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MONTHLY CURRENT AFFAIRS

FOR UPSC CIVIL SERVICE EXAMINATION

JANUARY 2025

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Indus Valley Script

The Tamil Nadu Chief Minister has announced a $1-million reward for experts or organizations that successfully decipher the Indus Valley Script.

About the Indus Valley Script:

- Found on seals, pottery, and tablets from Harappa, Mohenjo-daro, and Dholavira.

- Pictographic Writing: Uses symbols, often alongside animal or human motifs.

- Boustrophedon Style: Alternates between right-to-left and left-to-right writing.

- Undeciphered Mystery: Despite extensive research, the script remains unreadable.

About the Indus Valley Civilization:

- Ancient Urban Culture: One of the world's oldest civilizations, discovered in 1924 by Sir John Marshall.

- Language Enigma: The undeciphered script limits a full understanding of its society.

- Possible Dravidian Links: Some symbols resemble Tamil Nadu's graffiti marks, hinting at connections to Dravidian culture.

- Numerical System: Based on a decimal format, using strokes for units and semicircles for tens.

- Diverse Materials: Inscriptions appear on seals, pottery, tools, bangles, bones, shells, and metal tablets.

- Seals & Animal Motifs: Typically feature script at the top and an animal symbol in the center, possibly for identification or administration.

- Trade & Religious Significance: Seals may have been used for marking goods, while the script's narrative imagery suggests potential religious importance.

Konark Sun Temple

The Ministry of Mines, in collaboration with the Odisha government, organized the District Mineral Foundation (DMF) Exhibition at the Sun Temple, Konark.

About Konark Sun Temple:

- Location: Puri district, Odisha, near the coastline.

- Also Known As: Surya Devalaya, dedicated to the Sun God, Surya.

- Built By: Narasimha Deva I of the Eastern Ganga dynasty in 1250.

- Material: Constructed from Khondalite rocks, earning the title "Black Pagoda" due to its dark color.

- UNESCO Heritage Site: Recognized in 1984 for its architectural and cultural significance.

Architectural Highlights:

- Style: Follows Kalingan temple architecture, a subset of the Nagara style.

    - Key Structures:Vimana: The main tower (collapsed in the 19th century).
    - Jagamohana: Pyramidal audience hall.
    - Natmandir: Elevated, roofless dance platform.

Kashi Tamil Sangamam 2024

The 3rd edition of Kashi Tamil Sangamam will take place from February 15 to 24 in Varanasi.

About Maharishi Agasthyar:

- A revered figure in Indian mythology, also known as Agastya, Agathiyar Siddhar, and Agastya Munivar.

  - Contributions: Father of Tamil Grammar: Authored Agattiyam, the first Tamil grammar book.
  - Siddha Medicine: Pioneered herbal healing practices.
    - Authored Texts:Agastya Gita (Varaha Purana)
    - Agastya Samhita (Skanda Purana)
    - Dvaidha-Nirnaya Tantra

About Kashi Tamil Sangamam:

- Part of the 'Ek Bharat Shreshtha Bharat Yuva Sangam' program.
- Host City: Varanasi (Namo Ghat), Uttar Pradesh.
- Theme: Legacy & philosophy of Maharishi Agasthyar.
- Organized By: Ministry of Education.
- Implementing Agencies: IIT Madras & BHU.
- Objective: Strengthening historical ties between Tamil Nadu and Kashi.
  - Key Highlights: Release of a document on Agasthyar temples in Tamil Nadu.
  - Another document on Siddha medicine will also be launched.

5,000-Year-Old Water Management System Found at Rakhigarhi

Archaeologists have discovered traces of a water storage structure (3.5–4 feet deep) between mounds one and two in Rakhigarhi, Haryana, highlighting the advanced water management techniques of the Harappan Civilization.

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About Rakhigarhi:

- Located in Hisar district, Haryana, around 27 km from the Ghaggar River.
- One of the oldest and largest Indus Valley Civilization (IVC) sites, dating back to 6500 BCE.

Key Findings:

- Archaeological Mounds:Seven mounds spanning 350 hectares, indicating habitation from Early Harappan (Pre-Urban) to Mature Harappan (Urban) phases.
- Urban Planning:Bronze Age City: Evidence of early urbanization and social organization.
- Infrastructure: Mud-brick & burnt-brick houses with a sophisticated drainage system.

Artifacts Discovered:

- Pottery Industry: Red ware, dishes-on-stand, vases, jars, bowls, and perforated pots.
- Sacrificial Pits: Mud-brick-lined pits with fire altars, indicating ritualistic practices.
- Seals: A notable cylindrical seal with five Harappan characters and an alligator symbol.
  - Other Finds:Terracotta & shell bangles, beads (semi-precious stones), copper objects, and animal figurines.
  - Toy cart frames, terracotta wheels, blades, and bone points.
  - Inscribed steatite seals, suggesting administrative or trade significance.

This discovery sheds light on the engineering and cultural sophistication of the Indus Valley Civilization.

Iron Age in Tamil Nadu

Recent dating of burial urn samples from Sivagalai, Tuticorin (Tamil Nadu) suggests the Iron Age may have begun as early as 3345 BCE, much earlier than previously believed.

About the Iron Age:

- Marks the period when iron replaced stone and bronze for tools and weapons.
- Traditionally, the Iron Age was thought to have started between 2000 BCE – 1000 BCE.

Key Sites & Dating in Tamil Nadu:

- Sivagalai: Iron artifacts dated to 2953–3345 BCE, with a paddy sample from 1155 BCE.
- Mayiladumparai: Iron artifacts dated to 2172 BCE, pushing back Tamil Nadu's iron usage timeline.
- Kilnamandi: Sarcophagus burial dated to 1692 BCE, the earliest of its kind in the region.

Phases of the Iron Age in India:

- Early Iron Age (1500 BCE – 1000 BCE): Introduction of iron tools for agriculture & hunting.
- Key Sites: Hallur (Karnataka), Atranjikhera (Uttar Pradesh), Malhar (Chhattisgarh).
- Middle Iron Age (1000 BCE – 600 BCE): Expansion of iron technology & urbanization.
- Key Sites: Kausambi, Atranjikhera (Uttar Pradesh).
- Late Iron Age (600 BCE – 200 BCE):Rise of Mahajanapadas & Mauryan Empire.
- Key Urban Centers: Pataliputra (Patna), Ujjain.

This discovery challenges previous notions and redefines the timeline of early iron use in South India.

162nd Birth Anniversary of Swami Vivekananda

National Youth Day is celebrated annually on January 12 to honor Swami Vivekananda, born in Kolkata (1863).

About Swami Vivekananda:

- Chief disciple of the 19th-century mystic Ramakrishna Paramhansa.
- Founded Ramakrishna Math (1897) and Ramakrishna Mission, promoting Vedanta philosophy.
- Literary Works: Raja Yoga, Jnana Yoga, Karma Yoga.
- Passed away: July 4, 1902.

Key Contributions:

- Revival of Indian Philosophy: Propagated neo-Vedanta, interpreting Hinduism for a Western audience.

- **World Parliament of Religions (1893, Chicago):**
  - Introduced Hinduism to the West.
  - Advocated religious tolerance and opposed fanaticism.

- **Pathways to Liberation:** Four approaches to moksha—Raja Yoga, Karma Yoga, Jnana Yoga, and Bhakti Yoga.
  - Impact on Modern India:Netaji Subhas Chandra Bose called him the "maker of modern India."
  - Inspired nationalism, self-confidence, and spirituality among Indian youth.

His teachings continue to inspire millions, emphasizing strength, self-reliance, and service to humanity.

Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act

A case has been registered under the SC/ST (Prevention of Atrocities) Act against an Infosys co-founder. Meanwhile, a Parliamentary Committee has highlighted concerns over the poor implementation of welfare measures for Scheduled Castes (SCs).
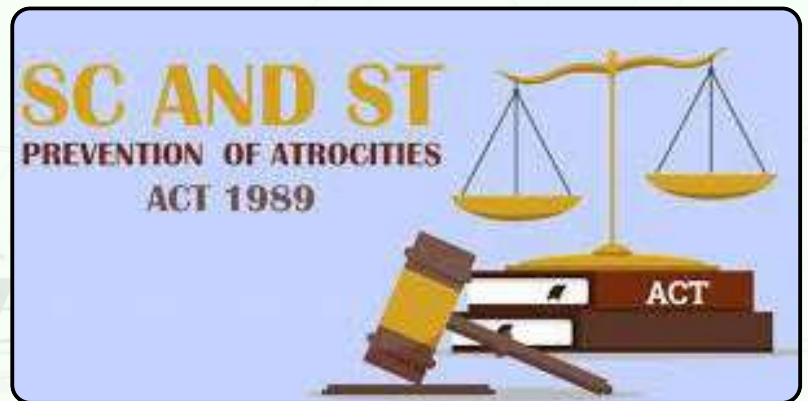
Key Concerns Raised by the Parliamentary Panel:

- **Underutilization of Central Funds:**
  - Despite no financial constraints, many states fail to use allocated funds effectively.
  - Madhya Pradesh, Rajasthan, Bihar, and Odisha were flagged for poor fund utilization.

- **Weak Implementation of Welfare Schemes:**
  - Post-Matric Scholarship Scheme for SCs and NAMASTE (sanitation workers' welfare) suffer from:
    - Incomplete documentation
    - Errors in Aadhaar seeding
    - Delays in State fund contributions

- **Gaps in Marginalized Community Programs:**
  - SMILE Initiative (for transgender persons and beggars) and SHREYAS Scheme (higher education support for SC students) lack proper execution.
  - Schemes like Pradhan Mantri Adarsh Gram Yojana and Venture Capital Fund for SCs/OBCs lack measurable targets.

- **Low Awareness Among Beneficiaries:**
  - Poor outreach reduces scheme adoption.
  - Lessons from Beti Bachao Beti Padhao campaign could be applied to increase awareness.

Way Forward:

- **Stronger Oversight:** Implement stricter conditions for states failing to execute welfare schemes.

- **Result-Based Funding:** Adopt models like World Bank's PforR, where funds are released based on achieved outcomes.

- **Timely Fund Proposals:** Expand Public Financial Management System (PFMS) for better fund tracking.

- **Better Support for Sanitation Workers:** Improve training and health insurance coverage under NAMASTE.

- **Streamlining DBT:** Use Direct Benefit Transfer (DBT) to reduce leakages and delays in schemes like PM-KISAN.

- **Enhancing Awareness:** Strengthen IEC campaigns to educate marginalized communities about their rights and available benefits.

Ensuring timely fund allocation, proper implementation, and better awareness can significantly improve the impact of welfare programs for SCs and STs.

NITI Aayog's Fiscal Health Index (FHI) 2025

NITI Aayog has released the first-ever Fiscal Health Index (FHI) 2025, evaluating the fiscal stability of 18 major states.

About Fiscal Health Index (FHI) 2025

- **Objective:**
  - Assess state-wise fiscal health and highlight interstate disparities.
  - Encourage targeted interventions for better fiscal governance.

FISCAL HEALTH INDEX
2025
For the Financial Year 2023
NITI Aay

- Coverage:
  - Includes 18 major states contributing significantly to India's GDP and public expenditure.
- Developed by:
  - NITI Aayog, with data from the Comptroller and Auditor General (CAG).
- Base Year: 2022-23
- Evaluation Criteria:
  - The index is based on five sub-indices (detailed breakdown not provided).

Key Findings from the Report

State Categories Based on Fiscal Performance

- Achievers (Top Performers): Odisha, Chhattisgarh, Goa, Jharkhand
- Front-Runners: Maharashtra, Uttar Pradesh, Telangana, Madhya Pradesh, Karnataka
- Performers: Tamil Nadu, Bihar, Rajasthan, Haryana
- Aspirational States (Worst Performers): Punjab, Andhra Pradesh, West Bengal, Kerala

Top-Performing State: Odisha

- Odisha ranks 1st with a Fiscal Health Index score of 67.8
- Followed by Chhattisgarh (55.2) and Goa (53.6)

Takeaway: Odisha's strong fiscal policies set an example, while states like Punjab and Kerala need urgent reforms to improve their financial health.

Study Recommends Inclusion of 179 Communities in SC, ST, and OBC List

The Anthropological Survey of India (AnSI) and Tribal Research Institutes (TRIs) conducted an ethnographic study to classify Denotified Tribes (DNTs), Nomadic Tribes (NTs), and Semi-Nomadic Tribes (SNTs) in India.

Key Findings of the Study:

- 268 communities classified for the first time in a systematic manner.
- 179 communities recommended for inclusion in SC, ST, or OBC lists, enabling reservation benefits.
- 63 communities untraceable due to possible mergers, name changes, or migration.

What is an Ethnographic Study?

A qualitative research method used to understand culture, behaviors, and traditions through direct observation and participation.

About the Anthropological Survey of India (AnSI):

- Premier research body focused on India's cultural and ethnic diversity.
- Established: 1916 (as part of the Indian Museum), became independent in 1945.
- Headquarters: Initially in Banaras, later shifted to Kolkata (1948).
- Operates under: Ministry of Culture, Government of India.
- Mission:
  - Conduct scientific research on India's diverse communities.
  - Promote national integration and welfare of marginalized groups.

Significance:

The inclusion of 179 communities in SC/ST/OBC lists will help them access social justice policies, reservations, and welfare schemes, ensuring better socio-economic upliftment.

About DNTs, NTs, and SNTs

Denotified Tribes (DNTs)
Background:
- Originally classified as "Criminal Tribes" under British rule.
- "Denotified" post-independence after the repeal of the Criminal Tribes Act, 1952.
Examples:
- Sansi, Pardhi, Banjara

Nomadic Tribes (NTs)
Characteristics:
- Traditionally migratory communities that move for livelihood.
Examples:
- Gujjars, Gadia Lohars

Semi-Nomadic Tribes (SNTs)
Characteristics:
- Partially migratory lifestyle, shifting between settled and nomadic living.
Examples:
- Dhangars, Lambadas

Current Population (as per 2001 Census):
Approximately 10.74 crore individuals belong to DNT, NT, and SNT communities in India.

Blood Money

The case of a Kerala nurse facing a death sentence in Yemen and efforts for her acquittal through blood money have reignited discussions on the legal and ethical aspects of this practice.

What is Blood Money?

Definition:

- 'Blood money' or diya is compensation paid by an offender to the victim's family under Islamic law.
- It is commonly used in cases of unintentional murder or culpable homicide.
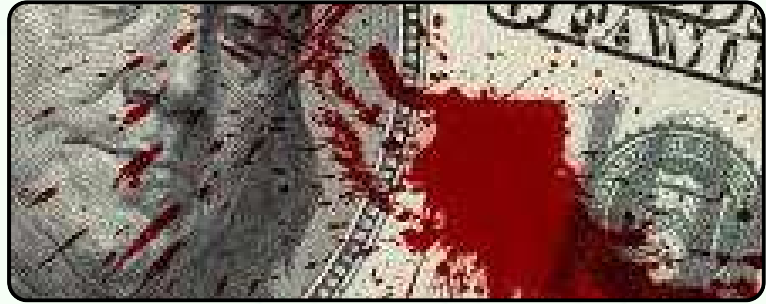
Purpose:
- Not a price on human life, but a means to provide relief to the victim's family.
- It allows the victim's family to forgive the perpetrator and opt for compensation instead of retribution (qisas).

Sharia Law on Blood Money
Legal Framework:
- Blood money is recognized under Islamic Sharia law.
- The community and the state still have the right to impose punishments in certain cases.

Amount of Diya:
- No fixed amount in the Quran; it is usually negotiated between the victim's family and the offender.

Blood Money and India's Legal System
Legal Status in India:
- India does not formally recognize diya as a legal provision.
- The Indian Penal Code (IPC) follows a punitive justice system, where crimes such as murder and homicide are punishable by imprisonment or death rather than monetary compensation.

Significance:
- In countries where Sharia law is followed, blood money can save convicts from execution if the victim's family agrees to accept compensation.
- This has led to international legal and ethical debates on justice and human rights.

Interlinking of Rivers in India

The Prime Minister launched the Ken-Betwa River Link Project to address water scarcity and enhance irrigation in central India.

Ken-Betwa Project Overview

- Transfers surplus water from Ken River (Madhya Pradesh) to Betwa River (Uttar Pradesh).
- Approved funding: ₹44,605 crore (2021).
- Implemented by Ken-Betwa Link Project Authority (KBLPA).
- Link Canal Length: 221 km (includes a 2-km tunnel).

- Two Phases:
  - Phase I: Construction of Daudhan Dam, tunnels, link canal, and powerhouses.
  - Phase II: Development of Lower Orr Dam, Bina Complex Project, and Kotha Barrage.
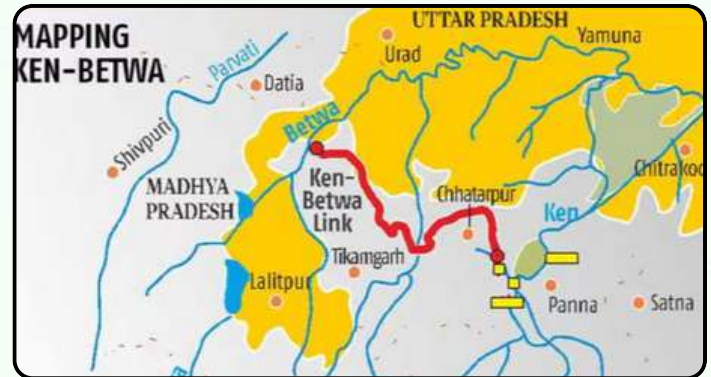
What are River Linking Projects?
- Aim to transfer water from surplus to deficit basins via canals and dams.
- Purpose: Irrigation, water supply, flood control, and hydropower generation.
- Example: Volga-Don Canal (Russia) – links Caspian and Black Seas.

National Perspective Plan (NPP)
- Launched in 1980 to interlink Indian rivers.
- Executed by the National Water Development Agency (NWDA).
- 30 identified links: 14 Himalayan & 16 Peninsular.
- Ken-Betwa Project is the first under NPP.

Benefits of River Interlinking
Improved Irrigation:
- Ken-Betwa Project will irrigate 1.07 million hectares in Bundelkhand.
Water Supply & Flood Control:
- Provides consistent water for drinking, industry, and farming.
- Reduces floods in Assam by diverting excess Brahmaputra water.
Hydropower Generation:
- Ken-Betwa Project to generate 103 MW electricity.
Economic Growth:
- Supports industries and agriculture, creating jobs.
Groundwater Recharge & Navigation:
- Enhances groundwater levels in dry regions.
- Expands inland waterways for transportation.

Challenges of River Interlinking

Environmental Concerns:
- Biodiversity Loss: Ken-Betwa project threatens Panna Tiger Reserve.
- Ecosystem Disruption: Affects river connectivity and wildlife migration.
- Salinity Intrusion: Reduced freshwater flow degrades coastal lands.

Social & Economic Issues:
- Displacement: 6,628 families affected by the Ken-Betwa Project.
- Livelihood Loss: Farmers, fishers face challenges due to altered ecosystems.
- High Costs: ₹5.5 lakh crore for National River Linking Project (NRLP).

Water Conflicts & International Issues:
- States may dispute water-sharing (e.g., Cauvery conflict).
- Cooperation needed with Nepal & Bhutan for Himalayan river projects.

Way Forward
- Environmental Safeguards: Conduct detailed impact studies & restoration plans.
- Equitable Water Distribution: Establish a central authority for fair allocation.
- Sustainable Alternatives: Promote rainwater harvesting, micro-irrigation & Virtual Water Trade.
- Better Rehabilitation: Ensure adequate compensation & support for displaced families.
- Use of Modern Technology: Leverage GIS, satellite data, and real-time monitoring.
- Climate Resilience Planning: Account for changing monsoon patterns & water variability.
- Phased Implementation: Begin with smaller projects before large-scale execution.

Conclusion
River interlinking can boost irrigation, water security, and economic growth, but it must be balanced with environmental sustainability. Proper planning, technology, and fair policies are crucial for long-term success.

Dynamic Groundwater Resource Assessment Report 2024

The Union Minister of Jal Shakti released the Dynamic Groundwater Resource Assessment Report 2024, conducted by the Central Ground Water Board (CGWB) and States/UTs.

Key Findings:

- India is the largest consumer of groundwater globally, using 25% of the world's supply.
- Groundwater supports 62% of irrigation, 85% of rural, and 50% of urban water needs.

Groundwater Status (2024):
- Total Annual Groundwater Recharge: 446.90 BCM
- Extractable Groundwater Resource: 406.19 BCM
- Annual Groundwater Extraction: 245.64 BCM
- National Average of Groundwater Extraction: 60.47%

Regional Insights:
- Critical States (Extraction >100%): Punjab, Rajasthan, Haryana, Delhi, Dadra & Nagar Haveli, Daman & Diu.
- Moderate Extraction (70%-90%): Tamil Nadu, Uttar Pradesh, Puducherry, Chandigarh.

Positive Trends (2017-2024):
- Groundwater recharge increased by 15 BCM.
- Extraction reduced by 3 BCM.
- Recharge from ponds, tanks, and conservation efforts increased significantly.

Groundwater Quality Concerns:
- Contaminants detected: Arsenic, Fluoride, Nitrate, Uranium.
- Salinity Issues: 127 assessment units categorized as saline.
- Irrigation Suitability: 81% of groundwater is fit for agriculture.
- Northeast states have 100% "excellent" groundwater for irrigation.

Why is Groundwater Depleting?
- Excessive Agricultural Demand: Over 60% of extraction is for farming, worsened by water-intensive crops (e.g., rice, sugarcane).
- Inefficient Irrigation: Predominant use of flood irrigation leads to wastage.
- Unregulated Extraction: Lack of strict laws allows unchecked groundwater use.
- Urbanization & Industrialization: Rapid expansion increases demand and reduces recharge zones.
- Climate Change: Erratic rainfall and droughts impact recharge.
- Deforestation & Loss of Wetlands: Reduced natural recharge areas.
- Limited Rainwater Harvesting Adoption: Despite policies, implementation remains low.

Challenges in Groundwater Management:
- Over-extraction: Agriculture consumes 89% of groundwater, leading to declining water tables in 750+ blocks.
- Contamination: High levels of pollutants in regions like West Bengal, UP, and Rajasthan.
- Saline Intrusion: Coastal states like Gujarat and Tamil Nadu face worsening water quality.
- Urban Water Shortages: Cities like Bengaluru and Chennai face declining groundwater, forcing deep borewell use.

Way Forward:
✓ Rainwater Harvesting: Large-scale implementation in urban & rural areas.
✓ Efficient Irrigation: Promote drip & sprinkler systems to reduce wastage.

✓ **Artificial Recharge Structures:** Build check dams, percolation tanks, and recharge wells.
✓ **Aquifer Mapping:** Identify critical zones under the National Aquifer Mapping & Management Program (NAQUIM).
✓ **Community Participation:** Involve local communities in groundwater conservation.
✓ **Technology Integration:** Use Digital Water Level Recorders (DWLRs) to monitor groundwater levels.

Conclusion:

The 2024 assessment shows improvements in groundwater recharge and reduced extraction due to conservation efforts. However, over-extraction, regional disparities, and contamination remain major concerns. Sustainable management, stricter regulations, and community participation are essential to secure groundwater for future generations.

World's Largest Dam on Brahmaputra

China has approved the construction of the world's largest hydropower dam on the lower reaches of the Yarlung Zangbo River (Brahmaputra in Tibet), near the Indian border.

Project Overview:

- **Location:** A deep gorge in the Himalayas, where the river makes a U-turn before entering Arunachal Pradesh.
- **Significance:** The dam will be built in one of the rainiest regions of China, ensuring a steady flow of water.

About Brahmaputra River:

- **Origin:** The river originates as Siang/Dihang from the Chemayungdung glacier in the Kailash range near Mansarovar Lake.
- **Entry into India:** It enters Arunachal Pradesh near Sadiya town.
- **Course:**
  - Carves the world's deepest canyon (25,154 feet) on the Tibetan Plateau.
  - Forms a gorge near Namcha Barwa.
  - Becomes the Brahmaputra after joining the Dibang and Lohit rivers.
- **States it flows through:** Arunachal Pradesh, Assam, Meghalaya, Nagaland, West Bengal, Sikkim.

Major Tributaries:
- Left Bank: Dibang, Lohit, Burhi Dihang, Dhansari, Kelang.
- Right Bank: Subansiri, Kameng, Manas, Sankosh.

This dam project raises concerns over water security and ecological impact, especially for downstream countries like India and Bangladesh.

Ghost Island' in the Caspian Sea

A transient "ghost island" emerged in the Caspian Sea due to a mud volcano eruption in early 2023 but disappeared by the end of 2024.

What is a Ghost Island?

- A temporary landmass formed by natural geological events like mud volcano eruptions, sediment buildup, or erosion.
- In this case, the island was created by the eruption of the Kumani Bank mud volcano and quickly eroded away.

About Mud Volcanoes:
- Formed when gases, liquids, and sediments erupt to the surface.
- Often found in tectonically active regions with high subsurface pressure.
- Can emit methane and cause fiery eruptions.
- Azerbaijan has over 300 mud volcanoes, including Kumani Bank.

Hazards of Mud Volcanoes:
- Gas emissions, including flammable methane.
- Sediment eruptions that can alter landscapes.
- Potential for explosions and fire hazards.

This event highlights the dynamic nature of geological processes and their temporary impact on land formation.

Arctic Boreal Zone: From Carbon Sink to Carbon Source

A study in Nature Climate Change reveals that 40% of the Arctic Boreal Zone now emits more CO_2 than it absorbs, shifting from a carbon sink to a carbon source after millennia.

What is the Arctic Boreal Zone?

- Located along the Arctic Circle, spanning 26 million square kilometers across Alaska, Canada, Northern Europe, and Siberia.
- Includes Tundra (treeless regions), Boreal forests (taiga), and Wetlands.

Indigenous Communities:
- Inuit: Coastal Arctic people living from Russia to Greenland.
- Saami: Inhabit Finland, Sweden, Norway, and Northwest Russia.
- Aleut (Unangan): Reside in Alaska.
- Yupik (Yupiit): Found in Alaska.

Climate Characteristics:
- Extreme cold: Long winters, short summers.
- Permafrost: Ground remains below 0°C for at least two years.
- Short growing season: Limited sunlight restricts vegetation growth.
- Cold-adapted species: Home to reindeer, Arctic foxes, and migratory birds.

Role in Climate Change:
- Historically, the Arctic Boreal Zone was a carbon sink, storing large amounts of soil organic carbon.
- Now, due to rising temperatures and permafrost thaw, it is releasing more CO_2, accelerating climate change.

This shift underscores the urgent need for climate action to protect Arctic ecosystems and mitigate global warming.

Lokpal of India

- The Foundation Day of the Lokpal of India was celebrated for the first time on 16th January at Manekshaw Centre, New Delhi.
- Established on 16th January 2014, under the Lokpal and Lokayuktas Act, 2013.

About Lokpal:

- National-level anti-corruption body investigating corruption cases involving public officials.
- Statutory body, not a constitutional body.
- First Lokpal: Justice Pinaki Chandra Ghosh (appointed in 2019 after a five-year delay).
- The Act also mandates Lokayuktas at the state level.

Key Provisions of the Lokpal Act:

Composition:
- Chairperson + 8 Members (maximum), half of whom must be judicial members.
- Selection Committee:
  - Prime Minister (Chairperson)
  - Speaker of Lok Sabha
  - Leader of Opposition in Lok Sabha (or leader of the largest opposition party)
  - Chief Justice of India (or a judge nominated by CJI)
  - One eminent jurist appointed by the President

Jurisdiction:
- Covers:
  - Prime Minister (except in cases related to national security, foreign affairs, and atomic energy)
  - Union Ministers, Members of Parliament
  - Group A, B, C, and D officers of the Central Government

Investigative Powers:
- Supervises CBI, CVC, and other agencies for cases referred to it.

Challenges & Issues:
- Delayed Appointments: First Lokpal appointed 5 years after the Act's implementation.
- Political Interference: Selection process involves political figures, raising concerns over impartiality.
- Jurisdictional Limitations: Cannot investigate state-level corruption.
- Weak Investigative Powers:
  - No direct investigative authority.
  - Relies on CBI and CVC for action.
- Low Case Disposal Rate:
  - 8,703 complaints (2019-23) → Only 3 fully investigated.
  - 68% complaints dismissed without action (Parliamentary panel report).
- Strict Complaint Rules:
  - 90% of complaints rejected due to format issues.
  - Complaints must be filed within 7 years, limiting retrospective action.
  - Anonymous complaints not allowed, discouraging whistleblowers.
- Limited Whistleblower Protection: Despite provisions, implementation is weak.
- Resource Constraints:
  - Understaffing, lack of funds, and inadequate infrastructure affect efficiency.

Way Forward:
- **Timely Appointments:** Introduce deadlines for selection and appointment of Lokpal members.
- **Reduce Political Influence:** Increase weightage of judicial & independent members in the selection process.
- **Expand Jurisdiction:** Remove unnecessary restrictions on investigating the Prime Minister.
- **Direct Investigative Powers:** Reduce dependence on CBI & CVC, allowing Lokpal to conduct independent probes.
- **Increase Transparency:** Regular publishing of reports, investigations, and case resolutions.
- **Strengthen Whistleblower Protection:** Ensure anonymity and legal safeguards for informants.
- **Enhance Resources:** Increase budget allocation, staffing, and technological support for Lokpal operations.

Lokayukta (State-Level Ombudsman):
- **State-level anti-corruption body, investigates state officials, including the Chief Minister and ministers.**
- **Appointed by the Governor.**
- **Jurisdiction varies across different states.**

The effectiveness of Lokpal & Lokayuktas depends on political will, legal reforms, and proper implementation to curb corruption effectively.

Internet Governance in India

The National Internet Exchange of India (NIXI) has launched the Internet Governance Internship and Capacity Building Scheme to enhance expertise in Internet Governance (IG).

Internet Governance Internship & Capacity Building Scheme
- **Type:** Bi-annual internship program.
- **Objective:**
- **Train participants to engage in global Internet Governance discussions.**
- **Collaborate with international organizations:**
  - **ICANN (Internet Corporation for Assigned Names and Numbers)**
  - **ISOC (Internet Society)**
  - **IEEE (Institute of Electrical and Electronics Engineers)**
  - **IETF (Internet Engineering Task Force)**
  - **Develop domestic expertise in Internet Governance.**
- **Stipend:** ₹20,000 per month.

Institutional landscape

Governance structures — Markets | Networks | Hierarchies

Governance activities — E.g., identifier management, information sharing, standardization, risk management, vulnerability disclosure, malware analysis, network monitoring, incident response, user authentication, etc...
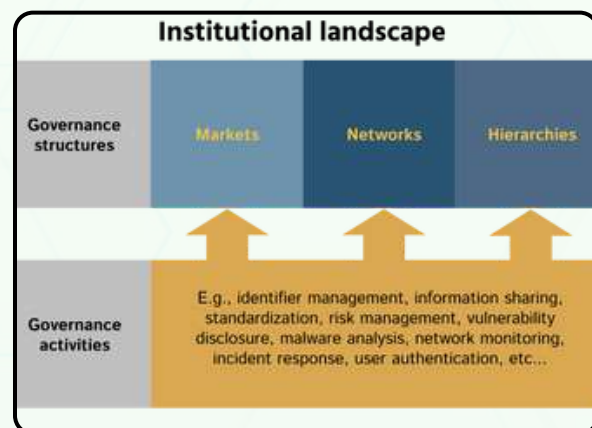
What is Internet Governance?

- **Definition:** The development and enforcement of principles, norms, rules, and decisions that shape the internet's operation and evolution.
- **Key Areas:**
  - IP Addressing & DNS Management
  - Technical Innovations & Standardization
  - Cybersecurity & Data Protection
  - Public Policy & Privacy Laws
  - Cyber Norms & Legal Regulations
- **India's Focus:** Ensuring equitable access, digital inclusivity, data privacy, and cybersecurity.

Internet Governance in India

- India follows a multi-stakeholder approach involving government, private sector, and civil society.
- The Government retains control over national security-related issues.

Key Stakeholders:

Government Bodies:
- **MeitY:** Oversees internet regulation & cybersecurity.
- **TRAI:** Regulates ISPs and ensures fair practices.

National Organizations:
- **NIXI:** Manages .IN domains, IPv6 adoption, and internet exchange points.
- **CERT-In:** Leads cybersecurity efforts.

Private Sector:
- Tech companies & ISPs drive digital infrastructure & innovation.

Challenges in Internet Governance

Digital Divide:
- Limited rural internet access and low digital literacy.

Data Privacy Issues:
- Weak data protection laws and rampant data collection.

Cybersecurity Threats:
- Rising phishing, ransomware attacks, and data breaches.
- India ranked 5th in cyber breaches (2023, 5.3M accounts leaked).
- AIIMS ransomware attack disrupted services for two weeks.

Misinformation & Hate Speech:
- Fake news & extremist content threaten social harmony.

Fragmented Regulation:
- Multiple bodies (TRAI, CERT-In, RBI, MeitY) work in silos, leading to inefficiencies.

Foreign Tech Dependence:
- India relies on global tech giants for infrastructure & services.

Infrastructure Gaps:
- Uneven Internet Exchange Points (IXPs) affect data routing.

Way Forward
- Expand Internet Access: Strengthen rural broadband via BharatNet.
- Enhance Digital Literacy: Targeted training for marginalized communities.
- Strengthen Data Privacy Laws: Implement comprehensive Data Protection Rules.
- Promote Data Sovereignty: Mandate data localization and international compliance.
- Improve Cybersecurity: Update National Cybersecurity Policy & strengthen CERT-In.
- Secure Critical Infrastructure: Regular cyber audits in finance, healthcare, and power sectors.
- Tackle Fake News & Hate Speech:
- Stronger policies & penalties for misinformation.
- Collaboration with social media companies for better moderation.
  Streamline Governance: Better coordination between regulatory bodies.
  Encourage Indigenous Tech Development: Reduce reliance on foreign platforms.

Conclusion
A robust Internet Governance framework is crucial for India's digital sovereignty, cybersecurity, and economic growth. Strengthening laws, infrastructure, and global collaborations will ensure secure and inclusive internet governance.

Right to Access Justice: Not an Absolute Right

The Supreme Court, in a recent judgment, rejected a Special Leave Petition, emphasizing that the Right to Access Justice is not absolute and must be exercised responsibly.

Understanding the Right to Access Justice

- Fundamental to Rule of Law – Ensures a fair, transparent, and accessible legal system.
- Protects Constitutional & Human Rights – Provides a mechanism to seek justice against violations.

Key Principles of Right to Justice

✓ Access to Judicial Proceedings – Right to approach courts, including criminal trials.
✓ Fair Trials – Ensures impartial hearings where all parties can present their case.
✓ Legal Representation – Right to have legal counsel in court.
✓ Protection of Constitutional Rights – Safeguards fundamental rights through judicial intervention.

Constitutional Provisions

Preamble: Guarantees social, economic, and political justice.
Fundamental Rights:
- Article 13: Declares laws violating Fundamental Rights unconstitutional.
- Article 32: Ensures constitutional remedies, protecting citizens from rights violations.
Directive Principles of State Policy (DPSP):
- Article 39A: Guarantees free legal aid, institutionalized through National Legal Services Authority (NALSA).

Supreme Court's Stand
- Right to Access Justice is not absolute – It must be used ethically and within legal limits.
- Prevents misuse – Ensures that legal avenues are not exploited for frivolous litigation.

This ruling reinforces the need for a responsible and balanced approach to seeking justice.

Enemy Property in India

The Madhya Pradesh High Court has directed Saif Ali Khan to approach the appellate authority regarding the central government's declaration of the Pataudi family's historical properties in Bhopal as enemy property.

What is Enemy Property?

Defined under the Enemy Property Act, 1968, enemy property refers to assets (movable & immovable) left behind in India by individuals who migrated to enemy nations (Pakistan & China) during conflicts.

Key Features of the Enemy Property Act:

Definition of 'Enemy'
- Any nation or citizen that has committed external aggression against India.
- Designated enemy nations – Pakistan & China (post 1962, 1965, and 1971 conflicts).

Authority & Management

- Properties are managed by the Custodian of Enemy Property for India under the Ministry of Home Affairs.
- No inheritance or transfer is allowed once a property is declared as enemy property.

Enemy Properties in India

- 9,280 properties left behind by Pakistani nationals.
- 126 properties belong to Chinese nationals.
- Total estimated worth: ₹1 lakh crore.

Key Amendments: Enemy Property (Amendment & Validation) Act, 2017

- Expanded definition of 'Enemy Subject'
  - Includes legal heirs of enemy subjects, even if they are Indian citizens or citizens of non-enemy countries.
  - Covers those who changed their nationality from an enemy country to another.
- Enemy Firms
  - Enemy property remains vested with the Custodian even if the owner dies or the firm ceases to exist.

Disposal of Enemy Properties

- Enemy Property Disposal Committee – Recommends whether to sell, transfer, or maintain these properties.
- 2018 Guidelines – Outlines the procedure for selling enemy properties.
- Proceeds – Funds from sales are deposited in the Consolidated Fund of India.

This law ensures India retains ownership over assets left behind by individuals who migrated to enemy nations, preventing legal inheritance or transfer of these properties.

CBI Doesn't Need State Consent to File an FIR: Supreme Court

The Supreme Court ruled that the CBI does not need a state government's consent to register an FIR under a Central law against a Central government employee.

State Consent for CBI Investigations

- Legal Provision:
  - Under Section 6 of the Delhi Special Police Establishment (DSPE) Act, 1946, the CBI must obtain state government consent to investigate a crime in that state.

CBI doesn't need state consent for FIR against Centre officials: Supreme Court

- **Types of State Consent:**
  - **Case-Specific Consent** – CBI must seek approval for each case before investigating.
  - **General Consent** – A state grants blanket permission, allowing CBI to investigate without fresh approvals.

- **States That Withdrew General Consent:**
  - 8 states have revoked general consent: Punjab, Jharkhand, Kerala, West Bengal, Telangana, Meghalaya, Tamil Nadu, and Karnataka.

Exceptions: When CBI Doesn't Need State Consent
- Cases ordered by the Supreme Court or High Court.
- Cases registered in other states or Union Territories.
- Cases registered before the withdrawal of consent.

Significance of the Ruling:
- Strengthens CBI's authority to investigate corruption cases involving Central government employees.
- Limits state governments' control over Central agency probes.
- Ensures seamless anti-corruption investigations under Central laws.

Unified District Information System for Education (UDISE+) 2023-24 Report

The Ministry of Education released the UDISE+ 2023-24 report, providing key insights into school education trends in India.

Key Findings of UDISE+ 2023-24

Enrolment Trends:

- Total students enrolled: 24.8 crore (declining trend over the past three years).
- Increase in enrolment at pre-primary and higher secondary levels (Classes 11 & 12).
- Highest dropout rates at secondary level (Classes 9-12).

- Zero-dropout rates at the foundational level (pre-primary to Class 2) due to direct admissions from Anganwadi centers.
- Regional Disparities:
  - Highest decline in enrolment: Bihar, Uttar Pradesh, Maharashtra.
  - Underutilized school infrastructure: Assam, Odisha, Karnataka.
- Gender Representation: Boys – 51.9% | Girls – 48.1%.

Infrastructure & Facilities:

- **Science Labs:**
  - Out of 2.86 lakh secondary schools, only 1.6 lakh have integrated science labs.
  - Among 1.19 lakh government secondary schools, only 50.2% have science labs.
- **Co-Curricular Activities:**
  - Only 17.5% of schools have arts & crafts/co-curricular activity rooms.
- **Electricity Connection:**
  - 9.12 lakh government schools (out of 10.17 lakh) have functional electricity.
  - 1.52 lakh schools still lack functional electricity.
- **Accessibility for Differently-Abled:**
  - 33.2% of government schools have disabled-friendly toilets, but only 30.6% are functional.

About UDISE+

- **Developed By:** Department of School Education & Literacy (DOSEL).
- **Operational Since:** 2018-19.
- **Purpose:** Collects data on schools, teachers, enrolments, and infrastructure across India.
- **Significance:** India's most comprehensive and trusted database for school education.

Why It Matters?

- Highlights education inequalities across states.
- Guides policy decisions for school infrastructure, enrolments, and teacher allocation.
- Helps track progress toward educational development goals.

Guidelines on Playing the National Anthem

The Tamil Nadu Governor left the Legislative Assembly without delivering his customary address, citing the absence of the National Anthem before his speech.

About the National Anthem

- **Title:** "Jana Gana Mana"
- **Written by:** Rabindranath Tagore (originally in Bengali).
- **Adopted as National Anthem:** 24th January 1950 (in its Hindi version).
- **Playing Time:**
  - Full version: 52 seconds.
  - Short version: 20 seconds (first & last lines).

Historical Context

- **First Sung:** 27th December 1911, at the Indian National Congress session in Kolkata.
- **Melodic Influence:** Raag Alhiya Bilawal.
- **English Interpretation:** "The Morning Song of India", translated by Rabindranath Tagore in 1919.

Legal Framework

Constitutional Provision:
- **Article 51(A)(a) (Fundamental Duties):** Citizens must respect the National Anthem, National Flag, and other national symbols.

Prevention of Insults to National Honour Act, 1971:
- **Section 3:** Punishment for preventing singing or showing disrespect to the National Anthem:
  - Up to 3 years imprisonment,
  - Fine, or
  - Both.

General Conduct:
- Citizens must stand at attention when the National Anthem is played.
- Exceptions:
  - If played as part of a newsreel or documentary.

Why It Matters?
- Reinforces national unity & respect for national symbols.
- Ensures legal compliance and awareness of citizens' duties.
- Highlights protocol significance in official events.

Donald Trump Sworn In as 47th U.S. President

Donald Trump begins his second term as the 47th President of the U.S., shaping a new era of leadership.

Key Highlights:

- Sworn in on January 20, 2025; previously served as the 45th President (2017-2021).
- Signed executive orders declaring a national emergency at the U.S.-Mexico border, withdrawing from the Paris Climate Agreement and WHO, and ending birthright citizenship.

Global Impact of Trump 2.0

- **Weakening of Multilateralism** – U.S. exit from global agreements (WHO, Paris Climate Accord) could disrupt international efforts on health, trade, and climate change.
- **Unilateral Trade Policies** – "America First" approach may lead to trade wars, including tariffs on BRICS nations exploring non-dollar trade.
- **Climate Policy Reversals** – Focus on fossil fuels may slow down global clean energy efforts.
- **Challenges to Global Legal Norms** – Rejection of global tax agreements may lead to economic tensions and retaliatory tariffs.
- **Impact on Global Trade Governance** – U.S. blockade of WTO dispute resolution could destabilize global trade regulation.

Impact on India

- **Trade & Economy** – Increased pressure on India to open markets, possible tariffs on key exports like IT and pharma.
- **Immigration Policies** – Stricter H-1B visa rules and birthright citizenship removal may affect Indian professionals in the U.S.
- **Defense & Strategic Ties** – Strengthened Indo-Pacific and Quad alliances could enhance U.S.-India defense cooperation.
- **Climate & Energy** – Less support for climate initiatives may challenge India's renewable energy goals (500 GW by 2030).
- **Geopolitical Realignments** – U.S.-Russia ties could complicate India's strategic balance, given its defense dependence on Russia.
- **Technology & Innovation** – India could benefit from partnerships in AI, semiconductors, and quantum computing under the U.S. iCET initiative.
- **Indian Diaspora** – Stricter immigration policies may affect the 4.2 million-strong Indian community in the U.S.

Strengthening India-U.S. Relations

- **Boost Defense Ties** – Expand military collaboration and defense tech projects like INDUS-X.
- **Enhance Trade & Economy** – Resolve trade disputes and secure better market access through forums like TPF.
- **Alternative Climate Funding** – Seek investments from private organizations to counter reduced U.S. climate finance.
- **Tech & Innovation Growth** – Leverage iCET to boost AI and semiconductor research.
- **Climate Cooperation** – Strengthen clean energy partnerships under the Strategic Clean Energy Partnership (SCEP).
- **Support Indian Diaspora** – Enhance cultural and educational exchanges to foster goodwill.
- **Immigration Advocacy** – Push for visa policy reforms to support Indian professionals.
- **Balanced Geopolitics** – Maintain strategic ties with the U.S. while managing relations with Russia and China.

Conclusion

Trump's second term presents both challenges and opportunities for India. Strengthening trade, defense, technology, and climate partnerships will be key in navigating the evolving U.S.-India relationship.

BRICS Expansion: A Shift in Global Power

As 2025 begins, BRICS (Brazil, Russia, India, China, and South Africa) sees significant expansion after welcoming four new members in 2024, including Indonesia, its first Southeast Asian member.

Why BRICS is Expanding

- **Countering Western Dominance:** BRICS aims to challenge Western-led global institutions, strengthening the Global South's influence.
- **Economic Strength:** Including high-growth economies like China and India boosts BRICS's economic power.
- **Energy Security:** New members like Iran and Saudi Arabia (pending) enhance access to energy resources.
- **Geopolitical Advantage:** Countries like Egypt and Ethiopia provide access to key maritime trade routes.
- **Reduced Dollar Dependence:** Members share a common goal of reforming financial institutions and reducing reliance on the U.S. dollar.
- **Stronger Global Influence:** A larger BRICS+ means greater control over global GDP, population, and trade negotiations.

Impact on Global Institutions

- **Pressure on Global Organizations:** BRICS+ challenges the UN, World Bank, and IMF to reform and offer better representation to developing nations.
- **EU & Balkan Response:** Some nations frustrated with EU membership delays might consider aligning with BRICS+.

Challenges of BRICS Expansion

- **Western Opposition:** BRICS+ is seen as a rival to the G7 and NATO, increasing global tensions.

- **Diverse Political & Economic Goals:** New members have different governance models, making consensus difficult.
- **India-China Rivalry:** Ongoing disputes between the two biggest members could impact unity.
- **Coordination Issues:** A larger BRICS+ makes it harder to align policies on trade, security, and global affairs.
- **Economic Imbalance:** China's economic dominance may overshadow smaller members, affecting decision-making.
- **Conflicting Alliances:** Members like Saudi Arabia and the UAE have close ties with the U.S., complicating BRICS's independence.
- **Geopolitical Divisions:** Different stances on global conflicts (e.g., Russia-Ukraine war, Middle East tensions) could weaken cooperation.

The Way Forward

- **Managing Internal Differences:** India and China must cooperate to ensure unity.
- **Strengthening Local Currencies:** Developing a BRICS+ multi-currency trade system or digital currency can boost economic independence.
- **Easing Trade Barriers:** Facilitating market access and investment, particularly in technology and green energy, will strengthen cooperation.
- **Expanding the New Development Bank (NDB):** Increasing funding for infrastructure and sustainability projects in developing nations.
- **Active Role in Global Forums:** BRICS+ should leverage platforms like the G20 and WTO to influence global policies.
- **Conflict Resolution Efforts:** Serving as a mediator in global disputes can enhance BRICS's credibility as a peace broker.
- **Supporting the Global South:** Advocating for fair trade, debt relief, and infrastructure development to uplift emerging economies.

Conclusion

BRICS+ is emerging as a powerful global force. However, its success depends on balancing diverse interests, strengthening economic ties, and navigating geopolitical challenges. The upcoming BRICS summit in Brazil will play a crucial role in shaping its future direction.

Indian Diaspora

The Prime Minister inaugurated the 18th Pravasi Bharatiya Divas (PBD) convention in Bhubaneswar, Odisha, on January 9, 2025. The theme was "Diaspora's Contribution to a Viksit Bharat."

About Pravasi Bharatiya Divas (PBD):

- **Initiated:** 2003 under PM Atal Bihari Vajpayee.
- **Frequency:** Biennial (celebrated on January 9).
- **Significance:** Commemorates Mahatma Gandhi's return from South Africa (1915) and highlights the Indian diaspora's contributions.

What is a Diaspora?
- The term originates from Greek, meaning "dispersion."
- Initially used for Jewish migration, it now applies to any community maintaining cultural ties despite geographical separation.

Categories of Indian Diaspora:
- **Non-Resident Indians (NRIs):** Indian citizens living abroad.
- **Persons of Indian Origin (PIOs):** Foreign nationals with Indian ancestry.
- **Overseas Citizens of India (OCIs):** Foreign citizens with lifelong visa privileges in India.

Significance of the Indian Diaspora

With 35 million members across 125 countries, the Indian diaspora strengthens India's global influence through:

- **Economic Contributions:**
  - India received $129.1 billion in remittances in 2024 (highest globally).
- **Cultural Diplomacy:**
  - Promotes Indian traditions, festivals, yoga, and Ayurveda worldwide.
  - Examples: Ramlila in Indonesia, Diwali in UK Parliament, International Yoga Day events.
- **Political Influence:**
  - Advocates for India-friendly policies in host nations.
  - Example: Indian-American groups lobbied for the US-India nuclear deal (2008).
- **Knowledge & Social Impact:**
  - Indian professionals excel in various global sectors.
  - Example: Indian doctors and nurses play key roles in UK & US healthcare.
- **Global Image Building:**
  - Success stories enhance India's reputation as a global leader.

Challenges Faced by the Diaspora
- **Social Issues:** Discrimination, racism, and integration challenges.
  - Example: Racial attacks on Indian students in Australia (2009–10).

- **Political & Legal Barriers:** Visa restrictions and limited rights in host countries.
  - Example: Gulf nations restrict property ownership and citizenship for Indians.
- **Geopolitical Risks:** Diaspora faces hardships during international crises.
  - Example: Indian students in Ukraine struggled during the Russia-Ukraine war.
- **Economic Exploitation:** Poor wages, job insecurity, and harsh work conditions.
  - Example: Migrant workers in Qatar suffer under the Kafala system.
- **Cultural Challenges:** Loss of heritage among younger generations.
  - Example: Indian-origin communities in Trinidad and Fiji struggle to preserve Hindi & Tamil.
- **Other Issues:**
  - Policy Confusion: OCI/PIO schemes caused confusion before their merger in 2015.
  - High Remittance Fees: Costly transfers, affecting low-income workers.

Way Forward for Stronger Diaspora Engagement

- **Improve Consular Services:** Strengthen support for Indian workers, especially in the Gulf.
- **Encourage Diaspora Investments:** Streamline processes for investments in Indian startups & infrastructure.
- **Cultural Outreach:** Expand Know India Program (KIP) and Bharat Ko Janiye Quiz for youth engagement.
- **Develop a Comprehensive Diaspora Policy:** Address OCI issues and streamline contributions.
- **Leverage Soft Power:** Utilize diaspora achievements to boost India's global presence.
- **Skill Development Collaboration:** Work with host countries to enhance job prospects for Indian professionals.

Conclusion

The Indian diaspora acts as a bridge between India and the world, playing a key role in economic growth, cultural preservation, and global influence. Pravasi Bharatiya Divas 2025 celebrates their invaluable contributions to a "Viksit Bharat", reinforcing India's commitment to its global community.

Animal Diplomacy: Tigers as Gifts

Nepal's tiger population has increased from 120 in 2009 to 355 in 2022—a remarkable 296% rise.

What is Animal Diplomacy?
- The practice of gifting or lending animals as a symbol of friendship and goodwill between nations.
- These animals often hold cultural significance and serve as diplomatic tools.
- The receiving country usually takes steps to protect and conserve these animals, fostering collaboration.

Significance of Animal Diplomacy

- Strengthens International Ties – Encourages diplomatic cooperation and mutual respect.
- Soft Power Strategy – Enhances a nation's global image through wildlife conservation.
  - Example: Australia's "Koala Diplomacy" promotes its culture and conservation efforts.
- Promotes Conservation Efforts – Encourages joint initiatives to protect endangered species and their habitats.

Animal diplomacy serves as a unique way for countries to build alliances, showcase their heritage, and promote wildlife conservation on a global stage.

U.S. Entity List

The U.S. National Security Advisor recently announced the removal of Indian scientific and nuclear entities from U.S. "restricted lists" to fully implement the India-U.S. Nuclear Deal (2008).

What is the U.S. Entity List?

- A list of foreign individuals, businesses, and organizations subject to export restrictions.
- Maintained by the Bureau of Industry and Security (BIS), U.S. Department of Commerce.
- Aims to prevent unauthorized trade in sensitive goods and technologies linked to terrorism, weapons of mass destruction (WMD), or activities against U.S. national security.

About the India-U.S. Nuclear Deal (123 Agreement):

- Signed in 2008 to enable civil nuclear cooperation between India and the U.S.
- Lifted restrictions on nuclear trade with India despite its non-signatory status to the Nuclear Non-Proliferation Treaty (NPT).
- Allows U.S. firms to supply nuclear fuel and technology for India's civilian nuclear energy sector.

Significance of the Removal from the Entity List:

- Strengthens India-U.S. strategic partnership in nuclear energy and technology.

- Enhances India's access to advanced nuclear technology for civilian use.
- Reflects growing trust and collaboration between the two nations in defense, energy, and technology sectors.

Aviation Safety in India

A series of fatal plane crashes in December 2024, including the Jeju Air disaster, has raised serious concerns about aviation safety. A recent Air India Airbus A320 incident at Goa's Mopa Airport further highlights the issue.

Civil Aviation in India
- One of the fastest-growing industries in the country.
- Classified into:
  - Scheduled Air Transport – Domestic & international airlines.
  - Non-Scheduled Air Transport – Charter & air taxi services.
  - Air Cargo Service – Transport of cargo & mail.

Major Aviation Safety Concerns
- Runway Safety Issues – Over 50% of accidents occur during landing or takeoff (IATA 2023).
- Bird Strikes – Airports near landfills face frequent wildlife strikes, e.g., Ahmedabad Airport (2019).
- Pilot Fatigue – Contributes to 20-30% of aviation incidents (IATA).
- Controlled Flight Into Terrain (CFIT) – A major cause of aviation fatalities, as seen in Nepal (2023).
- Adverse Weather Conditions – Wind shear, thunderstorms, and icing impact safety (20% of global incidents).
- Ground Handling Errors – Improper loading & maintenance issues cost the industry $10 billion annually (IATA).

Key Aviation Safety Initiatives in India
- DGCA Oversight & Audits – Regular inspections to address safety gaps.
- National Aviation Safety Plan (NASP 2024-2028) – Aligns with ICAO's Global Aviation Safety Plan.
- Flight Duty Time Limitations (FDTL) – Ensures pilots get adequate rest to prevent fatigue-related errors.
- Wildlife & Bird Strike Mitigation – Airport hazard management programs since 2014.

- GAGAN Navigation System (2015) – Improves landing precision, especially in bad weather.
- Global Collaboration – India partners with IATA & ICAO for risk-based safety improvements.

Way Forward for India's Aviation Safety
- Enhance Infrastructure & Technology – Advanced wildlife detection, AI-based monitoring, better runway designs.
- Strengthen Regulatory Oversight – Frequent safety audits, improved aircraft accident investigations.
- Improve Pilot & Crew Training – Simulator training, stricter fatigue management, psychological preparedness.
- Upgrade Regional Airports – Safer operations under the UDAN scheme, better air traffic control.
- Adopt Global Best Practices – Learn from Singapore's proactive safety measures and pilot training.

Conclusion:
Despite progress in aviation safety, challenges like human error, infrastructure limitations, and external hazards persist. A proactive approach, better regulation, and technological advancements are essential to ensure safer skies for India.

Hydroclimate Whiplash

The Los Angeles wildfires were intensified by hydroclimate whiplash, a phenomenon linked to climate change and human activities.

What is Hydroclimate Whiplash?

- Definition: A rapid shift between extreme wet and severe dry conditions in a region.
- How It Happens:
    - A warmer atmosphere holds more water vapor, increasing the gap between wet and dry periods.
    - Dry spells become longer, followed by intensified rainfall when precipitation finally occurs.
    - This leads to droughts, wildfires, and flash floods, making regions more vulnerable to climate extremes.

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Impact & Significance:

- **Worsens Wildfires:** Prolonged droughts dry vegetation, making fires more intense.
- **Increases Flood Risks:** Heavy rainfall after dry spells leads to flash floods & landslides.
- **Climate Change Link:** Global warming amplifies hydroclimate whiplash, making it more frequent.

Conclusion:

Hydroclimate whiplash is a growing concern due to climate change, demanding urgent action in disaster preparedness, water management, and climate mitigation strategies.

Baanknet e-Auction Portal

The Department of Financial Services (DFS), Ministry of Finance, has launched the revamped Baanknet e-auction portal in New Delhi.

About Baanknet

- **Type:** Digital e-auction platform
- **Developed by:** DFS, Ministry of Finance
- **Objective:**
    - Streamline the recovery process for Public Sector Banks (PSBs)
    - Ensure transparent, efficient, and accessible property auctions
    - Help banks recover bad loans and reduce NPAs (Non-Performing Assets)

Significance of Baanknet

- **Transparency:** Reduces fraud and ensures fair competition
- **Efficiency:** Simplifies the auction process for buyers and banks
- **Accessibility:** Allows wider participation in property auctions
- **Financial Stability:** Helps PSBs recover dues faster and strengthen their balance sheets

Conclusion:

The Baanknet e-auction portal is a major step in financial reforms, boosting transparency and efficiency in bank-led property auctions while supporting NPAs recovery.

KaWaCHaM

The Kerala Chief Minister has launched KaWaCHaM, one of the world's fastest weather alert systems, to enhance disaster preparedness.

What is KaWaCHaM?

- Full Form: Kerala Warnings Crisis and Hazards Management System
- Purpose: A real-time disaster warning system that integrates alerts, sirens, and global weather models to ensure public safety.
- Developed By: Kerala State Disaster Management Authority (KSDMA)
- Funded By:
  - National Disaster Management Authority (NDMA)
  - World Bank (under the National Cyclone Risk Mitigation Project)
- Operations:
  - Managed by the State Emergency Operation Centre
  - Works at the taluk (subdistrict) level
  - Covers all vulnerable areas for effective disaster response

Significance:

- Rapid Disaster Alerts: Enables faster response to cyclones, floods, and extreme weather.
- Improved Preparedness: Helps local authorities and citizens take timely action.
- Global Standards: Uses cutting-edge weather models for accurate predictions.

Conclusion:

KaWaCHaM strengthens Kerala's disaster resilience, setting a benchmark for early warning systems worldwide.

India Joins UN-CEBD

India has become a member of the UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD), reflecting its rising influence in global statistical governance.

About UN-CEBD

- Established: 2014 (Australia was the first chair)

- Objective:
  - Integrating Big Data into official statistical systems
  - Supporting the 2030 Sustainable Development Goals (SDGs) with data-driven insights

- Membership:
  - 31 Member States (including India)
  - 16 International Organizations

Key Functions of UN-CEBD

Big Data Integration:
- Utilizes non-traditional data sources like IoT devices, satellite imagery, and private sector data.
  - Capacity Building:

- Training statisticians in data science techniques.
  - Framework Development:

- Establishes ethical guidelines for cross-border data sharing.

Significance for India

- Strengthens India's role in global data governance

- Enhances India's statistical capabilities in Big Data and AI

- Boosts India's participation in international policy-making for data science

Conclusion:
By joining UN-CEBD, India is poised to shape global data policies, leveraging Big Data for national and global development goals.

National Turmeric Board (NTB)

The Union Minister of Commerce and Industry has inaugurated the National Turmeric Board (NTB) to strengthen India's turmeric sector.

About the National Turmeric Board (NTB)

- Objective: To develop, promote, and expand the turmeric sector in India.

- Headquarters: Nizamabad, Telangana

- Composition:
  - Central Ministries: Ministry of AYUSH, Department of Pharmaceuticals, Department of Agriculture & Farmers Welfare, and Department of Commerce
  - State Representatives: Maharashtra, Telangana, and Meghalaya (Lakadong Turmeric) (States will be represented on a rotational basis.)
  - Other Members: Exporters, producer bodies, and farmers from various states

Key Functions of NTB

- Research & Development: Promote new turmeric-based products
- Value Addition: Support processing and branding for global markets
- Awareness & Promotion: Highlight health benefits and medicinal properties
- Yield Improvement: Enhance production techniques and supply chains
- Quality & Export Standards: Ensure global market compliance

Significance of NTB

- Strengthens India's leadership in turmeric production & exports
- Improves farmers' incomes & market access
- Promotes turmeric-based pharmaceuticals and wellness products

Conclusion:
The National Turmeric Board is a landmark initiative to boost turmeric research, trade, and farmer welfare, ensuring India's dominance in the global turmeric market.

Mission SCOT (Space Camera for Object Tracking): Enhancing Space Safety

The Prime Minister of India lauded Indian space startup Digantara for the successful launch of Mission SCOT, a significant step in Space Situational Awareness (SSA).

About Mission SCOT
- Full Form: Space Camera for Object Tracking
- Purpose: One of the world's first commercial satellites for SSA, enhancing tracking of Resident Space Objects (RSOs).
- Developer: Digantara (Indian space startup, backed by Aditya Birla Ventures & SIDBI)
- Launch Vehicle: SpaceX's Transporter-12 Mission
- Orbit: Sun-Synchronous Orbit (SSO) (ideal for monitoring Low Earth Orbit objects)

Aims & Objectives

- Space Safety:
  - Real-time tracking of space debris to prevent collisions
  - Supports effective space traffic management

- National Security:
  - Strengthens India's space surveillance capabilities
  - Enhances protection of space assets

- Bridging Monitoring Gaps:
  - Improves existing SSA systems
  - Addresses limitations in global space tracking networks

Significance of Mission SCOT
- Strengthens India's role in global space safety
- Supports sustainable space exploration
- Encourages private-sector innovation in space tech

Conclusion:
Mission SCOT is a milestone achievement in India's space technology, ensuring better space traffic management, safety, and security for global operations.

Wealth Tax

What is a Wealth Tax?
- A tax on an individual's or entity's net wealth, mainly targeting the super-rich.
- Introduced in 1957 based on the Kaldor Committee's recommendations.
- Imposed 1% tax on net wealth exceeding ₹30 lakh, applicable to individuals, Hindu Undivided Families (HUFs), and companies.
- Abolished in 2015 and replaced with higher surcharges on the wealthy.
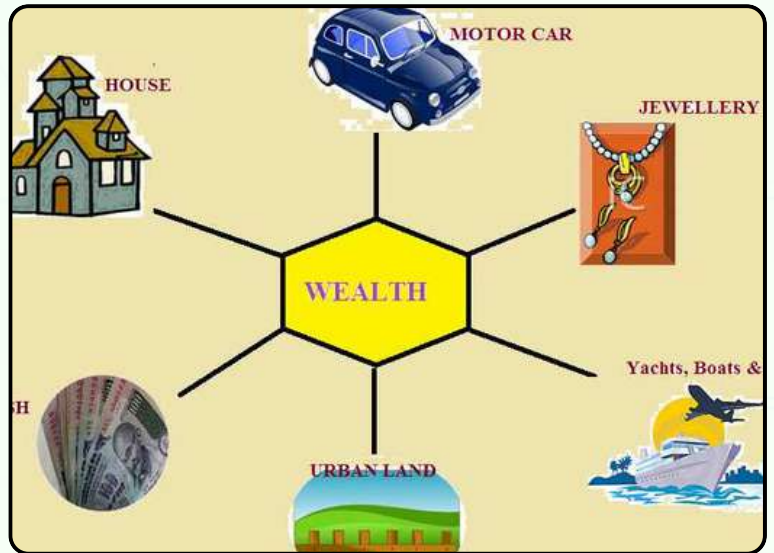
Post-Abolition Measures

- Surcharge on Individuals: Increased from 2% to 12% for those earning over ₹1 crore annually.
- Surcharge on Companies: Increased from 2% to 12% for companies with annual income above ₹10 crore.

Why Reintroduce Wealth Tax?

- Reducing Inequality: The richest 0.04% of the population holds a disproportionate share of wealth.
- Funding Development: Taxing them could finance health and education, creating a stronger workforce and reducing economic disparity.

Arguments For Wealth Tax

- Reducing Inequality:
  - High wealth concentration limits opportunities for many.
  - Taxing the top 0.04% can fund health and education without increasing debt.
- Global Precedents:
  - Countries like UK and Norway have wealth taxes with minimal capital flight.
  - Encourages global cooperation for wealth tracking and tax transparency.
- Feasibility in India:
  - India's digital tax infrastructure can help implement a wealth tax effectively.
- Developmental Benefits:
  - Revenue can improve public healthcare, education, and social welfare.
  - Leads to a fairer distribution of national resources.

Logistics Ease Across Different States (LEADS) 2024' Report

About The LEADS 2024 Report

The Logistics Ease Across Different States (LEADS) 2024 Report is the 6th edition of this assessment, modeled after the World Bank's Logistics Performance Index (LPI).

Key Details:

- Released By:Ministry of Commerce and Industry
- Objective: Evaluates logistics efficiency at the State/UT level to identify areas for improvement.
- Evaluation Pillars:
- Logistics Infrastructure – Quality and availability of transport facilities.
- Logistics Services – Efficiency of transport and supply chain services.
- Operating & Regulatory Environment – Policy framework and ease of doing business.
- Sustainable Logistics – Adoption of eco-friendly logistics practices.

Performance Highlights of LEADS 2024:

(Details awaited; share specific insights, and I'll summarize them effectively.)

Green Steel Mission

What is Green Steel?

- Eco-friendly steel produced using renewable energy and sustainable practices.
- Reduces carbon emissions and improves waste management.

About the Green Steel Mission

- Initiative by: Ministry of Steel
- Estimated Cost: ₹15,000 Crore
- Objective: To decarbonize the steel industry and promote sustainable production.
- This mission is a crucial step in aligning the steel sector with India's climate commitments.

Key Components of the Green Steel Mission

- Production-Linked Incentive (PLI) Scheme for Green Steel
  - Encourages eco-friendly steel production.
  - Attracts investments to boost domestic specialty steel manufacturing.
  - Aims to reduce dependence on imports.
- Incentives for Renewable Energy
  - Promotes the use of renewable energy in steel production.
  - Helps lower the carbon footprint of the industry.
- Mandates for Government Agencies
  - Requires government agencies to procure green steel.
  - Drives demand and supports sustainable practices.

Key Details:

- Released By:Ministry of Commerce and Industry
- Objective: Evaluates logistics efficiency at the State/UT level to identify areas for improvement.
- Evaluation Pillars:
- Logistics Infrastructure – Quality and availability of transport facilities.
- Logistics Services – Efficiency of transport and supply chain services.
- Operating & Regulatory Environment – Policy framework and ease of doing business.
- Sustainable Logistics – Adoption of eco-friendly logistics practices.

This mission is a major step towards making India's steel industry greener and more sustainable.

Constitution of Working Group for the Revision of the Current Series of Wholesale Price Index (Base 2011-12)

Key Details:

- Chairperson: Ramesh Chand, NITI Aayog Member
- Objective: Update WPI to reflect structural economic changes

Terms of Reference:

- Commodity Basket Review: Suggests an updated WPI and PPI (Producer Price Index) basket based on the 2022-23 economy.
- Price Collection System: Reviews and proposes improvements in data collection.

- Computation Methodology: Determines the most suitable method for WPI/PPI calculation.
- Switch to PPI: Examines the feasibility of transitioning from WPI to PPI for better price tracking.

Wholesale Price Index (WPI): An Overview
The Wholesale Price Index (WPI) measures the price of goods at the wholesale stage, focusing on bulk trade between businesses rather than retail consumers.

Key Features of WPI:
- Released By: Economic Advisor, Ministry of Commerce & Industry
- Base Year: 2011-12 (proposed revision to 2022-23)
- Scope: Covers only goods, excluding services
- Usage: Primarily used as a GDP deflator to measure inflation at the wholesale level
- Pricing Methodology: Considers basic prices only, excluding taxes, trade discounts, and transport costs

WPI Basket Components & Weightage:
- Primary Articles – 22.62% (Agricultural and mining products)
- Fuel & Power – 13.15% (Petroleum, electricity, and coal)
- Manufactured Products – 64.23% (Industrial goods, machinery, and chemicals)

The WPI plays a crucial role in inflation analysis, influencing policy decisions and economic planning.

India's First Organic Fisheries Cluster in Sikkim

India's First Organic Fisheries Cluster Launched in Sikkim
The Ministry of Fisheries, Animal Husbandry & Dairying has launched India's first organic fisheries cluster in Sikkim under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).

Key Highlights:
- Initiative: Organic Fisheries Cluster
- Location: Sikkim (India's first fully organic state)
- Under: PMMSY – A scheme promoting sustainable fisheries and aquaculture

Significance of the Initiative:
- Promotes eco-friendly fish farming using organic feed and sustainable practices.
- Boosts income for fish farmers by catering to the organic market.
- Supports India's goal of sustainable aquaculture and environmental conservation.

This initiative is a major step towards making fisheries more sustainable and profitable while ensuring eco-friendly practices.

Benefits of Organic Fisheries:

- **Eco-Friendly:** Reduces environmental pollution and protects aquatic ecosystems.
- **Higher Market Value:** Organic fish products command premium prices in domestic & international markets.
- **Sustainability:** Ensures long-term fish production without harming natural resources.
- This initiative strengthens sustainable aquaculture while boosting economic opportunities for fish farmers in Sikkim.

Blue Flag Certification

About Blue Flag Certification:

What is it?

- A globally recognized eco-label awarded to beaches, marinas, and sustainable tourism operators for environmental excellence.

Eligibility Criteria:

- Awarded annually by the Foundation for Environmental Education (FEE), Denmark.
- Beaches must meet 33 strict criteria across four categories:
  - Environmental Education & Information
  - Water Quality
  - Environmental Management & Conservation
  - Safety & Services

Global Reach:

- 4,000+ beaches worldwide hold the Blue Flag status.
- Spain leads with 729 certified beaches, followed by Greece.

India's Blue Flag Beaches:

India now has 13 Blue Flag beaches, including Kappad and Chal. Other certified beaches:

- Shivrajpur (Gujarat), Golden Beach (Odisha), Ghoghla (Diu), Kasarkod & Padubidri (Karnataka), Rushikonda (Andhra Pradesh), Radhanagar (Andaman & Nicobar), Kovalam (Tamil Nadu), Eden (Puducherry), Minicoy Thundi & Kadmat (Lakshadweep).

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Significance:

Boosts eco-tourism & sustainability

Ensures cleaner, safer beaches

🇮🇳 Strengthens India's commitment to global environmental standards

The certification places India's beaches on the global tourism map, promoting sustainability and environmental conservation.

Biennial Update Report (BUR)

India Submits 4th Biennial Update Report (BUR-4) to UNFCCC

India has submitted its Biennial Update Report-4 (BUR-4) to the United Nations Framework Convention on Climate Change (UNFCCC), outlining its progress in climate action and emission reductions.

What is the Biennial Update Report (BUR)?

Requirement: Developing countries must submit climate action reports under the Paris Agreement.

Purpose: Reports on greenhouse gas (GHG) emissions, mitigation efforts, and progress towards climate goals.

IGES Biennial Update Rep Database

IGES

Key Highlights of BUR-4

Emission Intensity Reduction:
- India committed to reducing its GDP emission intensity by 45% (from 2005 levels) by 2030.
- Progress: By 2020, India reduced emission intensity by 36% compared to 2005.

Total Greenhouse Gas (GHG) Emissions:
- 2020 GHG Emissions: 2,959 million tonnes of CO_2 equivalent.
- Net Emissions (after forestry absorption): 2,437 million tonnes.
- Decline: 7.93% reduction in total emissions from 2019, despite an overall 98.34% increase since 1994.

Sector-wise Emissions:
- Energy – 75.66% (largest contributor)
- Agriculture – 13.72%
- Industry & Product Use – 8.06%
- Waste – 2.56%

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Carbon Sink Development (2005-2021):
- 2.29 billion tonnes of CO_2 absorbed through forest & tree cover.
- Current forest & tree cover: 25.17% of India's total land area (showing steady growth).

Major Contributors to GHG Emissions:
- Fossil fuel combustion (coal, oil, gas)
- Methane from livestock (agriculture sector)
- Industrial activities (cement & aluminum production)

Significance of BUR-4
- Reaffirms India's commitment to climate action under the Paris Agreement.
- Demonstrates progress in lowering carbon intensity.
- Highlights India's efforts towards achieving net-zero emissions by 2070.

This report showcases India's climate leadership while emphasizing sustainable development and emission reduction strategies.

Dark Oxygen

Discovery of "Dark Oxygen" in the Clarion-Clipperton Zone

Scientists have discovered "dark oxygen" production in the Clarion-Clipperton Zone of the Pacific Ocean, challenging the belief that oxygen generation only occurs through photosynthesis.

What is Dark Oxygen?
- Definition: Oxygen produced without sunlight or photosynthesis deep in the ocean.
- Discovery: July 2024, at a depth of 13,100 feet in the Clarion-Clipperton Zone.

How is Dark Oxygen Produced?
- Electrochemical Reaction:
  - Polymetallic nodules (rich in manganese and iron) on the seafloor generate oxygen.
  - These nodules split seawater molecules (H_2O) into hydrogen and oxygen through electrochemical activity.

Significance of the Discovery
- Revolutionizes Understanding of Oxygen Production – Shows oxygen can be formed without photosynthesis.
- Hints at Extraterrestrial Life – Suggests oxygen-rich environments could exist on other planets.
- Redefines the Origin of Life – Oxygen may have existed before photosynthesis, reshaping theories on Earth's early atmosphere.

About the Clarion-Clipperton Zone
- Location: North Pacific Ocean, between Hawaii and Mexico.
- Rich in Minerals: Manganese, Nickel, Copper, and Cobalt – essential for green technologies (EV batteries & solar panels).

This groundbreaking discovery expands our understanding of oxygen generation, deep-sea chemistry, and life beyond Earth.

Human Metapneumovirus (HMPV)

China is experiencing an outbreak of HMPV, particularly affecting children under 14 years. While India has not reported any cases yet, authorities are closely monitoring the situation.

What is HMPV?
- Family: Belongs to the Pneumoviridae family, related to RSV, measles, and mumps.
- Seasonal Disease: Commonly seen in winter and early spring.
- Discovered in 2001 by Bernadette G. van den Hoogen in the Netherlands.

Who is at Risk?
- Children & Elderly – 10-12% of respiratory illnesses in children are due to HMPV.
- Immunocompromised Individuals – Those with HIV, asthma, or COPD are more vulnerable.

Symptoms of HMPV
- Mild Symptoms: Similar to a common cold – cough, fever, sore throat, runny nose, wheezing.
- Incubation Period: 3 to 6 days.
- Severe Cases: Can lead to bronchiolitis, pneumonia, bronchitis, asthma flare-ups, and ear infections.

How Does HMPV Spread?
- Direct Contact: Cough, sneeze droplets, shaking hands, touching contaminated surfaces (phones, doorknobs, keyboards).
- Diagnosis & Treatment
- Diagnosis: Molecular testing has improved identification of HMPV.
- Treatment:
  - No vaccine or specific antiviral available.
  - Over-the-counter medications for fever and congestion.
  - Severe cases may require hospitalization.

Why is this Important?

- HMPV is a rising global health concern, especially in children and elderly populations.
- Preventive measures (hand hygiene, avoiding close contact with infected individuals) are crucial.
- Monitoring is essential to prevent outbreaks in India and other regions.

With no vaccine or specific cure, early detection and symptom management remain the best approach for handling HMPV infections.

Scramjet Engine For Hypersonic Missiles

Defence Research and Development Laboratory (DRDL), Hyderabad, has successfully conducted the first ground test of a scramjet combustor, marking a major breakthrough in India's hypersonic missile technology.

Significance of the Test

- Key milestone in developing hypersonic missiles powered by scramjet engines.
- Successful ignition and stable combustion, demonstrating India's progress in air-breathing propulsion technology.

What is a Scramjet Engine?

- Supersonic Combustion Ramjet (Scramjet) – An advanced air-breathing engine designed to operate at hypersonic speeds (above Mach 5).
- Improves upon Ramjet Engines by allowing supersonic airflow through the combustion chamber, making it more efficient at extreme speeds.

Key Features of Scramjet Engines

- Air-Breathing Technology: Uses atmospheric oxygen for combustion, eliminating the need for onboard oxidizers.
- No Moving Parts: Operates with a streamlined design, allowing efficient air intake and fuel combustion at hypersonic speeds (~1.5 km/sec).
- Flame Stabilization: Innovative techniques ensure continuous combustion in supersonic airflow, similar to keeping a candle lit in a hurricane.
- Computational Fluid Dynamics (CFD) Simulations: Used by DRDO to predict performance and enhance engine design.

- **Strategic Edge:** Enables India to develop hypersonic cruise missiles and spaceplanes.
- **Faster, More Efficient Defense Systems:** Reduces travel time for missiles, making them harder to intercept.
- **Global Leadership in Hypersonic Technology:** Joins elite nations like USA, Russia, and China in advancing hypersonic propulsion.

This successful test strengthens India's defense capabilities and brings it closer to indigenous hypersonic missile development.

Vikas Liquid Engine

The Indian Space Research Organisation (ISRO) has successfully conducted a demonstration test of restarting the Vikas liquid engine and flagged off the Core Liquid Stage (L110) of the LVM3 launch vehicle.

Key Details of the Test

- **Venue:** ISRO Propulsion Complex, Mahendragiri, Tamil Nadu
- **Significance:**
  - A crucial milestone toward developing reusable launch vehicles.
  - Supports future advancements in stage recovery and reuse technologies.

About the Vikas Rocket Engine

- **Engine Type:** Liquid-fueled rocket engine
- **Developed By:** Liquid Propulsion Systems Centre (LPSC), ISRO in the 1970s
- **Named After:** Vikram Ambalal Sarabhai, the father of India's space program

Usage in ISRO's Launch Vehicles

- Polar Satellite Launch Vehicle (PSLV)
- Geosynchronous Satellite Launch Vehicle (GSLV)
- LVM3 (Launch Vehicle Mark-3, formerly GSLV Mk III)

Fuel Compositio

- **Fuel:** Unsymmetrical Dimethylhydrazine (UDMH) (40 metric tonnes)
- **Oxidizer:** Nitrogen Tetroxide (N_2O_4)

About the Core Liquid Stage (L110) of LVM3

- **Powered By:** Twin Vikas Engines with a propellant capacity of 110 tonnes
- **Designed By:** Liquid Propulsion Systems Centre (LPSC), ISRO

- Significance:
  - Vital for LVM3 (ISRO's heavy-lift launch vehicle)
  - Earmarked for an upcoming LVM3 mission under a commercial agreement between NewSpace India Limited (NSIL) and AST SpaceMobile & Science, LLC
  - Will be used to launch the BlueBird Block 2 satellite

Why This Matters?
- Enhances ISRO's Capabilities in Stage Recovery & Reusability
- Strengthens India's Commercial Space Launch Market
- Supports Future Crewed and Interplanetary Missions

This successful demonstration brings India closer to reusable launch vehicles, making future space missions more cost-effective and efficient.

Ministry of Defence's Declare 2025 as a 'Year of Reforms'

The Ministry of Defence (MoD) has declared 2025 as the "Year of Reforms" to modernize the Armed Forces into a technologically advanced, combat-ready force for integrated multi-domain operations.

INDIA'S MINISTRY OF DEFENCE HAS DECLARED 2025 AS THE 'YEAR OF REFORMS'

Evolution of Defence Reforms in India

- Post-Independence Era (1947-1961)
  - Democratic Civilian Control: Ensured governance and oversight over the military.
  - Challenges: Heavy reliance on imports and weak domestic defence capabilities.
- Post-1962 War Reforms
  - Strengthened geographical commands and operational structures for better military preparedness.
- Kargil War Reforms (1999-2001)
  - Established the Defence Intelligence Agency (2002), tri-service commands, and Integrated Defence Staff to improve coordination, intelligence sharing, and joint operations.

Major Reforms (2014-2024)
- Chief of Defence Staff (CDS) & Department of Military Affairs (DMA) (2019)

- Enhanced synergy between the Army, Navy, and Air Force.
- CDS acts as a single-point military advisor, while DMA streamlines decision-making and promotes indigenous defence production.
- Agnipath Scheme (2022)
  - Introduced short-term recruitment of "Agniveers" to maintain a young, skilled force while reducing long-term personnel costs.
- Integrated Battle Groups (IBGs)
  - Agile, mission-specific units for rapid deployment and independent operations to tackle modern threats.
- Defence Acquisition Procedure (DAP) 2020
  - Focuses on self-reliance by banning imports of certain defence items, boosting private sector participation, and promoting indigenous manufacturing.
- Ordnance Factory Restructuring (2021)
  - 41 ordnance factories reorganized into seven Defence Public Sector Undertakings (DPSUs) to improve efficiency and accountability.

Boosting Indigenous Capabilities
- Key Indigenous Projects
  - Development of HTT-40 trainer aircraft, light combat helicopters, advanced radars, and warships.
  - Over 500 defence items banned from imports to strengthen domestic production.
- Innovation through iDEX
  - iDEX (Innovations for Defence Excellence) supports startups and MSMEs in developing cutting-edge technologies like AI, robotics, and hypersonics.
- Defence Space Agency (2019)
  - Integrates space technology into military operations to enhance national security.

Challenges in Defence Reforms
- Budget Constraints: Limited funding slows modernization and domestic production.
- Innovation Gaps: Dependence on foreign technology hinders indigenous R&D.
- Procurement Delays: Bureaucratic inefficiencies lead to slow defence acquisitions.
- Resistance to Change: Political and inter-service disagreements delay structural reforms like Integrated Theatre Commands (ITCs).
- Export Limitations: Private sector mainly exports components, not complete systems, reducing India's global defence footprint.
- Technology Adoption: Integration of AI, 5G/6G, and quantum systems requires strong policies and investments.
- Limited Private Sector Role: Despite growth, private sector contributes only 22% of total defence production (FY 2024).

Border Management in India

India-Bangladesh Border Tensions & Border Management Reforms

Recent Issue: India Summons Bangladesh Envoy

- **Background:** The Ministry of External Affairs (MEA) summoned Bangladesh's Acting High Commissioner regarding border security and fencing measures.
- **Bangladesh's Concern:** Alleged violations of the 1975 guidelines, citing BSF's fencing construction in Malda, West Bengal.
- **India's Response:** India maintains that all security measures, including fencing, comply with bilateral agreements and are aimed at border security, not as defensive structures.

India's Border Management Structure

- **Ministry of Home Affairs (MHA):** Oversees all border forces.
- **Key Border Security Forces:**
  - **BSF:** Guards India-Pakistan & India-Bangladesh borders.
  - **ITBP:** Protects the India-China border.
  - **SSB:** Manages India-Nepal & India-Bhutan borders.
  - **Assam Rifles:** Secures the India-Myanmar border.
  - **Indian Coast Guard (ICG):** Monitors maritime borders.

Key Government Initiatives for Border Security

- **Infrastructure Development**
  - **Border Roads & Tunnels:** Projects like Zojila Tunnel & Atal Tunnel improve connectivity.
  - **Integrated Check Posts (ICPs):** Modernized border crossings with biometric scanners & surveillance.
  - **Border Fencing:** Use of laser walls, vibration sensors, and smart barriers.

- **Technology-Driven Security**
  - **CIBMS (Comprehensive Integrated Border Management System):** Smart fencing, ground sensors, and surveillance.
  - **Drones & Satellites:** Heron drones & RISAT satellites monitor borders.
  - **Infrared & Night Vision Cameras:** Enhance low-visibility surveillance.

- Border Area Development
  - Border Area Development Programme (BADP): Improves infrastructure, healthcare, and education.
  - Vibrant Villages Programme (VVP): Develops villages in remote northern border areas.
  - Disaster-Resilient Infrastructure: Flood-resistant roads and buildings.

Challenges in Border Management

- Diverse Terrain: Difficult landscapes like Himalayas and deserts hinder infrastructure development.
- Porous Borders: Unfenced areas, especially with Bangladesh & Myanmar, allow illegal activities.
- Security Threats:
  - Cross-border terrorism (India-Pakistan border).
  - Insurgency in Northeast (Nagaland, Manipur).
  - Smuggling & Human Trafficking (Bangladesh, Nepal, Myanmar borders).
- Infrastructure & Technological Gaps: Indian roads often end miles before the border, unlike Chinese infrastructure.
- Political & Administrative Hurdles: Border disputes and coordination issues between states and central agencies.
- Cybersecurity Threats: Potential cyber intrusions along sensitive borders.

Way Forward

- Accelerate Border Infrastructure: Faster road and tunnel construction.
- Enhance Surveillance: AI-driven border monitoring & smart fencing.
- Strengthen Coordination: Unified command centers for all security agencies.
- Community Engagement: Border development programs to involve local populations.
- Modernization & Training: Equip forces with advanced surveillance tools and training.
- Policy & Financial Support: Increased funding and long-term solutions for border security.

Conclusion
India's border management must balance security with development to ensure stability and strong international relations.

Armed Forces Tribunal

Supreme Court Proposes New AFT Benches in J&K and Himachal Pradesh
Recent Development
- The Supreme Court has suggested setting up Armed Forces Tribunal (AFT) Benches in Jammu & Kashmir and Himachal Pradesh to address the increasing backlog of defence-related cases.

About the Armed Forces Tribunal (AFT)

- Establishment: Formed in 2009 under the Armed Forces Tribunal Act, 2007.
- Composition:
  - Judicial Member: Retired High Court Judges.
  - Administrative Member: Retired Armed Forces personnel who have:
    - Served as Major General (or equivalent) or above for at least three years.
    - Been Judge Advocate General (JAG) for at least one year.

Functioning of AFT
- Legal Framework: Follows the Armed Forces Tribunal (Procedure) Rules, 2008.
- Proceedings:
  - Conducted in English.
  - Similar procedures to High Courts.
- Jurisdiction:
  - Handles disputes related to commission, appointments, enrolment, and service conditions under:
    - Army Act, 1950
    - Navy Act, 1957
    - Air Force Act, 1950
  - Appeals against court-martial orders and related matters.
- Powers:
  - Can dismiss appeals if the court-martial findings are justified.
  - Appeals against AFT decisions can only be taken up in the Supreme Court of India.

Three Significant Addition to Indian Navy

Indian Navy Commissions Three Warships: A Major Milestone in Self-Reliance

In a significant boost to India's Atma Nirbhar Bharat initiative, the Indian Navy commissioned a frigate, a destroyer, and a submarine on the same day, enhancing its maritime capabilities.

Commissioned Warships

1. INS Nilgiri (Frigate)
- Class: Nilgiri-class stealth frigate.
- Project: Project 17A, a follow-up to the Shivalik-class frigates.
- Built by:
  - Mazagon Dock Shipbuilders Limited (MDL), Mumbai
  - Garden Reach Shipbuilders & Engineers (GRSE), Kolkata
- Key Features:
  - First of seven frigates under Project 17A.
  - Armed with supersonic surface-to-surface missiles and Medium-Range Surface-to-Air Missiles (MRSAM).
  - Role: Multi-dimensional warfare including anti-surface, anti-air, and anti-submarine operations.

2. INS Surat (Guided Missile Destroyer)
- Class: Fourth and final stealth guided missile destroyer under Project 15B.
- Predecessors: INS Visakhapatnam, Mormugao, and Imphal.
- Built by: Mazagon Dock Shipbuilders Limited (MDL).
- Key Features:
  - First Indian Navy warship to integrate Artificial Intelligence (AI) for enhanced operational efficiency.
  - Armed with cutting-edge weapons, including:
    - Surface-to-air missiles
    - Anti-ship missiles
    - Torpedoes

3. INS Vaghsheer (Submarine)
- Class: Sixth and final Kalvari-class submarine under Project 75.
- Developed by: French Naval Group & Spanish Navantia.
- Key Features:
  - Diesel-electric propulsion system.
  - Advanced Air Independent Propulsion (AIP) system (to be installed from 2026) for extended underwater endurance.
  - Role: Specialized for anti-surface & anti-submarine warfare, intelligence gathering, area surveillance, and special operations.

Significance
The commissioning of these three warships marks a major leap toward self-reliance in defense manufacturing, strengthening India's blue-water navy capabilities and maritime security.

Nag Mk 2 Missile

India Successfully Tests Indigenous Nag Mk 2 Anti-Tank Missile

The Defence Research and Development Organisation (DRDO) has successfully conducted trials of the Nag Mk 2 Anti-Tank Guided Missile (ATGM) at the Pokhran Field Range, Rajasthan, marking a significant advancement in India's indigenous missile capabilities.

Key Features of Nag Mk 2 Missile

- **Indigenous Development:**
  - Developed under the Integrated Guided Missile Development Programme (IGMDP) by DRDO.
- **Fire-and-Forget Technology:**
  - Once launched, the missile autonomously tracks and destroys its target.
- **Enhanced Range:**
  - Upgraded range of 7-10 km, compared to the 4 km range of the earlier Nag Mk 1 variant.
- **Versatile Against Advanced Armour:**
  - Designed to penetrate modern armored vehicles equipped with Explosive Reactive Armour (ERA).
- **Platform Integration:**
  - Successfully integrated with the Nag Missile Carrier (NAMICA), ensuring high mobility and deployment flexibility.

Significance

The successful trials of Nag Mk 2 strengthen India's self-reliance in defense technology, enhancing the Army's capability to neutralize enemy tanks and armored threats with precision.
Would you like any refinements or additional details?

Sree Narayana Guru

Kerala Chief Minister recently criticized efforts to associate Sree Narayana Guru with the Sanatana Dharma ideology, highlighting his independent and revolutionary stance on social reform and equality.

Life and Philosophy

- Born into an Ezhava family in a caste-ridden society, Sree Narayana Guru emerged as a leading social reformer in Kerala.
- He advocated social equality with the famous slogan:
  - "One Caste, One Religion, One God for All."
- Opposed caste-based discrimination and worked for the upliftment of oppressed communities.
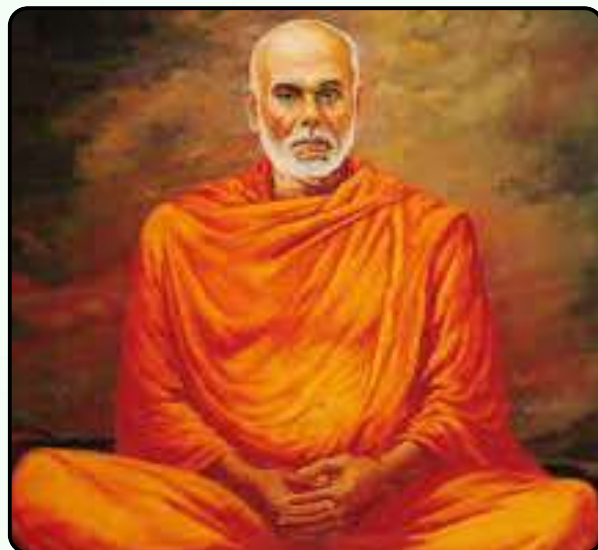
Key Contributions

Temple Consecration & Symbolism
- 1888: Consecrated a Shiva idol at Aruvippuram, challenging caste-based restrictions on temple entry.
- At Kalavancode, installed mirrors instead of idols, symbolizing the divine within every individual.
  - These reforms predated the Temple Entry Movements of the 1920s.

Institutions & Organizations
- Sivagiri Madhom: A major pilgrimage center for the Ezhava community, promoting social equality and spiritual growth.
- SNDP Yogam (1903): Founded the Sree Narayana Dharma Paripalana Yogam to promote education and upliftment.
  - Later distanced himself from SNDP due to its narrow focus on the Ezhava community.

Spiritual Philosophy & Advaita Vedanta
- 1913: Established the Advaita Ashram at Aluva, promoting universal brotherhood ("Om Sahodaryam Sarvatra" – "All are equal in the eyes of God").
- Reinterpreted Advaita Vedanta, focusing on social justice alongside spiritual enlightenment.

Literary Contributions
- Major works: Advaitha Deepika, Asrama, Thevarappathinkangal, reflecting his spiritual and reformist ideals.

Legacy
Sree Narayana Guru remains a symbol of social justice, rationalism, and spiritual inclusivity, distinct from Sanatana Dharma's traditionalist interpretations. His teachings continue to inspire movements for equality and human dignity in India.

National Sports Awards

National Sports Awards 2024: Recognizing Excellence in Indian Sports
The Ministry of Youth Affairs & Sports recently announced the National Sports Awards 2024, honoring outstanding achievements in Indian sports.

About National Sports Awards
- Objective: To recognize and reward excellence in sports across various categories.
- Renamed in 2021 after hockey legend Major Dhyan Chand.
- Awarded for exceptional performance at the international level.

Arjuna Award
- Recognizes consistently outstanding performance over a period of four years.

Dronacharya Award
- India's highest honor for sports coaches.
- Awarded for excellence in training athletes and teams.

Major Dhyan Chand Award
- Recognizes lifetime achievement in sports.
- Named after India's hockey wizard, Major Dhyan Chand.

Maulana Abul Kalam Azad (MAKA) Trophy
- Awarded to a university or institution for top performance in inter-university tournaments over the past year.

Rashtriya Khel Protsahan Puraskar
- Given to organizations, corporates (private/public), and individuals for sports promotion and development over three years.

Significance
These awards motivate sportspersons and institutions, reinforcing India's commitment to sports excellence.