as the basis for identifying health trends and statistics at country level and worldwide.
- ICD is at the foundation of WHO's Fourteenth General Programme of Work efforts to accelerate progress towards health-related Sustainable Development Goals (SDGs), addressing inequalities and achieving relevant national health targets.
- It serves a broad range of uses globally and provides critical knowledge on the extent, causes and consequences of human disease and death worldwide via data that is reported and coded with the ICD.
- Clinical terms coded with ICD are the main basis for health recording and statistics on disease in primary, secondary and tertiary care, as well as on cause of death certificates.
- In India, the Central Bureau of Health Intelligence (CBHI) is an agency under the Ministry of Health and Family Welfare that serves as the WHO Collaboration Centre for ICD-related activities.



Ovoid cells

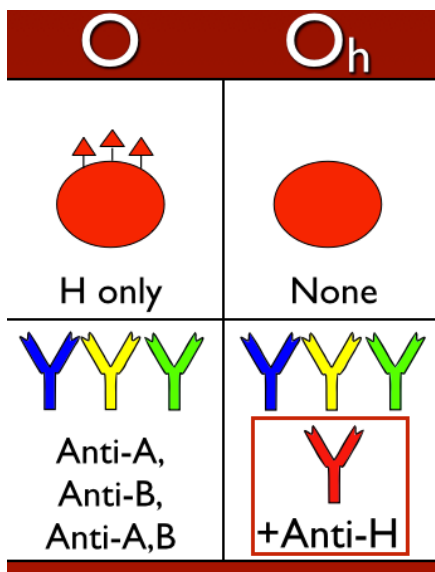
Researchers have discovered a new type of neuron that plays a fundamental role in recognition memory and named "ovoid cells."

- These cells are named for the distinct egg-like shape of their cell bodies, are present in relatively small numbers within the hippocampus of humans, mice, and other animals.
- These are highly specialized neurons which get activated each time when we encounter something new.
- It triggers a process that stores those objects in memory and allows us to recognize them months, potentially even years later.
- They are quite distinct from other neurons at a cellular and functional level, and in terms of their neural circuitry.
- This discovery provides key insights into how memories form and could aid in the treatment of brain conditions related to object recognition, such as Alzheimer's disease, Autism Spectrum Disorder and epilepsy.



Bombay Blood Group

In a rare and complex medical procedure, a 30-year-old woman with the extremely rare 'Bombay' (hh) blood group underwent a successful kidney transplant in India.



- The Bombay, also known as HH, blood group is a rare blood group first discovered in Mumbai in 1952 by Y.M. Bhende.
- The Bombay blood group lacks A, B and H antigens, which are found in the common ABO blood groups.
- In normal individuals, the H antigen serves as the base structure for building A and B antigens. In Bombay blood group individuals, the gene responsible for producing the H antigen is mutated or absent, so neither A nor B antigens can be formed.
- Consequently, the people with Bombay Blood Group are incompatible with all standard blood types, including O-negative, complicating both transfusions and organ transplants.
- They can only receive blood from another Bombay blood group donor. Its prevalence is about 0.0004% (one in 4 million) of the total human population.
- While it drops to one in a million in the European population and one in 10,000 in Mumbai, the act of finding a donor is still daunting.

Human African Trypanosomiasis

The World Health Organization (WHO) announced that Guinea has successfully eliminated the gambiense form of Human African Trypanosomiasis (HAT) as a public health problem.

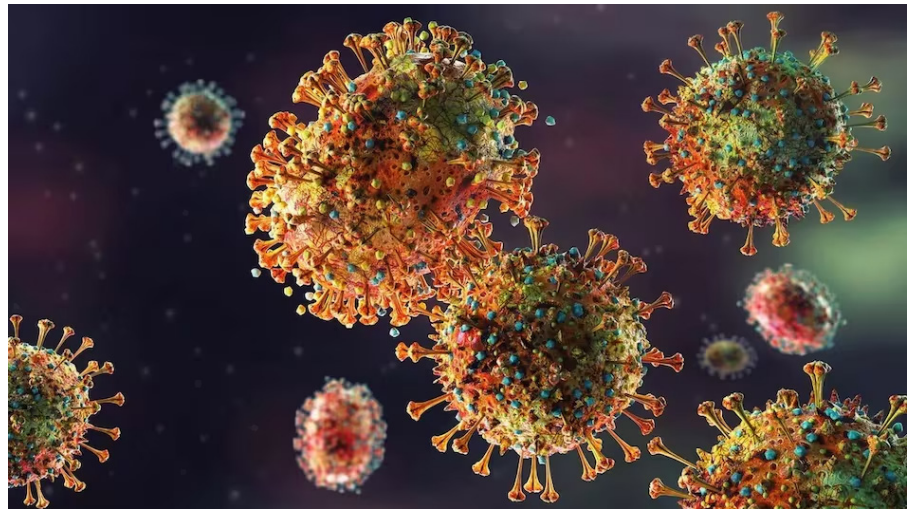
- Human African Trypanosomiasis is a parasitic disease transmitted through the bite of infected tsetse flies.
- It is also known as sleeping sickness and is endemic in sub-Saharan Africa.
- It initially presents with symptoms such as fever, headaches, and joint pain, but can progress to neurological issues like confusion, disrupted sleep, and behavioural changes. If left untreated, the disease can be fatal.
- First signs and symptoms emerge a few weeks or months after infection. The disease develops rapidly with multi-organ invasion, including the brain.
- It takes 2 forms, depending on the subspecies of the infecting parasite:
- Trypanosoma brucei gambiense is found in 24 countries of west and central Africa, currently accounts for 92% of reported cases and causes a chronic illness.
- A person can be infected for months or even years without major signs or symptoms. When evident symptoms emerge, often the disease is advanced with the central nervous system already affected.
- Trypanosoma brucei rhodesiense is found in 13 countries of eastern and southern Africa accounts for 8% of reported cases and causes an acute disease.
- It is more prevalent amongst rural populations which depend on agriculture, fishing, animal husbandry or hunting are the most exposed.
- To date, WHO has validated the elimination of the gambiense form of HAT in seven countries: Togo (2020), Benin (2021), Ivory Coast (2021), Uganda (2022), Equatorial Guinea (2022), Ghana (2023) and Chad (2024).



Henipavirus

Camp Hill virus, a henipavirus related to Nipah, has been recently detected in North America, raising concerns of a potential outbreak.

- Henipaviruses (family Paramyxoviridae) are zoonotic, negative-sense RNA viruses.
- Fruit bats (Pteropus species, also called ‘flying foxes’) are the natural hosts of Henipaviruses.
- Henipaviruses can cross species barriers, infecting various mammals, including humans.
- They often cause severe respiratory illness and encephalitis and are associated with high case fatality rates.
- The two most notable henipaviruses are Hendra virus and Nipah virus.
- Hendra virus, first identified in Australia, has caused outbreaks with mortality rates up to 70%.
- The Nipah virus has been linked with numerous outbreaks in Southeast Asia, particularly in Malaysia and Bangladesh, with case-fatality rates estimated at 40%–75% depending on surveillance and clinical management.
- Direct contact with infected animals (e.g., bats, horses, pigs).
- Consumption of contaminated food or water.
- Human-to-human transmission through bodily fluids, close contact, or respiratory droplets.



Symptoms:

- Common symptoms include dizziness, headache, fever, and myalgias.
- Fatality often occurs when the disease progresses to severe encephalitis and symptoms like confusion, abnormal reflexes, seizures, and coma occur.
- It lies in their ability to encode several proteins which block the innate immune response in infected animals and humans.
- These inhibit the cell’s response to viral infection, and allow viral replication.
- Treatment: Treatment is symptomatic, and no vaccine or antiviral drug has been developed so far to treat the disease.

PUNCH Mission

NASA is gearing up for a new and first-of-its-kind solar mission called PUNCH mission that will closely observe the solar atmosphere.



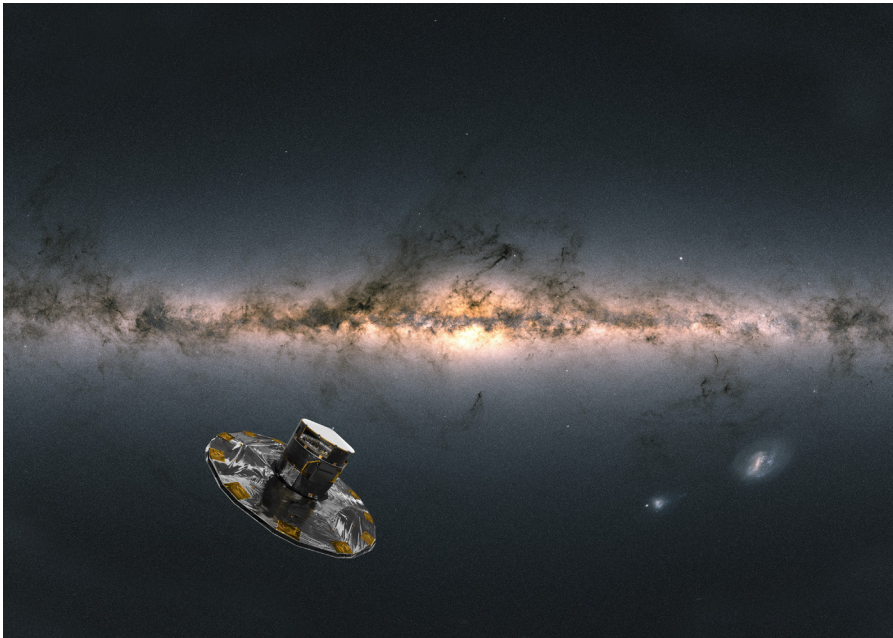
SPACE

- The Polarimetry to Unify the Corona and Heliosphere (PUNCH) mission will be launched by SpaceX .
- It will be a constellation of four, suitcase-sized satellites each weighing about 64 kg sent to the Low Earth Orbit (LEO).
- It will have three Wide Field Imagers (WFI) and one Narrow Field Imager onboard. Once every four minutes, each of the four cameras will capture three raw images using different polarising filters.
- In addition, each camera will capture an unpolarised image once every eight minutes.
- It is the first time that a solar mission has been specifically designed to make use of the polarisation of light to measure the corona and solar wind, that too, in 3D.
- It will provide scientists with new information which could lead to more accurate predictions about the arrival of space weather events on Earth and impact on humanity's robotic explorers in space.
- It will measure polarised light using polarising filters, enabling scientists to look into the inner solar system.
- PUNCH's four-camera setup will operate as a single, virtual instrument to generate large-scale imagery data, making it a unique information-loaded 3D image of the solar corona.
- Time Period: The expected mission life is two years.

GAIA MISSION

Astronomers have recently discovered a gigantic black hole named Gaia BH3 hiding close to the earth, the third of its kind using the European Space Agency's Gaia telescope. Gaia, the Global Astrometric Interferometer for Astrophysics, is a European Space Agency (ESA)'s astronomical observatory mission.

- Its goal is to create the largest, most precise three-dimensional map of the Milky Way by surveying about 1% of the galaxy's 100 billion stars.
- It was launched in 2013.
- Nestled at the Lagrange Point 2, some 1.5 million kilometers away



- from Earth, Gaia orbits the sun in sync with our planet.
- It is shielded by Earth from the sun's glare and free from the distorting effects of Earth's atmosphere, which plague ground-based telescopes' observations.
- It scans the whole sky every two months.
- The 2.3 meters Gaia satellite is attached to a 10 meters circular sunshield and is fitted with two telescopes that sit 106 degrees apart.
- Gaia provides unprecedented positional and radial velocity

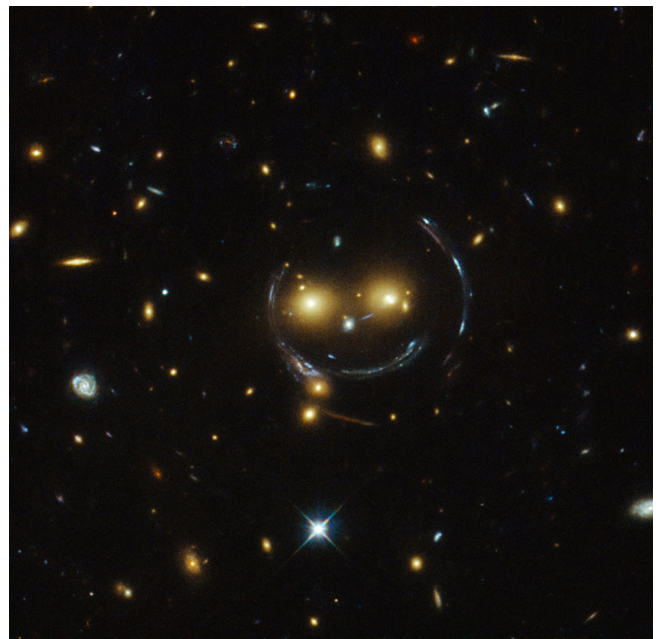
measurements with the accuracies needed to produce a stereoscopic and kinematic census of about one billion stars in our Galaxy.

- Gaia also maps Solar System objects, primarily main belt asteroids circling the Sun between the orbits of Mars and Jupiter.
- With its ability to detect faint and fast-moving objects, it is expected that Gaia will also detect several thousand Near-Earth Objects (NEOs).

Einstein Ring

The European Space Agency's Euclid space telescope has discovered a rare ring of light, known as an Einstein ring, around a galaxy nearly 590 million light-years away from Earth.

- Einstein Ring is a rare ring of light around a form of dark matter, galaxy or cluster of galaxies.
- It is essentially an example of gravitational lensing.
- Einstein rings are not visible to the naked eye, and can be observed only through space telescopes such as Euclid.
- In the case of the recently discovered Einstein ring, NGC 6505 was the gravitational lens.
- The nearer galaxy distorted and amplified the light coming from a distant unnamed galaxy, located 4.42 billion light-years away.
- The first Einstein ring was discovered in 1987, and since then, several more have been discovered.
- These rings help scientists investigate dark matter, which has never been detected but is believed to make up 85% of the total matter in the universe.
- They enable scientists to learn about distant galaxies, which otherwise might not be visible.
- They can also provide information about the expansion of the universe as the space between the Earth and other galaxies both in the foreground and the background



- Gravitational lensing is a phenomenon which occurs when a massive celestial body such as a galaxy or cluster of galaxies creates a gravitational field which distorts and amplifies the light from distant galaxies that are behind it but in the same line of sight.
- The body causing the light to curve is called a gravitational lens.

Navigation with Indian Constellation

ISRO recently faced a setback in its mission to position the NVS-02 satellite in the desired orbit due to thruster failure, but is working on alternative strategies to utilise the satellite in its current elliptical orbit for the NavIC navigation system.

- It is India's regional navigation satellite system designed to provide accurate Position, Velocity and Timing (PVT) service to users in India as well as the region extending about 1500 km beyond the Indian landmass.
- It is a satellite-based navigation system developed by the Indian Space Research Organization (ISRO).
- The first NavIC satellite was launched in 2013.
- NavIC is designed with a constellation of 7 satellites and a network of ground stations operating 24 x 7.
- Three satellites of the constellation are placed in geostationary orbit, at 32.5°E, 83°E and 129.5°E respectively.
- Four satellites are placed in inclined geosynchronous orbit with equatorial crossing of 55°E and 111.75°E respectively, with inclination of 29° (two satellites in each plane).
- The ground network consists of control centre, precise timing facility, range and integrity monitoring stations, two-way ranging stations, etc.
- NavIC offers two services – Standard Position Service (SPS) for civilian users and Restricted Service (RS) for strategic users.
- These two services are provided in both L5 (1176.45 MHz) and S band (2498.028 MHz).
- The system provides positioning accuracy of better than 10 m throughout India and better than 20 m for the area surrounding India by 1,500 km, and timing accuracy better than 50 nanoseconds.
- NavIC SPS signals are interoperable with the other global navigation satellite system (GNSS) signals namely GPS, Glonass, Galileo and BeiDou.



Quipu

Astronomers recently identified what could be the largest structure ever found in the known universe, named Quipu.

- It is a recently discovered superstructure in which galaxies group together in clusters and clusters of clusters (superclusters).
- It contains nearly 70 galactic superclusters.
- It is the largest known structure in the universe in terms of length.
- Quipu stretches an astonishing 3 billion light-years across and contains an estimated 200 quadrillion solar masses.
- It is over 13,000 times the length of the Milky Way.
- It is also hundreds of thousands of times more massive than a single galaxy.
- Inspired by the Incan counting system of knotted cords, the structure mirrors its namesake with a long central filament and multiple branching filaments.
- Despite its vast size, Quipu will not last forever. Scientists believe it will eventually break into smaller, collapsing units.
- They describe it as a “transient configuration” that will change over time.
- Studying Quipu may help refine cosmological models.
- It could offer new insights into galaxy evolution and large-scale cosmic dynamics.



Pinaka Multiple Rocket Launch Systems

The Union Defence Ministry recently signed contracts worth ₹10,147 crore for a variety of ammunition for the Army's Pinaka Multiple Rocket Launch Systems (MRLS).

- It is a battle-proven, all-weather, indirect area fire Artillery Weapon System.
- It was developed by DRDO's Armament Research and Development Establishment (ARDE).

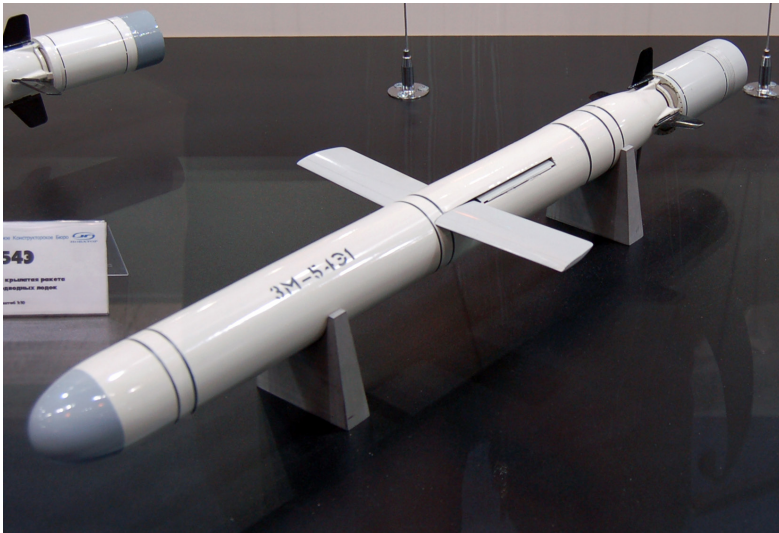


- It was first used during the Kargil War, where it successfully neutralised Pakistan Army positions on the mountain tops.
- The quick response and relatively high pointing accuracy of the launcher enable it to deliver a large volume of fire against critical and time-sensitive enemy targets, within a very short time.
- Each launcher carries 12 rockets, and a battery consists of six launchers (72 rockets total).
- It delivers a variety of warheads, including high-explosive and submunitions.
- It now has a range of over 75 kilometers.
- Initially unguided, now the Pinaka-Guided version uses INS/GPS navigation for precision strikes.
- The system is mounted on a Tatra truck for mobility.

Klub-S Missile System

India recently reached an agreement with Russia to acquire the Klub-S missile system, aimed at enhancing the operational capabilities of the Indian Navy's submarine fleet.

- Klub-S Missile System developed by Russian defense company NPO Novator, the Klub, also known as Kalibr, is a cruise missile inducted into Moscow's defense forces in 1994.
- The Klub-S missiles have a warhead payload of 400 kilograms and



are capable of targeting surface ships, submarines, and ground targets up to 300 kilometers away.

- This system includes a fire control system, a vertical launcher unit (VLU), and ammunition.
- It is known for its excellent performance in dangerous combat zones.
- It is designed for use in situations where the enemy is engaged in heavy firing and electronic warfare is at its peak.
- It can accelerate to supersonic speeds in the terminal phase, making it difficult for enemy defenses to intercept.
- It cruises at an altitude of 10-15 meters,

reducing the reaction time for enemy defenses.

Exercise Cyclone 2025

India and Egypt will hold Exercise Cyclone 2025 from February 10 to 23 in Rajasthan.

- Exercise Cyclone 2025 is a joint military exercise held between India and Egypt army.
- This is the third edition of Cyclone exercise.
- The first edition of the exercise was conducted in 2023 (In India) and second edition (In Egypt) was in 2024.
- The goal of the exercise is to improve coordination between the two armies. Training will include real-world scenarios and tactical drills.
- Motto of Exercise Cyclone 2025: “Together we train, together we excel”
- The exercise will involve the special forces of both countries.
- The Indian Army and the Egyptian Army would train together in desert conditions.
- The focus will be on counter-terrorism, high-intensity combat, and survival techniques.
- Military cooperation between India and Egypt has strengthened in recent years.
- Both countries have emphasised the need to strengthen security efforts.
- The exercise will allow both forces to operate together in simulated combat situations.



Exercise Dharma Guardian

The Exercise Dharma Guardian, between India and Japan is scheduled at Mount Fuji, Japan from February 25 to March 9, the Indian Army.

- It is a joint military exercise between India and Japan.
- It is an annual exercise and conducted alternatively in India and Japan.
- It aims to enhance interoperability between the two forces while undertaking joint urban warfare and counter-terrorism operations under UN mandate.



- 2025 Exercise will focus on a high degree of physical fitness, joint planning and joint tactical drills.
- Drills to be rehearsed during the exercise include advanced special forces skills and various other tactics, techniques and procedures as per the current operational paradigm.
- It will culminate with a 48-hour-long validation to rehearse the tactical drills for counterterrorism operations in

desert and semi-desert terrain.

- In addition to tactical manoeuvres, it will foster stronger cultural and professional ties between the participating contingents.

INS TAMAL

The Indian Navy crew that will operate Tamal, the stealth frigate under construction in Russia, reached St. Petersburg recently in preparation for its commissioning.

- INS Tamal is a state-of-the-art stealth guided missile frigate.
- It is an upgraded Krivak-III class frigate, and is part of a significant \$2.5 billion deal between India and Russia for four stealth frigates, two to be built in Russia and the other two to be manufactured at Goa Shipyard Limited.
- INS Tushil, the first of this, was commissioned into the Indian Navy in December 2024.
- INS Tamal will be the last warship to be commissioned outside India or imported. The country now designs and constructs its own warships.
- Following the delivery of INS Tamal, the Indian Navy will receive two additional frigates being constructed at Goa Shipyard Limited in India.
- INS Tamal is designed for blue water operations, capable of engaging in various naval warfare dimensions, including air, surface, underwater and electronic warfare.
- It measures 125 meters in length and has a displacement of 3,900 tonnes, blending Russian design with Indian technology.
- Approximately 26% of its components are sourced from Indian manufacturers.
- The frigate is equipped with a 76mm Super Rapid Gun Mount (SRGM), which enhances its naval artillery capabilities.
- Additionally, it has two Indigenous Triple Torpedo Launchers (ITTL) designed for 324mm torpedoes, allowing for effective anti-submarine warfare operations.
- INS Tamal carries an array of missile systems, including BrahMos supersonic cruise missiles and vertically launched Shtil surface-to-air missiles, providing it with formidable offensive and defensive capabilities.



Guantanamo Bay

The US President signed an executive order directing the preparation of a large-scale migrant detention centre at the US naval base in Guantánamo Bay.

- It forms an inlet of the Caribbean Sea, indenting southeastern Cuba.
- It is a large and well-sheltered bay; it has a narrow entrance to a harbour and is capable of accommodating large vessels.
- It is served by the ports of Caimanera and Boquerón.
- The strategic importance of the bay close to the Windward Passage between Cuba and Haiti that links the Atlantic Ocean to the Caribbean Sea and Panama.
- Guantanamo Bay, widely known as “Gitmo,” has been used to house terrorism suspects since the September 11, 2001, attacks, but it also has a small, separate facility known as the Migrant Operations Centre.
- This centre has historically held migrants intercepted while attempting to enter the US by boat, primarily from Haiti and Cuba.
- The facility occupies only a small part of the base and currently lacks the capacity to house the 30,000 detainees.

North Sea

Researchers have discovered huge landforms deep beneath the North Sea that suggest the region was swallowed by a giant ice sheet toward the middle of the last ice age.

- North Sea is a relatively shallow and enclosed sea located in North-western Europe.
- It is considered to be a marginal sea of the Atlantic Ocean.
- It connects to the Atlantic Ocean via the Norwegian Sea in the north and the English Channel in the south.
- It connects to the Baltic Sea in the east via the Kattegat and Skagerrak straits
- Bordering Countries: United Kingdom, Norway, Denmark, Germany, the Netherlands, Belgium and France.
- It covers an area of approximately 570,000 sq.km.
- Major rivers that drain into the North Sea include Forth, Elbe, Weser, Ems, Rhine, Meuse, Scheldt,



Thames and Humber.

- It also hosts two of the world’s largest ports (Hamburg and Rotterdam).
- It is one of the most important fishing grounds globally.

Gulf of Eilat

A new study reveals that coral reefs in the Gulf of Eilat experienced a surprising 3,000-year ‘shutdown’ in growth, from about 4,400 to 1,000 years ago, likely due to a temporary drop in sea level that could have been caused by global cooling.

- Gulf of Eilat is also known as Gulf of Aqaba which is the northeastern extension of the Red Sea.
- The northern portion of the Red Sea is divided by the Sinai Peninsula into the Gulf of Aqaba in the east and the Gulf of Suez in the west.



- It is located along the south-eastern edge of the Sinai Peninsula and to the west of the Arabian Peninsula.
- It forms an integral part of the East African Rift System and was created by seismic activity along the Afro-Syrian Rift.
- The Tiran Strait connects the Gulf of Aqaba with the Red Sea. It also serves as a connecting point between the continents of Asia and Africa.
- It supports unique and diverse aquatic ecosystems and serves as a vital habitat for some of the world’s richest coral reefs.
- It is bordered by the countries of Israel, Jordan, Egypt and Saudi Arabia.
- Some of the major cities that are situated on the northern end of the Gulf of Aqaba include Taba (Egypt), Eilat (Israel), and Aqaba (Jordan).

Cook Islands

The New Zealand’s Foreign Minister voiced “significant concern” as close Pacific partner the Cook Islands prepared to sign a cooperation deal with China.

- Cook Islands is a small, self-governing Pacific nation that has a “free association” pact with New Zealand.
- It is located in the South Pacific Ocean, between Tonga to the west and French Polynesia to the east.
- It consists of 15 islands divided into a northern group of six islands and a southern group of nine islands.
- Northern Islands: They are mostly low-lying and sparsely populated coral atolls; and include the islands



of Manihiki, Nassau, Penrhyn, Pukapuka, Rakahanga, and Suvarrow. They are covered in light vegetation and equipped with stunning white sand beaches.

- Southern islands: They generally consists of much larger higher islands that are volcanic in origin and more densely populated. The southern island group includes Rarotonga, Aitutaki, Atiu, Mangaia, Manuae, Mauke, Mitiaro, Palmerston, and Takutea.
- The highest point is Te Mangawhich rises to 652m on the Rarotonga island.
- Most of the population is found on the island of Rarotonga.
- Capital city: Avarua, which is on Rarotonga island.

Gulf of Tonkin

Vietnam's foreign ministry published a map defining its baseline claim in the Gulf of Tonkin.

- Gulf of Tonkin is referred as “Beibu Gulf” in Chinese and “Bac Bo Gulf” in Vietnamese.
- It is a crescent-shaped, shallow, semi-enclosed water body situated off South China and Northern Vietnam coasts in the South China Sea’s northwestern portion.
- It is bordered by the northern coastline of Vietnam in the west and northwest; by China’s Guangxi Zhuang Autonomous Region in the north; and by the Leizhou Peninsula and Hainan Island in the east.
- It is connected with the South China Sea via the gulf’s mouth in the south and the Hainan Strait in the northeast.
- Many rivers empty into the Gulf of Tonkin, with the Red River supplying the major riverine discharge along with some smaller rivers along the northern and western coastal areas.
- In Northern Vietnam, the gulf’s main ports include Haiphong and Ben Thuy, whereas, in China, its major port is Beihai (Pakhoi).





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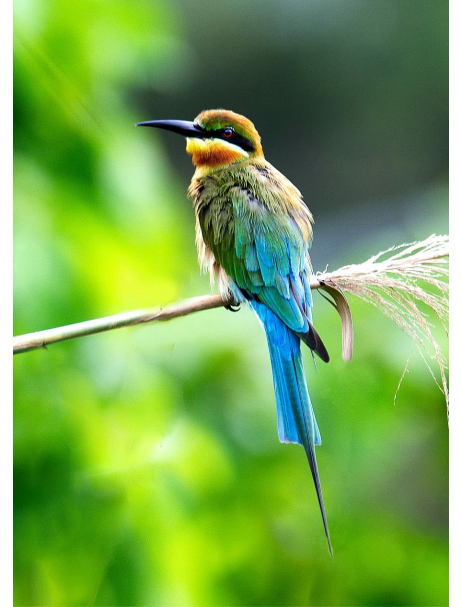


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Blue-cheeked Bee-eater

The first breeding site of the Blue-Cheeked Bee-eater (Merops persicus) in peninsular India has been discovered in the salt pans of Aandivilai near the Manakudy Mangroves in Kanniyakumari district.

- It is a near passerine bird in the bee-eater family, Meropidae.
- It was historically known as passage migrant and winter visitor in India.
- It may choose to nest solitarily or in small, loose colonies of up to ten individuals. It is also known to share colonies with European bee-eaters.
- Its breeding was primarily recorded in regions such as Nile Delta, Pakistan and Iran while its wintering grounds include parts of Africa.
- This bird favors sub-tropical semi-desert regions dotted with sparse trees, such as acacias, for breeding.
- In its breeding grounds, this species occupies semi-desert, steppe, dunes, saline pans, cultivation, thorn woodland and sandy slopes with small gulleys, ravines, quarries, pits and embankments.
- It breeds mainly in sand deserts near bodies of water fringed with reeds and tamarisks.
- During the non-breeding season, it inhabits a wide variety of greener habitats including savanna, broad river valleys, woods, lakeshores, swamps, ponds, dams, waterworks and cultivation.
- Conservation status: IUCN: Least Concern



South American Tapir

The South American tapir (Lowland tapirs) has been spotted in the Cunhambebe State Park (Brazil's Costa Verde region) for the first time in 100 years.



- The last confirmed sighting was in 1914 in the Serra dos Orgaos National Park in Rio de Janeiro, Brazil.
- Tapir is the largest land mammal in South America and has short legs and a rounded body, with a kind of flexible trunk.
- They are herbivores.
- It is Known as a “forest gardener,” the tapir aids seed dispersal, and creates natural trails that allow sunlight to reach the forest floor, enhancing biodiversity.
- IUCN Status: Endangered.
- South American tapirs are one of four species of tapir alongside the Baird’s tapir, mountain tapir and Malayan tapir found in the forests of Central and South America as well as Southeast Asia.

Strobilanthes gigantea

A new species, Strobilanthes gigantea, has been discovered in Arunachal Pradesh, within the Indian Himalayan Region (IHR).

- It is a new species of flowering plant discovered in Arunachal Pradesh, within the Indian Himalayan Region (IHR).
- This species stands out due to its exceptionally large size—sometimes growing into a tree—along with unique floral characteristics such as densely imbricate bracts, uninterrupted inflorescence, a slightly curved corolla tube, and wings on the staminal curtain.
- The genus Strobilanthes is the second largest within the Acanthaceae family (a family of dicotyledonous flowering plants), comprising around 450 species globally, with 167 species found in India, primarily in the Himalayas and Western Ghats.
- The Eastern Himalayas, particularly Arunachal Pradesh, serve as a biodiversity hotspot for this genus, housing 41 known species.



Northern Pintail Duck

A flock of rare northern pintail ducks has been recently spotted at an unprecedented altitude of 13,500 feet in Tawang, Arunachal Pradesh.

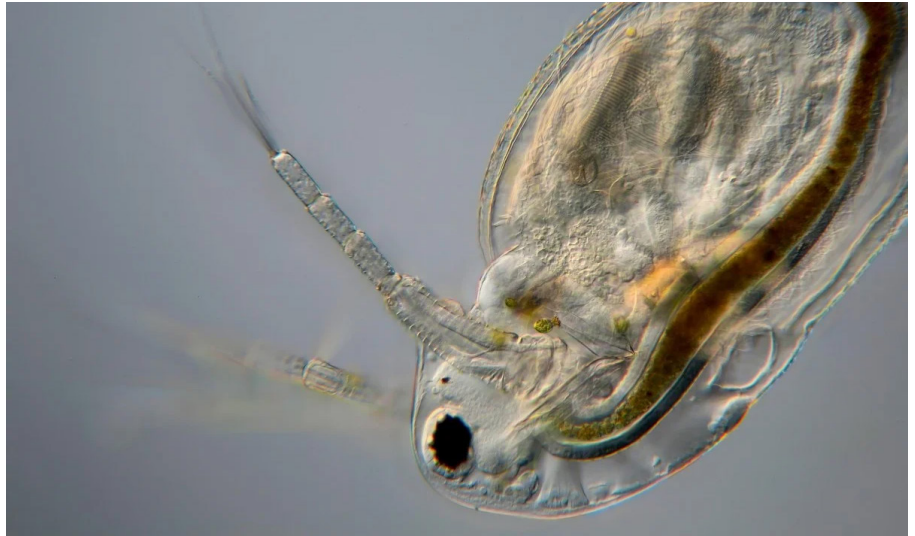


- It is a graceful, migratory waterfowl celebrated for its striking appearance and fascinating behavior.
 - Scientific name: *Anas acuta*
 - Sometimes referred to as the northern nomads, northern pintails have extensive migratory routes.
 - They have been found on every continent except Antarctica but typically do not live or breed south of the equator.
 - They are named for their long central tail feathers ending in what appears to be a point.
 - The male is a buff-gray color with a chocolate-covered head, a wide white strip on his chest and black patterning on his back.
 - Females and non-breeding males are mottled brown with a light chest, and neck.
 - These large ducks can reach over 60 centimeters long and weigh over one kilogram.
 - Their wingspan spreads up to 91 centimeters.
 - Their aerodynamic build makes them fast flyers, capable of reaching speeds up to 48 mph.
 - In the wild, northern pintails can live up to 22 years
- Conservation Status: IUCN Red List: Least Concern

Bryospilus bharaticus

A new species of water flea was discovered from moss growth found on walls of Korigad Fort near Pune and named it as Bryospilus (Indobryospilus) bharaticus n. sp.

- Bryospilus bharaticus is a species of water flea belongs to Bryospilus genus.
- This recent discovery from western India is the first for the whole of Tropical Asia.
- It uses antennae as ‘supports’ to crawl through thick, debris-filled water films on moss.
- The antennae have big spines that assist sideways and forward movement.
- The fleas’ main eye is absent because it lives in reduced light and does not require colour distinction for foraging.
- It has been found in semi-terrestrial habitats in rainforests of West Africa, South and Central America, and New Zealand.
- The distant relatives of this species are found in open waters, while many are found in littoral (vegetated) regions of different water bodies.
- The genus Bryospilus is a unique animal with characteristic adaptations suited for living in “semi-terrestrial” environments, such as water film found on mosses.
- Ancestors of this species were potentially present on the Indian subcontinent before the breakup of Gondwanaland started approximately 200 million years ago.



Black Kite

An article recently revealed that black kites have been found to nest in a tower structure located in Chennai.

- They are medium-sized birds of prey in the family Accipitridae.
- Unlike others in the group, black kites are opportunistic hunters and spend much time soaring and gliding in thermals in search of food.
- These are medium-sized raptors. Their dorsal coloration is mostly brown, which fades to a darker brown towards the tips of the wings and tail.
- They have small, bead-like dark brown eyes and a large black, hook-shaped beak for tearing flesh and consuming their prey.
- They live in a wide variety of habitats from wetlands, river edges, coasts, grassland, open savannas, shrubland and woodlands.
- They are mainly found in tropical portions of Australasia, Eurasia, and Africa.
- They are monogamous and form strong pair bonds that may last for life.
- They are extremely versatile feeders, taking carrion as well as live birds, mammals, fish, lizards, amphibians and invertebrates, and even vegetable matter such as palm oil fruits.



Conservation Status:

IUCN: Least Concern

Wild Life Protection Act, 1972: Schedule-II

Golden-headed Cisticola

Golden-headed Cisticola bird was discovered for the first time in the Mathikettan Shola National Park, Idukki in the southern Western Ghats after an extensive gap.



- Scientific Name: *Cisticola exilis*
- It is also known as the bright-capped cisticola. It is a species of warbler in the family Cisticolidae.
- It is omnivorous, primarily eating invertebrates such as insects and small slugs, but also eating grass seeds.
- It is usually found in grasslands in the mountain ranges.
- It is found in Australia and

Asian countries. In India it has been observed in parts of Karnataka, Tamil Nadu, and northern Kerala.

- Male birds have distinct golden-orange plumage on their head, neck, and chest during breeding.
- They also have pinkish beaks and black streaks on their backs.
- They can be easily identified by their distinctive call.
- Conservation Status: IUCN: Least Concern

Crocodile Catfish

The recent discovery of the Crocodile Catfish in the Bahini River, located in the Basistha locality of Guwahati, has raised alarm over potential ecological disruptions.

- Crocodile Catfish, commonly known as the Asian giant river catfish, crocodile goonch catfish, or the giant devil catfish, is a species of catfish that belongs to the family Sisoridae.
- It is one of the largest freshwater catfish species in Asia.
- Scientific name: *Bagarius suchus*
- It is native to freshwater habitats in South and Southeast Asia, including countries like India, Nepal, Bangladesh, Myanmar and Thailand.



- It is typically found in large rivers and deep pools with slow to moderate currents.
- They are often associated with rocky and gravelly substrates in their natural habitats.
- It can reach impressive lengths of up to 1.5 meters or more and can weigh over 50 kilograms.
- It has a long, cylindrical body with a broad head and a wide mouth.
- Its body is typically dark brown or black, and it may have irregular patches or spots on its body.
- The dorsal fin is long and extends almost the entire length of the back.
- It is a carnivorous predator. It primarily feeds on other fish and various aquatic organisms.
- It is known for its voracious appetite and can consume prey that is relatively large compared to its own size.
- Conservation Status: IUCN Red List: Near Threatened

Loggerhead Turtle

A recent study revealed that the loggerhead turtle can learn and remember the magnetic signature of an area and does a 'turtle dance' when in a location that they associate with food.



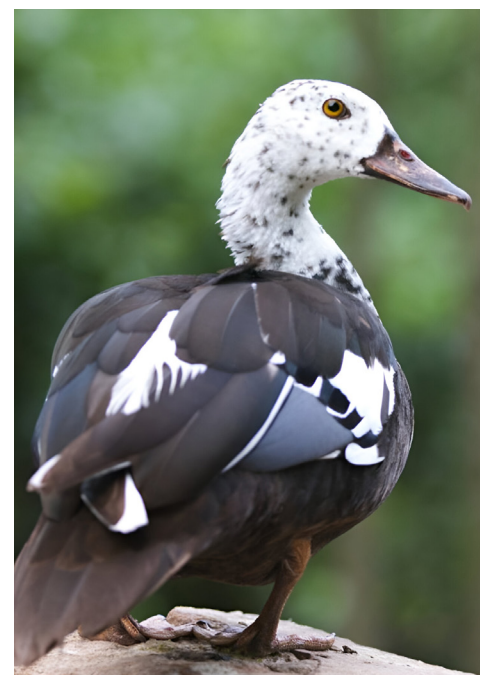
- It uses the geomagnetic field as a map when navigating large distances.
- It has a cosmopolitan distribution, nesting over the broadest geographical range of any sea turtle. It inhabits the Atlantic, Indian and Pacific Oceans, and the Mediterranean Sea.
- It is omnivorous, feeding mainly on bottom-dwelling invertebrates, such as gastropods, bivalves, and decapods. It has a greater list of known prey than any other sea turtle.
- Conservation status:
- IUCN: Vulnerable
- Threats: Bycatch in fishing gear, Climate change, Direct harvest of turtles and eggs, Loss and degradation of nesting habitat, Ocean pollution/marine debris.

- Loggerhead Turtle is a species of oceanic turtle belonging to the family Cheloniidae.
- It is named Loggerhead for their large heads that support powerful jaw muscles.
- It is the world's largest hard-shelled turtle, slightly larger at average and maximum mature weights than the Green sea turtle and the Galapagos tortoise.
- It is also the world's second largest extant turtle after the leatherback sea turtle.

White-Winged Duck

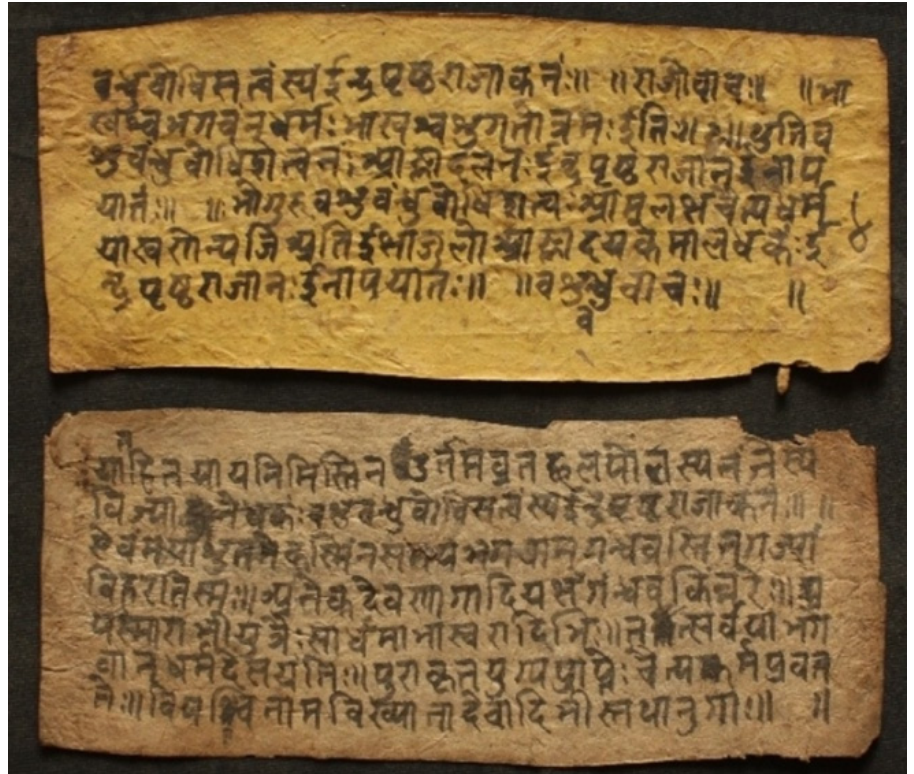
A pair of rare endangered white-winged ducks (Deo Hanh), which is the state bird of Assam, was spotted in Dihing Patkai National Park by conservationists and forest officials recently.

- The White-Winged Duck, also known as the White-Winged Wood Duck, is a large, rare, and endangered species of duck found in freshwater wetlands and dense tropical forests of South and Southeast Asia.
- Scientific Name: *Asarcornis scutulata*
- In Assamese, it is known as 'Deo Hans' or spirit duck because of its ghostly call.
- It is considered one of the most threatened waterfowl species in the world.
- In India, it is mostly found in the Dibru-Saikhowa National Park, Kaziranga National Park, and the wetlands of Arunachal Pradesh and Assam.
- It has a black body, a white head that is thickly spotted with black, conspicuous white patches on the wings, and red or orange eyes.
- Conservation Status:
- IUCN Red List: Critically Endangered



Gyan Bharatam Mission

The Union Budget 2025-26 announced the Gyan Bharatam Mission, under which one crore manuscripts will be conserved and documented.



ART AND CULTURE

- Gyan Bharatam Mission is a special mission for the survey, documentation, and conservation of India's manuscript heritage lying with academic institutions, museums, libraries, and private collectors.
- It intends to cover more than one crore manuscripts.
- A key component of the Gyan Bharatam Mission is the national digital repository of the Indian knowledge system.
- It will serve as a platform for knowledge sharing.
- It will help in digitising and centralising India's traditional knowledge.
- It will be accessible to researchers, students, and institutions worldwide.
- A manuscript is a handwritten composition on paper, bark, cloth, metal, palm leaf, or any other material dating back at least 75 years that has significant scientific, historical and aesthetic value.

Kashi Tamil Sangamam 3.0

The 3rd edition of Kashi Tamil Sangamam (KTS 3.0), a cultural confluence between Tamil Nadu and Kashi, is being held in Varanasi, Uttar Pradesh.

- Kashi Tamil Sangamam (KTS 3.0) coincides with Mahakumbh 2025 in Prayagraj and provides an opportunity to visit the Ram Mandir in Ayodhya for the first time post-inauguration.
- The 1st edition of KTS was held in 2022, while the 2nd in 2023.

- It features around 1,000 delegates from Tamil Nadu across 5 categories, including students, teachers, writers, farmers, artisans, professionals, entrepreneurs, SHGs, and innovation communities.
- Also, joined by 200 Tamil-origin students from Central Universities, enhancing the event's diversity and engagement.
- Central Theme: "Legacy of Sage Agastya".
- Kashi Tamil Sangamam is a cultural initiative that aims to celebrate the deep-rooted historical and cultural ties and strengthen the ancient civilizational bond between Tamil Nadu and Kashi (Varanasi).
- The event aligns with the Ek Bharat Shreshtha Bharat initiative, emphasizing the integration of India's diverse cultural heritage.
- The historical ties between Kashi (Uttar Pradesh) and Tamil Nadu date back to the 15th century when King Parakrama Pandya of Madurai traveled to Kashi to bring back a sacred lingam for his temple (Sivakasi, Tamil Nadu).



Bathouism

The Bodoland Territorial Council (BTC) in Assam has included 'Bathouism' as an official option in the religion column of various application forms.

- It is the traditional faith of the Bodos, the largest plains tribe of Assam.
- The word 'Bathou' is derived from the Bodo language, where 'Ba' means 'five' and 'thou' means 'deep philosophical thought'.
- The faith system is based on five elements: Bar (Air), San (Sun), Ha (Earth), Or (Fire), and Okhrang (Sky).
- The community worships Bwrai Bathou as the supreme god. In the Bodo language, the word 'Bwrai' refers to the 'eldest' man concerning power or knowledge.
- The Bathou faith is centred on the Sijou plant (Euphorbia splendens).
- In Bathou religion, the Sijou plant has an important place and has been widely accepted as the symbol



of life or soul by the Bodo people since time immemorial.

- This plant is the living symbol of Bathoubwrai, the supreme God of the Bodos.
- Bodos plant the sijou tree on an elevated altar encircled with a bamboo fencing of eighteen pairs of posts weaved with five pieces of bamboo split.
- The five bamboo strips signify the five bindings of Bathou, viz. (i) birth, (ii) marriage or procreation, (iii) sorrow, (iv) happiness and (v) death.

Mising Trib

Assam's largest tribal community, the Mising tribe, celebrated the Ali Ai Ligang festival recently.

- The Mising people are an indigenous tribe from Northeast India. They are part of the Tani people, who



speak Tibeto-Burmese languages.

- They live in parts of Assam and Arunachal Pradesh in India and Tibet in China.
 - Tibetans call them “Lhobhas,” which means “southerners” ‘ because they live in South Tibet and areas now in Arunachal Pradesh.
 - They are one of the largest tribal groups in Assam. According to the census of India 2011, the total population of Mising is 680,424 in Assam.
 - They have a life close to the rivers, and therefore they can be described as the only riparian tribe of Northeast India.
 - Life and culture of Mising people revolve around agriculture and fishing.
 - The agriculture practice of the Mising people was originally ‘Jhum’ or slash & burn method.
 - However, after settling down in the plains of Assam, they have mastered the art of wet paddy cultivation, and at present they are good settled cultivators.
- Drawing their origin in Jhum cultivation, the main festival of the Mising people is ‘Ali-Aye-Ligang’. Ali means edible root, Aye means seed, and Ligang means sowing festival.
 - The Mising people practice the cult of Donyi Polo, which literally translates into worshipping the Sun and the Moon.

Jhumoir Binandini Dance

Prime Minister of India will attend the Jhumoir Binandini (Mega Jhumoir) 2025, a spectacular cultural extravaganza with 8,000 performers participating in the Jhumoir dance.

- Jhumoir Binandini Dance is also known as Jhumur, is a traditional folk dance performed by the Adivasi tea tribes of Assam during the harvest season.
- It is accompanied by traditional instruments like the Madal, Dhol, Taal and Flute.
- The dance is performed to celebrate various occasions,



including harvest festivals, weddings, and community gatherings.

- It is performed by both men and women, who dance in a circular formation, holding each other's waists.
- The dance is characterized by rhythmic footwork, swaying movements, and lively music.
- The traditional attire for Jhumur dance includes colorful sarees for women and dhotis and kurtas for men.

Prime Minister's Yoga Award

The Ministry of Ayush announces the opening of nominations for the prestigious Prime Minister's Yoga Awards for the 2025 edition of the International Day of Yoga (IDY2025).

- Prime Minister's Yoga Award recognizes individuals and organizations that have made significant and sustained contributions to the promotion and development of Yoga, both nationally and internationally.
- It was established to honor the profound impact of Yoga on society and aim to celebrate exemplary contributions to the field, reinforcing Yoga's role in disease prevention, health promotion, and the management of lifestyle-related disorders.
- The awards will be conferred in the National Individual, National Organization, International Individual, and International Organization categories, with each winner receiving a Trophy, Certificate, and a Cash Award of Rs. 25 lakh.
- Individuals applying must be 40 years or older and should have at least 20 years of dedicated service in Yoga promotion.
- Entities can apply directly or be nominated by a prominent Yoga organization. Each applicant/nominee can apply for only one category (National or International) per year.
- A Screening Committee constituted by the Ministry of Ayush will review all applications and recommend a maximum of 50 names per award category to the Evaluation Jury.
- The Jury, comprising eminent personalities from various fields, will be the apex decision-making body.



Bhil Tribe

About 12 families of Bhils have alleged that the Vasantdada Sugar Institute (VSI) is trying to demolish their homes and displace them from the land where they have been residing for generations.

- Bhils are considered as one of the oldest tribes in India.
- They are the most widely distributed tribal groups in India.
- The name 'Bhil' is derived from the word villu or billu, which according to the Dravidian language is known as Bow.
- They could be identified as one of the Dravidian racial tribes of Western India and belong to the Australoid group of tribes.
- They are mainly divided into two main groups: the Central and Eastern or Rajput Bhils.
- The Central Bhils are found in the mountain regions in Madhya Pradesh, Maharashtra, Gujarat and Rajasthan.



- Bhils are also found in the north eastern parts of Tripura.
- Nearly all of the Bhil engage in agriculture, some using the slash-and-burn (jhum) method but most employing the ploughs.
- Language: They speak Bhili, which is an Indo Aryan language.
- Almost all Bhils practice ethnic religions that have been highly influenced by Hinduism.
- Most of them worship local deities like Khandoba, Kanhoba, Bahiroba, and Sitalma-

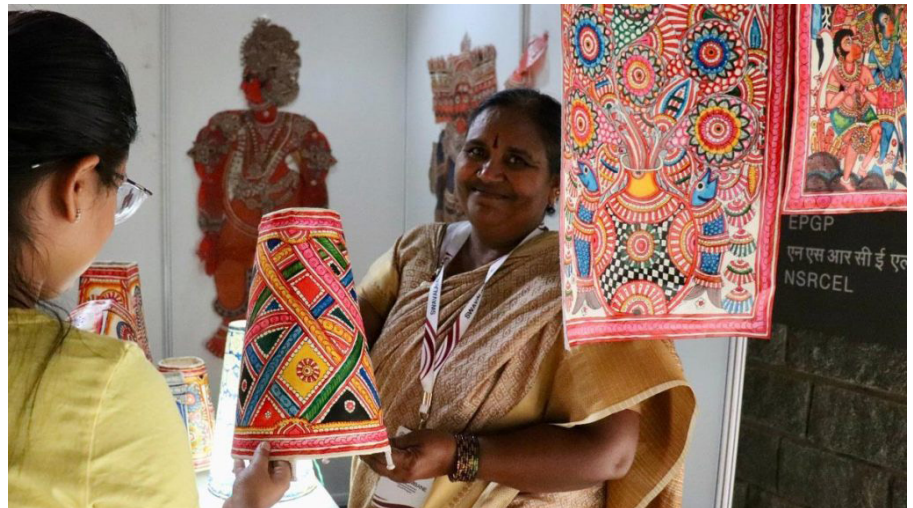
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- Some worship the Tiger God called 'vaghddev'.
- The Baneshwar fair is the main festival celebrated among the Bhils.
- This fair is held during the period of Shivratri and is dedicated to Baneshwar Mahadev also known as Lord Shiva.

Swavalambini Programme

The union Ministry of Skill Development and Entrepreneurship launched the Swavalambini programme.

- Swavalambini Programme was launched by the Ministry of Skill Development and Entrepreneurship (MSDE) through Indian Institute of Entrepreneurship (IIE), in collaboration with NITI Aayog in Assam, Meghalaya and Mizoram.



- This initiative is aimed at empowering female students in select Higher Education Institutions (HEIs) in the northeast by equipping them with the essential entrepreneurial mind-set, resources, and mentorship they need to succeed in their entrepreneurial journey.
- Those who successfully build their ventures will be recognized and awarded, ensuring that their success stories inspire others.
- This initiative will define a clear process for how we nurture and scale women-led enterprises in India.
- The initiative aims to provide structured training through the Entrepreneurship Awareness Programme (EAP) which introduces 600 female students to entrepreneurship as a viable career option.
- For 300 selected students, the Women Entrepreneurship Development Programme (EDP) offers an intensive 40-hour training covering crucial business aspects such as training and skilling, access to finance, market linkages, compliance and legal support, business services, and networking opportunities.
- This will be followed by six months of mentorship and handholding support to help participants translate their ideas into sustainable prospects.

TRIFED

To promote tribal entrepreneurship and economic inclusion, TRIFED recently signed MoUs with Reliance Retail, HCL Foundation, and Torajamelo Indonesia.

- TRIFED is an organization under the Ministry of Tribal Affairs, Government of India, dedicated to the socio-economic development of tribal communities.
- It was established in 1987 under the Multi-State Cooperative Societies Act, 1984, by the Government of India as a national-level cooperative body.
- Bringing about the socio-economic development of the tribals of the country by institutionalizing the trade of Minor Forest Produce (MFP) & Surplus Agricultural Produce (SAP) collected/cultivated by them.
- Objectives is to act as a facilitator and service provider for the tribal community to uplift production, Provide training to enhance artistic skills with modern technology to meet the requirements of the global market, To increase the promotion of tribal art and crafts for a stable livelihood, To identify target groups to monitor and evaluate the process and activities and provide input to the Ministry
- The approach involves capacity building of the tribal people through sensitization, formation of Self Help Groups (SHGs), and imparting training to them for undertaking a particular activity, exploring marketing possibilities in national as well as international markets, creating opportunities for marketing tribal products on a sustainable basis, and creating a brand.
- TRIFED has been doing the retail marketing of tribal products under the brand name of TRIBES INDIA.
- TRIFED promotes and creates a sustainable market through retail outlets, exhibitions such as Aadishilp, Aadichitra, OCTAVE; international fairs, and e-marketing.
- TRIFED has also been entrusted by the Govt. of India to implement its proposed Minimum Support Price Scheme for Minor Forest Produce.

DOKRA ARTWORK

The Prime Minister of India presented French President Emmanuel Macron with a meticulously crafted Dokra artwork.

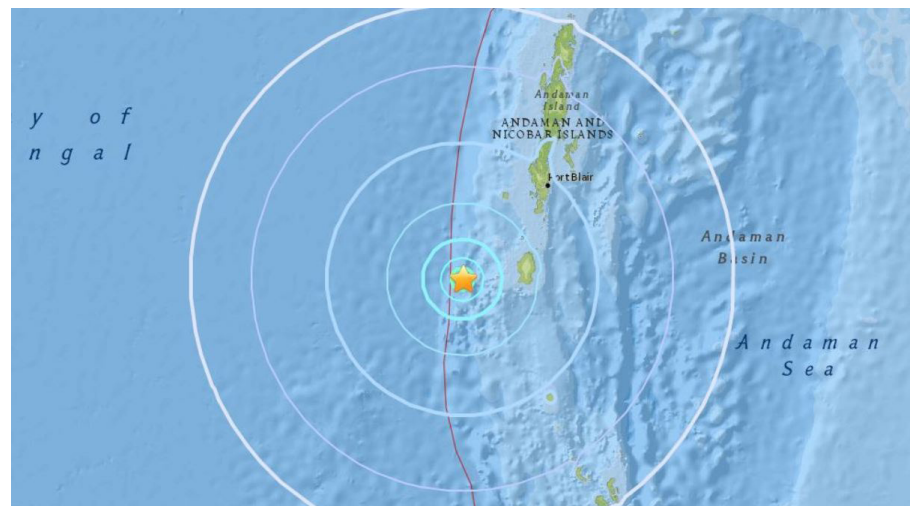
- Dokra art which is also known as bell metal craft traces its origins back more than 4,000 years.
- It is a form of folk art practiced by the Dhokra Damar tribes, who are traditionally metalsmiths.
- These artisans are primarily found in eastern India, including West Bengal, Odisha, and Jharkhand, with a notable presence in Chhattisgarh as well.
- No two pieces are ever the same.
- Each sculpture is painstakingly hand-crafted, drawing inspiration from mythology, nature, and daily rituals.
- The method of making Dokra is done by combining the metallurgical skills with that of the lost wax technique.
- Artisans begin by sculpting a basic clay model of the desired object.
- This model is then coated in wax, where fine details are meticulously etched. Another clay layer is added to form a mold, into which molten metal typically brass or copper is poured.
- The heat melts the beeswax, allowing the liquid metal to take the shape of the original model. Once cooled and hardened, the outer clay mold is broken away, revealing the finished sculpture.



Andaman Sea : Earthquake

An earthquake of magnitude 5.2 struck the Andaman Sea recently.

- Andaman Sea is a semi-enclosed marginal sea in the northeastern Indian Ocean.
- It lies between the eastern coast of India and the Malay Peninsula, with Myanmar to the north and the Indonesian island of Sumatra to the south.
- The Bay of Bengal bounds the Andaman Sea to the west and the Strait of Malacca to the east.
- It is a complex geological region with a tectonically active plate boundary.
- It is part of the larger Sunda Plate, which the Indian Plate borders to the northwest and the Australian Plate to the southeast.



- The ongoing tectonic convergence between these plates has resulted in the formation of the Andaman Basin, characterized by under-sea ridges, trenches, and faults.
- The most prominent geological feature in the region is the Andaman Trench, which is formed by the subduction of the Indian Plate beneath the Eurasian Plate.
- This tectonic activity has given rise to numerous earthquakes and volcanic eruptions in the region, making the Andaman Sea seismically active.
- It is home to extensive coral reef systems, sea grass meadows and mangrove forests, which provide critical habitats for a multitude of marine organisms.
- The Andaman Sea is also an important site for migratory birds, with several key stopover locations along the East Asian-Australasian Flyway.

MISCELLANEOUS

Pliosaur Skull

A massive pliosaur skull (lived 145 million years ago) has been discovered embedded in the Jurassic Coast cliffs in Dorset, England.



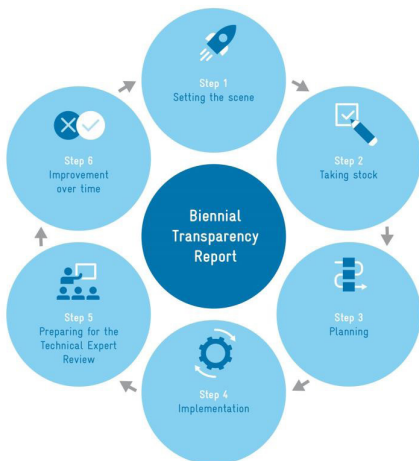
- The skull was discovered on a cliff near Kimmeridge Bay along the Jurassic Coast, a UNESCO World Heritage Site.
- The Jurassic Coast, on England's southern coast, is one of the world's most renowned fossil hotspots.
- The skull has a prominent cranial crest, an elongated jawline, and a bite force stronger than that of a Tyrannosaurus rex.
- Tyrannosaurus rex was a large carnivorous dinosaur that lived

during the Late Cretaceous period (68–66 million years ago).

- Pliosaurus were top predators of the Jurassic oceans and among the deadliest marine reptiles in history.
- Jurassic oceans refer to the vast marine environments that existed during the Jurassic period (199.6 million to 145.5 million years ago).
- Possible sensory pits and a parietal eye suggest advanced hunting adaptations, similar to modern crocodiles.

Biennial Transparency Report

India is in the final stages of preparing its first ever Biennial Transparency Report (BTR), part of its commitment as a signatory to the 2015 Paris Agreement on climate change.



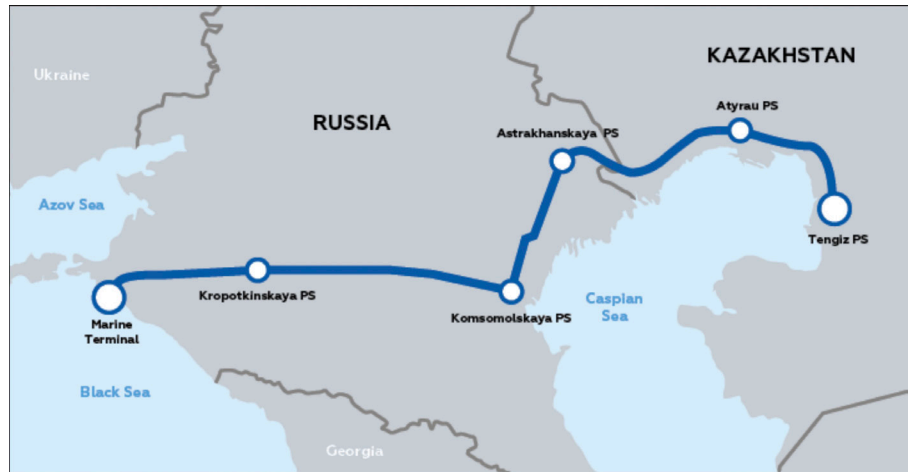
- The BTR is a report prepared and submitted by Parties to the Paris Agreement under the Enhanced Transparency Framework (ETF) that captures information on their progress in implementing the different aspects of the Agreement.
 - The different aspects are covered in the five separate chapters of the BTR, some of which are mandatory and some of which are optional.
- Different chapters and components of the BTR:
- National Inventory Report of GHG Emissions: All Parties – Mandatory
 - Progress made in implementing and achieving the NDC: All Parties – Mandatory
 - Climate change impacts and adaptation: All Parties – Optional
 - All Parties to the Paris Agreement, except for small island developing states (SIDS) and the least developed countries (LDCs), are required to provide country-specific information on the implementation of the Paris Agreement in the form of BTR every two years.

- Recognizing the capacity constraints faced by SIDS and LDCs, and the need to provide flexibility in light of their national circumstances, SIDS and LDCs may submit BTRs at their discretion.
- As the reporting instrument of the Paris Agreement, BTRs help facilitate mutual trust and confidence between countries and allow parties and non-party stakeholders to understand the state of climate action in each country.

Caspian Pipeline Consortium

Russia said oil flows through the Caspian Pipeline Consortium (CPC), a major route for supplying Kazakhstan and exporting to the global market, were reduced by 30-40% recently after a Ukrainian drone attack on a pumping station.

- CPC is a \$2.6 billion project consisting of a 935-mile crude oil pipeline that runs from the Tengiz oil field in Kazakhstan to the Russian Black Sea port of Novorossiysk.
- Construction on the CPC pipeline began in 1999.
- It was commissioned in 2001, and a \$5.1 billion expansion project was completed in 2018.
- It is a key East-West pipeline that will carry oil from the Caspian Sea region to international markets.
- CPC includes the Russian and Kazakh governments, as well as Western energy majors – Chevron, ExxonMobil and Shell.
- This pipeline accounts for two-thirds of Kazakhstan’s oil exports.
- The pipeline’s total capacity is 1.4 million barrels per day of oil. This is 3 percent of global seaborne oil trade.



NIGERIA’S WASTE-TO-WEALTH MODEL

Nigeria’s plastic bottle collectors are transforming waste into economic opportunities, addressing both pollution and unemployment.

Informal Waste Collection as a Business:

- Plastic bottle collectors turn waste into economic value, creating employment and income opportunities.
- Socio-Economic Factors Influencing the Model:
- Education: Higher education improves business approach towards waste collection.



- Family Size: Larger families view it as a means to sustain livelihood.
- Religion & Culture: Islamic teachings on resource management (Israf & Zakat) and African traditional values encourage waste collection.
- Gender Dynamics: Women face barriers to entry, requiring microfinance and support programs.
- Policy Measures to Improve Waste Management:
- Government-backed education programs

- to improve waste collectors’ business knowledge.
- Formalization of waste collection through cooperatives, microfinance, and inclusion in urban policies.
- Community engagement programs leveraging cultural and religious values to encourage sustainable waste collection



(A project of MGOCSM, the student wing of the Malankara Orthodox Church)
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