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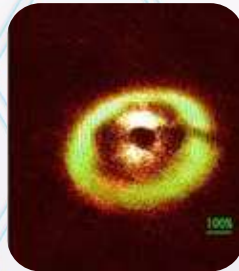
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Abathsahayeswarar Temple Honored with UNESCO Award

The Abathsahayeswarar Temple in Thanjavur, Tamil Nadu, has received the UNESCO Asia-Pacific Award for Cultural Heritage Conservation.

About Abathsahayeswarar Temple:

- Location: Thukkatchi village, Thanjavur district, Tamil Nadu.
- Age: 1,300 years old.
- Built By: Chola kings Vikrama Chola and Kulothunga Chola.

- Structure:
  - Originally featured five prakarams (enclosures).
  - Includes shrines for Soundaryanayaki Ambal, Ashtabhuja Durga Parameshwari, Aadhi Sarabeshwarar, and deities like Pillayar, Murugan, Bhairavars, and Naagars.

Restoration Efforts:

- Restoration included clearing vegetation, strengthening structures, and repainting gopurams.
- Two prakarams were restored, and the temple was reconsecrated in September 2023.

Significance:

- Showcases Chola architectural style with detailed carvings and traditional design.
- A vital cultural and religious site, preserved as a functional temple.

About UNESCO Asia-Pacific Awards:

- Established: 2000.
- Purpose: Recognizes efforts in conserving heritage structures in the Asia-Pacific region.
- Focus: Highlights private and public-private partnerships in heritage preservation.

Maha Kumbh Mela 2025

The Prime Minister inaugurated 167 development projects worth ₹5,500 crore in Prayagraj, Uttar Pradesh, to prepare for the Maha Kumbh Mela 2025. A multilingual AI-powered chatbot, Sah'AI'yak, was also launched to assist devotees in 11 Indian languages.

About-

About Maha Kumbh Mela:

- Significance:
  - The world's largest peaceful gathering, held four times in 12 years.
  - Rooted in Puranic legends, it symbolizes India's spiritual heritage.

- Types of Kumbh Melas:
  - Maha Kumbh Mela (Prayagraj): Every 144 years (after 12 Purna Kumbh Melas).
  - Purna Kumbh Mela: Every 12 years (Prayagraj, Haridwar, Ujjain, Nashik).
  - Ardh Kumbh Mela: Every 6 years (Prayagraj, Haridwar).
  - Magh Mela (Prayagraj): Held annually.
  -

Historical and Cultural Roots:

- Origin linked to the myth of Lord Vishnu as 'Mohini,' who saved the Kumbh from demons.
- Philosophical roots transcribed by Adi Shankaracharya in the 8th century.
- Recognized by UNESCO in 2017 as an intangible cultural heritage of humanity.

Why It Matters:

The Maha Kumbh Mela reflects India's deep cultural and spiritual traditions, attracting millions of pilgrims from across the globe.

Mahaparinirvan Diwas: Honoring Dr. B.R. Ambedkar

Mahaparinirvan Diwas is observed annually on December 6 to commemorate the death anniversary of Dr. Bhimrao Ramji Ambedkar, a visionary leader and architect of the Indian Constitution.

What is 'Mahaparinirvan'?

- The term comes from Buddhist texts, meaning liberation through nirvana after death, breaking free from the cycle of rebirth.
- Dr. Ambedkar embraced Buddhism in 1956 as a means to challenge caste-based oppression and was deeply inspired by Buddha's teachings.

Champion of Equality and Liberty

6 December 2024

MAHAPARINIRVAN
Diwas
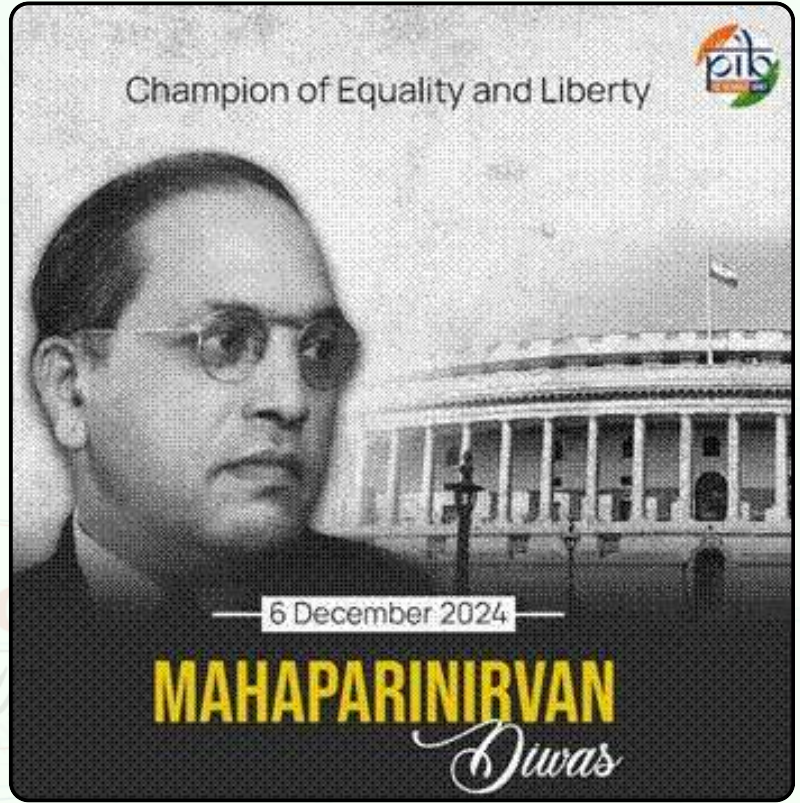
About-

About Dr. B.R. Ambedkar:

- Birth: 1891, Mhow (now in Madhya Pradesh).
- Professions: Social reformer, jurist, economist, author, scholar, and polyglot.
- Legacy: Known for his contributions to social, economic, and political reforms.

Contributions and Achievements:

- Empowering the Marginalized:
  - Advocated for Dalits, women, and laborers facing systemic oppression.
  - Founded Bahishkrit Hitkarini Sabha (1923) to promote education and welfare.
  - Published Mooknayaka to amplify the voices of the oppressed.

- Key Movements:
  - Mahad March (1927): Fought for Dalit access to public water sources.
  - Kalaram Temple Entry Movement (1930): Protested caste-based exclusion in religious spaces.

- Poona Pact (1932): Replaced separate electorates with reserved seats for Dalits.

- Economic Vision:
  - Contributed to the formation of RBI and the Finance Commission of India.
  - Advocated for the National Power Grid and established Employment Exchanges.

- Role in Constitution Drafting:
  - As Chairman of the Drafting Committee, ensured provisions for social and economic justice in the Constitution.

- Literary Works:
  - Authored influential works like The Untouchables, Who Were the Shudras?, and The Annihilation of Caste.

Recognition:

- Posthumously honored with the Bharat Ratna in 1990 for his contributions to nation-building.

Mahaparinirvan Diwas reflects Ambedkar's enduring legacy as a champion of equality and justice.

100 Years of the Communist Party of India (CPI)

The Communist Party of India (CPI) will celebrate its centenary in 2025, marking 100 years since its founding on December 26, 1925.

What Is Communism?
- Definition: A political and economic ideology opposing liberal democracy and capitalism.
- Key Features: Advocates a classless society with communal ownership of production and minimal or no private property.
- Global Examples: Official governance system in China, Cuba, Laos, North Korea, and Vietnam.

CPI's Contributions: Pre-Independence

- Freedom Struggle:
  - Played a pivotal role in resisting British rule through revolutionary ideas and movements.

- Kanpur Bolshevik Conspiracy Case (1924):
  - Targeted leaders like M.N. Roy, Muzaffar Ahmad, and S.A. Dange for allegedly plotting to overthrow British rule.

- Demand for Poorna Swaraj:
  - Championed complete independence long before it became mainstream, influencing leaders like Gandhi and Nehru.

- Constituent Assembly & Social Justice:
  - Advocated for a Constituent Assembly reflecting people's sovereignty.
  - Influenced debates on land reforms, workers' rights, and the protection of backward classes.
  - Example: Telangana Rebellion highlighted CPI's dedication to land reforms and social justice.

- Labour Rights:
  - Fought for the right to form labor unions during British rule and influenced labor-friendly legislation.

- Influence on the Constitution:
  - Ideals of social justice, equality, and fraternity in the Preamble echo communist principles.
  - Advocated for economic equality and social justice in Fundamental Rights.

Post-Independence Contributions

- Opposition and Governance:
  - Became the principal opposition party in early Lok Sabha elections (1951, 1957, 1962).
  - Formed the first non-Congress state government in Kerala in 1957.

- Policy Impact:
  - Contributed to the passage of progressive laws like the Forest Rights Act and Right to Information Act during UPA-I.

- Challenges:
  - Split (1964): Ideological rift over the Sino-Soviet split and India-China border clashes led to the formation of CPI(M).
  - Electoral Decline: CPI's influence reduced significantly, with just two seats in the 2024 Lok Sabha elections.

Conclusion:

Over the past century, the CPI has played a vital role in shaping India's political, social, and economic landscape. Despite challenges, it remains steadfast in advocating for social and economic justice, essential for countering communalism and exploitative capitalism.

Belgaum Congress Session (1924)

The centenary celebrations of the 39th Indian National Congress session will be held on December 26-27, 2024, in Belagavi, Karnataka.

The 1924 Belgaum Session:

- Historical Importance:
  - Held in Belgaum (now Belagavi), this was the only Congress session presided over by Mahatma Gandhi, making it a unique event in Congress history.

- The session took place at a venue named Vijayanagara.

Significance of the Session:
- Social Reform:
  - Focused on combating untouchability, promoting khadi, and supporting village industries.
  - Mandated Congress members to spin khadi and submit 2,000 yards monthly.
  - Reduced membership fees by 90% to make the Congress more inclusive.

- Hindu-Muslim Unity:
  - Advocated communal harmony, emphasizing its importance for India's freedom movement.

- Economic and Social Upliftment:
  - Highlighted sanitation, town planning, and the economic benefits of cow-based initiatives for farmers.
  - Promoted cow protection without religious bias or violence.

- Equality in Congress:
  - Criticized extravagant spending by VIPs.
  - Advocated equitable treatment for all Congress members.

The session reflected Mahatma Gandhi's vision of a united, self-reliant, and inclusive India. It remains a landmark event in India's struggle for independence.

No-Detention Policy Scrapped

The Ministry of Education has abolished the no-detention policy for students in Classes 5 and 8 in all government schools.

About the No-Detention Policy:

- Introduced under the Right to Education (RTE) Act, 2009, it ensured that no child from Classes 1–8 could be held back or expelled until completing elementary education.
- Objective: Reduce dropouts, make learning stress-free, and eliminate fear of failure among students.

Why Was It Scrapped?

- Declining Learning Outcomes:
  - The policy reduced accountability among students, leading to poor foundational skills.
  - Academic performance deteriorated across states.

- High Failure Rates:
  - Weak foundational learning led to high failure rates in Classes 10 and 12.
  - A 2017 PRS report highlighted low transition rates from primary to secondary education, causing significant dropouts, especially in Class 10.

- State Feedback:
  - 23 states, including Bihar, Rajasthan, and Assam, raised concerns about the adverse effects on learning quality.

Key Provisions of the Amended RTE Rule (2024):

- **Criteria for Detention:**
  - Students failing year-end exams in Classes 5 and 8 will be detained if they also fail a re-examination.
  - A two-month remedial instruction period will precede the re-exam.

- **Focus on Remedial Measures:**
  - Specialized teaching inputs will address learning gaps.
  - Teachers will collaborate with parents to improve student performance.

- **Competency-Based Exams:**
  - Exams will prioritize holistic development over rote learning.

- **School Accountability:**
  - Schools must maintain records of detained students and monitor their progress.

Implementation:

- The amended rules apply to over 3,000 Central Government-run schools, including Kendriya Vidyalayas, Navodaya Vidyalayas, and Sainik Schools.
- States can decide whether to implement the policy as education is a State subject.

This move aims to enhance foundational learning and accountability while ensuring students are well-prepared for higher classes.

Ken-Betwa River Linking Project

The Prime Minister recently laid the foundation stone for the ₹45,000-crore Ken-Betwa River Linking Project in Khajuraho, Madhya Pradesh.
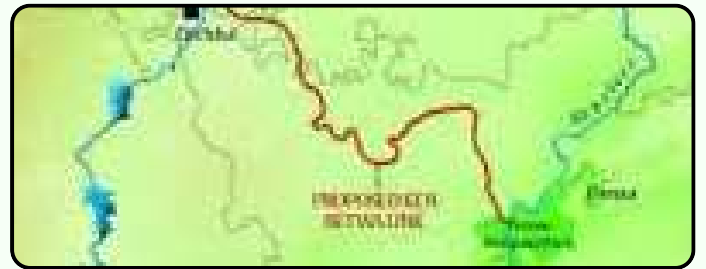
About the Project:

- The Ken-Betwa Project is an ambitious river interlinking initiative aimed at transferring surplus water from the Ken River in Madhya Pradesh to the Betwa River in Uttar Pradesh.
- The Ken-Betwa Link Project Authority (KBLPA), a Special Purpose Vehicle (SPV), will oversee the project's implementation.
- The successful execution depends on the consensus of the concerned states.

Benefits of the Project:
- Irrigation:
  - It will provide irrigation to Bundelkhand, one of India's most drought-prone regions.
  - Expected to fulfill the drinking and irrigation needs of at least 10 districts in Madhya Pradesh and several districts in Uttar Pradesh.

- Hydropower Generation:
  - The project aims to generate 100 MW of hydropower and 27 MW of solar energy.

About the Ken and Betwa Rivers:
- Ken River:
  - Originates in the Kaimur Range near Jabalpur, Madhya Pradesh, and flows into the Yamuna River in Uttar Pradesh's Banda district.
  - Passes through the Panna Tiger Reserve.

- Betwa River:
  - Originates from the Vindhya Range near Hoshangabad, Madhya Pradesh, and flows through Bundelkhand, joining the Yamuna River at Hamirpur, Uttar Pradesh.

- Both rivers are tributaries of the Yamuna River.

- Dams on Betwa River:
  - Rajghat, Paricha, and Matatila dams are located on the Betwa River.

This project is expected to significantly improve water availability in the region while promoting sustainable development through irrigation and clean energy.

Discovery of Hydrothermal Vent in the Indian Ocean

Indian oceanographers from the National Centre for Polar and Ocean Research (NCPOR) and the National Institute of Ocean Technology (NIOT) recently documented a historic image of an active hydrothermal vent in the Indian Ocean.

About Hydrothermal Vents:

- **Formation:**
  - Hydrothermal vents are underwater hot springs located in tectonically active regions. They are formed when cold seawater interacts with magma, becoming superheated (up to 370°C) and emerging as mineral-rich plumes through chimneys or vents.
- **Recent Discovery:**
  - An active hydrothermal vent was located at a depth of 4,500 meters along the Central Indian Ridge.

Chemosynthesis:

- **Definition:** Chemosynthesis is the biological process where organisms use chemical energy (from the oxidation of inorganic molecules like hydrogen sulfide) to produce organic compounds.
- **Ecosystem and Lifeforms:**
  - Hydrothermal vents host unique ecosystems driven by chemosynthesis.
  - Microbes, acting as primary producers, sustain diverse organisms adapted to extreme conditions.

Significance of Discovery:

- Opens avenues for resource exploration in mineral-rich regions.
- Enhances understanding of extreme marine ecosystems and the adaptive strategies of lifeforms in harsh environments.

About Deep Ocean Mission (DOM):
- **Objective :** To explore and utilize the resources of the deep ocean sustainably and establish India as a leader in ocean science and technology.
- **Implementing Agency :** Ministry of Earth Sciences (MoES).
- **Approval :** Approved by the Union Cabinet in 2021 for a duration of five years.
- **Budget Allocation :** Approx. ₹4,077 crore.

This discovery aligns with the goals of the Deep Ocean Mission, highlighting India's strides in oceanographic research and technology development for sustainable marine resource management.

Santa Ana Winds

The Santa Ana winds, combined with climate change, are fueling wildfires in Malibu, California.

About Santa Ana Winds:

- **Definition:** The Santa Ana winds are a type of local wind unique to Southern California, characterized by their hot, dry, and gusty nature.
- Named after the Santa Ana Canyon in Southern California.

Seasonality:

- Typically occur between October and January.
- Arise due to high-pressure systems over the Great Basin, which force air downslope toward the coast.

Mechanism:

- As air descends, it compresses and heats up, resulting in higher temperatures and reduced humidity.

Impact on Wildfires:

- Increased Fire Intensity:
  - Dry conditions and high temperatures create ideal conditions for wildfires to ignite.
- Rapid Spread:
  - Strong, gusty winds can spread flames across vast areas quickly.

About Local Winds:

- **Definition:** Local winds are small-scale winds driven by local geography and temperature differences rather than global atmospheric circulation.
- Examples:
  - Loo: Hot, dry summer winds in the Indian Subcontinent.
  - Bora: Cold, gusty winds in the Adriatic region.

Characteristics of Local Winds:

- Small Scale: Operate over smaller regions compared to global wind systems.
- Short-Lived: Duration is typically limited to a few hours or days.
- Influenced by Local Factors: Formation is affected by topography, temperature gradients, and coastal geography.

Conclusion:

The Santa Ana winds exemplify the critical role of local wind patterns in intensifying natural disasters like wildfires. Understanding their dynamics is essential for better disaster preparedness and management, especially in the context of climate change.

Denali Fault

A recent study revealed that three sites along the Denali Fault in Alaska were once part of a smaller, unified geological feature.

About Denali Fault:

- **Location:** The Denali Fault is a major strike-slip fault in Alaska, part of the Pacific Ring of Fire.
- **Tectonic Dynamics:**
    - Plays a key role in the movement of tectonic plates in the region.
    - Its lateral movement contributes to earthquakes and shaping the regional landscape.
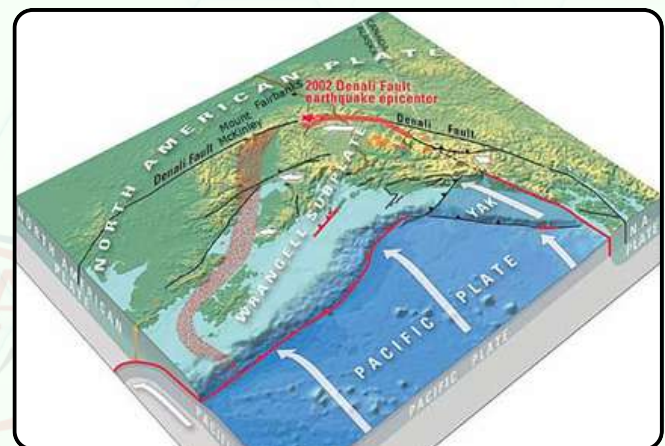
What is a Fault?

- **Definition:** A fault is a planar fracture or crack in the Earth's crust, where crustal blocks have experienced significant displacement.
- **Causes:**
    - Formed due to tensile or compressive forces acting on the Earth's crust.
    - Movement along active faults releases energy, causing earthquakes.

Significance of the Denali Fault:

- **Seismic Activity:**
    - A critical site for studying earthquakes due to frequent tectonic movements.
- **Geological Insights:**
    - Offers clues about the past tectonic evolution and plate interactions in the Pacific region.
- **Hazards:**
    - Understanding the Denali Fault helps in assessing and mitigating earthquake risks in Alaska.

By analyzing faults like the Denali Fault, scientists can better predict geological hazards, enabling better disaster preparedness in regions of high tectonic activity.

One Nation, One Election Bills Introduced in Lok Sabha

Two Bills aiming to implement simultaneous elections for the Lok Sabha and State Assemblies have been introduced in the Lok Sabha.

About the Bills:

- **Panel Formation:**
  - In September 2023, a six-member panel, led by former President Ram Nath Kovind, was formed to recommend steps for simultaneous elections.

- **Bills Introduced:**
  - The Constitution (129th Amendment) Bill, 2024
  - The Union Territories Laws (Amendment) Bill, 2024
- **Referral to JPC:**
  - A Joint Parliamentary Committee (JPC) will examine the Simultaneous Elections Bill in detail.

Key Features of the Constitution (129th Amendment) Bill, 2024:

1. Amendments to Existing Articles:
- **Article 83:**
  - Specifies a fixed five-year term for Lok Sabha unless dissolved earlier.
  - Introduces the concept of "unexpired terms" for mid-term elections.
- **Article 172:**
  - Aligns state Assemblies' terms with the unexpired term provision.
- **Article 327:**
  - Expands Parliament's powers to legislate on the "conduct of simultaneous elections."

2. New Article 82A (Clauses 1-6):
- **Timeline for Implementation:**
  - The President will notify the date for changes after the first sitting of the Lok Sabha following a general election.
- **Curtailed Tenures:**
  - Assemblies elected before the end of the Lok Sabha term will have their tenures curtailed.
- **Election Commission's Role:**
  - Mandates the Election Commission of India (ECI) to conduct simultaneous elections.

- **Definition of Simultaneous Elections:**
  - General elections held for the Lok Sabha and all Legislative Assemblies together.
- **Exceptions for Assembly Elections:**
  - If simultaneous elections are not feasible, the ECI can recommend separate elections.
- **Deferred Elections:**
  - Aligns the term of deferred Assembly elections with the Lok Sabha's tenure.

About "One Nation, One Election"

- **Definition:** Holding elections for the Lok Sabha, state assemblies, municipalities, and panchayats together.
- **Historical Precedent:** Conducted in India's first four general elections (1952, 1957, 1962, 1967).
- **Global Examples:** Countries like South Africa, Sweden, Germany, and Britain follow simultaneous election models.

Significance:

- **Cost Efficiency:** Reduces government and political party election expenses.
- **Reduced Voter Fatigue:** Minimizes frequent voting requirements, enhancing participation.
- **Policy Continuity:** Enables long-term planning by reducing the frequency of election cycles.
- **Model Code of Conduct (MCC):** Minimizes governance disruptions caused by MCC implementation during elections.
- **Public Services:** Avoids interruptions in public services due to frequent election duties.
- **Reduced Black Money:** Limits the circulation of unaccounted money during campaigns.

Challenges:

- **Constitutional Amendments:** Requires significant changes to Articles like 85, 356, and others, potentially affecting the Constitution's federal character.
- **Logistical Hurdles:** Coordinating security and managing resources like EVMs on a large scale.
- **Voting Behavior:** Evidence suggests simultaneous elections may influence voters to favor the same party for state and central governments.
- **Feasibility:** Conducting elections across all states if a central government collapses mid-term poses practical difficulties.

Way Forward:
- **Align Election Cycles:** Synchronize state and Lok Sabha elections by aligning terms that end within six months to a year.

- **Enhance Political Transparency:** Bring political parties under the RTI Act for accountability.
- **Strengthen ECI:** Empower the Election Commission to monitor expenditures and uphold free and fair elections.
- **Electronic Voter ID Cards:** Use technology to improve voter registration accuracy.
- **State Funding of Elections:** Explore state funding to curb the influence of money in politics.

Conclusion:

The "One Nation, One Election" initiative holds potential to streamline electoral processes, reduce costs, and ensure policy stability. However, its implementation requires balancing logistical feasibility, constitutional integrity, and the democratic federal structure. Referral of the Bills to the JPC marks a crucial step in resolving these challenges while maintaining democratic principles.

The Indian Constitution: A Living Document Guiding India's Journey

India celebrated the 75th anniversary of its Constitution's adoption by the Constituent Assembly on November 26, 1949.

Evolution of the Indian Constitution:

- **At Commencement:** Consisted of 395 articles in 22 parts and 8 schedules.
- **Current Status:** Expanded to 448 articles, 25 parts, and 12 schedules, making it the world's longest written Constitution.
  - Serves as the foundation of India's democratic and legal systems, evolving to address contemporary needs.

Constitutional Governance in India:

- **Definition:** Governance where state authority is defined, limited, and regulated by a Constitution.
- The Indian Constitution forms the framework for the country's political and legal systems.

CONSTITUTION DAY
THE CONSTITUTION OF INDIA
PREAMBLE

How the Constitution Guides India's Progress:

- **Political Dimensions:**
  - Source of Legal Authority: Empowers Parliament and State Legislatures to legislate.
  - Rule of Law: Ensures equality before the law and legal supremacy.
  - Separation of Powers: Establishes checks and balances among the legislature, executive, and judiciary.
  - Electoral Integrity: Provisions for free and fair elections, with the Election Commission as a key authority.
  - Amendability: Allows adaptability through Article 368.
- **Economic Dimensions:**
  - Directive Principles of State Policy (DPSPs): Non-justiciable guidelines influencing policies like MGNREGA and Right to Education.
  - Shapes welfare policies to promote economic justice and development.
- **Social Dimensions:**
  - Fundamental Rights: Protects individual liberties and freedoms.
  - Secularism: Promotes equal treatment of all religions.
  - Social Equity: Affirmative actions under Articles 15 and 16 empower marginalized communities.
- **Judicial Dimensions:**
  - Integrated Judiciary: Administers laws uniformly across Union and State levels.
  - Judicial Review: Ensures government actions comply with the Constitution, protecting citizen rights.

Progress Over 75 Years:

- **Political Empowerment:**
  - Conducts free and fair elections, with an electorate of 96.88 crores for the 2024 General Elections.
  - Strengthened local governance through the 73rd and 74th Amendments.
  - Enhanced representation of marginalized communities, with 14% women MPs in the 18th Lok Sabha.
- **Economic Development:**
  - Welfare schemes like the National Food Security Act contribute to poverty alleviation.
  Multidimensional poverty reduced from 29.17% (2013-14) to 11.28% (2022-23).
  - India ranks 5th globally in GDP (2024).
  - Improved literacy rates to 77.7% in 2023.
- **Strengthening Rights:**
  - Judicial rulings expanded rights, such as privacy (2017) and education (86th Amendment).
  - Anti-discrimination laws protect vulnerable groups.
- **Inclusion of Marginalized Groups:**
  - Decriminalized Section 377 (2018) to uphold LGBTQ+ rights.
  - Strengthened minority rights under Article 30.
- **Equality Initiatives:**
  - Abolition of untouchability and affirmative actions benefit SCs and OBCs.
  - Persistent challenges like caste census demands highlight ongoing inequities.

Challenges to Constitutional Institutions:

- Parliamentary Functioning: Reduced sittings, from 135 days (1st Lok Sabha) to 55 days (17th Lok Sabha).
- Political Interference: Influences on institutions like the Election Commission undermine independence.

Conclusion:

The Indian Constitution continues to guide the nation through evolving challenges while ensuring democratic values and rights. As a living document, it balances governance efficiency with the preservation of fundamental principles, reaffirming its role as the cornerstone of India's progress.

Good Governance Day

Celebrated annually on December 25th, Good Governance Day marks the birth anniversary of Atal Bihari Vajpayee, a visionary leader. The 2024 event is particularly significant as it marks his 100th birth anniversary.

Understanding Good Governance

Good governance involves decision-making and implementation that ensures fairness, transparency, and accountability in managing a country's resources. The World Bank defines it as the effective exercise of power for economic and social development.

Importance of Good Governance in India

- Transparency and Accountability: Builds trust in institutions (e.g., RTI Act, 2005).
- Inclusive Development: Benefits marginalized groups through initiatives like Jan Dhan Yojana (52 crore bank accounts by 2024).
- Corruption Reduction: Reforms like DBT saved ₹2.7 lakh crore by eliminating middlemen.
- Economic Growth: Policies like GST and IBC foster business-friendly environments.
- Improved Service Delivery: Digital India initiatives streamlined services (e.g., Bhoomi project digitized land records).
- Strengthened Democracy: Empowered grassroots governance via the 73rd Amendment with 3.3 million elected representatives.

Challenges to Good Governance

- Corruption: Persistent issues despite reforms (India ranked 85th in the 2023 Corruption Perception Index).
- Criminalization of Politics: 43% of Lok Sabha MPs face criminal charges (ADR, 2023).
- Judicial Delays: Over 51 million cases pending in Indian courts as of 2023.
- Regional Disparities: Stark differences in development (e.g., Kerala HDI: 0.758 vs. Bihar HDI: 0.577).
- Digital Divide: Rural areas lag in internet access (only 35% households connected vs. 70% in urban areas).

Innovations in Governance

- E-Governance: Digital India, BharatNet, PRAGATI, and UMANG apps promote transparency and efficiency.
- Direct Benefit Transfers (DBT): Direct subsidies and payments ensure accountability.
- Administrative Reforms: Mission Karmayogi, scrapping obsolete laws, and Good Governance Index enhance efficiency.
- Financial Reforms: GST and IBC streamlined taxation and insolvency processes.

Strengthening Governance: The Way Forward

- Enhance Transparency: Strengthen RTI and social audits for better oversight.
- Leverage Technology: Use AI and blockchain to improve e-governance and reduce corruption.
- Empower Local Bodies: Increase financial and decision-making autonomy for Panchayati Raj Institutions.
- Promote Inclusivity: Address regional disparities and improve access to essential services for marginalized groups.
- Improve Justice Delivery: Digitize legal processes, establish fast-track courts, and adopt alternative dispute resolution mechanisms.

Conclusion

Good governance is vital for sustainable development, promoting transparency, inclusivity, and accountability. By embracing reforms and leveraging technology, India can strengthen its democratic foundation and ensure progress for all citizens.

Right to Disconnect

The tragic death of an Ernst & Young (EY) employee due to work-related pressures has reignited discussions about the 'Right to Disconnect' as a critical labor and human rights issue.

What is the Right to Disconnect?

- Empowers employees to avoid work-related communications during non-working hours.
- Aims to prevent burnout, stress, and productivity loss by respecting personal time.
- Rooted in Article 24 of the Universal Declaration of Human Rights (UDHR), which advocates for rest, leisure, and limited working hours.

Status in India

- No specific laws currently recognize the Right to Disconnect.
- Provisions exist under the Indian Constitution and judicial pronouncements:
    - Article 21: Includes the right to leisure and better living standards as part of the Right to Life.
    - Directive Principles: Articles 38 and 39(e) emphasize worker welfare and health.
    - Judicial Precedents: The Vishakha case (1997) highlighted dignity and equality at the workplace.
- A Private Member Bill (2018) proposed penalties for non-compliance but saw no progress.

Challenges in Implementing the Right to Disconnect

- No Standard Definition: Working hours vary across professions (e.g., IT vs. emergency services).
- Sector-Specific Needs: Round-the-clock availability is essential in healthcare and security.
- Enforcement Issues: Small businesses may lack resources to comply with rigid regulations.
- Career Concerns: Fear of losing promotions or being perceived as uncommitted.
- Ambiguity in Urgency: Disputes may arise over what qualifies as "urgent" after hours.
- Global Time Zones: Cross-border operations complicate uniform implementation.
- Technological Dependence: Always-on communication is crucial in many industries.

Way Forward

- Define Clear Boundaries: Establish policies limiting after-hours communication.
- Encourage Breaks and Time Off: Promote regular breaks and use of leave to improve well-being.
- Flexible Schedules: Allow employees to balance personal and professional responsibilities.

- Cultural Shift: Foster a workplace culture that values disconnecting after hours.
  - Managers can lead by example, avoiding after-hours emails or messages.
- Pilot Initiatives: Test the policy in specific industries before wider implementation.
- Mental Health Support: Provide access to counseling, wellness programs, and mental health days.

Conclusion

Recognizing the Right to Disconnect is essential for employee well-being. A flexible framework, accommodating diverse work environments, can protect employees' personal time while addressing sector-specific challenges.

Impeachment of the Vice-President

Opposition parties are planning to move a resolution for the removal of the Vice-President, who also serves as the Chairman of the Rajya Sabha.

Constitutional Provisions for Removal

Article 67(b): Outlines the procedure for the removal of the Vice-President.

Process for Removal:

1. Initiation:
- The removal resolution can only be introduced in the Rajya Sabha, not in the Lok Sabha.
2. Notice Requirement:
- A 14-day advance notice is mandatory before tabling the resolution.
3. Voting Requirements:
- Rajya Sabha: Requires an effective majority (majority of the then members, excluding vacant seats).
- Lok Sabha: Requires a simple majority to pass the resolution.

Conduct During the Resolution:

- Restrictions on the Chairman
  - The Chairman (Vice-President) cannot preside over the Rajya Sabha when the resolution is under consideration.
  - However, the Chairman may participate in discussions and speak in the House but cannot vote, even in the first instance.

- **Contrast with Lok Sabha Speaker:**
  - The Speaker of the Lok Sabha can vote in the first instance but not in the case of a tie.

Historical Precedents and Cases
- **No-Confidence Against Deputy Chairman (2020):**
  - A no-confidence resolution was moved against Rajya Sabha Deputy Chairman Harivansh over alleged violations during debates on farm bills.
  - The resolution cited procedural violations but was not successful.
- **Impeachment Resolutions Against Lok Sabha Speakers:**
  - Resolutions were moved against Speakers such as G.V. Mavalankar (1951), Sardar Hukam Singh (1966), and Balram Jakhar (1987) but were defeated after discussions.
- **No Precedent for Rajya Sabha Chairman:**
  - There has been no instance of a no-confidence or impeachment resolution against the Chairman of the Rajya Sabha to date.

Impeachment of Judges

Opposition parties in the Rajya Sabha are planning to move a motion to impeach Allahabad High Court judge Justice Shekhar Kumar Yadav over alleged remarks made at an event.

Impeachment of Judges

Constitutional Provisions for Removal of Judges
- **Article 124(4):** Lays down the process for the removal of Supreme Court judges.
  - **Article 218:** Extends the same provisions to High Court judges.
- **Grounds for Removal:**
  - Judges can only be removed on two grounds:
    1. **Proved misbehaviour**
    2. **Incapacity**
  - The Constitution does not explicitly define these terms.

Procedure for Impeachment
- Governed by the Judges (Inquiry) Act, 1968.

Initiation of Motion:
1. **Minimum Support:**
   - At least 100 members in the Lok Sabha or 50 members in the Rajya Sabha must sign the motion.
2. **Role of Speaker/Chairman:**

- The motion is submitted to the Speaker (Lok Sabha) or Chairman (Rajya Sabha).
- They can either admit or reject the motion.

Inquiry Committee:
- Upon admitting the motion, a three-member committee is constituted, comprising:
  1. Chief Justice of India or a Supreme Court judge.
  2. Chief Justice of a High Court.
  3. A distinguished jurist chosen by the Speaker/Chairman.
     - Example: In the impeachment of Justice Soumitra Sen (2011), Fali Nariman was the jurist.

Committee's Role:
- Charge Framing: Frames specific charges against the judge.
- Evidence Collection: Has the authority to regulate its procedures, call witnesses, cross-examine them, and request medical tests if charges relate to mental incapacity.
- Report Submission: Submits its findings to the Speaker/Chairman.

Outcome of Committee Report
- If Not Guilty:
  - The matter is closed.
- If Guilty:
  - The report is placed before the originating House for adoption.
  - Once adopted, an address is made to the President by both Houses of Parliament in the same session, requesting the judge's removal.

Additional Notes
- The President acts based on the parliamentary address.
- The process is rare and rigorous to ensure judicial independence.

National Human Rights Commission (NHRC)

President of India recently appointed former Supreme Court judge, Justice (Retd.) V. Ramasubramanian, as the chairperson of the NHRC.

About NHRC
- Nature: Statutory body established to protect and promote human rights in India.
- Established: Under the Protection of Human Rights Act, 1993.

Composition and Membership
- **Chairperson:**
  - Must be a former Chief Justice of India or a Judge of the Supreme Court.
- **Members:**
  - Two judicial members:
    - One who is, or has been, a Supreme Court Judge.
    - One who is, or has been, a Chief Justice of a High Court.
  - Three non-judicial members:
    - At least one woman with expertise or experience in human rights matters.
- **Ex-Officio Members (Deemed Members):**
  - Chairpersons of the following commissions:
    - National Commissions for SC, ST, Minorities, Backward Classes, Women, and Protection of Child Rights.
    - Chief Commissioner for Persons with Disabilities.

Selection Process
- Members are appointed by the President of India based on recommendations from a Selection Committee comprising:
  a. Prime Minister (Chairperson).
  b. Speaker of Lok Sabha.
  c. Union Home Minister.
  d. Deputy Chairman of Rajya Sabha.
  e. Leaders of Opposition from both Houses of Parliament.

Tenure and Removal
- **Tenure:**
  - Members serve for three years or until they attain the age of 70 years, whichever is earlier.
- **Removal:**
  - Members can be removed by the President of India.

India-Kuwait Strategic Partnership

PM Narendra Modi's recent visit to Kuwait marked the first by an Indian PM since 1981, elevating bilateral ties to a Strategic Partnership.

Key Highlights of the Visit

- **Order of Mubarak Al Kabeer:**
  - PM Modi was awarded Kuwait's Knighthood Order, a prestigious honor for heads of state and foreign dignitaries.
- **Joint Commission on Cooperation (JCC):**
  - Institutional mechanism headed by the Foreign Ministers of both countries to oversee bilateral relations.
- **New Joint Working Groups (JWGs):**
  - Focused on expanding cooperation in areas like trade, education, security, agriculture, and science & technology.
  - Existing JWGs include those on Health, Manpower, and Hydrocarbons.
- **Defence Cooperation:**
  - New MoU on Defence enables joint military exercises, coastal defence, and maritime safety collaboration.
- **Counter-Terrorism:**
  - Both nations condemned terrorism, emphasizing the dismantling of terror networks and cross-border threats.
- **International Solar Alliance:**
  - India welcomed Kuwait's membership in the International Solar Alliance (ISA).
- **Cultural and Sports Exchanges:**
  - Renewal of the Cultural Exchange Programme (2025-2029) and signing of the Executive Program on Cooperation in Sports (2025-2028).
- **Vision 2035:**
  - India expressed support for Kuwait's Vision 2035 Development Plan, enhancing mutual goals.

India-Kuwait Bilateral Relations

- **Energy Cooperation:**
  - Kuwait supplies 3% of India's crude oil imports, ranking as the 6th largest crude supplier and 4th largest supplier of petroleum gas.
- **Trade and Investment:**
  - Bilateral Trade: Total trade reached $10.479 billion in 2023-24, with Indian exports crossing $2 billion for the first time.
  - Investment: Kuwait Investment Authority (KIA) has invested $10 billion in India.
- **Indian Diaspora:**
  - Indians form 21% of Kuwait's population, contributing significantly to its economy.

Way Forward

- **Bilateral Consultations:**
  - Ensure the effective implementation of agreements in defense, trade, and energy.
- **Global Cooperation:**
  - Strengthen collaboration within multilateral forums like the UN and GCC.
- **Economic Collaboration:**
  - Expedite the Bilateral Investment Treaty and promote joint ventures.

- **Defense & Security:**
  - Regular joint military exercises and explore joint defense equipment development.
- **People-to-People Ties:**
  - Simplify visa procedures and encourage cultural exchanges, student programs, and tourism.
- **High-Level Engagements:**
  - Continue political visits and dialogue to provide strategic direction and strengthen legislative cooperation.

Conclusion:

India and Kuwait's enhanced bilateral mechanisms will deepen their strategic partnership, fostering mutual prosperity and contributing to regional stability and security.

India Re-Elected to UN Peacebuilding Commission (PBC) for 2025-2026

India has been re-elected to the UN Peacebuilding Commission (PBC) for the 2025-2026 term. India's current term was set to expire on December 31, 2024.

About UN Peacebuilding Commission (PBC)
- **Establishment:** Created in 2005 by the UN General Assembly and Security Council.
- **Role:**
  - Supports peace efforts in conflict-affected countries.
  - Enhances the international community's capacity for peacebuilding.
- **Composition:**
  - Comprises 31 Member States elected from the UN General Assembly, Security Council, and Economic and Social Council.
  - Includes major financial and troop-contributing nations.
  - India: A founding member of the PBC.

India's Contributions to UN Peacekeeping
- **Personnel Contributions:**
  - India is one of the largest contributors, with 6,000 military and police personnel deployed in regions like Abyei, South Sudan, the Democratic Republic of Congo, Lebanon, and more.
- **Financial Contributions:**
  - Active financial support to the Peacebuilding Fund, aiding countries transitioning from conflict to peace.

- **Capacity Development:**
  - Offers training and infrastructure support for host nations and UN personnel.
  - Conducts Civil-Military Coordination (CIMIC) activities.
- **Centre for UN Peacekeeping (CUNPK):**
  - Located in New Delhi, it provides specialized training in peacekeeping operations.

Challenges in the UN Peacebuilding Architecture
- **Resource Gaps and Funding Constraints:**
  - Unpredictable funding for peacebuilding programs hampers implementation.
- **Neglect of Local Needs:**
  - Focus on high-visibility projects by international NGOs often overlooks community priorities.
- **Insufficient Representation in UNSC:**
  - Africa's underrepresentation in the Security Council reduces its effectiveness.
- **Over-reliance on International Actors:**
  - Minimal involvement of local actors in peacebuilding processes.
- **Operational Challenges:**
  - The UN lacks a Permanent Military and Police Force, causing delays in mobilizing personnel.
- **Political Constraints:**
  - Geopolitical interests often limit the UN's mandate in conflict zones.
- **Limited Impact on Systemic Issues:**
  - Focused on post-conflict recovery, struggles to address root causes like poverty and inequality.

Way Forward
- **UNSC Reforms:**
  - Enhance representation and increase permanent members for balanced decision-making.
- **Local Ownership:**
  - Empower communities by fostering grassroots participation in peacebuilding initiatives.
- **Improved Coordination:**
  - Ensure collaboration between UN agencies for a cohesive approach to peacebuilding, security, and human rights.
- **Strengthen Conflict Prevention:**
  - Advance intelligence gathering, diplomatic efforts, and support through special envoys.
- **Adequate Funding:**
  - Provide resources to the Department of Political and Peacebuilding Affairs (DPPA) and Department of Peace Operations (DPO).
- **Political Will:**
  - Secure strong backing from national governments and international stakeholders.

Conclusion:

As global conflicts and humanitarian crises rise, a more robust and inclusive UN peace and security system is critical. India's proactive engagement in peacebuilding reflects its commitment to global peace and development, ensuring impactful contributions to the PBC's mission.

Indian Chemical Council Wins 2024 OPCW-The Hague Award

The Indian Chemical Council (ICC) has been awarded the 2024 OPCW-The Hague Award for its significant contributions toward promoting chemical safety and security.

About Organisation for the Prohibition of Chemical Weapons (OPCW)

- **Established: 1997**
- **Headquarters: The Hague, Netherlands**
- **Aim: To achieve a world free of chemical weapons and promote international chemical safety and security.**
- **Membership:**
  - **Comprises 193 States Parties, including India.**
  - **Monitors the implementation of the Chemical Weapons Convention (CWC).**
- **Recognition:**
  - **Awarded the Nobel Peace Prize in 2013 for its global efforts to eliminate chemical weapons.**
- **The Hague Award:**
  - **Established in 2014 to honor individuals and organizations advancing the goals of the CWC.**

About Chemical Weapons Convention (CWC)

- **Adoption and Membership:**
  - **Entered into force in 1997.**
  - **Ratified by 193 member states, including India as an original signatory.**
- **Objective:**
  - **Elimination of chemical weapons:**
    - **Prohibits the development, production, stockpiling, transfer, or use of chemical weapons by States Parties.**
- **Implementation in India:**
  - **Governed by the National Authority Chemical Weapons Convention (NACWC).**
  - **NACWC was established under the Chemical Weapons Convention Act, 2000 to ensure compliance with the treaty.**

Significance of the Award for India

- Highlights India's commitment to chemical safety and security on a global scale.
- Positions India as a leading advocate for the non-proliferation of weapons of mass destruction.

Way Forward

- Strengthen international cooperation for the peaceful use of chemicals.
- Continue advancing scientific research for safer chemical practices.
- Enhance India's role in global initiatives to combat the misuse of chemical technology.

India's recognition through this award reinforces its leadership in fostering a safe and secure chemical industry aligned with the objectives of the OPCW and the Chemical Weapons Convention.

Switzerland Suspends India's Most Favoured Nation Status

Switzerland has announced the suspension of the Most Favoured Nation (MFN) clause in its Double Tax Avoidance Agreement (DTAA) with India, effective from January 1, 2025.

About Double Tax Avoidance Agreement (DTAA)

- **Definition:**
- A tax treaty between two or more countries designed to prevent double taxation of income earned in one country by a resident of another.
- **Purpose:**
- Ensures taxpayers are not taxed twice on the same income, fostering cross-border economic activity.
- **Application:**
- Applies when a taxpayer resides in one country but earns income (such as salary, dividends, or royalties) in another.

About the Most Favoured Nation (MFN) Clause

- Definition: A provision ensuring non-discriminatory trade terms among nations, obligating a country to offer equal treatment to all its trading partners.
- WTO Rules:
  - Under World Trade Organization (WTO) regulations, member countries cannot discriminate among trade partners.
  - Special benefits granted to one partner must be extended to all WTO members.

- Exceptions:
  - Trade blocs (e.g., EU, USMCA) may allow preferential treatment among members.
  - Developing countries may receive trade preferences.
  - Geopolitical exclusions (e.g., U.S. excludes Cuba and North Korea).

Impact of MFN Suspension in India-Switzerland DTAA
- Increased Tax Burden:
  - Indian entities operating in Switzerland may face higher taxes on income such as dividends and royalties.
  - The removal of the MFN clause could increase the tax withholding rate for Indian companies.
- Impact on Bilateral Trade Relations:
  - Creates uncertainties in India-Switzerland trade ties.
  - May affect business confidence and lead to a reassessment of trade policies and investments.
- Broader Economic Implications:
  - Could prompt a reevaluation of India's bilateral treaties with other nations.
  - Reflects the evolving dynamics of global trade agreements and investment frameworks.

Way Forward for India:
- Renegotiation of the Treaty:
  - India should work towards revising the DTAA with Switzerland to minimize adverse impacts on trade and investment.
- Diversification of Partnerships:
  - Strengthen trade and investment relationships with other countries to mitigate reliance on Switzerland.
- Enhancing Competitiveness:
  - Encourage Indian companies to explore alternative markets and enhance their global competitiveness.
- Monitoring Global Tax Trends:
  - Stay updated with global tax policies to adapt and safeguard Indian economic interests.
- Proactive Diplomacy:
  - Leverage diplomatic channels to address potential concerns and reinforce bilateral ties.

Conclusion:
The suspension of MFN status in the India-Switzerland DTAA marks a shift in the bilateral trade framework, necessitating strategic adjustments by both nations. Proactive measures and renegotiations can ensure minimal disruptions to economic ties while safeguarding mutual interests.

RBI Report on State Finances 2024-25

The Reserve Bank of India (RBI) recently released the report "State Finances — A Study of Budgets of 2024-25", analyzing the fiscal health and performance of Indian states.

Key Highlights of the Report

1. State Performance Post-Pandemic
- **Improved Tax Revenue:**
  - Tax buoyancy increased to 1.4 (2021-25) from 0.86 (2013-20), supporting higher infrastructure allocations.
- **Capital Expenditure Growth:**
  - Increased from 2.4% of GDP (2021-22) to 2.8% (2023-24).
  - Budgeted at 3.1% of GDP for 2024-25, reflecting improved spending quality.
- **Fiscal Discipline:**
  - Gross fiscal deficit is budgeted at 3.2% of GDP for FY25, compared to 2.9% in FY24.
  - Revenue expenditure projected to rise to ₹47.5 trillion (14.6% of GDP) in FY25, from ₹39.9 trillion (13.5% of GDP) in FY24.
- **Debt Levels:**
  - States' debt-to-GDP ratio reduced from 31.0% (March 2021) to 28.5% (March 2024).
  - Still above the pre-pandemic level of 25.3% (March 2019).
  - FRBM Review Committee (2017) recommends reducing it to 20%.
  -

2. Concerns in State Budgets
- **Rising Subsidy Burden:**
  - Subsidies for farm loan waivers, free services, and income transfers (₹2 lakh crore or 0.6% of GDP) strain resources, reducing funds for infrastructure.
- **Revenue Challenges:**
  - Decline in non-tax revenues and central grants.
  - Slower growth of State Goods and Services Tax (SGST) impacts revenues.
- **Fiscal Transparency Issues:**
  - Poor reporting of off-budget liabilities conceals the actual fiscal position.

RBI Recommendations
- **Debt Consolidation:**
  - Formulate clear, time-bound plans to reduce debt and improve liability reporting.

- **Expenditure Efficiency:**
  - Focus on climate-sensitive and outcome-based budgeting.
  - Rationalize centrally sponsored schemes.
- **Subsidy Rationalization:**
  - Optimize subsidies to prioritize productive expenditures.
- **Revenue Generation:**
  - Strengthen SGST collection and increase non-tax revenues and central grants.

Conclusion:

The report highlights states' improved fiscal performance post-pandemic, with better revenue and expenditure management. However, challenges like rising subsidies, revenue generation issues, and hidden liabilities need urgent attention. Adopting RBI's recommendations on debt reduction, fiscal transparency, and efficient spending can ensure sustainable state finances and boost overall economic growth.

55th Meeting of GST Council

The 55th meeting of the Goods and Services Tax (GST) Council was held in Jaisalmer, Rajasthan, under the chairmanship of the Union Finance & Corporate Affairs Minister.

Key Recommendations of the GST Council

1. Changes in GST Rates on Goods and Services:
- Specific rate adjustments were discussed, but details were not provided in the context.

2. Other Key Changes:
- **Taxability of Vouchers:**
  - Not a Supply: Transactions involving vouchers will be treated neither as a supply of goods nor as a supply of services.
  - Exemption: Distribution of vouchers on a principal-to-principal basis will be exempt from GST.
  - Taxable Commission: For vouchers distributed on a principal-to-agent basis, the commission or fee charged by the agent for distribution will be taxable under GST.
- **Track and Trace Mechanism:**
  - Proposed insertion of an enabling provision in the CGST Act, 2017 for a Track and Trace Mechanism.
  - A Unique Identification Marking on goods or packages will help trace specified commodities throughout the supply chain.

About the GST Council

- **Constitutional Body:**
    - Established under Article 279A of the Indian Constitution.
- **Objective:**
    - Ensures effective GST implementation by deciding tax rates, exemptions, and administrative measures.
- **Secretariat:**
    - Located in New Delhi.
    - Union Revenue Secretary serves as the ex-officio Secretary to the Council.
- **Composition:**
    - Chairperson: Union Finance Minister.
    - Union Minister of State for Revenue/Finance.
    - State Representatives: Finance or Taxation Ministers nominated by state governments.
    - Permanent Invitee: Chairperson of the Central Board of Indirect Taxes and Customs (CBIC) (non-voting).
- **Decision-Making Process:**
    - Decisions require a majority of 3/4th of the weighted votes of members present and voting.
    - Weightage of Votes:
        - Central Government: 1/3rd of total votes.
        - All State Governments Combined: 2/3rd of total votes.
    - Supreme Court Ruling: Recommendations of the GST Council have persuasive value but are not binding on the Centre or states.

Significance of the Meeting

The 55th GST Council meeting underscores the evolving framework of GST administration, focusing on clarity in taxability (e.g., vouchers) and introducing innovative mechanisms like the Track and Trace system to enhance compliance and transparency across supply chains.

Panel to Revise GDP Base Year to 2022-23

The government has initiated the process of revising the GDP base year from 2011-12 to 2022-23. A 26-member Advisory Committee on National Accounts Statistics (ACNAS), chaired by Biswanath Goldar, has been tasked with completing the exercise by early 2026.

About Base Year

- **Definition:** A base year serves as a benchmark to measure economic changes over time by adjusting GDP calculations to reflect structural and compositional shifts in the economy.
- **Revision of Base Year:** Periodically revised to incorporate new economic activities, consumption patterns, and updated datasets, ensuring accurate representation of the current economy.
- **Historical Context:**
  - First GDP estimates were based on 1948-49 as the base year, published in 1956 under the Central Statistical Organisation (CSO).
  - The current base year 2011-12 was introduced in January 2015.

Role of Base Year in GDP Calculation

- **Price Index Creation:**
  - The base year's prices are used to calculate a price index like the GDP deflator.
- **GDP Deflator:**
  - Measures the overall price level of final goods and services in the economy.
  - Formula:
  - GDP Deflator = (NominalGDP / RealGDP)×100
- **Real GDP Calculation:**
  - Adjusts nominal GDP for inflation:
  - Real GDP = Nominal GDP / GDP Deflator

Implications of Revising the Base Year

- **Improved Growth Insights:**
  - Revising the base year will recalibrate historical GDP estimates, enabling a clearer and more accurate understanding of growth trends.
- **Enhanced Policy Planning:**
  - Better-targeted policy interventions in critical areas like healthcare, education, and infrastructure.
- **Investor Confidence:**
  - Transparent and up-to-date economic data enhances credibility and attracts more investments.
- **Global Comparability:**
  - Aligns India's GDP metrics with international standards, aiding in better global benchmarking.

Conclusion

Revising the GDP base year to 2022-23 will reflect the contemporary economic landscape, capturing structural transformations and digital advancements in the economy. It is a critical step toward more informed policymaking, robust economic planning, and fostering trust among investors and stakeholders.

India Skills Report 2025

The India Skills Report 2025, based on a comprehensive Global Employability Test (GET) conducted nationwide, was recently released. It surveyed over 6.5 lakh youth and captured insights from 1,000 corporations across 15 industries.

About the India Skills Report

- Published By:
- Jointly by Wheebox, AICTE, Confederation of Indian Industry (CII), and the Association of Indian Universities.
- Purpose:
  a. Assess Employability: Evaluate readiness of Indian youth for the job market.
  b. Track Skill Trends: Identify emerging sectors and skills shaping the future workforce.
  c. Promote Global Mobility: Highlight India's role as a global talent provider.
- Significance of 2025 Edition:

- Reflects a marked improvement in employability and offers actionable recommendations to bridge skill gaps in an evolving job market.

Key Highlights of the Report

1. Rising Employability Rates:
   - Overall Employability:
     - 55% of Indian graduates are expected to be globally employable in 2025 (up from 51.2% in 2024).
   - Discipline-wise Employability:
     - Management Graduates: 78%
     - Engineering Graduates: 71.5%
     - MCA Graduates: 71%
     - Science Graduates: 58%
2. Regional Talent Hubs:
   - States Leading in Employability:
     - Maharashtra, Karnataka, and Delhi.
   - Top Cities:
     - Pune, Bengaluru, and Mumbai.

3. Gender Analysis:
- Male Employability Rate:
  - Expected to rise from 51.8% (2024) to 53.5% (2025).
- Female Employability Rate:
  - Projected to decline from 50.9% (2024) to 47.5% (2025).

4. Vocational Training:
- Training Reach:
  - 50% of secondary and tertiary students to receive vocational training by 2025.
- Focus Areas:
  - AI, Cybersecurity, and Green Energy sectors to align with industry demands.

Conclusion:
The India Skills Report 2025 underscores the nation's growing potential as a global talent hub, with rising employability rates and advancements in vocational training. However, the report highlights areas for improvement, such as gender parity and skill alignment, to meet future workforce demands.

Milkweed Fiber

The Ministry of Textile in India is extending its research and development efforts into new natural fibers, including milkweed fiber.
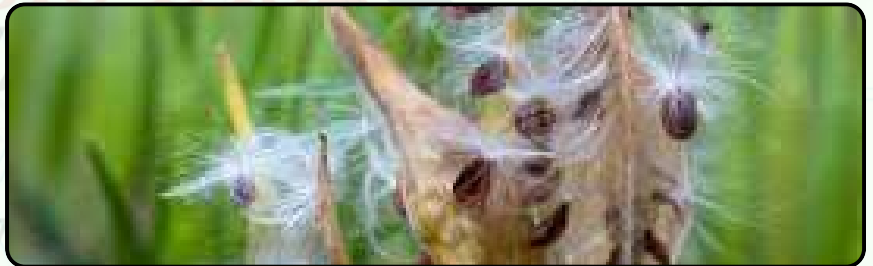
About Milkweed Fiber:
- Sustainable Natural Fiber:
- Milkweed fiber, also known as vegetable silk, is a sustainable and natural plant fiber.
- Botanical Classification:
  - Genus: Asclepias
  - Family: Asclepiadaceae
  - Native To: North America. The fibers come from the seedpods of milkweed plants, which grow well in a variety of soil conditions.

Key Features of Milkweed Fiber:
- Composition:
  - Made up of cellulose, hemicellulose, and lignin.
- Hydrophobicity:
  - Naturally water-repellent due to waxes, giving it a hydrophobic surface.
- Oil Sorption:
  - Capable of absorbing over 100 grams of engine oil per gram of fiber.

- **Density:**
  - Milkweed fibers have a lower density than water, making them lightweight.
- **Perennial Nature:**
  - Milkweed plants are perennial, meaning they don't need to be replanted every year and don't require fertilizers.
- **Toxicity:**
  - The leaves and sap of the milkweed plant are toxic to mammals.

Applications of Milkweed Fiber:
- **Water Safety Equipment:**
  - Used in products like life jackets and belts due to its ability to float in water and support up to 30 times its weight.
- **Upholstery and Insulation:**
  - Due to its lightweight and good insulation properties, it is used for upholstery padding and as an insulation material.
- **Technical Textiles:**
  - Milkweed fibers are used to create eco-friendly, non-allergenic textiles.
- **Sanitary Napkins:**
  - The fibers are highly absorbent, making them suitable for sanitary napkins, with vertical wicking properties to retain liquids.
- **Medical Goods:**
  - Due to their ecological and chemical benefits, milkweed fibers are also used in the production of medical goods.

Conclusion:
Milkweed fiber, with its diverse range of sustainable and eco-friendly applications, holds significant promise for India's textile industry. Its properties make it an ideal material for use in various fields, from water-safety equipment to medical goods, and the Ministry of Textile's initiative could boost its adoption and integration into local industries.

India State of Forest Report 2023 (ISFR 2023)

The India State of Forest Report 2023 (ISFR 2023) was recently released by the Minister for Environment, Forest and Climate Change at the Forest Research Institute in Dehradun.

Key Highlights from India State of Forest Report 2023

India's Progress on NDC Carbon Sequestration Target
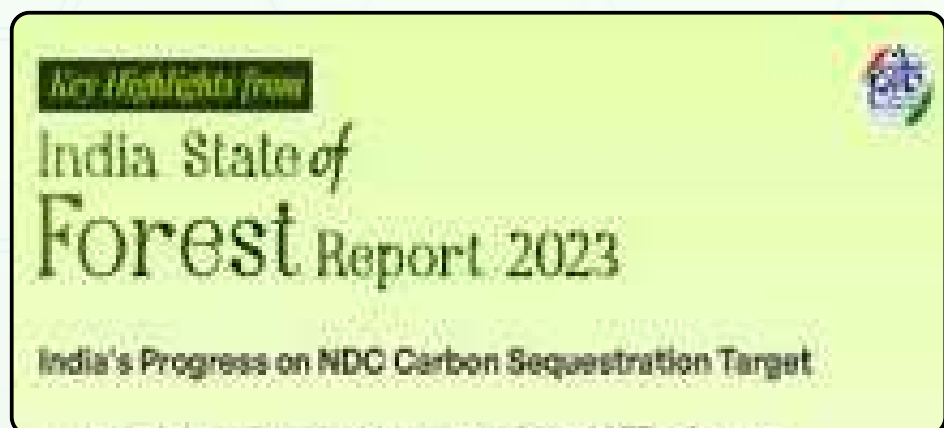
About ISFR (India State of Forest Report):

- **Published Biennially:** Released by the Forest Survey of India (FSI) under the Ministry of Environment, Forest and Climate Change.
- **First Report:** Published in 1987; the 2023 edition is the 18th in the series.
- **Scope:** The report covers forest cover, tree cover, mangrove cover, growing stock, carbon stock, forest fires, agroforestry, and more.

Forest Cover Mapping:

- Definition:
- Land area greater than 1 hectare with tree canopy and a density of over 10% (including tree orchards, bamboo, palms, etc.).
- **Classification of Forest Cover:**
  - **Very Dense Forest (VDF):** Canopy density ≥70%.
  - **Moderately Dense Forest (MDF):** Canopy density 40-70%.
  - **Open Forest (OF):** Canopy density 10-40%.
  - **Scrub:** Canopy density <10%, mainly shrubs with interspersed trees.

Key Findings:

- **Forest and Tree Cover in India:**
  - **Total Forest and Tree Cover:** 827,356.95 sq km (25.17% of India's geographical area).
  - **Forest Cover:** 715,342.61 sq km (21.76% of geographical area).
  - **Tree Cover:** 112,014.34 sq km (3.41% of geographical area).
- **Top States by Forest and Tree Cover:**
  - **Madhya Pradesh:** 85,724 sq km
  - **Arunachal Pradesh:** 67,083 sq km
  - **Maharashtra:** 65,383 sq km
- **Increase in Forest and Tree Cover (2021–2023):**
  - **Chhattisgarh:** +684 sq km
  - **Uttar Pradesh:** +559 sq km
  - **Odisha:** +559 sq km
  - **Rajasthan:** +394 sq km
- **Mangrove Cover:**
  - **Total Mangrove Cover:** 4,992 sq km (0.15% of geographical area).
  - **Loss (2021–2023):** 7.43 sq km.
  - **State-level Changes:**
    - **Gujarat:** Loss of 36.39 sq km.
    - **Andhra Pradesh:** Gain of 13.01 sq km.
    - **Maharashtra:** Gain of 12.39 sq km.
- **Carbon Stock:**
  - **Total Carbon Stock:** 7,285.5 million tonnes (increase of 81.5 million tonnes since 2021).
  - **Soil Organic Carbon:** Accounts for 55.06% of the total stock.
- **Western Ghats Eco-Sensitive Areas (WGESA):**
  - **Forest Cover in WGESA:** 44,043.99 sq km (73% of WGESA).
  - **Loss over 10 years:** 58.22 sq km.

Challenges Highlighted:

- **Decline in Forest Types:**
  - Moderately Dense Forest (MDF) and Open Forest (OF) areas have reduced significantly due to urbanization and infrastructure projects.
- **Deforestation in Eco-Sensitive Zones:**
  - Western Ghats recorded a loss of 58.22 sq km over the past decade, affecting biodiversity hotspots.
- **Forest Fire Vulnerability:**
  - 32.06% of forests are highly fire-prone. Top states with major fire incidents include Uttarakhand, Odisha, and Chhattisgarh.
- **Habitat Fragmentation:**
  - Infrastructure projects and urban expansion have contributed to habitat fragmentation, especially in the Himalayan and Western Ghats regions.
- **Unsustainable Resource Use:**
  - Overextraction of Non-Timber Forest Products (NTFPs) and excessive grazing have caused forest degradation.

Way Forward to Address Forest Threats:

- **Strengthen Policy Implementation:**
  - Enforce laws like the Forest (Conservation) Act, 1980 and impose penalties for illegal activities such as logging and encroachment.
- **Promote Sustainable Forest Management (SFM):**
  - Implement forest management practices that balance conservation with resource utilization, particularly in NTFPs.
- **Enhance Community Participation:**
  - Empower local communities and tribal populations through initiatives like Joint Forest Management (JFM) for sustainable forest conservation.
- **Leverage Technology for Monitoring:**
  - Utilize satellite imagery, GIS mapping, and real-time fire alert systems to monitor and manage forests effectively.
- **Focus on Biodiversity Hotspots and Mangroves:**
  - Prioritize conservation in sensitive areas like the Western Ghats, Northeast India, and mangrove ecosystems.
- **Promote Awareness:**
  - Launch awareness campaigns like "Ek Ped Maa Ke Naam" to engage the public in forest conservation.

Conclusion:

India's forests are crucial for ecological balance, biodiversity, and climate mitigation. Tackling the challenges of deforestation and forest degradation requires a combination of strong policies, community involvement, and technological advancements. By adopting a sustainable and inclusive approach, India can ensure the preservation and restoration of its forests for future generations.

Yuga Yugeen Bharat National Museum (YYBNM)

The Ministry of Culture has announced a partnership with France Museums Développement (FM(d)) to develop the Yuga Yugeen Bharat National Museum (YYBNM) in Delhi.

About YYBNM:

- **Part of Central Vista Redevelopment:**
  - YYBNM is a key element of the Central Vista Redevelopment Project.
- **Announcement:**

  - The project was first announced by the Prime Minister at the International Museum Expo in May 2023.

- **Objective:**
  - The museum aims to be a global cultural landmark that will merge India's rich heritage with contemporary narratives, connecting the past, present, and future.
- **Development Approach:**
  - The museum will be developed using the Adaptive Reuse approach from France.
    - This approach is similar to France's "Grands Projets" initiative, which transformed government buildings into iconic cultural spaces.
    - The most notable example of this initiative is the Louvre Museum in Paris.
- **Location & Size:**
  - The museum will be built across 1.55 lakh square meters in the iconic North Block and South Block in New Delhi.
- **Scale:**
  - Once completed, the YYBNM will surpass The Louvre in Paris, which is currently the world's largest museum.

Conclusion:

The Yuga Yugeen Bharat National Museum will not only preserve and showcase India's cultural heritage but will also emerge as a landmark institution that blends historical richness with modern perspectives, creating a global center for art, culture, and learning.

Koraga Tribal Community

The Kerala Government has launched Operation Smile to provide land titles (patta) to the Koraga community.

About the Koraga Tribal Community:

- **Habitat:**
  - The Koraga tribe is a Particularly Vulnerable Tribal Group (PVTG) primarily found in Kasaragod district (Kerala) and parts of Karnataka.
- **PVTG Status:**
  - The Koraga tribe is officially recognized by the Ministry of Tribal Affairs and is categorized as one of the 75 PVTG communities in India.
- **Scheduled Tribe Status:**
  - The Koraga tribe is classified as a Scheduled Tribe under the Presidential Order of 1956.
- **Language:**
  - The primary language spoken by the Koragas is Tulu, but they also have their own distinct language.
- **Social Structure:**
  - The tribe is divided into 17 exogamous clans known as Bali.
  - The family structure is matrilineal, meaning descent is traced through the female line.
  - After marriage, the residence is patrilocal, where the wife moves to live with her husband's family.
  - Property is divided equally between sons and daughters.
- **Religion and Beliefs:**
  - The Koraga people are worshippers of various Bhutas (spirit deities), including Panjurli, Kallurti, Korathi, and Guliga.
  - They are known for Bhuta Kola, a ritualistic folk dance tradition rooted in Tulu Nadu culture.

Significance of Operation Smile:

The Operation Smile initiative by the Kerala government is a significant step towards securing land rights for the Koraga community, ensuring their social and economic empowerment while also preserving their cultural identity.

Henderson Doctrine

The Supreme Court in the case titled CELIR LLP VERSUS MR. SUMATI PRASAD BAFNA & ORS. explained the Henderson Doctrine.

About the Henderson Doctrine:

- Origin:
  - The Henderson Doctrine was first propounded in the English case of Henderson versus Henderson (1843).

- Principle:
  - According to the Henderson Doctrine, all issues arising out of the same subject matter in litigation must be addressed in a single suit.
  - It bars re-litigating issues that could have been raised in prior proceedings, even if they were not initially addressed.

- Connection to Indian Law:
  - The Henderson Doctrine is a natural extension of the Indian doctrine of constructive res-judicata, which is codified in Explanation IV of Section 11 of the Code of Civil Procedure (CPC).
  - Constructive res-judicata ensures that once a matter has been adjudicated, it cannot be re-litigated in subsequent suits if it was or could have been raised earlier.
- Core Principle:
  - The doctrine emphasizes that litigation must be conducted in good faith.
  - It prevents parties from using procedural tactics to fragment disputes, prolong litigation, or undermine the integrity of judicial decisions.
- Broader Implication:
  - The Henderson Principle is part of the broader Abuse of Process doctrine.
  - It discourages the abuse of legal process to delay justice or create unnecessary litigation.
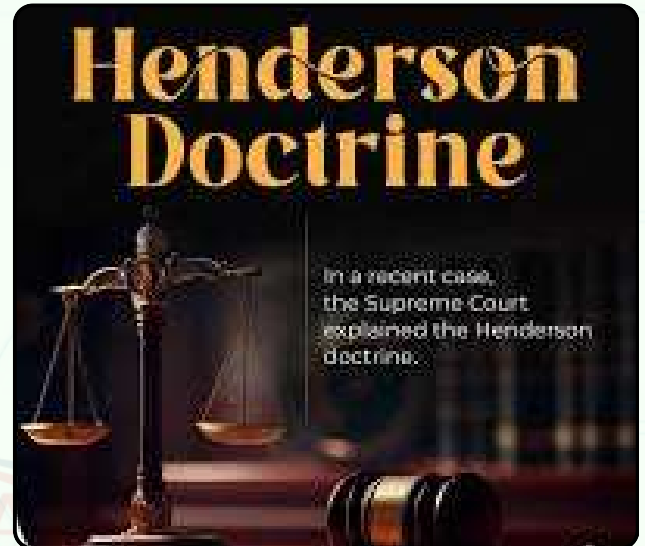
Significance:
The Henderson Doctrine reinforces the need for judicial efficiency, ensuring that parties address all issues relating to a subject matter in a single suit and preventing endless legal battles over the same matter. This doctrine is closely tied to the principle of constructive res-judicata in Indian law, which ensures that disputes are settled without undue repetition or delay.

Riyadh Design Law Treaty (DLT)

India, along with other member states of the World Intellectual Property Organization (WIPO), has adopted the Riyadh Design Law Treaty (DLT).

About the Treaty:

- **Purpose:**
  - The Riyadh Design Law Treaty aims to harmonize procedures and simplify registration processes for industrial designs across different countries.

- Objective:
  - The treaty facilitates design protection by eliminating bureaucratic hurdles, making the application process easier and more affordable for individuals and businesses to protect and market their designs globally.
- Conference:
  - The Treaty was signed in Riyadh, Saudi Arabia, where the Diplomatic Conference to Conclude and Adopt the Design Law Treaty took place. This marked the final stage of treaty negotiations.
- Preparation:
  - The treaty was prepared by the Department for Trademarks, Industrial Designs, and Geographical Indications, Brands and Designs Sector of the World Intellectual Property Organization (WIPO).

Significance:

The adoption of the Riyadh Design Law Treaty is a significant step toward simplifying and streamlining the global industrial design registration system. It will make it more accessible and cost-effective for designers to protect their creations, thereby promoting innovation and fostering international trade in design-related industries.

Manama Dialogue

External Affairs Minister (EAM) Dr. S. Jaishankar recently participated in the 20th IISS Manama Dialogue in Bahrain.

About the Manama Dialogue:

- **Overview:**
  - The Manama Dialogue is an international security summit held annually in the Kingdom of Bahrain.
- **Initiation:**
  - The dialogue was initiated in 2004 and is organized by the International Institute for Strategic Studies (IISS).
- **Participating Nations:**
  - The summit includes national leaders, ministers, and policymakers from various regions, such as the Middle East, North America, Europe, Asia, and Africa.
- **Objective:**
  - The Manama Dialogue aims to provide a platform for leaders and policymakers to discuss regional security issues, exchange views, and share policy responses to address the most pressing global and regional challenges.
- **2024 Theme:**
  - The theme for the 2024 edition of the dialogue is: "Middle East Leadership in Shaping Regional Prosperity and Security".

Significance:

The Manama Dialogue serves as an important forum for international cooperation in tackling security challenges in the Middle East and beyond. It helps promote strategic discussions among global leaders, enhancing mutual understanding and paving the way for collective action in regional and international security.

United Nations Internal Justice Council (IJC)

Recent Appointment:

- **Retired Supreme Court Judge Madan B. Lokur has been appointed the chairperson of the United Nations Internal Justice Council (IJC).**

About the United Nations Internal Justice Council:

- **Establishment:**
  - The IJC was established by the UN General Assembly as part of the UN's internal justice system to ensure independence, professionalism, and accountability in the administration of justice.

- **Composition:**
  - The IJC is composed of five members appointed by the UN Secretary-General:
    - Staff Representative
    - Management Representative
    - 2 Distinguished External Jurists
    - One member nominated by staff and one by management
- **Function:**
  - The IJC is responsible for managing the UN's internal justice system, which includes overseeing:
    - Office of Staff Legal Assistance (OSLA)
    - United Nations Dispute Tribunal (UNDT)
    - United Nations Appeals Tribunal (UNAT)

Key Components of the UN's Internal Justice System:
- **Office of Staff Legal Assistance (OSLA):**
  - Established: 2009
  - Purpose: OSLA provides legal advice and representation to UN staff members, as well as former staff and their dependents, who wish to appeal an adverse administrative decision or are subject to disciplinary actions.
- **United Nations Dispute Tribunal (UNDT):**
  - Role: The court of first instance in the UN's internal justice system, handling disputes and disciplinary matters between the UN and its staff members.
  - Appeals: The UNDT's judgments can be appealed to the UN Appeals Tribunal (UNAT).

Significance:
The IJC plays a crucial role in ensuring fairness and accountability within the United Nations, fostering an impartial and transparent system for addressing grievances and disputes among UN staff. The appointment of Justice Madan B. Lokur as chairperson adds further credibility and expertise to the functioning of the council.

India's First Solar Border Village: Masali Village

Overview:
- Masali village in Banaskantha district of Gujarat has become India's first solar-powered border village, achieving 100% solar power.

About Masali Village:

- **Location:** Masali is located 40 kilometers from the Pakistan border.
- **Border Solar Project:** As part of the Border Development Project, the Banaskantha district administration has initiated efforts to make 11 border villages in Vav taluka and six villages in Suigam taluka entirely solar-powered.
- **Objective:** The project aims to enhance energy access and sustainability in border areas, ensuring reliable and eco-friendly energy solutions.

PM Suryaghar Yojana:

- **Objective:** The PM Suryaghar Yojana is a government initiative designed to provide free electricity to households across India by offering subsidies for installing solar panels on rooftops.
- **Launch:** The scheme was launched by Prime Minister Narendra Modi on February 15, 2024.
- **Subsidy:** Under the scheme, households are provided a 40% subsidy on the cost of installing solar panels.

Significance of Masali Village's Achievement:

Masali village's transition to 100% solar power marks a significant milestone in India's renewable energy efforts, particularly in remote and border areas. This initiative not only contributes to sustainability but also enhances energy security and reliability for border residents. The PM Suryaghar Yojana will further support such transitions by making solar energy more accessible to households across the country.

Wroughton's Free-tailed Bat (Otomops wroughtoni)

Recent Sightings:

- **First Record in Northern India:** A Wroughton's Free-tailed Bat was sighted at Yamuna Biodiversity Park (YBP) in North Delhi.
- **Significance:** This marks the first documented occurrence of the species in Delhi-NCR and northern India, highlighting the ecological importance of the region.

Key Facts about Wroughton's Free-tailed Bat:

Scientific Classification:
- Scientific Name: Otomops wroughtoni
- Conservation Status:
  - IUCN: Data Deficient
  - Wildlife (Protection) Act, 1972: Listed under Schedule I (highest protection level).

Habitat & Distribution:
- Native Regions:
  - Found primarily in India's Western Ghats, including Karnataka and parts of southern India.
  - Also recorded in Meghalaya (Northeast India).
  - Globally found in Cambodia.
- Preferred Habitat:
  - Caves, cliffs, and high-altitude forests.
  - Often roosts in dark, damp, slightly warm locations, typically forming moderate-sized colonies.

Physical & Behavioral Traits:
- Unique Features:
  - Long Tail: Extends beyond the flight membrane, distinguishing it from other bat species.
  - Echolocation: Adapted for long-range communication, enabling navigation and prey detection.
  - Flight: Known to be a powerful flier capable of covering large distances.

Conservation Challenges:
- Habitat Loss: Rapid urbanization, deforestation, and cave disturbances threaten its survival.
- Limited Known Populations: The species is rare, with only four recorded locations globally.

Significance of the Delhi Sighting:
- Biodiversity Indicator: The presence of such a rare species at Yamuna Biodiversity Park underscores Delhi's ecological richness and the need for continued conservation efforts.
- Ecological Importance: As insectivorous mammals, bats play a critical role in controlling insect populations and maintaining ecosystem balance.

This sighting is a reminder of the potential for discovering rare and uncommon species in urban landscapes and the importance of preserving their habitats.

Kisan Kavach

Overview:

- Purpose: Protect farm laborers from harmful exposure to pesticides during spraying activities.
- Developer: Scientists affiliated with the Department of Biotechnology (DBT) at inStem Bangalore.
- Manufacturer: Sepio Health Pvt. Ltd.

Features and Composition:
- Components:
  - The kit includes trousers, a pullover, and a face cover.

Features and Composition:
- Components:
  - The kit includes trousers, a pullover, and a face cover.
- Fabric Technology:
  - Made using Oxime fabric, which chemically breaks down pesticides on contact.
  - Integration: Oximes are incorporated into the cellulose structure of cotton, converting it into an activated fabric.
- Durability:
  - Washable and reusable: Remains effective even after 150 washes.
  - UV and Temperature Resistance: Performs effectively across a range of temperatures and under UV exposure.
- Innovative Mechanism:
  - Utilizes nucleophile-based fabric technology to deactivate pesticides and prevent their absorption into the skin.

Cost:
- Price per Kit: ₹4,000 (designed to be cost-efficient given its reusability and durability).

Significance:
- Safety: Reduces the risk of pesticide ingestion and accumulation in the body of farmworkers.
- Affordability: The long lifespan and reusability of the kit make it an economical solution for farm laborers.
- Indigenous Innovation: A step towards self-reliance in agricultural safety gear, ensuring protection with cutting-edge fabric technology.

The Kisan Kavach marks a significant innovation in agricultural safety, addressing the health risks associated with pesticide exposure and promoting safer farming practices.

GenCast: AI-Powered Weather Prediction Model by Google DeepMind

Overview:

- Developer: Google DeepMind.
- Purpose: Enhance the accuracy and efficiency of weather forecasting using advanced machine learning techniques.
- Data Source: Trained on historical reanalysis data (1979–2018).

Key Features:

- Technology:
  - Diffusion Model Approach: Similar to techniques used in AI-based image generation, GenCast starts with random noise and refines predictions using a neural network.
  - Ensemble Forecasting: Generates multiple forecasts and combines them to determine the best estimate while assessing uncertainty.
- Performance:
  - Accuracy: Outperforms traditional numerical weather prediction models, including those used by the European Centre for Medium-Range Weather Forecasts (ECMWF).
  - Speed: Runs 15-day predictions in just 8 minutes on tensor processing units (TPUs), compared to the slower general circulation models.
- Forecasting Capabilities:
  - Covers atmospheric variables such as temperature, pressure, humidity, and wind speed.
  - Provides data for the surface level and 13 different atmospheric heights.
- Efficiency:
  - Model training required only five days using 32 TPUs, showcasing the scalability of its machine learning framework.

Significance:

- Improved Forecasting: Offers more accurate and rapid predictions, essential for disaster preparedness and climate monitoring.
- Energy and Time Efficiency: Its ability to generate forecasts in minutes makes it a game-changer for real-time applications.
- Innovative Methodology: Demonstrates the potential of machine learning diffusion models in tackling complex meteorological challenges.

GenCast represents a leap forward in weather prediction technology, combining the power of AI with the precision of scientific modeling to deliver faster, more reliable forecasts globally.

IRIS²: European Union's Satellite Internet Constellation

Overview:

- Developer: European Space Agency (ESA) in collaboration with the SpaceRISE consortium.
- Purpose: Strengthen Europe's connectivity infrastructure, ensuring secure and reliable internet access.

Key Features:

- Structure:
  - Composed of 290 satellites:
    - 264 satellites in Low Earth Orbit (LEO).
    - 18 satellites in Medium Earth Orbit (MEO).
- Focus:
  - Prioritizes efficient interlinked satellite systems over extensive satellite coverage, unlike SpaceX's Starlink (with 7,000+ satellites).
- Applications:
  - Secure high-speed broadband for underserved or unconnected areas.
  - Use cases across government, private, and civilian sectors, including:
    - Maritime, railway, aviation, and rural connectivity.
    - Border surveillance, crisis management, and remote healthcare.
    - Smart energy grids and other critical infrastructure applications.

Global Context:
- Other Internet Satellite Constellations:
  - OneWeb (UK): Aims to deliver global satellite-based broadband.
  - Kuiper (USA): Amazon's initiative to provide high-speed internet globally.

Significance of IRIS²:
- Resilience and Security: Enhances Europe's ability to maintain sovereign and secure communications, especially during crises.
- Connectivity for All: Bridges the digital divide by focusing on areas with limited or no internet access.
- Strategic Autonomy: Reduces reliance on non-European internet providers, bolstering Europe's independence in space technology.

IRIS² is poised to become a cornerstone of Europe's digital infrastructure, addressing connectivity challenges while fostering technological and strategic leadership in satellite-based communication.

India's First Bio-Bitumen National Highway

The Union Transport Minister recently inaugurated India's first national highway using bio-bitumen material, constructed on the Nagpur-Mansar Bypass project of National Highway 44 in Nagpur District.

About Bitumen

- Source: Derived primarily from crude oil, bitumen is a black, sticky substance.
- Composition: Contains complex hydrocarbons and elements like calcium, iron, sulfur, and oxygen.
- Uses:
  - Known for waterproofing and adhesive properties.
  - Widely used in the construction industry, especially for road surfaces.

About Bio-Bitumen

- Definition: Also called bio-asphalt, bio-bitumen is a sustainable alternative to traditional bitumen derived from fossil fuels.
- Composition: Manufactured from organic materials such as bio-char, bio-oil, and similar substances.
- Applications:
  - Can replace or supplement traditional bitumen in binder mixtures.

Key Benefits of Bio-Bitumen:

- Cost Efficiency: Reduces the overall cost of road construction.
- Employment Generation: Creates opportunities in the production of bio-materials.
- Environmental Impact:
  - Reduces pollution, especially by curbing stubble burning.
  - Promotes sustainable practices in road construction.

This initiative highlights India's commitment to adopting sustainable infrastructure solutions, reducing environmental impact, and boosting local economies through innovative practices.

16th Conference of the Parties (COP16) of UNCCD

The 16th session of the Conference of the Parties (COP16) of the United Nations Convention to Combat Desertification (UNCCD) was held in Riyadh, Saudi Arabia, from December 2–13, 2024.

About UNCCD
- Establishment: Set up in 1994, following the 1992 Earth Summit in Rio de Janeiro.
- Legally Binding: It is the only global framework addressing desertification and drought.
- Membership: 197 parties (196 countries + EU). India became a signatory in 1994 and ratified it in 1996.
- Secretariat: Located in Bonn, Germany.
- Legally Binding: It is the only global framework addressing desertification and drought.
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Key Outcomes of COP16 UNCCD
1. Global Drought Framework
- Progress made on a global drought framework, scheduled for finalization at COP17 in Mongolia (2026).
2. Financial Commitments
- USD 12 Billion Pledged: To combat desertification, land degradation, and drought (DLD).
- Riyadh Global Drought Resilience Partnership: USD 12.15 billion to assist 80 vulnerable countries, with USD 10 billion from the Arab Coordination Group.
- Great Green Wall (GGW) Initiative:
  - €11 million from Italy for Sahel restoration.
  - €3.6 million from Austria for improved coordination across 22 African countries.
- Vision for Adapted Crops and Soils (VACS): Nearly USD 70 million announced to build resilient food systems with climate-adapted crops.
3. Indigenous Communities
- Formation of caucuses for representation.
- Adoption of the Sacred Lands Declaration to enhance their role in governance.

4. Business4Land Initiative
- Encourages private sector contributions to DLD issues through sustainable finance and ESG strategies.
- Current private sector contribution to land restoration is only 6%.

Land Degradation

1. Definition:
- Reduction or loss of productivity in cropland, pastures, and forests due to natural or human-induced factors.

2. Hotspots:
- South Asia, northern China, Mediterranean, and parts of the U.S. like California.
- Drylands: Particularly vulnerable, with three-quarters of Africa affected.

3. Impact on Low-Income Nations:
- Poorer nations in tropical and arid regions bear a disproportionate burden of land degradation impacts.

4. Impacts of Land Degradation:
- Agricultural Productivity Loss:12% reduction in productivity globally, costing $400 billion annually.
- Increased Water Scarcity: Leads to waterborne diseases like cholera and dysentery.
- Marine and Freshwater Damage: Runoff causes algal blooms, reducing aquatic oxygen levels and harming ecosystems.
- Climate Change Contribution: Degraded soils release stored carbon and nitrous oxide, intensifying global warming.
- Economic Losses: Estimated at $10.6 trillion annually, about 17% of global GDP.

Global Initiatives to Combat Land Degradation

1. Bonn Challenge:
- Aims to restore 350 million hectares of degraded land by 2030.

2. Great Green Wall Initiative:
- Focuses on land restoration in Sahel-Saharan Africa to combat desertification.

Way Forward to Address Land Degradation

1. Promote Sustainable Agriculture:
- Techniques like agroforestry, crop rotation, and Zero Budget Natural Farming (ZBNF).

2. Reforestation & Afforestation Programs:
- Initiatives like India's Green India Mission.

3. Adopt Nature-Based Solutions (NbS):
- Example: Kenya's Tana River Basin project reduced erosion and enhanced water availability.

4. Strengthen Governance:
- Integrate land degradation into national policies and enforce land-use regulations.

5. Leverage Technology:
- Use satellite imagery and GIS for land monitoring and targeted restoration efforts.

6. Mobilize Financial Resources:
- Redirect harmful subsidies to sustainable practices.

7. Engage Communities:
- Empower local governance and involve communities in restoration programs.

UNCCD Policy Recommendations:
- Mainstream NbS into drought management plans.
- Ensure secure land tenure and water rights.
- Promote public-private partnerships for restoration financing.
- Focus on monitoring impact data to attract investments.

Conclusion:
Land degradation poses critical threats to ecosystems, food security, and livelihoods. Tackling these challenges demands coordinated efforts involving policy reforms, sustainable practices, technological interventions, and community engagement. By prioritizing restoration, we can ensure a sustainable future for ecosystems and humanity.

World Drought Atlas

The "World Drought Atlas" was launched by the United Nations Convention to Combat Desertification (UNCCD) and the European Commission Joint Research Centre (JRC) during their 16th conference in Riyadh, Saudi Arabia.

Key Highlights of the 2024 World Drought Atlas:

- **Global Impact:** By 2050, 75% of the world's population could face drought.
- **India's Risk:** India is highly vulnerable, with potential soybean crop failures threatening millions dependent on agriculture.
- **Urban Water Crises:** Events like Chennai's 2019 "Day Zero" highlight urban water mismanagement dangers.
- **Objective:** To assess drought risks across critical sectors.
- **Funding:** Supported by UNCCD, JRC, and other partners.
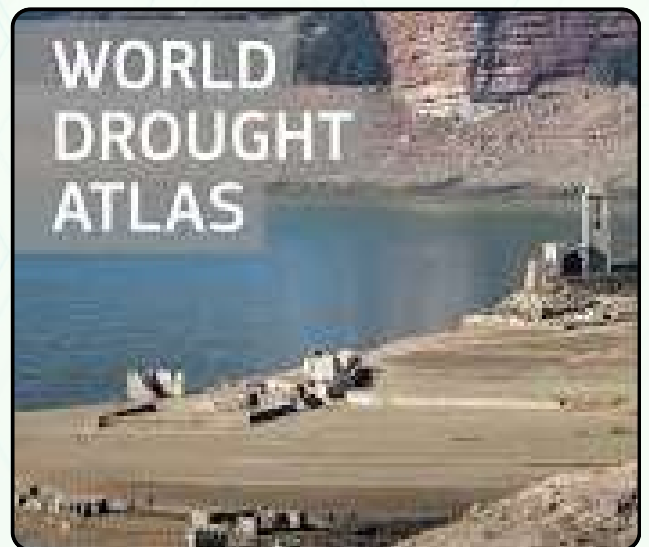
Aravalli Green Wall Project (AGWP): Combatting Land Degradation

India presented the Aravalli Green Wall Project (AGWP) at the 16th UNCCD COP16 in Riyadh.

About AGWP:

- Launch Year: 2019, by the Ministry of Environment, Forest, and Climate Change.
- Inspiration: Based on Africa's Great Green Wall initiative.

Geographic Scope:

- Focuses on greening a 5 km buffer zone around the Aravalli Hills.
- Includes Haryana, Rajasthan, Gujarat, and Delhi.

Objectives:

- Restore Land: Rehabilitate 1.15 million hectares of degraded land by 2027.
- Combat Desertification: Prevent the Thar Desert's eastward expansion and curb land degradation.

Global Peatland Hotspot Atlas 2024: Insights into Peatland Conservation

The United Nations Environment Programme (UNEP) has released the Global Peatland Hotspot Atlas (GPHA) 2024.

About the Atlas:

- Published by: UNEP's Global Peatlands Initiative.
- Purpose: Provides insights into the state of peatlands globally, focusing on conservation opportunities and addressing threats.
- Objective: Bridge the gap between science and policy to guide peatland conservation decisions.

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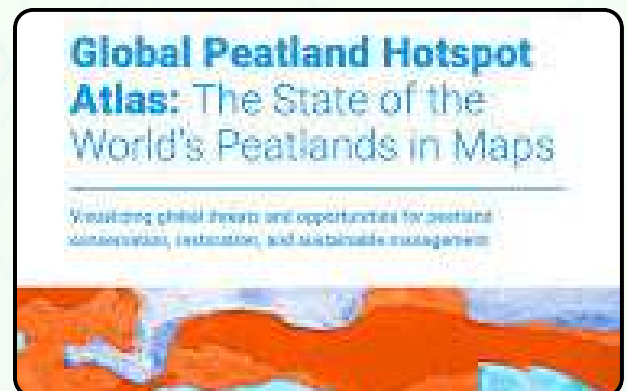
Key Findings of the 2024 Atlas:

- **Global Coverage:** Identifies 488 million hectares of peatlands worldwide, with 12% classified as highly degraded.
- **Peatland Emissions:** Degraded peatlands emit 1,941 Mt CO_2 annually due to human activity.
- **Map Update:** Expands on the Global Peatlands Assessment (2022) and integrates data on climate change, land use, and biodiversity.

About Peatlands:

- **Definition:** Unique wetlands where waterlogged conditions slow plant decomposition, forming peat soils.
- **Global Distribution:** Cover 3-4% of Earth's land surface, found in most countries.
- **In India:** Peatlands cover ~0.2% of land, primarily in the Eastern Himalayas, Western Ghats, and Northeast regions.
- **Largest Peatland:** Congo Basin hosts the world's largest tropical peatland.

UN Champion of the Earth 2024: Madhav Gadgil Honored

Madhav Gadgil, a renowned Indian ecologist, has been awarded the United Nations Environment Programme's (UNEP) 'Champion of the Earth' award for 2024.

About the Award:

- **Established by UNEP:** It is the UN's highest environmental honor, recognizing exemplary environmental leadership since 2005.
- **Indian Recipient:** In 2018, Indian Prime Minister Narendra Modi received the award for Policy Leadership.

Madhav Gadgil's Key Contributions:

1. Western Ghats Conservation:

- Chaired the Western Ghats Ecology Expert Panel (2011), authoring the "Gadgil Report."
- Recommended declaring 75% of the Western Ghats as an environmentally sensitive area to protect biodiversity.
- Faced resistance, and subsequent reports, like the Kasturirangan Report, diluted the recommendations.

- Final notification to declare the Western Ghats ecologically sensitive is still pending due to objections from states.

2. Grassroots Advocacy:
- Promoted community-led conservation efforts to protect forests, wetlands, and ecosystems.
- Empowered marginalized communities to engage in environmental protection.

3. Academic Impact:
- Authored seven books and over 225 scientific papers, shaping biodiversity conservation policies and public opinion.

4. Vision and Advocacy:
- Championed grassroots activism and communication to address ecological crises.
- Inspired collective action for sustainable environmental change.

5. Awards and Recognition:
- Recipient of India's Padma Shri and Padma Bhushan awards.
- Honored with international accolades like the Tyler Prize for Environmental Achievement and the Volvo Environment Prize.
- Known as the "people's scientist" for his inclusive approach to conservation.

Ratapani Wildlife Sanctuary and Madhav National Park: New Tiger Reserves in Madhya Pradesh

- Ratapani Wildlife Sanctuary was declared India's 57th Tiger Reserve on December 2, 2024.
- Madhav National Park received in-principle approval on December 1, 2024, to become the 58th Tiger Reserve upon notification.

About Tiger Reserves
- Definition: Designated areas under Project Tiger (1973) to conserve tigers and their habitats.
- Structure: Core area (national park or sanctuary) and buffer zone (mixed-use area).

- India's Status:
  - 57 tiger reserves cover 82,000 sq km, or 2.3% of India's area.
  - India hosts 3,167 tigers (2022 estimation), about 70% of the global tiger population.

Ratapani Tiger Reserve
- Location: Raisen and Sehore districts, Madhya Pradesh.
  - Part of a key tiger habitat and migration corridor from the Satpura ranges.

- **Significance:** Madhya Pradesh's 8th tiger reserve, strengthening its title as the "Tiger State of India."
- **Tiger Population:** Approximately 90 tigers.
- **Flora and Fauna:**
  - Vegetation: Dry and moist deciduous forests, with 55% teak cover.
  - Wildlife: Tigers, leopards, sloth bears, hyenas, spotted deer, and sambar deer.

Madhav National Park

- **Location:** Shivpuri district, Madhya Pradesh; spans 1,751 sq km.
- **Biodiversity:**
  - Flora: Dry deciduous forests with teak, sal, and mixed vegetation.
  - Fauna:
    - Mammals: Tigers, leopards, nilgai, chital, chinkara, and sloth bears.
    - Birds: Over 200 species, including migratory birds in winter.
- **Conservation Success:**
  - Tiger reintroduction program began in 1990.
  - Birth of tiger cubs in September 2024 marks significant progress in restoration efforts.

Ganges River Dolphin

India's first-ever Ganges River Dolphin (Platanista gangetica) was tagged in Assam, marking a major step in wildlife conservation under Project Dolphin (launched in 2021).

Key Highlights of the Initiative:

- **Collaborators:** Ministry of Environment, Forest, and Climate Change (MoEFCC), Wildlife Institute of India (WII), Assam Forest Department, and Aaranyak.
- **Funding:** National CAMPA Authority.
- **Significance:** First tagging initiative for the species globally.

About Ganges River Dolphin

1. General Facts:
   - Scientific Name: Platanista gangetica.
   - National Aquatic Animal: Declared in 2009.
   - State Aquatic Animal: Assam.
   - Commonly called "Susu" due to the sound it makes when surfacing.

2. Ecological Role:
- Known as the "Tiger of the Ganges," it is a top predator and an ecosystem indicator species.
-

3. Habitat and Adaptations:
- Habitat: Freshwater rivers (cannot survive in saltwater).
- Adaptations:
  - Nearly blind, relies on echolocation for hunting and navigation.
  - Surfaces every 5–30 seconds to breathe.

4. Distribution:
- Around 90% of the population resides in India.
- Found in the Ganga-Brahmaputra-Meghna and Karnaphuli river systems.

5. Physical Features:
- Long, thin snout, stocky body, rounded belly, and large flippers.
- Blowhole on top of the head acts as a nostril.
- Females are larger than males, and calves are born every 2–3 years after a 10-month gestation period.

6. Conservation Status:
- IUCN: Endangered.
- Wildlife Protection Act, 1972: Schedule I.
- CITES: Appendix I.
- CMS: Appendix I.

This tagging initiative is a crucial step in understanding and conserving this endangered species and its fragile freshwater ecosystem.

Major Atmospheric Cherenkov Experiment (MACE) Telescope

The MACE telescope, a cutting-edge gamma-ray telescope, was inaugurated in Hanle, Ladakh.

Key Features of MACE

1. World's Highest Imaging Cherenkov Telescope:
- Located at 4.3 km above sea level, making it Asia's largest and the second-largest globally.
- Equipped with a 21-meter-wide dish.

2. Advanced Technology:
- Structure: 356 honeycomb mirrors coated with silicon dioxide for durability.
  - Camera: High-resolution camera with 1,088 photomultiplier tubes to detect faint gamma-ray signals.
  - Mechanism: Mounted on a 180-tonne structure with an altitude-azimuth system for wide-sky coverage.

3. Gamma-Ray Detection:
- Works as an Imaging Atmospheric Cherenkov Telescope (IACT), detecting Cherenkov radiation from cosmic gamma rays (>20 billion electron volts).

4. Indigenous Development:
- Designed by Indian institutions, including BARC, TIFR, and IIA.

Applications and Research Objectives
- High-Energy Gamma Rays:
  - Studies cosmic phenomena like pulsars, supernovae, black holes, and gamma-ray bursts.
  - Analyzes gamma rays from beyond the Milky Way, such as blazars and pulsars.

- Dark Matter Research:
  - Explores weakly interacting massive particles (WIMPs) as a potential dark matter component.
  - Investigates gamma rays from WIMP annihilation near the Milky Way's center or galaxy clusters.

- Astrophysics and Cosmology:
  - Provides insights into particle physics, gamma-ray astronomy, and fundamental cosmic theories.
  - Tests and validates existing astrophysical hypotheses.

- Technological Milestone:
  - Sets a global benchmark for gamma-ray observatories and strengthens India's position in astrophysics research.

Significance
The MACE Telescope marks a milestone in Indian and global astronomy, advancing high-energy astrophysics, dark matter studies, and gamma-ray astronomy, while fostering innovation and technological growth in space sciences.

Baby Mammoth - Yana

Discovery Context

- Location: Siberian region, Russia.
- Age: Estimated at 50,000 years old.
- Significance:
    - Best-preserved mammoth remains ever found.
    - Female mammoth, nicknamed Yana, weighs over 100 kg and is 120 cm tall.
    - Result of melting permafrost due to climate change, which is exposing prehistoric animal remains.

About Mammoths

- General Information:
    - Extinct species belonging to the elephantid genus Mammuthus.
    - Known for their large size and adaptations to cold climates.
- Key Features:
    - Adaptations for Cold:
        - Thick fur.
        - Layers of fat.
        - Smaller ears to reduce heat loss.
    - Habitat:
        - Inhabited regions of Africa, Asia, Europe, and North America.
        - Thrived in cold environments during Ice Age periods.
- Scientific Details:
    - Scientific Name: Mammuthus primigenius (Woolly Mammoth).
    - IUCN Status: Extinct.
    - Epochs:
        - Existed during the Pleistocene Epoch (2.6 million to 11,700 years ago).
        - Survived into the early Holocene Epoch (~11,700 years ago).
- Similarity with Asian Elephants:
    - Genetics:
        - Asian elephants (Elephas maximus) are more closely related to mammoths than to African elephants (Loxodonta africana).

Significance of the Discovery

- Provides insights into the life and environment of Ice Age species.
- Highlights the impact of climate change on exposing preserved prehistoric remains.
- Contributes to understanding the genetic and evolutionary links between extinct and existing elephant species.

GG Tau A System

Discovery Context
- Astronomers have identified a protoplanetary disk in the GG Tau A system, located 489 light-years from Earth.
- The study was conducted by researchers from the National Institute of Science Education and Research (NISER) in Odisha, using advanced radio telescopes in Chile's Atacama Desert.

Key Findings
- Protoplanetary Disk Characteristics:
  - A swirling ring of gas and dust, the disk is crucial for studying planet formation.
  - Observations detected emissions from key molecules, revealing the disk's composition.
  - Temperatures in the disk's mid-plane range from 12–16 K, low enough to freeze carbon monoxide.
    - This enables gas and dust to clump together, a critical step in planet formation.
- Multi-Star System Dynamics:
  - GG Tau A is a triple-star system, with three interacting stars.
  - The stars significantly influence the disk, creating unique gravitational forces that impact planet formation.

About the GG Tau A System
- Basic Information:
  - Triple-Star System: Contains three stars interacting with one another.
  - Age: Between 1–5 million years, making it ideal for studying early stages of planetary formation.
- Key Features:
  - Planet-Birth Environment: Features a gas and dust disk, a primary site for planet formation.
  - Unique Forces: Interactions between the three stars create unusual gravitational effects, adding complexity to planet formation processes.

Significance of the Discovery
- Insights into Planet Formation:
  - Enhances understanding of how planets form in multi-star environments, which differ significantly from single-star systems like our Solar System.

- Chemical and Physical Analysis:
  - Offers critical data about the chemical composition and physical conditions in protoplanetary disks.
- Diversity of Exoplanets:
  - Highlights the variations in exoplanet formation across single-, binary-, and multi-star systems.
- Broader Implications:
  - The discovery contributes to the study of exoplanet diversity, shedding light on the origins and evolution of planetary systems throughout the universe.

Dark Comets

Discovery Context

- **Recent Discovery:** Ten new dark comets have been identified using the Dark Energy Camera (DECam) instrument on a large telescope in Chile.

What are Dark Comets?
- **Definition:** Dark comets resemble asteroids in appearance (lacking the bright coma typical of comets) but move through space like comets, exhibiting behaviors like sudden accelerations.
- **First Discovery:** The first dark comet, 2003 RM, was identified in 2016 and was nicknamed "The Asteroid that Wanted to be a Comet."
  - In 2017, NASA discovered 'Oumuamua, the first-ever documented celestial object originating outside the solar system. It appeared asteroid-like but exhibited comet-like behaviors.

Categories of Dark Comets
- **Inner Dark Comets:**
  - Located in the inner solar system, they travel in nearly circular orbits.
  - Typically small (tens of meters or less).
- **Outer Dark Comets:**
  - Resemble Jupiter-family comets with highly eccentric (elliptical) orbits.
  - Larger in size (100m or more).

Characteristics of Dark Comets
- **Elusive:**
  - Unlike typical comets, dark comets lack glowing tails and appear as faint points of light, resembling asteroids.

Characteristics of Dark Comets

- **Elusive:**
  - Unlike typical comets, dark comets lack glowing tails and appear as faint points of light, resembling asteroids.
- **Orbit:**
  - They follow elongated, elliptical orbits, with some traveling beyond Pluto and even reaching the Oort Cloud.
- **Size:**
  - Dark comets are small, ranging from a few meters to a few hundred meters in width, leaving less surface area for material to escape and form bright tails.
- **Spin:**
  - Dark comets often spin rapidly, dispersing gas and dust in all directions, making them less visible.
- **Composition and Age:**
  - Their composition and age may lead to weaker or no gas loss, preventing the formation of the characteristic tails of bright comets.

Significance of Dark Comets

- **Planet Formation:**
  - Studying dark comets is significant because they could provide insights into the formation of Earth, the origins of Earth's water, and even the beginning of life on our planet.
- **Abundance:**
  - A 2023 study suggested that between 0.5% and 60% of all Near-Earth Objects (NEOs) could be dark comets, potentially originating from the asteroid belt between Mars and Jupiter.

Snakebite Cases as "Notifiable Disease"

The Central Government has urged all states to classify snakebite cases and related deaths as "notifiable diseases".

Key Highlights of the Directive

- **Mandatory Reporting:**
  - Suspected and probable snakebite cases, as well as deaths, must be reported under relevant provisions of the State Public Health Act or other applicable legislation.

SNAKEBITE CAPITAL

INDIA REPORTS NEARLY **50%** of global snakebite deaths

Only about **10%** of snakebite cases are recorded

MOST OF THE DEATHS OCCUR AT HOME IN RURAL AREAS

Country launched the National Action Plan for Snakebite Envenomation on **MARCH 12, 2024**

WHO has set 2030 as deadline to reduce death and disability from snakebite by **50%**

- This applies to both government and private health facilities, including medical colleges.
- **Alignment with National Plan:**
  - The directive is part of the National Action Plan for Prevention and Control of Snakebite Envenoming (NAPSE), a strategic effort to address snakebite-related health issues.

About Notifiable Diseases
- **Definition:**
  - Notifiable diseases are those that are legally required to be reported to government authorities due to their potential to cause outbreaks or deaths, necessitating quick investigations and public health interventions.
- **Responsibility:**
  - State governments are responsible for ensuring the reporting of notifiable diseases and implementing relevant reporting mechanisms. The list of notifiable diseases may vary by state depending on regional health concerns.
- **Examples:**
  - Common notifiable diseases include tuberculosis, HIV, cholera, malaria, dengue, and hepatitis.
- **Global Health Perspective:**
  - The WHO's International Health Regulations mandate the reporting of certain diseases to ensure global health security.

About Snakebites
- **Epidemiology:**
  - India records the highest number of snakebite incidents globally.
  - The WHO estimates 3-4 million snakebite cases annually in India, leading to more than 58,000 deaths.
- **WHO Classification:**
  - Snakebite envenoming has been classified as a Neglected Tropical Disease (NTD) since 2017, highlighting its significant public health impact.
- **High-Risk Areas:**
  - States like Bihar, Jharkhand, Uttar Pradesh, Odisha, Andhra Pradesh, and Gujarat are considered high-risk areas for snakebite incidents.

Dharini: Foetal Brain Atlas by IIT-Madras

IIT Madras has unveiled the world's most detailed 3D images of the foetal brain, named Dharini.

Key Highlights of Foetal Brain Mapping

- **Dharini:**
    - **Open-Access Dataset:** Contains over 5,000 brain sections and more than 500 brain regions.
    - **Focus on the Second Trimester:** The atlas specifically highlights brain growth during the second trimester (14-24 weeks of pregnancy), a critical period of foetal brain development.
    - **Indigenous Innovation:** All technologies used for freezing, slicing, imaging, and digitization were developed by IIT-Madras researchers.

Implications for Neurological Research
- **Understanding Disorders:**
    - The data can help unravel mysteries behind developmental disorders like autism, by providing insights into how the human foetal brain develops at the cellular level.
- **Gene-Environment Link:**
    - The dataset provides a platform to study the influence of genes and environmental factors on brain chemistry during foetal development.

Focus on Maternal Health
- **Vulnerabilities During Pregnancy:**
    - Foetal brain development is sensitive to maternal factors such as nutrition, stress, and infections.
- **Public Health Message:**
    - The atlas underscores the importance of meeting maternal health, nutritional, educational, and environmental needs for healthy foetal brain development.

National Relevance
- **UNICEF Report:**
    - India accounts for nearly one-fifth of the world's child births, with 25 million annual births.
- **Challenges in Maternal Healthcare:**

- Despite government initiatives, many pregnant women in India still lack adequate nutrition and healthcare.
- Policy Implications:
    - The Dharini Atlas could play a significant role in supporting evidence-based policymaking, especially in the realm of maternal health and foetal development in India.

Speed Gun

Speed guns are increasingly used to monitor vehicle speeds, ensure traffic safety, and enforce speed regulations.

About Speed Gun

- **Definition:** A speed gun is a device that measures the speed of a moving object without physical contact.
- **Operation:** It emits electromagnetic radiation, which reflects off the moving object. The device calculates the speed using the Doppler effect.
- **History:** Originally developed during World War II for military purposes, speed guns were later adapted for civilian use.

Working Mechanism of Speed Gun
- **Doppler Effect:**
    - The principle behind speed guns is based on the Doppler effect, discovered by Christian Doppler. This effect describes how the frequency of waves changes when an object moves toward or away from the source of the waves.
    - **Approaching Object:** The frequency of the reflected waves increases.
    - **Receding Object:** The frequency of the reflected waves decreases.
    - The difference in frequency is used to calculate the object's speed.

Applications of Speed Gun
- **Traffic Monitoring:**
    - Law enforcement uses speed guns to measure vehicle speeds and enforce traffic regulations, ensuring road safety.
- **Sports:**
    - Used by coaches and trainers to measure the speed of balls, athletes, or vehicles in sports such as cricket, baseball, and racing.
- **Industrial Uses:**
    - Employed in industries that require precise motion tracking, such as manufacturing and logistics.

Eliminating Maoist Insurgency by March 2026

The Union Home Minister has called for joint efforts by all forces and agencies to eliminate Left Wing Extremism (LWE) by March 2026, with a focus on eradicating Maoist insurgency in Chhattisgarh.

Key Announcements and Developments

- **Target for Maoist Elimination:**
  - The Union Home Minister has vowed to eradicate Maoists from Chhattisgarh by March 31, 2026.
  - Significant progress:
    - 73% reduction in security personnel deaths and 70% decrease in civilian deaths over the past decade.
- **Achievements in Chhattisgarh:**
  - 287 Maoists neutralized, 1,000 arrested, and 837 Maoists surrendered in the last year.
  - Restoration of schools and infrastructure destroyed by Maoist violence.
  - Chhattisgarh Police awarded the President's Colour for courage and service.

About Maoism

- Maoism is a form of communism based on the ideologies of Mao Zedong, aiming to capture state power through armed insurgency, mass mobilization, and strategic alliances.

Factors Contributing to Maoism or Left-Wing Extremism (LWE)

- **Land Alienation and Displacement:**
  - Lack of land reforms and displacement of tribal communities due to development projects (e.g., mining) fuel Maoist activity.
- **Poverty and Lack of Development:**
  - High poverty rates and limited access to basic services like education and healthcare, especially in tribal areas (e.g., Bastar in Chhattisgarh).
- **Governance Deficit:**
  - Weak state presence and ineffective public services in remote tribal areas create a governance vacuum exploited by Maoists.
    - D. Bandopadhyay Committee (2006) found that Naxalism spread due to governance failures and widespread discrimination against tribals.

- **Exploitation by Landlords and Corporations:**
  - Tribals and marginalized communities face exploitation by landlords, moneylenders, and corporations, worsening socio-economic inequalities.
  - In Andhra Pradesh, tribals were forced to give up land for mining corporations, leading to Maoist uprisings.

Way Forward to Address LWE/Maoism in India

- **Strengthen Governance and Development:**
  - Improve governance in remote areas by ensuring access to essential public services (education, healthcare, clean water).
  - Implement the Forest Rights Act (2006) to secure tribal rights over forest resources.
- **Promote Inclusive Development:**
  - Enhance socio-economic opportunities through skill development, job creation, and infrastructure development (e.g., roads, telecom).
  - Expand the Aspirational Districts Programme to cover more Maoist-affected regions.
- **Enhance Security Measures:**
  - Utilize modern technologies (e.g., drones, UAVs, surveillance) for better intelligence and counterinsurgency operations.
  - Improve coordination between state and central agencies for intelligence sharing.
- **Rehabilitation and Reintegration:**
  - Strengthen surrender and rehabilitation policies by offering training, job opportunities, and psychosocial support to surrendered cadres.
- **Engage Communities:**
  - Empower local and tribal leaders as peace ambassadors and mediators.
  - Encourage community policing and local governance to rebuild trust between the government and affected communities.
- **Counter Propaganda:**
  - Address Maoist propaganda through public awareness campaigns, regional media, and youth exchange programs connecting tribal communities with mainstream society.
- **Focus on Education and Youth Engagement:**
  - Reopen schools destroyed by Maoists and promote education to reduce vulnerability to Maoist indoctrination.

Conclusion

A holistic approach combining governance, development, and security is essential to effectively tackle Maoism. With sustained efforts, the influence of Left Wing Extremism can be minimized, leading to peace, stability, and inclusive growth in affected regions.

Protected Area Regime (PAR)

The Central Government has reimposed the Protected Area Regime (PAR) in the northeastern states of Manipur, Mizoram, and Nagaland due to increasing security concerns, primarily due to an influx of individuals from neighboring countries.

About Protected Area Regime (PAR)
- **What is PAR?**
  - The Protected Area Regime (PAR) is a security measure introduced under the Foreigners (Protected Areas) Order, 1958.
  - It requires foreign nationals to obtain special permits to visit certain sensitive areas in India, particularly along the border regions.
- **States and Union Territories under PAR:**
  - Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Sikkim are the key regions under the Protected Area Regime.

Provisions for Protected Area Permit (PAP)

- **Duration of PAP:**
  - Typically valid for 10 days, with the option for an extension.
- **Issuing Authorities:**
  - The Union Ministry of Home Affairs (MHA) and the State Governments where the protected area is located are responsible for issuing PAPs.
- **Requirements for Obtaining PAP:**
  - Foreign nationals must provide the following documentation:
    - Passports
    - Itinerary
  - Certain nationalities may face additional restrictions due to security concerns.
- **Exemptions:**
  - Citizens of Bhutan are exempted from the PAP requirement.

The reimposition of the Protected Area Regime aims to safeguard sensitive border areas in the northeast by controlling foreign nationals' access to these regions.

Global Engagement Scheme

The Government of India has recently launched the Global Engagement Scheme to promote India's cultural heritage and enhance its global image through cultural exchange.

About the Global Engagement Scheme
- Initiator:
  - The scheme is spearheaded by the Ministry of Culture.
- Objectives:
  - Strengthen international relations: Foster people-to-people connections and cultural exchange between India and other countries.
  - Enhance India's global image: Promote India's diverse cultural traditions and artistic expressions globally.

Key Activities
- Festival of India (FoI):
  - The scheme organizes cultural festivals in various countries, featuring a range of Indian art forms, including:
    - Folk arts (music, dance, theater, puppetry)
    - Classical and traditional dance
    - Contemporary dance
    - Classical and semi-classical music
    - Theater
  - It provides financial support to participating artists, especially folk artists.
- Grant-in-aid to Indo-Foreign Friendship Cultural Societies:
  - The scheme supports cultural programs and activities organized by Indian cultural societies abroad, facilitating deeper connections with foreign audiences.
- Financial Assistance for Veteran Artists:
  - Provides support to elderly artists (aged 60 and above) who have significantly contributed to their fields of art.
  - The financial aid is up to Rs. 6,000 per month, which is adjusted with any state artist pension the artist may be receiving.

The Global Engagement Scheme aims to make India's cultural expressions more visible on the world stage, fostering stronger international ties and supporting the artistic community both in India and abroad.

Veer Bal Diwas and Pradhan Mantri Rashtriya Bal Puraskar (PMRBP)

Veer Bal Diwas 2024

- Date: Observed annually on December 26 since 2022.
- Purpose: Honors the unparalleled bravery of Baba Fateh Singh and Zorawar Singh, the young sons of Guru Gobind Singh, who chose martyrdom over renouncing their faith.

Pradhan Mantri Rashtriya Bal Puraskar (PMRBP)

- About the Award:
  - The PMRBP is India's highest civilian honor for children, formerly known as the National Child Award for Exceptional Achievement.
- Presented By: Ministry of Women and Child Development.
- Eligibility: Children aged 5-18 years.
- Categories:
- The award is presented in 7 categories:
  - Art & Culture
  - Bravery
  - Innovation
  - Science & Technology
  - Social Service
  - Sports
  - Environment
- Award Details:
  - Each awardee will receive:
    - A medal
    - A certificate
    - A citation booklet

Veer Bal Diwas celebrates the valor of young Sikh martyrs, while the PMRBP recognizes the exceptional achievements of children across diverse fields, encouraging young talent in India.

Brain Rot: Oxford Word of the Year 2024

- Definition:
- "Brain rot" refers to the decline in mental or intellectual abilities caused by excessive consumption of trivial or unchallenging online content.
- Origin:
- The term was first used in 1854 by the American writer Henry David Thoreau.
- Modern Usage:
- In recent years, the term has gained popularity, particularly among younger generations, to describe the negative impact of social media and online culture, where constant exposure to shallow or unimportant content can hinder cognitive development and critical thinking.
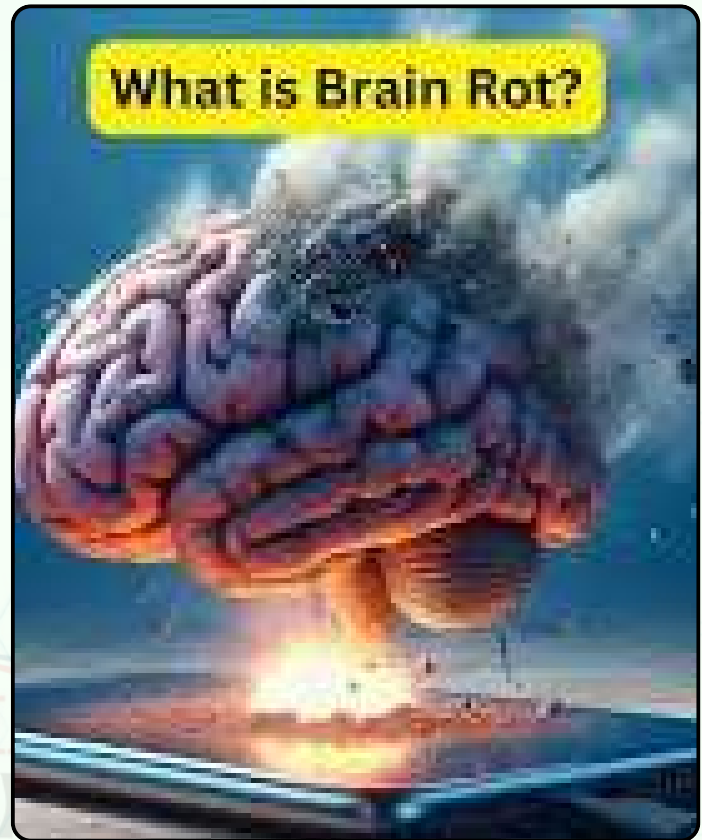
"Brain rot" is now officially recognized as an expression of the modern struggle with information overload, often linked to the overconsumption of digital content that lacks intellectual depth.

Ustad Zakir Hussain: A Tribute to the Tabla Virtuoso

Personal Background:

- Father: Ustad Zakir Hussain was the son of Ustad Allah Rakha Khan, a renowned tabla maestro.

- **Career:**
  - Hussain worked with India's greatest musicians, such as Ravi Shankar, Ali Akbar Khan, and Shivkumar Sharma.
  - He gained global recognition through collaborations and performances worldwide.
  - His American debut was with Ravi Shankar at the Fillmore East in New York City.
  - He co-founded Shakti, a fusion group blending Indian classical music with Western jazz, alongside John McLaughlin and L. Shankar.
  - He also formed the Zakir Hussain Rhythm Experience in 1984, a percussion ensemble.
  - In 1996, he composed music for the Summer Olympics opening ceremony in Atlanta.
  - Collaborated with musicians globally, including Mickey Hart (Planet Drum, Global Drum Project), Charles Lloyd (Sangam), and Dave Holland (CrossCurrents).

- **Awards & Recognition:**
  - Grammy Awards (2024): Hussain made history by being the first Indian musician to receive three Grammys at once:
    - Best Global Music Album,
    - Best Global Music Performance,
    - Best Contemporary Instrumental Album.
  - Planet Drum (1992) won him a Grammy and the Downbeat Critics Poll for the best world beat album.
  - Nominated at the 1983 Cannes Film Festival for contributions to the film Heat and Dust.
  - Sangeet Natak Akademi: Awarded in 1996, and named a Fellow in 2019.
  - Padma Awards:
    - Padma Shri in 1988,
    - Padma Bhushan in 2002,
    - Padma Vibhushan in 2023.
  - National Heritage Fellowship (USA) and Officier in France's Order of Arts and Letters.

- **Legacy:**
  - Moment Records: Founder and president of this independent label, focusing on live recordings of Indian classical and world music.
  - Educator: Served as resident artist at Princeton University and Stanford University, and as Regents Lecturer at UC Berkeley in 2015.

Ustad Zakir Hussain's influence transcended national boundaries, cementing his place as one of the most celebrated percussionists of the 20th and 21st centuries.

Manmohan Singh: A Tribute to the Former Prime Minister

Personal Details:
- Born: September 26, 1932, in Punjab, undivided India.
- Literary Contribution: Authored the book India's Export Trends and Prospects for Self-Sustained Growth (1964, Clarendon Press, Oxford).

- **Key Government Posts:**
  - Chief Economic Advisor (1972–1976)
  - Governor of the Reserve Bank of India (1982–1985)
  - Head of the Planning Commission (1985–1987)

- **Political Career:**
  - Rajya Sabha Member: Served from 1991 to 2019 (Assam) and 2019 to 2024 (Rajasthan).
  - Leader of Opposition, Rajya Sabha: From 1998 to 2004.
  - Prime Minister of India: Served for two terms (2004–2014).
  - Finance Minister: From 1991 to 1996 in P. V. Narasimha Rao's government.

- **Awards and Honors:**
  - Adam Smith Prize (University of Cambridge, 1956)
  - Euro Money Award for Finance Minister of the Year (1993)
  - Asia Money Award for Finance Minister of the Year (1993, 1994)
  - Jawaharlal Nehru Birth Centenary Award (1995)
  - Padma Vibhushan (1987)
  - Honored with degrees from Cambridge and Oxford Universities.

- **Key Reforms:**
  - 1991 Economic Reforms: As Finance Minister, during the 1991 balance of payments crisis, Dr. Singh implemented the LPG reforms (Liberalization, Privatization, and Globalization), which are also known as the Rao-Manmohan Model. These reforms are credited with transforming India's economy and opening it to the global market.

- **Demise:**
  - Dr. Manmohan Singh passed away on December 26, 2024, at the age of 92 at AIIMS, Delhi.
  - In honor of his contribution to the nation, the Central Government declared seven days of national mourning.

Manmohan Singh's leadership and economic vision shaped India's modernization in the globalized world. His contributions will continue to be remembered as a key architect of India's economic resurgence.

Moldova Signs International Solar Alliance Framework Agreement

About Moldova:

- Location: A landlocked country in southeastern Europe, bordered by Ukraine to the north, east, and south, and Romania to the west.
- Geography: Moldova lies between the Prut and Dniester rivers and is situated to the east of the Carpathian Mountains. It is located in the northeastern corner of the Balkan Peninsula.

- **Key Facts:**
  - EU Status: Moldova is not an EU member but gained EU candidate status in 2022.
- **Moldova's Commitment to Renewable Energy:**
  - Moldova has officially signed the ISA Framework Agreement, solidifying its commitment to promote renewable energy and contribute to the global transition toward sustainable energy solutions.
  - By joining the International Solar Alliance (ISA), Moldova is taking significant steps to enhance its energy sustainability and reduce dependence on non-renewable sources.

This development aligns with global efforts to combat climate change and promote cleaner energy options through international cooperation.