



Weekly Current Affairs



To The Point

by Dhananjay Gautam

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Cashless Treatment Scheme for Road Accident Victims: A Lifesaving Initiative

Context: The Ministry of Road Transport and Highways (MoRTH) has announced a groundbreaking **nationwide cashless treatment scheme** designed to offer **immediate medical assistance** to victims of road accidents across India. This initiative aims to address the critical need for timely intervention, particularly during the "**golden hour**", a crucial period following a traumatic injury when prompt medical care can save lives.



Background:

- **Pilot Program:** The scheme stems from a **pilot initiative** launched on **March 14, 2024**, initially implemented in **Assam, Punjab, Haryana, and Puducherry**.
- **Golden Hour Focus:** The pilot phase was successful in establishing an efficient framework for providing **urgent medical care** to accident victims during the **first hour after an incident**, when immediate treatment is vital.
- **Expansion to Nationwide Coverage:** Based on its success, the scheme has been expanded to encompass the entire country.

Key Features of the Scheme:

1. **Nationwide Coverage:**
 - Offers **cashless treatment** to all **road accident victims** at hospitals under the **Ayushman Bharat Pradhan Mantri-Jan Arogya Yojana (AB PM-JAY)**.
 - Covers **trauma and polytrauma cases** for up to **₹1.5 lakh per accident** for a period of **seven days**.
2. **Streamlined Implementation:**
 - Managed by the **National Health Authority (NHA)** in collaboration with **police, hospitals, and state health departments**.
 - Utilizes advanced systems like the **e-Detailed Accident Report (eDAR)** and the **NHA's Transaction Management System** to ensure smooth registration and claim processing.
3. **Support for Hit-and-Run Cases:**
 - Provides **2 lakh compensation** to families of victims in **hit-and-run fatalities**, offering much-needed financial relief.

Why This Scheme Matters:

1. **Alarming Statistics:**
 - India reported a staggering **1.80 lakh road accident fatalities in 2024**, including:
 - **30,000 deaths** from individuals not wearing helmets.
 - **10,000 child deaths** near educational institutions.
2. **Comprehensive Coverage:**
 - Ensures **inclusivity** by covering all accident victims, regardless of financial background or circumstances, thereby broadening access to critical care.
3. **Efficient and Technology-Driven:**



- Reduces **bureaucratic delays** by leveraging technology and integrating multiple stakeholders for faster claim settlements and medical assistance.

4. Financial Relief for Families:

- The scheme alleviates the **economic burden** on families by covering **treatment costs** and offering compensation for **hit-and-run victims**.

Additional Facts and Insights:

- **Global Perspective:** Road traffic injuries are a major public health concern worldwide, with over **1.3 million deaths annually** according to the **World Health Organization (WHO)**. Initiatives like this place India at the forefront of addressing the issue comprehensively.
- **Road Safety Initiatives:** In addition to this scheme, the government is actively promoting **road safety awareness campaigns**, encouraging the use of helmets and seat belts, and implementing stricter traffic laws.
- **Economic Cost of Accidents:** Road accidents cost the Indian economy approximately **3% of its GDP annually**, making this scheme not only a humanitarian initiative but also an economic necessity.

Conclusion:

The **Cashless Treatment Scheme for Road Accident Victims** is a transformative step toward enhancing **road safety**, ensuring **timely medical intervention**, and reducing the **economic and emotional toll** on victims and their families. By combining **technology**, **collaboration**, and **compassion**, the initiative reaffirms the government's commitment to saving lives and fostering a safer India.

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TOGETHER WE SCALE HEIGHTS

Polar Vortex and Winter Storms: Understanding the Phenomenon in the USA

Context: The United States recently experienced one of the **most severe winter storms** in over a decade. This extreme weather event has been linked to disruptions in the **polar vortex**, a critical atmospheric system influencing global weather patterns.



What is the Polar Vortex?

The **polar vortex** is a **massive area of low-pressure and frigid air** that rotates around the Earth's **polar regions**. It acts as a containment system for Arctic cold air and exists in two distinct layers of the atmosphere:

1. Tropospheric Polar Vortex:

- Found in the **lowest layer of the atmosphere** (up to 10–15 km).
- Primarily responsible for **weather-related phenomena** and temperature fluctuations.

2. Stratospheric Polar Vortex:

- Located in the **upper atmosphere** (15–50 km).
- Strongest during **autumn** and typically dissipates in the **summer months**.

How Does the Polar Vortex Trigger Extreme Cold?

- Under **normal conditions**, the **polar vortex** is **strong and stable**, keeping the **jet stream** (a fast-flowing air current in the upper atmosphere) moving in a smooth, circular motion around the Arctic.
- This stabilizes the separation between **cold Arctic air** and **warmer air in southern regions**.
- However, when the **polar vortex weakens**, the **jet stream becomes wavy**, allowing **cold Arctic air** to escape southward.
- This results in **frigid temperatures** across regions as far south as **Florida**, often accompanied by heavy snowfall and freezing winds.

Impacts of the Polar Vortex:

1. Cold Air Outbreaks:

When the **polar vortex expands or shifts**, it pushes Arctic air southward, affecting regions like the **USA, Europe, and Asia**. This leads to **extreme cold weather events**, causing widespread disruptions.

2. Ozone Depletion:

- In the **Antarctic region**, the polar vortex traps cold air, which contributes to **ozone depletion**.
- Low temperatures enable the formation of harmful **chlorine compounds**, which break down the ozone layer, leading to the infamous **ozone hole** over Antarctica.

3. Impact on Aviation:

The **intensification of the polar vortex** affects **aviation operations**, with freezing temperatures and increased **winter precipitation** causing flight delays, cancellations, and safety concerns.

4. Impact on India:

A **weakened polar vortex** amplifies the activity of **western disturbances** in India, leading to:

- Heavy snowfall in the **western Himalayas**.
- Unseasonal rainfall in northern plains, disrupting agriculture.



- Cold waves in parts of central and northern India.

Additional Insights and Global Perspective:

1. Climate Change and Polar Vortex:

- **Rising global temperatures** may increase the frequency of weakened polar vortex events, making extreme winter storms more common.
- Studies suggest that Arctic warming influences the **jet stream**, leading to prolonged cold snaps in mid-latitude regions.

2. Economic and Social Impact:

- Severe winter storms disrupt **transportation, energy supply, and daily life**, resulting in billions of dollars in economic losses.
- Prolonged exposure to extreme cold can lead to **health issues**, including hypothermia and frostbite, particularly among vulnerable populations.

3. Preparation and Mitigation:

- Improved **weather forecasting** and early warning systems can help mitigate the impact of such extreme weather events.
- Enhancing **infrastructure resilience**, such as insulating power grids and bolstering transportation systems, is vital in regions prone to polar vortex disruptions.

Conclusion:

The **polar vortex** plays a pivotal role in shaping global weather patterns, particularly in winter. Its disruption, as seen during the recent **severe winter storm in the USA**, underscores the importance of understanding this atmospheric phenomenon. As **climate change** continues to influence weather systems, better preparedness and scientific insights will be crucial to minimizing the impact of such extreme events on lives and livelihoods.

TOGETHER WE SCALE HEIGHTS

Understanding Sections 33 and 81 of the Delhi Land Reforms Act, 1954

Context: The debate around repealing Sections 33 and 81 of the Delhi Land Reforms Act, 1954, has resurfaced following allegations that the Union government has not fulfilled its promise to address these contentious provisions.

**The Delhi Land Reforms Act, 1954: An Overview**

The **Delhi Land Reforms Act, 1954** was enacted to reform the **Zamindari System** and unify tenancy laws in Delhi. It aimed to modernize agricultural land management and abolish outdated land revenue systems.

Key Highlights:

- The Act repealed older laws, such as:
 - **Punjab Tenancy Act, 1887**
 - **Agra Tenancy Act, 1901**
 - **Punjab Land Revenue Act, 1887**
- It established two types of land tenure holders:
 1. **Bhumidhar:** Full ownership rights.
 2. **Asami:** Limited rights, often tenants.
- Villages declared as **urban areas** no longer fall under this Act. Instead, they are governed by the **Delhi Municipal Act, 1957**, and the **Delhi Development Act, 1954**.

Provisions of Sections 33 and 81:**Section 33: Restriction on Land Transfers:**

- **Prohibits** the **sale, gift, or transfer** of agricultural land if it reduces the owner's total holding to less than **8 acres**.
- **Objective:** Prevent fragmentation of agricultural holdings to maintain **economic viability** for farming.
- **Exceptions:**
 - Transfers allowed to **religious or charitable institutions**.
 - Land donations under the **Bhoodan movement**.

Section 81: Ejection for Non-Agricultural Use

- Landowners can be **ejected** if agricultural land is used for **non-agricultural purposes** like housing or commercial activities.
- Such land is **transferred to the Gram Sabha**.
- **Permitted uses:**
 - **Agriculture, horticulture, animal husbandry, pisciculture, and poultry farming.**

Why Are These Provisions Contested?



1. **Outdated Provisions:** Delhi has transitioned from a primarily agricultural economy to an **urban and industrial hub**. These provisions are now seen as **irrelevant** to modern needs.
2. **Hindrance to Urban Development:**
 - Restrictions under Section 33 delay infrastructure projects and housing expansion in **rapidly urbanizing areas**.
 - Section 81 discourages the **adaptive reuse of agricultural land** for urban purposes.
3. **Bureaucratic Complexities:** Obtaining permissions for land-use changes involves **lengthy procedures** and **bureaucratic red tape**, often leading to **corruption**.
4. **Economic Implications:** Farmers with small landholdings face **reduced economic opportunities** as they are unable to sell or repurpose their land freely.

Proposed Reforms and the Way Forward:

1. Modify Section 81:

- Instead of transferring ownership to the **Gram Sabha**, impose **monetary penalties** for the unauthorized use of agricultural land.
- Encourage compliance without displacing landowners.

2. Provide Support to Farmers:

- Offer **alternative livelihood opportunities** for farmers with small landholdings.
- Introduce financial and technical support for modernizing agricultural practices.

3. Facilitate Controlled Development:

- Establish a **balanced framework** that preserves agricultural lands while enabling controlled **urban expansion**.
- Simplify the process for obtaining permissions to **reduce bureaucratic hurdles**.

4. Leverage Technology:

- Use **geospatial mapping** to identify areas suitable for urban development without disrupting viable farmland.
- Create a **centralized digital platform** for transparent and efficient land-use applications.

Additional Insights:

1. **Urbanization Trends in Delhi:** Delhi's population growth and urban sprawl demand **large-scale infrastructure** and affordable housing. Reassessing land policies is crucial to meet these needs.
2. **Global Practices:** Countries like **Japan and South Korea** have successfully balanced agricultural preservation with urban development through zoning and land-use policies.
3. **Environmental Considerations:** Retaining green spaces and agricultural lands can help combat **urban heat islands** and promote **ecological balance**.

Conclusion:

Sections 33 and 81 of the Delhi Land Reforms Act, 1954, reflect policies suited to an agricultural past but now pose challenges to **modern urban development**. Reforming these provisions can pave the way for **balanced growth, economic opportunity, and sustainable land use** in Delhi, ensuring benefits for both rural and urban stakeholders.



Government Revises Gold Import Data Amid Reporting Discrepancies

Context: The Ministry of Commerce and Industry recently corrected gold import figures for November 2024, reducing the reported value by \$5 billion. This adjustment lowered the trade deficit and spotlighted challenges in ensuring accurate trade statistics, raising concerns about the credibility of India's economic data.



Understanding the Reporting Error:

What Went Wrong?

- The overreporting resulted from a **technical glitch** during the transition from **SEZ Online** to the **Indian Customs Electronic Gateway (ICEGATE)** system.
- Double counting** occurred:
 - Imports into **Special Economic Zones (SEZs)**.
 - Clearances to **Domestic Tariff Areas (DTAs)**.

Corrected Figures:

- Gold imports for November 2024 were revised from **\$14.8 billion** to **\$9.9 billion**.
- Consequently, the **trade deficit** narrowed from **\$38 billion** to **\$33 billion**.

Technical Challenges in Data Transition:

Migration to ICEGATE:

- Designed to **streamline export-import (EXIM) declarations** and ease business operations.
- However, **SEZ Online** and **ICEGATE** initially transmitted data separately, leading to discrepancies.

Ongoing Issues:

- Persistent **technical glitches** continue to impact data accuracy.
- The government is working on **reconciliation efforts** to align data from both platforms and eliminate errors.

Broader Implications of Data Discrepancies:

Credibility at Stake:

- Global Trade Research Initiative (GTRI)** highlighted that frequent data revisions weaken the credibility of India's **economic statistics**.
- Lack of clear explanations creates uncertainty for **investors, businesses, and policymakers**.

Concerns About Wider Errors:

- Potential errors in reporting for other **commodities** or **time periods** have been flagged.
- This raises the need for **proactive reviews** and more stringent **data accuracy measures**.

Gold Import Trends and Revised Data Significance:

India's Gold Imports:

- India is the **second-largest gold consumer globally**, heavily reliant on imports to meet domestic demand.
- Key suppliers include **African nations, Peru, Switzerland, and the UAE**.



Factors Driving Gold Demand:

1. **Festive and Wedding Seasons:** A key factor in seasonal gold purchasing.
2. **Central Bank Purchases:** Increased global acquisitions of gold by central banks have pushed demand higher.
3. **Policy Shifts:**
 - July's **import duty reduction** diverted gold purchases from the **grey market** to official channels.
 - India's **gold jewellery exports** are projected to surpass **\$12 billion in 2025**.

Market Stability:

- The revised data **eased concerns** about a potential **import duty hike**.
- Post-revision, no evidence of an **unusual surge** in gold demand was detected, stabilizing market expectations.

Conclusion: Building Trust in Trade Statistics

The revision of gold import figures underscores the importance of:

1. **Robust Data Management Systems:** Addressing technical shortcomings to ensure accuracy.
2. **Transparency in Reporting:** Offering clear explanations to maintain trust in official data.
3. **Proactive Error Detection:** Regular reviews to preempt similar discrepancies in other sectors.

Accurate trade statistics are critical for maintaining **economic stability**, **investor confidence**, and **policy credibility**. As India advances its digital infrastructure, ensuring the **reliability of economic data** will play a pivotal role in fostering global trust and domestic growth.

Did You Know?

- India's **gold demand** typically peaks during **Diwali**, **Akshaya Tritiya**, and the **wedding season**.
- The **grey market** previously accounted for nearly **30% of gold trade** until recent policy reforms curtailed illegal imports.

18th Pravasi Bharatiya Divas: Celebrating the Global Impact of Indian Diaspora

Context: Prime Minister Narendra Modi inaugurated the **18th Pravasi Bharatiya Divas (PBD) Convention**, celebrating the invaluable contributions of the **Indian diaspora**.

With the theme **“Diaspora’s Contribution to a Viksit Bharat (Developed India)”**, the event emphasized the global influence of Indians abroad and their role in India’s journey toward becoming a developed nation.



What is Pravasi Bharatiya Divas (PBD)?

Significance:

PBD is celebrated on **January 9**, the day **Mahatma Gandhi** returned to India from South Africa in **1915**, symbolizing the **return of Indian talent and service to the homeland**.

This biennial event fosters connections between the **Indian government** and the global Indian community, highlighting their achievements and engaging them in India’s development.

Background:

- Initiated in **2003** by former Prime Minister **Atal Bihari Vajpayee**.
- Based on recommendations from the **High-Level Committee on Indian Diaspora** led by **LM Singhvi** in **2002**.
- Organized by the **Ministry of External Affairs (MEA)** in partnership with the **Confederation of Indian Industry (CII)** and other stakeholders.

Format and Evolution:

Initially an **annual event**, PBD was restructured in **2015** to be celebrated **every two years** for a more focused and impactful engagement.

Spotlight on Indian Diaspora:

Global Presence:

- USA:** 54 lakh
- UAE:** 35 lakh
- Canada:** 28 lakh
- Saudi Arabia:** 24 lakh
- Total Overseas Indians:** Over **3.5 crore**, including **NRIs** and **OCIs**.

Economic Contributions:

- Indian diaspora remitted a record **\$125 billion** to India in **2023**, demonstrating their pivotal role in the country’s economy.

Diplomatic Influence:

- Diaspora members are increasingly influential in countries like the **US, Canada, and UK**, often serving as bridges to strengthen bilateral ties.
- Events like **“Howdy Modi”** in Texas (2019) highlight the diaspora’s political clout and cultural unity.

Categories of Overseas Indians:



1. **Non-Resident Indians (NRIs)**: Indian citizens living abroad.
2. **Overseas Citizens of India (OCIs)**: Foreign nationals of Indian origin meeting specific criteria under the **Citizenship Act, 1955**.
3. The **Persons of Indian Origin (PIO)** category was merged with OCI in **2015** for streamlined identification.

Key Highlights of the 18th Pravasi Bharatiya Divas:

Chief Guest:

- **Christine Carla Kangaloo**, President of **Trinidad & Tobago**, addressed the convention virtually.

Pravasi Bharatiya Samman Awards (PBSA):

This prestigious award honors **overseas Indians** for significant contributions globally.

- **27 awardees** from **24 countries**, including notable recipients like:
 - **Lekh Raj Juneja (Japan)**: Recognized for advancements in **Science & Technology**.
 - **Robert Masih Nahar (Spain)**: Honored for **Community Service**, particularly in promoting cricket in Catalonia.
 - **Syed Anwar Khursheed (Saudi Arabia)**: Commended for excellence in **Medical Services**.

PM Modi's Vision and Message:

A Call for Global Peace:

- PM Modi urged the world to move from **"Yuddha" (war)** to **"Buddha" (peace)**, emphasizing India's ethos of peace and humanity.
- He cited **Ashoka's transformation** in Dhauli, Odisha, as a testament to India's commitment to non-violence.

India's Expanding Global Role:

- India's leadership in representing the **Global South** and advocating for initiatives like granting the **African Union a permanent G20 membership**.
- Reinforced the principle of **"humanity first"** in international relations.

Recognizing Historical Contributions:

- Highlighted diaspora journeys like the migration of **Gujaratis to Oman** 250 years ago.
- Proposed a **database on Girmitiyas** (indentured laborers) to document their migration stories and achievements.

Vision 2047:

- PM Modi inspired the diaspora to contribute toward making India a **developed nation** by its **100th year of independence**.
- Urged collaborative efforts to celebrate and protect their cultural and economic legacies.

Conclusion:

The **18th Pravasi Bharatiya Divas** served as a testament to the **Indian diaspora's global influence**, their economic and cultural contributions, and their unwavering connection to India.

With India's ambitious vision of becoming a developed nation by **2047**, the diaspora remains a **pillar of support**, embodying the spirit of **"Viksit Bharat"** and strengthening India's stature on the world stage.



Indonesia Joins BRICS as a Full Member: Expanding the Bloc's Global Influence

Context: Indonesia has officially become the **11th member of BRICS**, effective from **January 2025**. This expansion highlights BRICS' growing influence among **emerging economies** and its efforts to reshape the global economic and political landscape.

Understanding BRICS:

What is BRICS?

BRICS is an **informal intergovernmental grouping** of major emerging economies that collaborates to enhance global influence and foster cooperation.

Current Members:

- **Founding Members:** Brazil, Russia, India, China.
- **New Members:** South Africa joined in **2010**, followed by Iran, UAE, Egypt, Ethiopia, and Saudi Arabia in **2024**.
- **Notable Absence:** Argentina, initially expected to join in 2024, withdrew its membership plans.

Background:

- The **first BRIC Summit** was held in **Russia** in **2009**, emphasizing economic collaboration among emerging powers.
- Over time, the bloc has evolved to address global issues beyond economics, such as **energy security**, **climate change**, and **multilateral reforms**.

Significance of BRICS:

Economic Powerhouse:

- BRICS represents approximately **35% of global GDP** and **46% of the world's population**, making it a key driver of the global economy.
- The bloc encourages **trade and investment** among emerging economies, reducing dependence on Western markets.

Counterbalancing Western Dominance:

- BRICS serves as a **platform for emerging economies** to challenge the **G7** and other Western-led financial systems.
- Promotes a **multipolar global order**, reducing reliance on the **US and Europe** in shaping international policies.

Reducing Dollar Dependence:

- BRICS is actively promoting **local currency usage** in international trade and finance to minimize reliance on the **US dollar**.
- This move enhances the **strength of local currencies**, reduces exposure to dollar-related vulnerabilities, and fosters **economic sovereignty**.

Advocacy for Global Reforms:

- BRICS pushes for greater representation of **developing nations** in global institutions like the **IMF** and the **United Nations**.





- It seeks to ensure a **fairer global order**, addressing the imbalance in decision-making power.

Collaboration on Global Challenges:

- The bloc focuses on **sustainable development, technological advancements, and infrastructure building**.
- Joint efforts address pressing issues like **climate change, energy security, and global health crises**.

Energy and Resource Security:

- Many BRICS nations are key players in the global energy market, either as major producers (e.g., Russia, Saudi Arabia) or consumers (e.g., India, China).
- Strategic partnerships within the bloc aim to ensure **energy security and sustainability**.

Championing Multilateralism:

- BRICS emphasizes **collective problem-solving**, strengthening **multilateral institutions** and discouraging unilateral actions.

Challenges Facing BRICS:

Economic Diversity:

- BRICS members have vastly different economic structures, ranging from **industrial giants** like China and India to **resource-dependent economies** like Brazil and Russia.
- Divergent priorities on issues like **trade policies** and **economic reforms** often complicate decision-making.

Political Differences:

- While BRICS members share a vision of a **multipolar world**, their **political ideologies** and alliances vary widely.
- Border tensions (e.g., **India-China disputes**) and geopolitical alignments (e.g., **Russia's isolation** due to the Ukraine conflict) pose challenges to unity.

Geopolitical Rivalries:

- Rivalries between member states, such as **China and India**, affect the bloc's cohesion.
- Competing external alliances, like **India's ties with the US** and **Russia's pivot to China**, further complicate collective decision-making.

Dependence on Western Markets:

- Despite efforts to create **independent financial systems**, many BRICS economies remain reliant on **Western-dominated trade networks**.
- Transitioning to a non-dollar system requires overcoming these deep-rooted dependencies.

Why Indonesia's Inclusion Matters:

Strengthening Regional Representation:

- Indonesia's membership enhances BRICS' presence in **Southeast Asia**, a region of strategic importance.
- As a growing economy with significant natural resources, Indonesia adds weight to the bloc's economic and energy discussions.

Boosting Global Credibility:



- With Indonesia onboard, BRICS gains a broader **geopolitical footprint**, bolstering its claims as a representative of the **Global South**.
- This addition aligns with BRICS' goal to become a more inclusive and powerful voice for emerging economies.

Looking Ahead:

The inclusion of Indonesia reflects BRICS' expanding influence and its commitment to reshaping the global economic order.

However, to remain effective, the bloc must address **internal challenges**, build **consensus among diverse economies**, and continue driving **reforms in global governance**.

With **11 member nations**, BRICS is poised to become a **major player** in steering the world toward a **more equitable and multipolar future**.

Did You Know?

- BRICS collectively accounts for over **50% of global energy consumption**, making it a critical player in shaping energy policies.
- The bloc's proposed **BRICS Development Bank** (New Development Bank) aims to fund infrastructure projects across member nations, reducing reliance on Western financial institutions.

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

Context: The **Ministry of Education (MoE)** has released its latest **UDISE+ report**, revealing a significant decline in **student enrolment** by over **1 crore** in the academic year **2023-24**, compared to previous years.

What is UDISE+?

The **Unified District Information System for Education Plus (UDISE+)** was introduced by the **Department of School Education & Literacy (DOSEL)** in **2018-19** to modernize the process of collecting, verifying, and analyzing school-level data.

Key Features of UDISE+:

- Facilitates **online data uploading** at the school level, verified by **Block, District, and State authorities**.
- Provides critical insights for **monitoring and evaluating** education quality from **pre-primary to higher secondary levels**.

Major Findings of UDISE+ 2023-24**1. Enrolment Trends:**

- Overall Decline:** Enrolment dropped to **24.8 crore students**, marking a **6% decrease** since **2018-19**.
- Class-Level Analysis:**
 - Primary (Classes 1-5), Upper Primary (Classes 6-8), and Secondary (Classes 9-10)** levels experienced sharp declines.
 - Conversely, **Pre-primary and Higher Secondary (Classes 11-12)** levels witnessed a rise in enrolment.

2. Gender-Wise Decline:

- Enrolment for **boys** dropped by **4.87%**, while for **girls**, the decline was **4.48%** compared to **2018-19**.

3. State-Level Decline:

- States such as **Bihar, Uttar Pradesh, and Maharashtra** reported the largest enrolment drops.

4. Infrastructure Deficiencies:

- Only **57.2%** of schools have **functional computers**.
- Just **53.9%** have **internet access**, and **52.3%** have **ramps** for accessibility, highlighting critical gaps in technology and inclusivity.

Challenges in India's Education System:

- Inequitable Access:** **Urban-rural divide** and disparities among **socioeconomic groups** affect access to quality education.
- Quality Concerns:** Inadequate **teacher training**, **outdated teaching methods**, and poor **infrastructure** compromise education quality.
- High Dropout Rates:** Financial constraints, **early marriages**, and lack of interest are major contributors to **secondary-level dropouts**.



4. **Infrastructure Gaps:** Many schools lack essential facilities like **classrooms, toilets, and electricity**, particularly in rural areas.
5. **Overemphasis on Rote Learning:** The education system prioritizes **memorization** over **critical thinking** and **practical skills**.
6. **Insufficient Funding:** Limited public spending on education restricts resources for **teachers, schools, and reforms**.
7. **Digital Divide:** Limited access to **technology** in rural areas prevents the integration of **digital learning tools**.

Government Initiatives to Address These Challenges:

1. **Right to Education (RTE) Act, 2009:** Ensures **free and compulsory education** for children aged 6–14 years, emphasizing inclusivity and quality.
2. **Mid-Day Meal Scheme:** Provides **nutritious meals** to improve school attendance and reduce dropout rates.
3. **Swachh Vidyalaya Abhiyan:** Focuses on **sanitation facilities**, ensuring clean drinking water and toilets to support girls' education.
4. **Digital India Programme:** Promotes **digital education** by bridging the technology gap.
5. **New Education Policy (NEP) 2020:**
 - Introduced the **5+3+3+4 structure**, aligning education with developmental stages.
 - Shifted focus to **multi-disciplinary learning, critical thinking, and practical skills**.
6. **Financial Support and Scholarships:** Various **scholarship programs**, like **Pre-Matric** and **Post-Matric schemes**, aim to support students from economically weaker sections.

Looking Ahead:

The **UDISE+ 2023-24 report** underscores the urgent need for **targeted interventions** to address enrolment declines, infrastructure gaps, and disparities in access and quality. By strengthening existing **government initiatives**, improving **funding**, and adopting **technology-driven solutions**, India can achieve its vision of an **inclusive, equitable, and high-quality education system**.

Sivagiri Row: Understanding the Controversy

Context: The **92nd Sivagiri Pilgrimage** in Kerala became a platform for Chief Minister **Pinarayi Vijayan** to criticize what he termed as attempts to align **Sree Narayana Guru** with the **Sanatana Dharma ideology**. He argued that such portrayals contradict the **reformist and humanist ideals** of the Guru, who championed social justice and opposed **caste-based oppression**.



The Chief Minister also called for the **abolition of outdated practices**, such as the requirement for men to **remove shirts** before entering temples, describing them as remnants of regressive traditions.

Significance of Sivagiri Madhom:

- **Cultural and Religious Heritage:** Established by **Sree Narayana Guru**, the **Sivagiri Madhom** is a spiritual and cultural hub in Kerala, particularly significant for the **Ezhava community**.
- **Catalyst for Social Reform:** The Guru's consecration of a **Shiva idol** for people of all castes in the late 19th century challenged the entrenched **caste hierarchy** and paved the way for **social transformation**.

Political Context:

- **Ezhava Community's Influence:** Representing around **23% of Kerala's population**, the Ezhava community plays a crucial role in the state's social and political landscape.
- **Neutral Stance:** The Sivagiri Madhom has traditionally maintained **political neutrality**, avoiding affiliation with any party or ideology.
- **BJP's Outreach:** In recent years, the **BJP** has been making concerted efforts to **engage with the Ezhava community**, aiming to expand its foothold in Kerala.

Who Was Sree Narayana Guru?

Sree Narayana Guru (1856–1928) was a revolutionary **social reformer, philosopher, and spiritual leader** who sought to dismantle caste-based inequalities in Kerala.

Key Contributions:

- **Caste Reforms:** The Guru's philosophy, "**One Caste, One Religion, One God for Mankind**," became a rallying cry against **caste discrimination**.
- **Temple Reforms:** In **1888**, he consecrated a **Shiva idol** at **Aruvippuram**, a bold act that directly challenged the **Brahminical monopoly** over religious practices.
- **SNDP Yogam:** He founded the **Sree Narayana Dharma Paripalana (SNDP) Yogam** in **1903**, focusing on the **social and educational upliftment** of oppressed castes.

Philosophical Ideals:

Sree Narayana Guru opposed the **ritualism and superstitions** propagated by temple systems dominated by upper-caste Brahmins. His teachings emphasized **human unity, equality**, and the eradication of **social evils**.

The Current Debate:

1. Appropriation of Sree Narayana Guru:



- Critics argue that attempts to associate the Guru with **Sanatana Dharma** undermine his **reformist legacy** and dilute his efforts to challenge the **caste hierarchy**.
- Proponents of this narrative see it as an effort to integrate the Guru's teachings into a **Hindu nationalist framework**.

2. Temple Practices:

- The **removal of shirts by men** before entering temples has been criticized as an outdated practice inconsistent with modern ideals of **equality** and **progress**.

Why the Outrage?

The controversy stems from the perceived **politicization** of Sree Narayana Guru's legacy. While his teachings focused on **human equality**, some see efforts to align him with Sanatana Dharma as an attempt to **recast his message** within the framework of **Hindu orthodoxy**. The **Kerala government's stance** reflects its commitment to preserving the Guru's **reformist ideals**.

Legacy of Sree Narayana Guru:

The Guru's vision of **social justice**, **universal brotherhood**, and **spiritual equality** continues to resonate across generations. His contributions remain central to **Kerala's renaissance movement**, inspiring efforts to create an **inclusive society free from discrimination**.

By understanding and upholding his true legacy, modern society can continue to work toward the **eradication of inequality**, as envisioned by Sree Narayana Guru.

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**Karnataka High Court Ruling: Transgender People Can Change Name and Gender on Birth Certificates**

Context: In a significant move towards advancing **transgender rights**, the **Karnataka High Court** has upheld the right of a transgender woman to update her **name and gender** on her **birth certificate**. This ruling aligns with the provisions of the **Transgender Persons (Protection of Rights) Act, 2019**, and reinforces the importance of enabling transgender individuals to live with **dignity and equality**.

**Why This Ruling Matters?**

This decision comes five years after the enactment of the **Transgender Persons (Protection of Rights) Act, 2019**, addressing long-standing hurdles faced by transgender individuals in revising official documents. The ruling emphasizes the need to eliminate inconsistencies in legal documentation, which often lead to **discrimination and harassment**.

Understanding the Transgender Persons (Protection of Rights) Act, 2019:**Key Provisions:**

- **Certificate of Identity:** Transgender individuals can obtain a **Certificate of Identity** under **Section 6** of the Act, which serves as proof of their self-identified gender.
- **Post-Surgery Updates:** After undergoing **sex-reassignment surgery**, individuals can revise their certificate under **Section 7**.
- **Document Updates:** The Act explicitly permits updating **name and gender** on official records, including **birth certificates**, based on the certificate of identity.

2020 Rules:

The **Transgender Persons (Protection of Rights) Rules, 2020** outline the application process for identity certificates and mandate updates to official documents, with **birth certificates** listed as a priority.

Background of the Case**Ms. X vs. State of Karnataka (2024):**

The petitioner, diagnosed with **gender dysphoria**, underwent **sex-reassignment surgery** and updated her **Aadhaar card, passport, and driving license** to reflect her gender identity. However, her request to revise her **birth certificate** was denied by the **Registrar of Births and Deaths**, citing limitations in the **Registration of Births and Deaths Act, 1969**.

Registrar's Rejection:

The Registrar argued that changes to birth certificates were permissible only if the original entries were **"erroneous" or "fraudulent,"** as per **Section 15 of the 1969 Act**.

Petitioner's Stand:

The petitioner challenged this interpretation, arguing that it violated her **fundamental right to life and dignity** under **Article 21 of the Constitution**. She highlighted that inconsistent documents create a **"dual life"** and expose transgender individuals to **systemic bias and discrimination**.

Karnataka High Court's Decision:



Conflict Between Laws:

The court observed a conflict between the **1969 Act** and the **2019 Act**, where the former imposed restrictions not aligned with the latter's objective of empowering transgender individuals.

Legal Doctrine Applied:

Using the principle of **generalia specialibus non derogant** ("special laws override general laws"), the High Court ruled that the **2019 Act** prevails over the **1969 Act** in matters concerning transgender rights.

Court's Directive:

The Karnataka High Court directed the **Registrar of Births and Deaths** to update birth certificates to reflect the petitioner's **new name and gender identity**, ensuring compliance with the **2019 Act**.

How to Apply for a Certificate of Identity?

Standard Application Process:

1. **Submission to District Magistrate (DM):** Individuals must submit an affidavit declaring their gender identity to the DM.
2. **Processing and Verification:** The DM verifies the application and issues an **identification number**.
3. **Issuance of Certificate:** The DM provides the certificate of identity and a transgender identity card within **30 days** or gives reasons for rejection.

For Post-Surgery Applicants:

- Transgender individuals must obtain a **medical certificate** from the **Chief Medical Officer** after surgery.
- Using this certificate, they can apply for a **revised certificate of identity**, which the DM must issue within **15 days**.

Pre-Act Changes:

Those who changed their gender prior to the Act's implementation are exempt from applying for a certificate of identity under the Act.

Obligation to Update Official Documents:

Government authorities must update **name, gender**, and other relevant information on official documents such as **Aadhaar, driving licenses**, and **birth certificates** within **15 days** of receiving an application accompanied by a valid certificate of identity.

Significance of the Ruling:

This decision sets a powerful precedent, ensuring that **transgender individuals' rights** are protected and upheld. By enabling seamless updates to identity documents, the ruling promotes **equality**, reduces **discrimination**, and strengthens the legal recognition of **transgender identities**.

It also underscores the urgent need for legislative amendments to the **1969 Act**, ensuring it aligns with modern laws and social realities.

Centralized Pension Payment System: Revolutionizing Pension Disbursement

Context: The Employees' Provident Fund Organisation (EPFO) has fully implemented the Centralized Pension Payments System (CPPS) under the Employees' Pension Scheme, 1995, bringing transformative changes for over 7.85 million pensioners across India. This initiative enhances the **ease of living** and ensures seamless pension disbursement nationwide.



What is the Centralized Pension Payment System (CPPS)?

Key Features of CPPS:

1. **Nationwide Access to Pension:** Pensioners can now withdraw their pension from **any bank or branch** across India, removing regional restrictions.
2. **Streamlined Payments:** The system eliminates the need for **physical verifications** and ensures that pension amounts are credited immediately upon release.
3. **Mobility without Hassle:** Pensioners moving to a new location or switching banks/branches no longer need to transfer their **Pension Payment Order (PPO)**.
4. **Centralized Approach:** Unlike the earlier decentralized system, where zonal or regional offices of EPFO had separate agreements with limited banks, CPPS centralizes the payment process for **uniform disbursement**.

Benefits of CPPS:

- **Efficient Disbursement:** Reduces delays in crediting pensions.
- **Ease for Pensioners:** Removes the need for visiting banks for **verification** or processing.
- **National Coverage:** Ensures pension availability nationwide, enabling pensioners to relocate freely without administrative hurdles.

About the Employees' Provident Fund Organisation (EPFO):

Overview:

The EPFO is a **statutory body** established under the **Employees' Provident Funds and Miscellaneous Provisions Act, 1952**. It operates under the **Union Ministry of Labour and Employment**, ensuring financial security for millions of workers through various schemes.

Key Functions:

- **Administering Schemes:** The EPFO oversees three flagship schemes:
 1. **Employees' Provident Fund Scheme, 1952 (EPF)**
 2. **Employees' Pension Scheme, 1995 (EPS)**
 3. **Employees' Deposit Linked Insurance Scheme, 1976 (EDLI)**
- **Social Security Agreements:** Acts as the nodal agency for implementing **Bilateral Social Security Agreements** with other nations, enabling Indian and international workers to benefit reciprocally.

Structure of the EPFO:

Central Board of Trustees:



The EPFO is governed by a **tripartite board** that includes representatives from the **Central and State Governments, employers, and employees**.

- The board is chaired by the **Union Minister of Labour and Employment**.
- It plays a pivotal role in administering the EPF, EPS, and EDLI schemes.

Significance of CPPS: A Game-Changer:

The introduction of CPPS addresses several long-standing challenges:

1. **Enhanced Pensioner Convenience:** Eliminates the inconvenience of visiting multiple offices or banks.
2. **Uniform Service Delivery:** Ensures consistent pension disbursement across India, irrespective of the pensioner's location.
3. **Digital Transformation:** Leverages technology to create a **hassle-free and transparent system**, reducing dependency on manual interventions.

Did You Know?

- The EPFO covers both **Indian workers** and **international workers** from countries with **bilateral social security agreements**.
- The **Employees' Pension Scheme, 1995**, under which CPPS is implemented, provides a lifelong pension to employees who have contributed for at least **10 years** to the scheme.

Conclusion:

The **Centralized Pension Payment System (CPPS)** represents a monumental step in simplifying pension disbursement for millions of retirees. By integrating a centralized and technology-driven approach, the EPFO ensures that pensioners can enjoy their retirement with **dignity and ease**.

Project VISTAAR: Revolutionizing Agricultural Support through Digital Integration

Context: The Indian Institute of Technology (IIT) Madras, in collaboration with the Ministry of Agriculture and Farmers' Welfare, has launched an ambitious initiative, **Project VISTAAR (Virtually Integrated System to Access Agricultural Resources)**. This transformative digital platform aims to enhance the agricultural sector by connecting farmers with innovative solutions and services.



What is Project VISTAAR?

A Digital Solution for Agriculture:

Project VISTAAR is a **comprehensive digital platform** that integrates a vast database of **over 12,000 agricultural start-ups**. These start-ups specialize in offering cutting-edge technologies and solutions in farming and allied sectors.

Key Objectives:

- **Digital Transformation of Agricultural Extension:** Streamline and modernize the agricultural advisory system.
- **Ease of Access:** Enable farmers and stakeholders to discover and utilize the capabilities of relevant start-ups.
- **Resource Hub:** Act as a **one-stop solution** for accessing technological, financial, and advisory resources in the agricultural domain.

Why is Project VISTAAR Important?

Expanded Outreach:

The digital platform enhances the agricultural extension system's **reach and efficiency**, ensuring that high-quality advisory services are accessible to **every farmer**.

Comprehensive Advisory Services:

Farmers can access tailored guidance on:

- Crop Production Techniques
- Marketing Strategies
- Value Addition and Processing
- Supply Chain Optimization

Government Schemes at a Click:

Project VISTAAR integrates detailed information on **government initiatives and schemes** related to agriculture, allied sectors, and rural development. This ensures that farmers can easily identify and benefit from available resources and support.

Timely and Accurate Information:

By providing **real-time, context-specific, and reliable information**, the platform significantly boosts the decision-making process for farmers, helping them adapt to challenges and seize opportunities.

Additional Features and Benefits:



Empowering Start-ups:

The initiative also serves as a **growth enabler for agricultural start-ups**, offering them visibility and connecting them with potential users and collaborators.

Building Sustainable Practices:

By promoting innovative solutions, Project VISTAAR encourages sustainable farming practices, including the adoption of eco-friendly technologies and resource-efficient methods.

Enhancing Rural Livelihoods:

The platform supports farmers in improving their **productivity and profitability**, contributing to rural development and economic growth.

How Does Project VISTAAR Work?

1. **Database of Start-ups:** Maintains detailed profiles of start-ups in the agriculture and allied sectors.
2. **User-Friendly Interface:** Farmers can search for solutions based on their specific needs.
3. **Integration with Extension Services:** Collaborates with local agricultural bodies to provide seamless access to advisory services.
4. **Multi-Channel Accessibility:** Available on multiple platforms, including mobile apps and web portals, ensuring **widespread accessibility**.

Did You Know?

- **Agriculture Start-ups in India:** India is home to a rapidly growing agricultural start-up ecosystem, offering solutions in precision farming, AI-based crop monitoring, and blockchain-enabled supply chains.
- **Global Relevance:** Similar digital platforms have been implemented in countries like Israel and the Netherlands, known for their agricultural innovations.

Conclusion:

Project VISTAAR is a **game-changer for Indian agriculture**, bridging the gap between farmers and innovative solutions while promoting sustainable and profitable farming practices. By leveraging technology and fostering collaboration, the initiative is poised to revolutionize the agricultural sector, empowering farmers and contributing to the nation's food security and economic growth.

Injectable Hydrogel: A Revolutionary Approach to Targeted Cancer Treatment

Context: Researchers from **IIT-Guwahati** and the **Bose Institute, Kolkata** have introduced a groundbreaking **injectable hydrogel** that promises to revolutionize localized cancer treatment. This innovative development holds the potential to offer highly targeted therapy with **minimal side effects** for cancer patients.



What is Injectable Hydrogel?

This **advanced polymer-based material** is designed to act as a stable **reservoir** for **anti-cancer drugs**, gradually releasing them in a **controlled and targeted** manner.

Key Features of the Hydrogel:

- **Controlled Drug Release:** It delivers drugs directly to **cancerous cells**, ensuring that healthy tissue is **spared** from harmful side effects.
- **Targeted Action:** The hydrogel responds to **elevated glutathione (GSH)** levels, a molecule found abundantly in **tumor cells**, ensuring drugs are released **only where needed**.
- **Localized and Efficient:** Made from ultra-short **peptides** that remain **insoluble in biological fluids**, this ensures its action stays **localized** within the tumor site.
- **Water-Based Composition:** Mimicking the **properties of living tissues**, the hydrogel is **biocompatible**, making it an ideal candidate for biomedical applications.
- **Breast Cancer Focus:** While the current research focuses on **breast cancer**, the hydrogel's **versatility** could expand its use to treat other forms of cancer in the future.

What Makes Hydrogel Special?

Hydrogel is a **versatile, polymer-based material** that forms a **three-dimensional network**, offering numerous medical benefits.

Key Characteristics:

- **Water Absorption:** The material is **hydrophilic**, meaning it attracts water and retains large amounts of fluids, ideal for biological environments.
- **Soft and Flexible:** It mimics the **mechanical properties** of living tissues, making it compatible for use in human bodies.
- **Customizable Properties:** Hydrogel can be engineered to either **remain stable** or **degrade over time**, depending on the medical need.
- **Biocompatible and Non-Toxic:** This makes it suitable for **drug delivery systems**, **tissue engineering**, **wound healing**, and **implants**.

Hydrogels are used in a variety of applications beyond cancer treatment, including:

- Wound Dressings
- Diapers (Superabsorbent Polymers)
- Agriculture (Soil Hydration)
- Cosmetics (Moisturizers and Gel-Based Products)

Why is Injectable Hydrogel a Game-Changer in Cancer Treatment?

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To the Point

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The **injectable hydrogel** is not just a technological breakthrough in drug delivery; it represents a **major leap forward** in the **personalized treatment** of cancer. By focusing on the **specific needs** of tumor cells, it offers a **safer** and **more effective alternative** to traditional treatments that often damage healthy tissues. This innovation provides the **promise of improved outcomes** with fewer side effects for patients undergoing cancer therapy.

As this research progresses, the **injectable hydrogel** could be extended to treat **various cancer types**, making it a **pivotal** development in **biomedical science** and **oncology**.



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Chhattisgarh: Pioneering Green GDP by Linking Forest Ecosystems

Context: Chhattisgarh has set a national precedent by becoming the **first state in India** to incorporate **forest ecosystem services** into its **Green Gross Domestic Product (Green GDP)**. This innovative move underscores the state's commitment to sustainable development and the preservation of its rich natural heritage.



What is Green GDP?

Green GDP is an **economic metric** that integrates **environmental considerations** into traditional economic calculations. It evaluates a nation's economic performance by accounting for the **environmental costs** of economic activities and the **benefits derived from ecosystems**.

Key Features of Green GDP:

- **Deducts environmental costs** such as resource depletion and pollution from traditional GDP.
- **Includes the value** of ecosystem services like clean air, water purification, and biodiversity preservation.

Highlights of Chhattisgarh's Initiative:

1. Valuing Ecosystem Services:

- Forests offer a wide range of **non-tangible benefits**, including **CO₂ absorption**, **oxygen production**, **water conservation**, and **biodiversity support**.
- These services will now be quantified and integrated into the state's **Green GDP framework**.

2. Economic and Cultural Integration:

- Recognizing forests' contributions beyond timber, such as their **cultural and spiritual significance**, particularly for tribal communities.
- Promoting **eco-tourism** through jungle safaris, camping, and national park visits to boost **employment opportunities**.

3. Scientific Assessment:

- Employing **scientists** to measure and value ecosystem services for accurate representation in economic metrics.

Benefits of Green GDP:

1. Acknowledging Non-Tangible Benefits:

- Highlights forests' roles in **climate regulation**, **soil enrichment**, and **biodiversity preservation**, which traditional GDP often overlooks.

2. Balancing Growth and Sustainability:

- Emphasizes the **trade-offs between economic development and environmental conservation**, encouraging sustainable resource management.

3. Policy Formulation:

- Aids in identifying **high-impact sectors** for targeted interventions, fostering policies that promote **environmental sustainability**.

4. Global Alignment:



- Strengthens India's commitment to **global climate goals** like the **Paris Agreement** by integrating **ecosystem valuation** into economic strategies.

Challenges in Implementing Green GDP:

1. Valuation Complexity:

- Assigning monetary value to **non-market environmental benefits** like biodiversity remains a significant challenge.

2. Data Gaps:

- A lack of reliable data on **environmental degradation** and natural resource usage hinders accurate calculations.

3. Framework Adjustments:

- Transitioning to Green GDP demands **substantial changes** in accounting methods and policymaking processes.

Extra Insights: Green GDP Globally

Several countries have started incorporating **environmental considerations** into their economic metrics:

- **China:** Pioneered a pilot Green GDP project to track environmental degradation.
- **Norway:** Uses a **natural capital accounting system** to measure ecosystem contributions.
- **UN's SEEA Framework:** The **System of Environmental-Economic Accounting (SEEA)** serves as a global standard for integrating environmental data with economic statistics.

Chhattisgarh's bold initiative is a crucial step toward **sustainable economic development**, aligning the state's growth with the principles of **environmental stewardship** and **climate resilience**. By embedding forests' true value into its Green GDP, the state paves the way for a greener and more inclusive future.

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India Strengthens Support for Maldives Amid Economic Challenges

Context: In a move to deepen bilateral ties, the **Foreign Minister of the Maldives** is on a **three-day visit to India**, focusing on key areas like **trade, investment, and strategic cooperation**.



Why is the Maldives Important to India?

1. Strategic Location in the Indian Ocean:

- The Maldives lies along critical **maritime trade routes**, serving as a vital link between the **Gulf of Aden** and the **Strait of Malacca**.
- It acts as a “**toll gate**” for nearly **50% of India’s external trade** and **80% of its energy imports**.

2. Counterbalancing China's Influence:

- The Maldives plays a pivotal role in India’s efforts to **counter China's expanding footprint** in the Indian Ocean region, ensuring a **regional balance of power**.

3. Tourism and Trade Nexus:

- The Maldives is a key destination for Indian tourists and a significant trade partner. India has consistently ranked as the **largest source market** for Maldivian tourism.

Key Dimensions of India-Maldives Partnership:**1. Economic Cooperation:****• India: Maldives' Largest Trade Partner**

- In 2023, India emerged as the Maldives’ **top trade partner** and one of its largest investors.
- Indian businesses are involved in major **infrastructure projects** that are crucial for the Maldivian economy.

2. Defense and Security Ties:

- **Historical Cooperation:** India has been a major defense ally of the Maldives since **1988**, assisting in training and capacity-building for the Maldivian armed forces.
- **Action Plan for Defense:** Signed in 2016, this agreement has bolstered collaboration in areas like **maritime surveillance, anti-terrorism efforts**, and intelligence sharing.
- Almost **70% of Maldives' defense training** is conducted by India.

3. Connectivity Projects:**• Greater Male Connectivity Project (GMCP)**

- A **\$530 million project** funded by India, connecting Male with Villingili, Gulhifalhu, and Thilafushi through bridges, causeways, and roads.
- Key for the development of the proposed **Gulhifalhu Port**, boosting trade and economic activity.

Challenges in India-Maldives Relations:



1. Political Instability:

- Frequent **political upheavals** and changes in leadership in the Maldives often disrupt long-term projects and agreements.

2. Chinese Economic Influence:

- **China's investments in Maldivian infrastructure** have raised concerns about **debt-trap diplomacy**, challenging India's influence.

3. Non-Traditional Security Threats:

- Issues like **piracy, terrorism, and drug trafficking** require continuous vigilance and cooperation between the two nations.

4. Trade Imbalance:

- The trade relationship favors India, leading to calls for **diversifying trade** to reduce resentment.

The Way Forward:

India and the Maldives must work together to address these challenges while leveraging their **shared interests and cultural ties**. Key steps include:

1. **Strengthening People-to-People Ties:** Promoting tourism, cultural exchanges, and academic collaborations.
2. **Diversifying Economic Partnerships:** Encouraging investments in **sustainable energy, digital infrastructure, and blue economy** sectors.
3. **Enhancing Maritime Security:** Joint efforts to safeguard trade routes and counter security threats in the Indian Ocean.

Did You Know?

- India was the **first responder** to the Maldives during the 1988 coup attempt and the **COVID-19 pandemic**, highlighting its unwavering commitment.
- The Maldives actively participates in **India's SAGAR (Security and Growth for All in the Region)** initiative to ensure peace and stability in the Indian Ocean.

By recognizing the **Maldives' strategic importance**, India continues to walk the extra mile to nurture a **strong and mutually beneficial relationship**, ensuring regional stability and prosperity.

**Supreme Court Affirms: Property Cannot Be Taken Without Adequate Compensation**

Context: The Supreme Court of India has reaffirmed the **Right to Property** as a **constitutional right** and a **human right**, emphasizing its significance in a welfare state.

**Historical Evolution of the Right to Property:****1. From Fundamental Right to Constitutional Right:**

- Initially, the **Right to Property** was a **Fundamental Right** under **Article 19(1)(f)**, granting citizens the ability to **acquire, hold, and dispose of property**.
- Article 31** required the state to compensate individuals for any property acquired.

2. Impact of Land Reforms:

- Land redistribution policies created tension, leading to repeated **amendments** that diluted property protections.
- Ultimately, the **44th Constitution Amendment Act of 1978** removed the Right to Property from the Fundamental Rights list.

3. Introduction of Article 300A:

- The right was reclassified as a **constitutional right** under **Article 300A**, which states: *"No person shall be deprived of his property save by authority of law."*
- This change ensures that property can only be acquired through a **valid legal process**.

Key Takeaways from the Supreme Court's Judgment:**1. Property Protection Under Article 300A:**

- No individual** can be deprived of their property without **due legal process**.
- Adequate compensation** must be provided in accordance with the law when the state acquires property.

2. Case Background: Bengaluru-Mysuru Infrastructure Corridor Project (BMICP):

- Landowners affected by the project were deprived of their property since **2005**, with **compensation delays** caused by the state's **"lethargic attitude"**.
- The court noted that this violated their rights under **Article 300A**.

3. Fair Valuation of Land:

- The court directed compensation to be based on the **market value** of the land as of **April 2019**, rather than the original acquisition year (**2003**).
- This adjustment was crucial to **uphold justice**, considering inflation and the time value of money.

4. Timeliness in Compensation:

- The judgment stressed the importance of **prompt compensation** in land acquisition cases.
- Delays in payment** reduce compensation's real value, undermining fairness and economic justice.

Broader Implications of the Ruling:

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1. Accountability of State Authorities:

- Reinforces the need for government agencies to respect **constitutional principles** and ensure **timely compensation**.

2. Precedent for Fair Compensation:

- Establishes a benchmark for determining **just compensation**, factoring in inflation and bureaucratic delays.

3. Strengthened Property Rights:

- Highlights the Supreme Court's role in safeguarding the **Right to Property**, even as a constitutional right, and recognizing it as integral to **human rights**.

Did You Know?

- The **Right to Property** is recognized as a **human right** under various international frameworks, such as the **Universal Declaration of Human Rights (UDHR)**.
- Article 142** of the Indian Constitution empowers the Supreme Court to deliver complete justice, allowing for compensation adjustments in this case.

Looking Ahead: Ensuring Justice in Land Acquisition

The ruling underscores the importance of:

- Transparent and efficient acquisition processes** to prevent undue delays.
- Periodic review of compensation standards** to reflect economic realities.
- Empowering landowners through **legal awareness** and ensuring accountability in governance.

This judgment not only strengthens **property rights** but also sets a transformative precedent for fair treatment in land acquisition cases, balancing individual rights with state development needs.

**DPIIT Deregisters Patent Agent for Alleged Professional Misconduct**

Context: The Department for Promotion of Industry and Internal Trade (DPIIT) has taken a decisive step by removing a patent agent from the **Register of Patent Agents** following allegations of misconduct. This case highlights the importance of ethical practices and accountability in the field of **Intellectual Property Rights (IPR)**.

**Why is this News?**

The patent agent, **Naveen Chaklan**, was found guilty of **professional negligence** by a **five-member ad-hoc committee** set up under the directive of the **Delhi High Court**. This rare move sets a precedent for stricter regulation of **IP professionals**.

Understanding Patents and Intellectual Property (IP) Rights

What is a Patent?

A **patent** is an **intellectual property right** granting the inventor **exclusive rights** to their invention for a specified period, preventing others from using or selling it without permission.

Types of Patents:

1. **Product Patent:** Protects the final product, ensuring exclusive rights to its production and sale.
2. **Process Patent:** Allows competitors to manufacture a similar product using a different process.

Historical Perspective:

- In the **1970s**, India emphasized **process patents**, enabling it to become a leader in producing **generic medicines**.
- Following the **TRIPS Agreement**, India introduced **product patenting** to align with global standards.

The Patents Act, 1970:**Key Features:**

- Enacted in **1972**, replacing the **Indian Patents and Designs Act, 1911**.
- Based on recommendations from the **Ayyangar Committee Report**.

India's International Patent Commitments:

1. **Paris Convention (1998):** Ensures international protection of patents, trademarks, and industrial designs.
2. **Patent Cooperation Treaty (1998):** Simplifies patent filing in multiple countries.
3. **Budapest Treaty (2001):** Facilitates deposition of microorganisms for patent purposes.

Recent Amendments:

- The **Patents (Amendment) Rules, 2021** introduced key changes, such as:
 - Recognizing **educational institutions** as a distinct applicant category.
 - Offering an **80% rebate** on patent filing fees for educational institutions.

India's National Intellectual Property Rights (IPR) Policy, 2016:**Theme:**

"Creative India; Innovative India"

Objectives:

1. **Awareness and Promotion:** Educate the public about the benefits of **IPRs**.

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2. **Innovation:** Encourage the creation of **new intellectual properties**.
3. **Legal Modernization:** Update IPR laws to balance **creator rights** with **public interest**.
4. **Human Capital Development:** Enhance skills in **IPR teaching and research**.
5. **Efficient Administration:** Streamline IPR processes for faster service.
6. **Commercialization:** Boost economic value through **IPR monetization**.
7. **Enforcement:** Strengthen mechanisms to combat IPR violations.

News Summary: A Landmark Case

Case Background:

- Patent agent **Naveen Chaklan** charged Rs **51,000** in 2019 for filing and expediting a **patent application** for a sewing machine.
- The application was abandoned due to **failure to address the First Examination Report (FER)**, causing **financial and emotional distress** to the client, **Saurav Chaudhary**.
- In 2023, Chaudhary filed a writ petition seeking restoration of the patent application, prompting an investigation.

Findings:

- Over **60% of Chaklan's 100+ applications** were abandoned or withdrawn, pointing to **serious negligence**.
- The committee held him accountable for breaching his **fiduciary duty** and causing harm to clients.
- Chaklan defended himself, citing lack of resources as a solo practitioner, but the committee deemed his actions unacceptable.

Actions Taken:

1. **Deregistration:** Chaklan was removed from the **Register of Patent Agents**.
2. **Code of Conduct:** The **Controller General of Patents, Designs and Trade Marks (CGPDTM)** was directed to draft a comprehensive **Code of Conduct** for patent and trademark agents.
3. **Complaint Framework:** A formal structure for addressing grievances against IP agents must be established.

Broader Implications of the Case:

1. **Strengthened Accountability:**
 - Sets a benchmark for **ethical conduct** in the IP profession.
 - Encourages **due diligence** and timely communication by patent agents.
2. **Code of Conduct:** A formalized code will ensure **better professional standards** and accountability.
3. **Client Protection:** Reinforces the importance of protecting **inventors' rights** against malpractice.
4. **Increased Awareness:** Highlights the need for inventors to stay informed about the **patent process** and their legal rights.

Did You Know?

- India ranked **42nd** in the **Global Innovation Index 2023**, showcasing its growing focus on innovation.
- The **TRIPS Agreement** mandates all WTO members to adopt uniform IP laws, ensuring fair competition and global trade benefits.

This case serves as a **wake-up call for patent agents**, urging them to adhere to the highest ethical standards while handling clients' intellectual property. It also underscores the government's commitment to fostering a robust and transparent **IP ecosystem** in India.

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Blinkit's 10-Minute Ambulance Service: Opportunities and Challenges

Context: The launch of Blinkit's **10-minute ambulance service** has created a buzz, offering a glimpse into how private players can revolutionize **healthcare accessibility**. However, this initiative also highlights existing gaps in India's healthcare system and the need for regulatory oversight.

Why is This Newsworthy?

Following Blinkit's announcement, **Union Commerce Minister Piyush Goyal** emphasized the importance of adhering to India's **legal framework**. The move has sparked debates about its feasibility, compliance with healthcare regulations, and the government's role in providing **essential services**.



Government's Perspective and Legal Framework:

Key Concerns:

- **Regulatory Compliance:** Blinkit must follow the **Central Motor Vehicle Rules** and **Automotive Industry Standard (AIS) 125**, ensuring ambulances meet safety and operational standards.
- **State-Level Agreements:** For ambulances under the **National Health Mission (NHM)**, compliance varies based on agreements with state governments.
- **Gaps in Oversight:** Experts have pointed out **regulatory inconsistencies**, underscoring the urgent need to address ambulance shortages in India.

Blinkit's Ambulance Service: A Closer Look

Service Details:

- **Pilot Launch:** Initially, five ambulances will operate in **Gurugram**, with plans for nationwide expansion in two years.
- **Features:** Each ambulance is equipped with **oxygen cylinders**, **AEDs**, monitors, emergency medicines, and staffed by a **paramedic**, an assistant, and a trained driver.
- **Cost:** The service charges a flat fee of ₹2,000, making it accessible for urban households.
- **Non-Profit Focus:** According to Blinkit CEO **Albinder Dhindsa**, the initiative is aimed at **bridging critical healthcare gaps**, not generating revenue.

India's Urgent Need for Ambulance Services:

Lessons from the Pandemic:

The **COVID-19 pandemic** exposed the inadequacy of ambulance services, especially during peak emergencies, highlighting a systemic failure.

Current Scenario:

- **Limited Fleet:** India operates **17,495 Basic Life Support (BLS)** ambulances and just **3,441 Advanced Life Support (ALS)** ambulances.
- **Regional Disparities:** Northeastern states and rural areas face a severe shortage of ambulances.
- **Golden Hour Importance:** **ALS ambulances**, essential for trauma and critical care, are sparse, particularly in emergencies.

Government's Role and Market Trends:



National Ambulance Services (NAS):

- The Ministry of Health supports **one ALS ambulance per 5 lakh people** and **one BLS ambulance per 1 lakh people**.
- States can request additional ambulances to meet regional demands, though gaps persist.

Market Insights:

- **Growth Potential:** The Indian ambulance market, valued at **\$1,502.8 million in 2022**, is projected to grow at a **5.12% CAGR** between 2024 and 2028.
- **Declining Registrations:** Ambulance registrations peaked in 2021 but have since fallen, reflecting reduced emphasis on healthcare infrastructure post-pandemic.

Opportunities and Challenges:

Opportunities:

- **Improved Access:** Blinkit's service can reduce response times, especially in urban areas with dense traffic.
- **Public-Private Partnerships:** Collaboration between private players and the government can enhance healthcare infrastructure.
- **Innovation in Healthcare:** Such initiatives push boundaries, encouraging innovation in **emergency medical services (EMS)**.

Challenges:

- **Regulatory Hurdles:** Ensuring compliance with laws and safety standards is critical.
- **Sustainability:** Maintaining a non-profit model while scaling up services may be financially challenging.
- **Regional Disparities:** Expanding services to underserved rural and remote areas remains a significant challenge.

Conclusion: A Step Towards a Healthier Future:

Blinkit's **10-minute ambulance service** marks a bold step toward bridging healthcare gaps in India. While it offers hope for quicker emergency responses, its success hinges on **regulatory compliance**, **scaling infrastructure**, and **addressing regional inequalities**.

Way Forward:

- **Government Collaboration:** Policymakers must work alongside private players to establish a robust **emergency response framework**.
- **Focus on ALS Ambulances:** Increasing the number of well-equipped **Advanced Life Support ambulances** should be prioritized.
- **Enhanced Monitoring:** Implementing strict monitoring mechanisms will ensure the quality and reliability of services.

As private initiatives like Blinkit pave the way, it's imperative for the government to **strengthen its healthcare systems**, ensuring a future where **quality healthcare** is accessible to all.

Rajagopala Chidambaram: Architect of India's Nuclear Triumphs

Context: Dr. Rajagopala Chidambaram, a towering figure in India's nuclear program and a celebrated scientist, passed away on **January 4, 2025**, at Jaslok Hospital, Mumbai. His life and legacy are a testament to India's journey toward scientific self-reliance and nuclear independence.



Why is this Newsworthy?

Dr. Chidambaram played a pivotal role in **shaping India's nuclear program**, serving as a cornerstone of the nation's **strategic capabilities**. His contributions extended beyond nuclear advancements, leaving a lasting impact on science, technology, and rural development.

A Glorious Legacy in Nuclear Science:

Smiling Buddha: India's First Nuclear Test (1974):

- Conducted on **May 18, 1974**, at **Pokhran, Rajasthan**, under Dr. Chidambaram's scientific leadership.
- The test, with a yield of **12–13 kilotons**, marked India's entry as the **sixth nation** to conduct a nuclear test.
- Plutonium Source:** Extracted from the **CIRUS reactor** provided by Canada.
- The test led to the establishment of the **Nuclear Suppliers Group (NSG)** to prevent nuclear proliferation.
- Known as a "**peaceful nuclear explosion**," Smiling Buddha showcased India's scientific prowess despite global diplomatic fallout.

Operation Shakti: India's Second Nuclear Tests (1998):

- Conducted on **May 11, 1998**, at Pokhran, Rajasthan, showcasing India's **military nuclear capabilities**.
- Involved **five nuclear devices**:
 - Shakti-I (Thermonuclear Device):** Yield of 45 kilotons.
 - Four Fission Devices:** With varying yields, demonstrating technological versatility.
- Global Reaction:** Triggered sanctions from countries like the US and Japan but cemented India's status as a **nuclear weapons state**.
- The tests prompted Pakistan to conduct its own nuclear tests, further reshaping South Asia's security landscape.

Key Roles and Recognitions:

- Chairman, Atomic Energy Commission:** Played a leading role in advancing India's **nuclear weapons** and energy programs.
- Principal Scientific Adviser (PSA):** Served as India's longest-serving PSA (2002–2018), offering visionary guidance to the government.
- Awards and Honors:**
 - Padma Shri (1975):** For early contributions to the scientific community.
 - Padma Vibhushan (1999):** For elevating India's nuclear and scientific capabilities.



Contributions Beyond Nuclear Science:

Condensed Matter Physics:

- Made groundbreaking contributions in **condensed matter physics**, a foundation for nuclear technology and advanced materials.

Rural Technology Action Group (RuTAG):

- Initiated efforts to **empower rural communities** by introducing innovative, scalable technologies for grassroots development.

Society for Electronic Transactions and Security (SETS):

- Focused on **cybersecurity** and strengthening India's **indigenous technology infrastructure**.

Impact of Nuclear Tests on India's Global Standing

Smiling Buddha (1974):

- Highlighted India's ability to conduct **independent nuclear research** outside the framework of the **Nuclear Non-Proliferation Treaty (NPT)**.
- Strengthened India's resolve to pursue **nuclear self-reliance**, despite global criticism and sanctions.

Operation Shakti (1998):

- Marked a significant shift in India's **strategic defense policy**, affirming its position as a **nuclear weapons state**.
- Sparked international debates on nuclear proliferation while solidifying India's defense capabilities.

Conclusion: A Legacy That Transcends Generations

Dr. Rajagopala Chidambaram's life work was not just about **scientific breakthroughs** but also about ensuring India's **self-reliance in nuclear technology** and contributing to **national security**. His leadership during critical junctures, from **Smiling Buddha to Operation Shakti**, has left an indelible mark on India's journey as a global scientific and nuclear power.

Did You Know?

- Dr. Chidambaram's work in condensed matter physics contributed significantly to the **design of India's nuclear devices**.
- Under his tenure, India became a global advocate for **responsible nuclear technology use** and **non-proliferation**, balancing power with principles.



Tamil Nadu Announces \$1 Million Prize to Decode Indus Valley Script

Context: The **Tamil Nadu Chief Minister** has unveiled a **\$1 million reward** for experts and organizations that successfully **decipher the ancient script** of the **Indus Valley Civilization (IVC)**. This announcement reflects the state's commitment to exploring and preserving India's rich historical and cultural heritage.



Understanding the Indus Valley Script:

Key Characteristics:

- **Ancient Origins:** Among the oldest and most enigmatic writing systems, dating back to the Indus Valley Civilization.
- **Pictographic Symbols:** The script includes over **400 unique signs**, featuring pictorial representations of humans, animals, plants, and geometric patterns.
- **Media of Writing:** Found on seals, pottery, tools, and tablets, the inscriptions are often short, typically **5–6 characters** long.
- **Logo-Syllabic Nature:** The script likely combines **logograms** (symbols for words or ideas) with **syllables**, making it complex.
- **Direction of Writing:** Most inscriptions are written **right to left**, with some evidence suggesting **boustrophedon style** (alternating direction).
- **Challenges in Decipherment:** The lack of a **bilingual text** like the Rosetta Stone and the unknown language behind the script, possibly **Dravidian or proto-Dravidian**, have hindered efforts to decode it.

Why Decipher the Indus Script?

Unlocking Ancient History:

Decoding the script could reveal crucial details about the **social structure**, **economy**, and **daily life** of one of the world's first urban civilizations.

Religious Insights:

Understanding the script may shed light on early **religious practices** and beliefs.

- **The Pashupati Seal:** Suggests links to early forms of **Shiva worship**, fire rituals, and other traditions that later influenced **Vedic and Hindu practices**.

Linguistic Evolution:

The script might hold the key to understanding the linguistic roots of **Dravidian languages** and their relationship with other ancient language families.

Indus Valley Civilization: A Glimpse into the Past

Overview:

- Also known as the **Harappan Civilization**, it flourished from **3300 to 1300 BCE** across present-day **Pakistan** and **northwestern India**.
- Discovered in 1924 by **John Marshall**, it stands alongside **Egypt** and **Mesopotamia** as one of the earliest urban civilizations.

Urban Sophistication:

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- **Planned Cities:** Harappa and Mohenjo-Daro showcased advanced urban design with **grid-like streets, drainage systems, and public baths.**
- **Craftsmanship:** Harappans excelled in **bead-making, pottery, and metallurgy**, and engaged in extensive trade with Mesopotamia.

Decline of Civilization:

- Around **1900 BCE**, the civilization faced a decline, attributed to **environmental changes, river shifts, and possible internal conflicts.**

A Step Toward Preserving Heritage:

Tamil Nadu's **\$1 million challenge** offers a unique opportunity to decode the **Indus script**, bridging the gap between ancient history and modern knowledge. Successfully deciphering it could revolutionize our understanding of **India's ancient civilization**, influencing **global historical narratives** and affirming India's legacy as a cradle of advanced human civilization.





MeitY Releases Draft Digital Personal Data Protection Rules, 2025

Context: The **Ministry of Electronics and Information Technology (MeitY)** has unveiled the **draft Digital Personal Data Protection Rules, 2025**, for public consultation. These rules aim to facilitate the effective implementation of the **Digital Personal Data Protection (DPDP) Act, 2023**, strengthening India's data privacy landscape.



Key Provisions of the Draft Rules:

Classification of Data Fiduciaries:

- Major tech firms like **Meta, Google, Apple, Microsoft, and Amazon** are expected to be designated as **Significant Data Fiduciaries (SDFs)** under the proposed rules.
- The classification ensures stricter accountability for organizations handling vast amounts of **personal data**.

Appointment of Data Protection Officers (DPOs):

- Every SDF must appoint a **Data Protection Officer** based in India, accountable to their **Board of Directors**.
- The DPO will act as the primary point of contact for data principals (individuals whose data is processed).

Transparency and Consent:

- Clear and accessible information** must be provided about how personal data is collected and processed, ensuring **informed consent** from individuals.
- Mechanisms must be in place for citizens to manage their data, including options for **data erasure** and appointing **digital nominees**.

Restrictions on Data Flow:

- Certain types of personal data cannot be **transferred outside India**, as specified by the Union Government.
- This provision aims to safeguard **sensitive personal data** and maintain sovereignty over critical information.
- Children's Data Protection:** Companies must secure **verifiable parental consent** before processing the data of individuals under 18 years.

Data Breach Reporting:

- In case of a **data breach**, companies must promptly inform affected individuals and detail measures to mitigate risks.
- Non-compliance could result in penalties up to **₹250 crore**.

Data Protection Board:

- A **digital-first platform** will enable individuals to lodge complaints and seek swift grievance redressal.
- The Board will have powers equivalent to a **civil court** for adjudicating personal data breaches.

Digital Personal Data Protection Act, 2023: Key Features

Scope and Applicability:

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- The Act governs the **processing of digital personal data** collected online or offline but digitized.
- It applies to data processing within and outside India if the data concerns goods or services offered in India.

Rights of Individuals:

- Individuals have the right to:
 - Access their personal data.
 - Request corrections or erasure.
 - Seek grievance redressal for violations.

Obligations for Data Fiduciaries: Maintain **data accuracy**, ensure **security**, and delete data once its purpose is fulfilled.

Exemptions for Government Agencies: Government bodies may be exempt from certain provisions in cases of **national security, public order, or crime prevention**.

Challenges in Implementation:

1. **Potential Privacy Concerns:** Broad exemptions for government agencies might infringe on the **fundamental right to privacy**.
2. **Limited Regulation of Data Processing Risks:** The rules focus on consent but lack provisions for addressing **indirect harms** from data misuse.
3. **Short Tenure of Board Members:** **Two-year terms** for Data Protection Board members, with scope for reappointment, could compromise **independent decision-making**.
4. **International Data Transfers:** Permitting cross-border data flow raises concerns about **adequate protection standards** in recipient countries.

Significance of the Rules:

- **Empowering Citizens:** The rules empower individuals by granting **control over their data** and enabling **rights like erasure** and grievance resolution.
- **Building Trust in Digital Platforms:** Enhanced provisions for **transparency** and **consent** aim to foster trust among users in digital services.
- **Balancing Growth with Privacy:** Unlike restrictive global frameworks, the rules prioritize **economic growth** while ensuring **citizen welfare**.

Quick and Transparent Redressal

A **digital-first approach** by the Data Protection Board ensures **swift and efficient complaint resolution**, bolstering public confidence.

Additional Insights:

- **Global Context:** India's data protection framework aligns with international efforts like the **EU GDPR**, but with unique provisions tailored to its demographic and economic realities.
- **Future Opportunities:** The Act and its associated rules could pave the way for a **thriving digital economy**, with trust and security as cornerstones.
- **Potential Reforms:** Addressing privacy concerns and refining cross-border data flow provisions could further strengthen the framework.

The **Digital Personal Data Protection Rules, 2025**, mark a significant step toward safeguarding citizens' data rights while fostering a robust and trustworthy digital ecosystem.

Expansion of the Great Nicobar Project

Context: The Union Shipping Ministry has proposed a major expansion of the 72,000 crore **mega-infrastructure project** on **Great Nicobar Island**. The initiative aims to transform the island into a key global maritime and tourism hub, while raising critical concerns about ecological preservation and indigenous rights.



The Great Nicobar Project: Vision and Scope:

Implementing Authority:

The project is spearheaded by the **Andaman and Nicobar Islands Integrated Development Corporation Ltd. (ANIIDCO)**, a quasi-government agency focused on sustainable resource exploitation and balanced development.

Key Features:

- **International Container Transshipment Terminal (ICTT):** Aims to establish Great Nicobar as a vital node in **global maritime trade**.
- **International Airport:** Boosts connectivity for trade and tourism.
- **Township Development:** Plans for modern urbanization on the island.
- **Power Generation:** A **450 MVA gas and solar-based power plant**, promoting renewable energy use.
- **New Additions:**
 - **International Cruise Terminal:** Aimed at high-end tourism and eco-tourism.
 - **Shipbuilding and Shipbreaking Facility:** Proposed on a **100-acre seafront**, including an export-import port.

Significance of the Project:

1. **Economic Growth**
 - Positions Great Nicobar as a **global trade hub**, fostering regional economic development.
 - Encourages investments in tourism and infrastructure.
2. **Strategic Importance**
 - Strengthens India's **maritime capabilities**.
 - Reduces dependency on foreign ports for cargo transshipment, boosting **strategic autonomy**.
3. **Sustainability Initiatives**
 - The use of **gas and solar-based energy** aligns with India's commitment to **renewable energy** and reducing fossil fuel dependence.

Concerns Surrounding the Project:

1. **Ecological Impact**
 - **Biodiversity Loss:** The project threatens to destroy **33,000 acres of forest** and impact fragile ecosystems, including **coral reefs** and nesting grounds for endangered species.
 - **Marine Ecosystem Threats:** Development could disrupt marine habitats vital to the island's ecological balance.



2. Indigenous Displacement:

- **Impact on Tribes:** The project risks displacing indigenous communities like the **Shompen** and **Nicobarese**, jeopardizing their livelihoods and cultural heritage.

3. Transparency Issues:

- Limited access to project details under the **RTI Act**, citing national sovereignty and security, raises concerns about lack of public consultation and accountability.

Geographical and Historical Insights:

Location and Features:

- The **Andaman and Nicobar Islands** lie **1,300 km southeast of the Indian mainland** in the **Bay of Bengal**.
- The archipelago consists of over **500 islands**, divided into two groups:
 - **Andaman Islands** in the north.
 - **Nicobar Islands** in the south, separated by the **Ten Degree Channel**.

Great Nicobar Island:

- **Largest and southernmost island** of the Nicobar group.
- Home to **Indira Point**, India's **southernmost tip**.
- Known for its **rich biodiversity** and **volcanic base**, with features like coral reefs and limestone formations.

Renamed Islands (2018):

- **Ross Island:** Renamed **Netaji Subhash Chandra Bose Dweep**.
- **Neil Island:** Renamed **Shaheed Dweep**.
- **Havelock Island:** Renamed **Swaraj Dweep**.

Concluding Remarks: A Path Forward

The **Great Nicobar Project** presents a transformative vision for India's economic and strategic positioning. However, the potential risks to **ecological balance** and **indigenous rights** call for a **transparent, consultative, and sustainable approach**.

Suggestions for Sustainable Development:

1. **Enhanced Public Consultation:** Engage local communities and stakeholders in decision-making.
2. **Ecological Preservation Measures:** Implement compensatory afforestation, coral transplantation, and marine conservation programs.
3. **Cultural Safeguards:** Protect the rights and heritage of indigenous communities through inclusive policies.
4. **Periodic Monitoring:** Establish an independent body to monitor the environmental and social impact of the project.

By integrating these measures, the project can achieve its goals while preserving the unique identity and natural wealth of **Great Nicobar Island**.



Kerala Proposes Amendments to the Forest Act

Context: The Kerala government has introduced the Kerala Forest (Amendment) Bill, 2024 to tackle environmental challenges and strengthen forest management in the state. While the Bill aims to prevent practices like waste dumping into rivers near forest areas, it has sparked debates due to certain contentious provisions.

**Key Highlights of the Amendment Bill:****1. Expanded Powers for Forest Officials:****• Arrest and Detention Without Warrant:**

- Forest officers are empowered to **arrest or detain individuals suspected of forest-related offenses**, even outside forest boundaries.
- This raises concerns about the potential **misuse of power**, especially since the definition of "forest officer" now includes **temporary staff**.

2. Redefining Forest Officers:

- The Bill includes **beat forest officers, tribal watchers, and forest watchers**—many of whom are **temporary appointees**.
- Critics fear this expansion could lead to **politically motivated actions** and misuse of authority.

3. Addressing Waste Dumping:**• Waste Management Provisions:**

- Dumping waste into rivers and other water bodies connected to forests is now categorized as a **forest offense**.
- This is significant as many rivers in Kerala pass through **populated areas** before entering forests, potentially leading to **greater scrutiny over non-forest regions**.

4. Steeper Penalties for Violations:**• Increased Fines:**

- The penalty for petty forest crimes has been hiked from **1,000 to 25,000**.
- In some cases, fines of **25,000** have been doubled to **50,000**.

Concerns Raised by Stakeholders:**1. Misuse of Power:**

- Farmer organizations and local residents fear that the **expanded powers of forest officials** could lead to **harassment and wrongful actions** against innocent individuals.

2. Impact on Non-Forest Areas:

- The provision addressing waste dumping into rivers extends the Act's jurisdiction beyond forests, leading to fears of **increased control over populated areas**.

3. Temporary Staff and Accountability:

- By including **temporary forest staff** in the definition of forest officers, there are worries about a **lack of accountability** and potential **political influence**.



Significance of the Amendments:

1. Strengthening Environmental Protections:

- The Bill aims to **safeguard forest ecosystems** and prevent **pollution in water bodies**, ensuring better **resource management**.

2. Enhanced Deterrence Against Violations:

- The significant increase in fines is expected to act as a **deterrent** against forest-related crimes.

3. Focus on Sustainability:

- By targeting activities like **waste dumping**, the Bill reflects Kerala's commitment to **sustainable environmental practices**.

Balancing Conservation and Community Rights:

While the amendments aim to bolster forest conservation and environmental management, it is crucial to ensure they do not **infringe upon the rights** of local communities. Transparent implementation and strict **accountability mechanisms** are essential to prevent misuse.

Way Forward:

- Public Consultation:** Engage farmers, tribal communities, and local residents to address their concerns.
- Safeguards Against Misuse:** Introduce checks and balances to prevent the misuse of newly granted powers.
- Awareness and Collaboration:** Promote awareness campaigns and collaborative waste management practices to reduce offenses.

By finding a balance between **conservation goals** and **community rights**, Kerala can set an example in **sustainable forest governance**.

Avian Influenza (H5N1) Outbreak Kills 3 Tigers: Zoos in India on Alert

Context: The recent outbreak of **avian influenza (H5N1)** has caused significant concern, with **three tigers** and a **leopard** succumbing to the virus at a Nagpur rescue center. This rare cross-species transmission in India has prompted nationwide precautions in zoos and wildlife establishments.



Why in News?

- **First Animal Cases in India:**
 - **Three tigers** and a **leopard** from a Nagpur rescue center were confirmed dead due to **avian influenza (H5N1)** in December 2024.
 - This marks the first instance of **bird flu infecting animals** in India.
- **Government Advisory:**
 - The Union government has issued a directive urging zoos across India to implement strict monitoring, adhere to containment protocols, and watch for symptoms among captive animals and nearby wildlife.
 - The advisory highlights the **zoonotic nature** of H5N1 and its potential risks to humans and animals.

What is Avian Influenza (H5N1)?

Overview of Bird Flu:

- **Avian influenza**, or **bird flu**, is a viral disease primarily affecting **poultry** and **wild birds**.
- The virus can spread to over **100 bird species**, with **ducks and geese** often acting as asymptomatic carriers.

About H5N1:

- H5N1 is a subtype of the **influenza A virus**, causing severe respiratory illness in birds.
- While human cases are rare, the **mortality rate** for infected individuals is a staggering **60%**.
- Transmission between humans is currently **difficult**, but mutations could increase this risk.

Evolution and Global Spread:

- The highly pathogenic H5N1 virus was first identified in **China (1996)** and has since spread worldwide:
 - **Europe (2020)**, **Africa**, **North America (2021)**, **South America (2022)**, and even **Antarctica (2024)**.
 - It has caused widespread mortality among both **domestic** and **wild bird populations** globally.

Impact of H5N1 on Animals:

Farm and Wild Birds:

- **Farm Birds:**
 - Overcrowded poultry farms facilitate rapid virus transmission, resulting in major outbreaks.
- **Wild Birds:**



- The virus has devastated bird populations, including endangered species like the **California condor**, which lost 6% of its population in 2023.

Mammals:

- **Terrestrial Mammals:** Cases have been reported among **foxes, pumas, and bears** in North America.
- **Marine Mammals:**
 - Massive die-offs have been recorded, including **20,000 sea lions** in South America and high mortality among **Southern elephant seals** in Patagonia.
- **Farmed Mammals:** H5N1 infections in **mink farms** in Europe have heightened concerns about the virus adapting for cross-species transmission.

Zoos on Alert: India's Response to H5N1:

Enhanced Monitoring:

- Zoos across India have been instructed to:
 - **Quarantine symptomatic animals** like tigers and other felines.
 - Monitor nearby wildlife for **unusual behavior or deaths**.

Government Measures:

- **Containment Efforts:**
 - Post-mortem samples from the infected animals were analyzed at the **NIHSAD in Bhopal**, confirming H5N1.
 - A **National Joint Outbreak Response Team** has been deployed to oversee containment measures.
- **Enhanced Biosecurity:**
 - Restrict personnel movement between infected and non-infected areas.
 - Temporary closures of affected facilities and **thorough disinfection**.

Protecting Zoo Staff:

- Personnel handling animals are required to wear **PPE (masks, gloves, suits)**.
- Regular **health screenings** and **training programs** have been implemented to ensure staff safety.

A Call for a One-Health Approach:

The Ministry of Animal Husbandry emphasized adopting a **One-Health** strategy, integrating efforts across:

1. **Human Health:** Mitigating zoonotic risks to prevent outbreaks in humans.
2. **Animal Health:** Monitoring and controlling the virus in wildlife and domestic animals.
3. **Environmental Health:** Ensuring clean and safe ecosystems to reduce viral transmission.

Conclusion:

The outbreak of **avian influenza (H5N1)** in India highlights the urgent need for **vigilance, robust biosecurity measures**, and a **collaborative approach** to prevent further spread. While the virus remains rare in humans, its ability to adapt poses a looming threat to global public health. **Integrating science, policy, and public awareness** will be key to addressing this challenge effectively.

**52 Villages Allege Violations of Forest Rights Act (FRA) in Madhya Pradesh**

Context: In Madhya Pradesh, 52 villages in Damoh, Narsinghpur, and Sagar districts have raised serious concerns about the violation of the **Forest Rights Act (FRA), 2006**. The villagers allege that they were **forcibly relocated** and deprived of their **forest rights** after the **Rani Durgavati Tiger Reserve** was notified in **September 2023**. These complaints have led the **Ministry of Tribal Affairs (MoTA)** to direct the state government to take action.

**Durgavati Wildlife Sanctuary: Background and Key Features:****Location and Significance:**

- **Situated in Damoh district, Madhya Pradesh**, the **Durgavati Wildlife Sanctuary** was established to protect the **biodiversity** of the **Vindhyan region**.
- The sanctuary is known for its **rugged terrain** and **dense forests**, which serve as a critical habitat for various wildlife species.

Flora and Fauna:

- **Flora:** The sanctuary features **dry deciduous forests** with key species like **Teak, Sal, Mahua, and Bamboo**.
- **Fauna:** It is home to species like **Chital, Nilgai, Leopards, and Indian Foxes**. The sanctuary also hosts various **migratory birds** and reptiles like the **Indian Cobra**.

Challenges:

- The sanctuary faces **human encroachment, deforestation, and illegal poaching**, which have threatened the delicate balance of its ecosystem.

Understanding the Forest Rights Act (FRA), 2006:**Purpose and Key Objectives:**

The **Forest Rights Act** was enacted to **recognize and secure the rights of forest-dwelling communities**. It aims to:

- **Recognize traditional rights** of **Scheduled Tribes (STs)** and **Other Traditional Forest Dwellers (OTFDs)** over the forest lands they depend on for their livelihoods.
- **Empower local communities** by providing them with **legal rights** to forest resources, such as timber, medicinal plants, and grazing areas.

Types of Rights Recognized:

- **Individual Rights:** These include **ownership of land** (up to 4 hectares per family) and access to forest resources.
- **Community Rights:** Rights over the use of **minor forest produce, grazing, and water bodies**.
- **Community Forest Resource Rights:** Rights to protect, regenerate, and manage forests sustainably.

Challenges:

- **Delayed Implementation:** There have been significant delays in recognizing the rights of forest communities.



- **Documentation Issues:** Forest-dwelling communities often face difficulties in providing **evidence** to prove their eligibility for rights.
- **Conflict with Conservation Laws:** Balancing the **rights of local communities** with the need for **wildlife conservation** remains a challenge.

News Summary: Allegations of FRA Violations:

Background of Allegations:

- The villagers in **52 villages** have filed complaints alleging **forced relocation** and the **denial of forest rights** after the **Rani Durgavati Tiger Reserve** was notified in September 2023.
- **Key Issues:**
 - **Non-recognition of Forest Rights:** Villagers claim that their rights over **forest resources** have not been settled under FRA.
 - **Forced Relocation:** Relocations were carried out without obtaining the **free, prior, and informed consent** of the affected communities, as mandated by the law.

State's Response:

- The **Divisional Forest Officer (DFO)** of the **Nauradehi Wildlife Sanctuary** has denied allegations of forced eviction, stating that **relocation packages** were offered to eligible families.
- The **Rani Durgavati Tiger Reserve** spans **2,339 sq. km**, created by merging the **Rani Durgavati** and **Nauradehi Wildlife Sanctuaries**.
- The merger aimed to compensate for the **Ken-Betwa River Linking Project**, which submerged a significant area of forest in the **Panna Tiger Reserve**.

Government Actions and Directives:

- The **Ministry of Tribal Affairs (MoTA)** has instructed the **Madhya Pradesh government** to address the allegations and respect the **rights** of the local communities under the **Forest Rights Act (FRA)** and the **Wildlife Protection Act (WLPA)**.
- The **National Tiger Conservation Authority** has been urged to ensure that **tribal interests** are safeguarded in conservation plans.

Conclusion: Moving Forward with Respect for Rights and Conservation

The issue of **forest rights violations** in the **Rani Durgavati Tiger Reserve** underscores the importance of striking a balance between **wildlife conservation** and the **livelihoods** of **forest-dependent communities**. A **transparent and consultative approach** is essential to ensure that both **biodiversity conservation** and **community rights** are respected. The **Forest Rights Act (FRA)** must be implemented effectively, with due consideration for the **historical** and **traditional ties** of indigenous populations to their land.

Easing Restrictions to Bolster Indo-US Nuclear Partnership

Context: The **United States** has recently announced the **removal of restrictions** on several key Indian nuclear entities, including the **Bhabha Atomic Research Centre (BARC)**, **Indira Gandhi Atomic Research Centre (IGCAR)**, and **Indian Rare Earths Limited (IREL)**, from its **Entity List**. This decision is expected to rejuvenate the **Indo-US nuclear deal** and enhance bilateral cooperation in nuclear technology.



The **US Entity List** is a tool of the **US Department of Commerce**, used to restrict access to **US-origin goods, services, and technology** for foreign entities deemed a risk to national security or foreign policy.

Historical Background:

The 123 Agreement:

The **Agreement for Cooperation between India and the United States** concerning the **Peaceful Uses of Nuclear Energy**, also known as the **123 Agreement**, was signed under Section 123 of the **US Atomic Energy Act of 1954**.

- It aimed to **end technology denial regimes** and **nuclear isolation** for India, which had persisted for three decades.
- The agreement opened doors for India to engage in **civil nuclear cooperation** with the US and other global partners on equal terms.

The Indo-US Nuclear Deal (2008):

- The **landmark agreement** signed in **2008** granted India access to **nuclear technology and fuel** from the **international market**, even though India is not a signatory to the **Nuclear Non-Proliferation Treaty (NPT)**.
- It allowed India to participate in the **global nuclear trade**, ensuring its access to nuclear materials and technology without the obligation to sign the **Comprehensive Nuclear-Test-Ban Treaty (CTBT)** or the **Fissile Material Cut-off Treaty (FMCT)**.

Significance of Indo-US Civil Nuclear Collaboration:

1. Critical Technology and Innovation:

- Under the **Initiative on Critical and Emerging Technology (iCET)**, the partnership aims to foster **innovation** and enable **joint manufacturing of nuclear components**.
- This includes the potential deployment of **American atomic reactors** in India and the development of **Small Modular Reactors (SMRs)** and **Light Water Reactors (LWRs)**.

2. Energy Security and Climate Goals:

- Nuclear energy provides a **low-carbon, reliable energy source**, aligning with India's **clean energy goals** and its commitment to reducing **greenhouse gas emissions**.
- Collaboration with the US can help India meet its growing **energy demands** while transitioning from fossil fuels.

3. Technological Advancements:

- Access to **advanced nuclear technology** from the US will improve the **efficiency and safety** of Indian nuclear plants.



- It will also encourage **joint research and innovation** in nuclear science, benefiting both nations.

Implications of the Easing of Restrictions:

1. Strategic Importance:

- Removing Indian entities from the **US Restricted Lists** paves the way for enhanced **scientific and technological cooperation**, giving fresh momentum to the nuclear partnership.

2. Global and Regional Significance:

- The partnership underscores the **geopolitical importance** of **India-US relations**, particularly in the **Indo-Pacific region**, where both countries seek to counterbalance emerging challenges.

3. Economic and Industrial Growth:

- Increased nuclear collaboration can **boost industrial growth**, foster **employment opportunities**, and strengthen India's **clean energy infrastructure**.

Key Challenges:

1. Nuclear Liability Laws:

- India's **Civil Liability for Nuclear Damage Act, 2010**, places liability for nuclear accidents on **operators**, rather than **suppliers**, deterring foreign nuclear vendors.

2. US Authorization Hurdles:

- The **10CFR810 authorization** under the **US Atomic Energy Act** imposes strict safeguards, limiting US nuclear vendors from manufacturing nuclear equipment or performing design work in India.

3. Regulatory and Bureaucratic Barriers:

- Both nations face challenges in aligning **regulatory frameworks** and navigating **complex approval processes**.

Future Prospects:

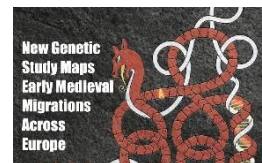
The easing of restrictions by the US marks a **new chapter** in the Indo-US nuclear partnership. By leveraging **American nuclear technology**, India can significantly expand its **clean energy infrastructure**, contributing to global efforts to combat **climate change**.

This collaboration also highlights the **strategic importance** of India-US relations, enhancing their position in the **Indo-Pacific**. Overcoming **regulatory hurdles** and **streamlining processes** will be critical to realizing the full potential of this partnership, ensuring mutual benefits in **energy security**, **innovation**, and **geopolitical stability**.



Twigstats Unveils High-Resolution Genomic History of Early Medieval Europe

Context: A groundbreaking study published in **Nature** leveraged the innovative tool **Twigstats** to analyze **ancient genomes** from Europe, offering unprecedented insights into the **genomic history** of the early medieval period. This research marks a significant step in reconstructing the population dynamics and cultural transitions of the era.



Exploring Ancient Genetic Material:

Prehistoric burial sites, including **ceremonial burials**, **mass grave mounds**, and **war graves**, house invaluable ancient DNA (aDNA) that sheds light on:

- **Population expansions** and replacements.
- **Admixture events** and cultural transitions.
- Historical **migrations** and interactions between ancient communities.

What is Twigstats?

Twigstats is a cutting-edge, **time-stratified ancestry analysis tool** designed to enhance genetic history research. It stands out for its ability to analyze genetic data with **high precision**, using advanced computational techniques.

Key Features:

- **Statistical Innovation:** Utilizes the programming languages **R** and **C++** for robust analysis.
- **Focused Insights:** Targets **recent mutations**, which provide clearer details about specific historical periods.
- **Improved Resolution:** Overcomes the limitations of traditional methods by offering a more refined understanding of ancient population dynamics.

Traditional Genetic Analysis Techniques:

1. Single Nucleotide Polymorphisms (SNPs):

- SNPs represent **genetic variations** commonly used in reconstructing histories.
- Limitations: Require **high-quality DNA samples** and struggle to distinguish closely related groups.

2. Haplotype and Rare Variant Analysis:

- Analyzes **shared DNA segments (haplotypes)** and rare genetic variations.
- Advantage: Provides **higher resolution** than SNPs alone.

3. Genealogical Tree Inference Methods:

- Builds genealogical trees from **modern and ancient genomes**, capturing **time-specific genetic structures** effectively.

Challenges in Genetic Ancestry Studies:

1. Statistical Similarity:

- Ancient populations often appear statistically similar, making differentiation challenging.

2. Sample Size and Quality:

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- **Ancient genomes** generally have lower sequencing quality compared to medieval or modern samples.

3. Gene Flow:

- The continuous **gene flow** between ancient and modern populations complicates ancestry tracing, creating overlaps in genetic data.

India's Genetic History: A Case Study:

A 2009 study by the **Broad Institute** and **CSIR-Centre for Cellular and Molecular Biology, Hyderabad**, examined Indian genetic history and revealed:

1. Ancestral North Indians (ANI):

- Linked to **Central Asia, Europe**, and the **Middle East**.

2. Ancestral South Indians (ASI):

- Identified as a **distinct group**, separate from ANI populations.

This study highlighted the **rich diversity** and complex admixture events in India's genetic history.

Significance of the Study:

1. **Refining Population History:** The integration of **Twigstats** with **genetic, archaeological, and historical data** reveals how **cultural shifts** often align with **genetic changes**.
2. **High-Resolution Insights:**
 - Offers a clearer understanding of the processes shaping ancient populations.
 - Enables **global reconstructions** of human ancestry with exceptional detail.
3. **Innovative Applications:**
 - Twigstats' methodology has applications beyond Europe, providing a framework for studying other regions with **ancient genetic materials**.

Conclusion:

The use of **Twigstats** exemplifies the transformative potential of **innovative genomic tools** in uncovering the intricate history of early medieval populations. By correlating **genetic evidence** with **archaeological and historical data**, this research not only enriches our understanding of ancient ancestry but also lays the groundwork for future global studies into **genetic and cultural evolution**.



U.S. Net Neutrality Rollback Highlights India's Divergent Path

Context: The **6th U.S. Circuit Court of Appeals** recently ruled against the Federal Communications Commission's (FCC) attempt to enforce **Net Neutrality**. This decision marks another chapter in the ongoing debate over internet regulation in the United States.



Background:

- **Tech Companies vs. ISPs:** In the U.S., companies like **Netflix** opposed telecom providers charging extra for bandwidth, fearing the creation of “**fast lanes**” and “**slow lanes**” for internet traffic.
- **Policy Fluctuations:**
 - Obama-era policies enforced strict net neutrality rules.
 - These rules were rolled back during the Trump administration.
 - Under President Biden, efforts to reinstate them have faced judicial setbacks.

What is Net Neutrality?

Net Neutrality is the principle that **internet service providers (ISPs)** must treat all web traffic equally, ensuring unrestricted access to all content and services, regardless of the source.

Key Features of Net Neutrality:

1. **Equal Access:** No blocking, throttling, or paid prioritization of content.
2. **Consumer Protection:** ISPs cannot charge extra for accessing specific websites or applications.
3. **Freedom of Expression:** Safeguards free speech by preventing ISPs from censoring or controlling information.

Significance of Net Neutrality:

- **Consumer Rights:** Ensures users can access any content without undue restrictions or additional costs.
- **Innovation and Competition:** Levels the playing field, allowing startups and smaller companies to compete with established players.
- **Preservation of Free Speech:** Prevents ISPs from censoring content or manipulating access based on commercial interests.

The Global Debate:

Proponents of Net Neutrality:

Advocates argue it is vital for:

- A **free and open internet**.
- Preventing ISPs from **controlling access** or favoring content for profit.
- Protecting the **rights of smaller businesses** and consumers.

Opponents of Net Neutrality:

Critics, including many ISPs, believe:

- Strict regulations stifle **investment and innovation**.

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- **Traffic prioritization** may be necessary for ensuring high-quality services for critical applications.

India's Distinct Approach to Net Neutrality:

India has taken a progressive and consistent stance on net neutrality, distinguishing itself from the fluctuating policies in the U.S.

The Journey So Far:

- **2014:** The debate began when **Bharti Airtel** proposed higher tariffs for internet calls (e.g., **Viber**), triggering public outrage.
- **2016:** The **Telecom Regulatory Authority of India (TRAI)** ruled in favor of net neutrality, prohibiting:
 - Differential pricing for internet services.
 - Discriminatory programs like **Facebook's Free Basics** and **telecom-specific data plans**.
- **2018:** The **Department of Telecommunications (DoT)** incorporated net neutrality into the **Unified License** framework, making it a **binding condition** for ISPs.

Recent Challenges:

- **Demand for Network Usage Fees:**
 - Indian telecom operators are now demanding **network usage fees** from large tech companies to compensate for the traffic they generate.
 - This demand has sparked fresh concerns among net neutrality advocates, who fear it could undermine the principles of an open internet.

Conclusion and Way Forward:

Net neutrality remains a cornerstone of the **open internet**, ensuring equal access, promoting innovation, and safeguarding freedom of expression.

Key Recommendations:

1. **Balanced Regulation:** Policymakers must find a middle ground between **regulation** and **free market dynamics**.
2. **Encouraging Dialogue:** Foster collaboration between **telecom providers**, **tech companies**, and **regulatory bodies** to address legitimate concerns without compromising net neutrality.
3. **Consumer-Centric Approach:** Prioritize consumer rights and prevent measures that could limit internet access or increase costs.

By adhering to these principles, India can continue to lead globally in preserving a **free and equitable internet**, even as challenges evolve.

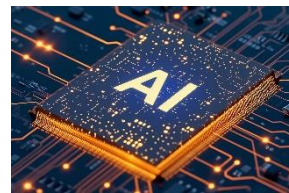
Inter-Ministerial Committee to Frame AI Rules and Develop Guidelines

Context: The **Union Government** has proposed forming an **inter-ministerial committee** to enforce rules and create comprehensive **AI guidelines**, ensuring effective governance of India's evolving artificial intelligence ecosystem.

About the Initiative:

The **IndiaAI Mission**, under the leadership of the **Principal Scientific Advisor**, has released a report on **AI guidelines** for public feedback.

- The report suggests a **coordinated, whole-of-government approach** to manage the rapid growth and compliance requirements of the **AI sector** in India.



Key Highlights of the Report:

Principles for AI Governance:

The report proposes essential principles to guide AI systems, emphasizing:

- Transparency:** Ensuring access to meaningful information about the development and capabilities of AI systems.
- Accountability:** Holding developers and deployers of AI systems responsible for their outputs.
- Safety and Reliability:** Embedding robustness and security into AI systems by design.
- Privacy and Security:** Protecting individual data and system integrity.
- Fairness and Inclusion:** Promoting non-discrimination and equitable access to AI benefits.
- Human-Centered Values:** Ensuring AI systems operate on ethical principles and cause no harm.
- Sustainability:** Encouraging inclusive innovation and equitable distribution of AI's benefits.
- Digital-Driven Governance:** Leveraging **digital technologies** for efficient implementation of these principles.

Lifecycle Approach:

The report advocates for a **lifecycle approach** to AI governance, which evaluates risks and challenges during:

- Development, deployment, and diffusion stages.
- The involvement of all **AI actors** to foster a holistic ecosystem.

Tech-Enabled Governance:

A **technology-driven regulatory framework** is proposed for effective compliance and monitoring of AI systems.

Understanding Artificial Intelligence (AI):

Artificial Intelligence (AI) refers to systems designed to replicate or enhance human cognitive capabilities.

- Applications:** From **self-driving cars** to generative tools like **ChatGPT** and **Google Bard**, AI is reshaping industries and daily life.
- Significance:** AI has the potential to revolutionize healthcare, transportation, education, and infrastructure by improving efficiency and decision-making processes.



Why Rules Are Essential for AI:

1. **Ethical Concerns:** AI's ability to make autonomous decisions necessitates rules to ensure its alignment with **human values** and **ethical standards**.
2. **Privacy and Security:** AI often processes vast amounts of personal data, requiring regulations to protect against misuse and ensure **data security**.
3. **Transparency:** Mandating developers to disclose algorithmic workings fosters trust and mitigates **bias or misuse**.
4. **Public Safety:** In sectors like **healthcare** and **public infrastructure**, clear rules are critical to prevent harm.
5. **Competition and Innovation:** A regulated environment promotes **responsible innovation** while discouraging monopolistic practices.

India's Regulatory Framework on AI:

1. **Digital Personal Data Protection Act, 2023:** Addresses privacy concerns related to AI platforms by regulating data collection and usage.
2. **Global Partnership on Artificial Intelligence (GPAI):** India, as a member, hosted the 2023 GPAI Summit, highlighting global collaboration on responsible AI.
3. **#AIForAll Strategy:** Launched by **NITI Aayog**, this focuses on leveraging AI for **healthcare, agriculture, education, and smart infrastructure**.
4. **Principles for Responsible AI (2021):** An approach paper exploring ethical deployment of AI systems in India.

Challenges in Regulating AI:

1. **Rapid Evolution:** AI's constant advancement makes it difficult to create future-proof regulations.
2. **Balancing Innovation and Safety:** Regulations must promote innovation while ensuring safety.
3. **Global Coordination:** AI regulation requires international cooperation to avoid fragmented rules.
4. **Defining AI:** The absence of a universally accepted definition complicates regulatory efforts.

The Road Ahead:

AI is poised to transform the way we live and work, offering immense opportunities for progress while posing significant risks. To ensure its potential is harnessed responsibly:

1. **Comprehensive Regulation:** India must craft robust guidelines to govern AI ethically and effectively.
2. **Proactive Measures:** Anticipate challenges and establish safeguards to mitigate risks.
3. **Global Collaboration:** Work with international stakeholders for unified and coherent AI governance.
4. **Public Awareness:** Promote education on AI benefits and risks to empower informed decision-making.

By addressing the risks and ensuring equitable development, AI can be a force for **good**, fostering a **safer and more inclusive future**.

India-U.S. Collaboration to Manufacture Interoperable Sonobuoys for Naval Operations

Context: India and the **United States** have announced a landmark agreement to jointly manufacture **sonobuoys**—advanced underwater acoustic devices—to enhance the **Undersea Domain Awareness (UDA)** of the **Indian Navy**.

What Are Sonobuoys?

Sonobuoys are compact, expendable devices designed to detect and track submarines and underwater threats. They play a critical role in **underwater acoustics** and **sonar systems**, offering precision capabilities to detect, analyze, and neutralize hostile objects beneath the surface.



How Do Sonobuoys Work?

1. **Deployment:** Sonobuoys are launched from aircraft or naval ships.
2. **Activation:** They activate upon hitting the water and deploy an inflatable float that remains at the surface, maintaining communication.
3. **Underwater Operations:** Hydrophones attached to the sonobuoy descend to selected depths to capture acoustic signals.
4. **Data Transmission:** These signals are sent to operators in real-time via **VHF** or **UHF** radio frequencies for analysis.

Key Features:

- **Interchangeable and Interoperable:** Co-produced sonobuoys are designed to be seamlessly used by both the **Indian Navy** and the **U.S. Navy**.
- **Timeline:** The system is expected to become operational by **2027**.
- **'Make in India' Initiative:** The production will be split between India and the U.S., aligning with India's commitment to indigenous manufacturing under the **'Make in India' program**.

Significance of the Collaboration:

1. **Enhanced Maritime Security:** With growing concerns over the **Chinese presence** in the Indian Ocean Region (IOR), this collaboration will boost India's capability to detect and respond to underwater threats.
2. **Strategic Importance of UDA:** After achieving significant progress in **Maritime Domain Awareness**, UDA has emerged as a key focus area for India and other Quad nations.
3. **Regional Stability:** Strengthening underwater detection capabilities is crucial for ensuring the region remains secure for **trade, commerce**, and overall **prosperity**.
4. **Technology Transfer:** The agreement highlights the U.S. commitment to **technology transfer**, supporting India's ambition to establish itself as a global defense manufacturing hub.

Overview of India-U.S. Bilateral Relations:

Economic Ties:

- Bilateral trade between the two nations grew by **72%** from 2017-18 to 2022-23.
- The U.S. contributed **18% of gross FDI inflows** into India during 2021-22, making it India's second-largest investor after Singapore.



Defense Cooperation:

- India and the U.S. have signed three foundational defense agreements:
 - LEMOA** (2016): Allows the militaries of both nations to access each other's bases for logistics support.
 - COMCASA** (2018): Ensures secure communication between defense systems.
 - BECA** (2020): Enables sharing of geospatial intelligence for enhanced accuracy in military operations.
- In 2016, the U.S. elevated India to the status of **Major Defense Partner**, an exclusive designation reflecting deepening ties.

Space Collaboration:

- India joined the **Artemis Accords**, promoting a shared vision for the future of space exploration.
- Both nations collaborate through the **Civil Space Joint Working Group**, advancing space science and exploration.

Multilateral Engagement:

- India and the U.S. actively cooperate in organizations such as the **United Nations, G20, ASEAN, and WTO**.
- They are key members of the **Quad** (alongside Japan and Australia), promoting a **free and open Indo-Pacific**.

Nuclear Cooperation:

- The **Civil Nuclear Deal (2005)** marked a turning point in bilateral relations. Under this agreement:
 - India separates its civil and military nuclear facilities.
 - Civil facilities are placed under **IAEA safeguards**, enabling the U.S. to support India's peaceful nuclear energy initiatives.

Extra Insights:

- Quad's Role in UDA:** The Quad's emphasis on **underwater domain awareness** reflects a shared goal to counter potential security threats in the Indo-Pacific.
- Technology for Maritime Security:** Sonobuoys represent just one facet of advanced technologies that India and the U.S. are exploring to ensure regional stability.

Conclusion:

The **India-U.S. sonobuoy co-production initiative** is a strategic milestone in strengthening bilateral defense cooperation and advancing India's maritime security. This collaboration not only aligns with India's **'Make in India' vision** but also reinforces its position as a critical player in ensuring peace and stability in the Indo-Pacific region. By deepening technological and defense partnerships, India and the U.S. are paving the way for a **secure, prosperous, and interconnected future**.

**First Advance Estimates of Annual GDP for FY 2024-25**

Context: The National Statistics Office (NSO) has released the **First Advance Estimates of Gross Domestic Product (GDP)** for the financial year 2024-25, offering a preliminary look at India's economic performance and growth trajectory.

What is GDP?

Gross Domestic Product (GDP) is the total **market value of all finished goods and services** produced within a country's borders over a specific period. It acts as a **comprehensive measure** of a nation's economic health and serves as a benchmark for policymakers to assess growth and development.

**Understanding the First Advance Estimates (FAE):**

The **First Advance Estimates of GDP** provide an early indication of the economy's performance based on a **benchmark-indicator method**.

Key Features of FAE:

- Data is sourced from various **ministries, departments, and private agencies**.
- Estimates are prepared sector-wise using indicators like:
 - **Index of Industrial Production (IIP)**
 - Financial performance of **listed companies**
 - **Agricultural and horticultural crop estimates**
 - **Livestock production targets**, fish production, and other indicators

Key Highlights of FY 2024-25 GDP Estimates:**GDP Growth:**

- **Real GDP Growth:** Expected to grow by **6.4%**, compared to **8.2%** in FY 2023-24.
- **Nominal GDP Growth:** Projected at **9.7%**, marginally higher than **9.6%** in FY 2023-24.

Gross Value Added (GVA):

- **Real GVA Growth:** Estimated at **6.4%**, down from **7.2%** in FY 2023-24.
- **Nominal GVA Growth:** Predicted at **9.3%**, up from **8.5%** in FY 2023-24.

Sectoral Composition of Nominal GVA:

- **Primary Sector:** Agriculture, Livestock, Forestry, Fishing, and Mining.
- **Secondary Sector:** Manufacturing, Electricity, Water Supply, and Construction.
- **Tertiary Sector:** Trade, Hotels, Transport, Communication, Financial Services, Real Estate, and Public Administration.

Components of GDP Growth:**Private Final Consumption Expenditure (PFCE):**

- Accounts for **60% of GDP**.
- Growth Rate: **7.3%** in FY 2024-25, up from **4.0%** in FY 2023-24.

**Government Final Consumption Expenditure (GFCE):**

- Accounts for **10% of GDP**.
- Growth Rate: **4.1%** in FY 2024-25, up from **2.5%** in FY 2023-24.

Gross Fixed Capital Formation (GFCF):

- Represents **30% of GDP**.
- Growth Rate: **6.3%** in FY 2024-25.

Net Exports:

- While India continues to face a **trade deficit**, the gap has narrowed recently, reflecting improvements in **export performance** and controlled imports.

Challenges to GDP Growth:

1. **Weak Private Consumption:** Sluggish growth in **consumer spending** is limiting overall economic momentum.
2. **Investment Hesitancy:** Businesses are cautious about expansion due to subdued demand and low consumption levels.
3. **Slow Government Spending:** Public expenditure is not growing at a pace sufficient to drive significant economic recovery.
4. **Base Effect:** High growth rates post-COVID-19 are partly attributed to a **low base effect** from the contraction in 2020-21.

Did You Know?

- **Primary Sector** includes Agriculture, Livestock, Forestry, Fishing, and Mining.
- **Secondary Sector** covers Manufacturing, Electricity, Water Supply, and Construction.
- **Tertiary Sector** comprises Trade, Transport, Communication, Financial Services, Real Estate, and Public Administration.

Conclusion and Way Forward:

The **First Advance Estimates of GDP for FY 2024-25** reflect **moderate but steady growth** despite global and domestic challenges. These estimates provide valuable insights for policymakers to navigate economic hurdles and focus on **sustainable growth**.

Key Steps Ahead:

1. **Boost Private Consumption:** Measures to increase consumer spending can stimulate demand and growth.
2. **Encourage Investments:** Incentivizing businesses to invest will drive long-term economic expansion.
3. **Enhance Public Spending:** Increased government expenditure on infrastructure and social programs can fuel growth.
4. **Focus on Exports:** Strengthening export competitiveness can reduce the trade deficit and enhance economic resilience.

By addressing these challenges and leveraging growth opportunities, India can maintain a **strong trajectory** toward achieving its goal of becoming a **\$5 trillion economy** and a **developed nation by 2047**.

Innovative Approach to Enhance Nitrogen Use Efficiency in Crops

Context: Recent research has unveiled a groundbreaking method to boost **Nitrogen Use Efficiency (NUE)** in crops such as rice and Arabidopsis. This is achieved by **reducing nitric oxide (NO) levels** in plants, paving the way for more sustainable agricultural practices.

Key Insights from the Study:

Role of Nitric Oxide (NO) in Nitrogen Uptake:

- **Nitric Oxide (NO)** plays a vital role in regulating nitrate uptake by controlling **nitrate transporters**.
- **Reduced NO levels** activate **high-affinity nitrate transporters (HATs)**, especially under nitrogen-deficient conditions.
- Overexpressing **phytoglobin**, a natural NO scavenger, significantly enhances the expression of transporters like **NRT2.1** and **NRT2.4**, leading to improved nitrogen absorption.



Protein Nitrosylation and NUE:

- **Protein Nitrosylation**, a chemical modification of proteins by NO, is crucial for nitrogen regulation.
- By targeting this biochemical process, researchers have demonstrated substantial improvements in **Nitrogen Use Efficiency**.

NO Scavenging Formulations:

- Development of **NO scavenging formulations** adaptable to diverse agroecosystems offers a practical solution to reduce nitrogen fertilizer usage.

Importance of Improving NUE:

Enhancing Nitrogen Use Efficiency is essential for:

1. **Reducing Overuse of Fertilizers:** Minimizing the reliance on nitrogen fertilizers can lower input costs for farmers.
2. **Mitigating Environmental Pollution:** Controls issues like **nitrate leaching** into groundwater and **greenhouse gas emissions** caused by excessive nitrogen application.
3. **Boosting Crop Yields:** Optimized nitrogen uptake directly contributes to higher productivity and food security.

Methods Employed:

1. Genetic Manipulation:

- Involves **altering plant genes** to regulate nitric oxide levels within cells.
- This approach enhances the plant's natural ability to efficiently absorb and utilize nitrogen.

2. Pharmacological Manipulation:

- Utilizes **chemical compounds** known as **NO scavengers** to lower nitric oxide concentration in plants.
- This method is adaptable to various agroecosystems and is practical for large-scale agricultural applications.

Significance of the Study:

The novel approach presented in this research can revolutionize farming by:

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- **Cutting down fertilizer dependency**, making agriculture more sustainable and cost-effective.
- **Protecting the environment** through reduced pollution and greenhouse gas emissions.
- Ensuring **food security** by increasing crop yields to meet the demands of a growing population.

Did You Know?

- **Nitrogen fertilizers** account for a significant portion of agricultural input costs globally, and their inefficient use leads to economic and environmental challenges.
- **High-Affinity Nitrate Transporters (HATs)** are specialized proteins that allow plants to absorb nitrogen more effectively under low-nitrogen conditions.

Conclusion and Way Forward:

The discovery of this **innovative method to enhance Nitrogen Use Efficiency (NUE)** marks a significant advancement in sustainable agriculture. By combining **genetic** and **pharmacological interventions**, researchers aim to create scalable solutions that benefit both farmers and the environment.

Further exploration of **NO scavenging formulations** and their implementation across various crops and ecosystems could transform modern agriculture, ensuring a **greener future** for farming.

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**Bharatpol Portal: Transforming International Police Collaboration in India**

Context: On **January 7, 2025**, Union Home Minister **Amit Shah** inaugurated the '**Bharatpol**' portal, developed by the **Central Bureau of Investigation (CBI)**. This initiative aims to enhance **international police cooperation**, providing a real-time platform to combat transnational crimes effectively.



The **Bharatpol portal** is designed to connect central and state law enforcement agencies with **Interpol**, enabling swift action against global criminal activities and expediting investigations.

What is Interpol?**Overview of Interpol:**

- **Full Name:** International Criminal Police Organization
- **Code Name:** Interpol (used for radio-telegraph communication).
- **Established:** 1923
- **Headquarters:** Lyon, France
- **Member Countries:** 196
- **Special Status:** Permanent Observer at the **United Nations** since 1996.

Functions of Interpol:

- Interpol is not a conventional **police force**; its agents lack the authority to make arrests.
- It serves as a **global information-sharing network**, enabling national police forces to cooperate in combating international crimes like **human trafficking, terrorism, money laundering, and illegal art trade**.
- Interpol issues **colour-coded notices** in **English, French, Spanish, and Arabic** to disseminate criminal information.
- Maintains **centralized databases** with records of fingerprints, DNA, and stolen documents to aid global law enforcement.

What is Bharatpol?**Background:** CBI as India's Interpol Liaison

The **Central Bureau of Investigation (CBI)** functions as India's **National Central Bureau (NCB-New Delhi)**, bridging Indian law enforcement with Interpol's 195 member countries. Previously, coordination relied on **letters, emails, and faxes**, leading to delays in criminal investigations.

About Bharatpol:

Bharatpol is a revolutionary platform developed to streamline **international police cooperation**, enabling **real-time assistance** for criminal investigations. It addresses challenges posed by **transnational crimes** like **cybercrime, drug trafficking, and human trafficking**, which demand instant global coordination.

Key Features of Bharatpol Portal:



1. **Unified Platform for Law Enforcement:** Connects the **CBI (NCB-New Delhi)** with all Indian law enforcement agencies, including **Superintendents of Police (SPs)** and **Commissioners of Police (CPs)**, ensuring seamless communication.
2. **Simplified Request Mechanism:** Enables frontline officers to submit **international assistance requests** using **standardized templates**, reducing complexity and time delays.
3. **Rapid Information Dissemination:** Facilitates swift sharing of **criminal intelligence** and updates from Interpol member countries with Indian law enforcement.
4. **Streamlined Interpol Notices:** Simplifies the process of drafting requests for **Interpol Notices** like **Red Corner Notices**, aiding in the global tracking of criminals and illicit assets.
5. **Capacity Building:** Provides training resources, templates, and documentation to enhance the skills of officers in **international investigations**.

Key Modules of Bharatpol:

1. **Connect:** Allows Indian agencies to operate as extensions of Interpol's **NCB-New Delhi**, ensuring secure and structured transmission of requests.
2. **Interpol Notices:** Facilitates efficient requests for notices to aid in locating criminals worldwide.
3. **Broadcast:** Offers real-time access to international assistance requests, enhancing responsiveness.
4. **References:** Organizes references and archives for **international case investigations**.
5. **Resources:** Simplifies sharing and management of training materials and important documents.

Significance of Bharatpol:

1. **Faster Investigations:** Reduces time delays in communication and coordination.
2. **Tackling Transnational Crimes:** Strengthens India's capability to combat emerging crimes like **cyber-attacks** and **online radicalization**.
3. **Enhanced Collaboration:** Facilitates seamless interaction between Indian and global law enforcement agencies.
4. **Capacity Building:** Improves the skill set of Indian officers in handling complex international cases.

Conclusion:

The launch of the **Bharatpol portal** marks a transformative leap in India's efforts to address global crime challenges. With real-time connectivity, streamlined processes, and enhanced collaboration, Bharatpol ensures that India is better equipped to tackle transnational threats effectively.

This initiative is a significant stride toward achieving a **safe and secure global environment**, reinforcing India's position as a responsible partner in international law enforcement.

China's 7.1 Magnitude Earthquake: Unveiling Its Impact and Lessons

Context: On January 7, 2025, a devastating earthquake measuring **7.1 on the Richter scale** shook the Tibetan region of China and neighboring areas. The **epicenter** was located in **Tingry County**, Shigatse, just **80 km north of Mount Everest** and at a depth of **10 km**. This catastrophe resulted in **95 fatalities, 130 injuries**, and the destruction of hundreds of homes. Tremors were felt as far as **Kathmandu (Nepal), Thimphu (Bhutan), and Kolkata (India)**, highlighting the wide-reaching impact of this seismic event.



Significance of the Location:

1. Geographical and Cultural Context:

- **Epicenter:** Tingry County is situated in **Shigatse**, a high-altitude Tibetan region averaging **4,000-5,000 meters above sea level** with a population of over **800,000**.
- **Cultural Importance:** Shigatse houses the **Panchen Lama**, making it a pivotal center for **Tibetan Buddhism**.
- **Tourism:** Tingry acts as a key gateway to **Mount Everest**, and the earthquake led to an immediate halt in tourism activities, further affecting the local economy.

2. Proximity to Strategic Infrastructure:

- **Lhasa Terrane:** The earthquake occurred in a tectonic zone significant for **geophysical studies** and **development projects**.
- **Yarlung Tsangpo Dam:** This region hosts China's **mega-dam project** on the Yarlung Tsangpo River, capable of producing **300 billion kWh annually**, which has implications for water flow into India's **Brahmaputra River**.
- **Impact on India:** Any disruption in the Yarlung Tsangpo could affect **water availability** and **ecosystems** in India's northeastern states.

3. Environmental Sensitivity:

- The Himalayas, known as the **"third pole"**, hold vast **water reserves** vital for millions of lives.
- Earthquakes in this fragile ecosystem can cause:
 - **River course changes**, such as those observed with the **Ganga** after past earthquakes.
 - **Glacial instability**, potentially leading to catastrophic floods.

Causes of the Earthquake:

1. Tectonic Activity:

- The **Indian Plate** colliding with the **Eurasian Plate** at a speed of **60 mm/year** continues to generate immense geological stress.
- This tectonic interaction formed the **Himalayan range** and triggers periodic seismic events.

2. Historical Vulnerability:

- The **Lhasa Terrane** has experienced **21 earthquakes** of magnitude **6 or higher** since 1950.



- Notable events include the **6.9 magnitude earthquake** in Mainling (2017), underscoring the region's susceptibility to disasters.

3. Predictive Science:

- Geologists have identified fault lines prone to seismic activity, such as the ones that led to the **2015 Nepal earthquake**.
- Studies indicate that major quakes in the region occur approximately every **80 years**, providing valuable data for preparedness.

Implications of the Disaster:

1. Humanitarian Impact:

- Casualties:** The loss of life and injuries underscore the need for robust disaster management.
- Displacement:** Hundreds of families have been left homeless, requiring urgent **relief** and **rehabilitation**.

2. Environmental Consequences:

- River System Disruption:** Earthquakes can alter river courses, increasing flood risks.
- Glacial Risks:** Destabilized glaciers could accelerate **global warming effects** in the Himalayan region.

3. Regional Geopolitical Tensions:

- India-China Relations:** The earthquake's proximity to the **Yarlung Tsangpo-Brahmaputra basin** raises concerns about **water security** and the need for bilateral cooperation.
- Infrastructure Stability:** The safety of large-scale projects like the Yarlung Tsangpo dam is now under scrutiny.

Key Insights and Takeaways:

1. Geological Awareness:

- Understanding the **tectonic dynamics** of the Indian and Eurasian plates is critical to predicting and mitigating future earthquakes.

2. Infrastructure Resilience:

- Mega projects in seismically active zones, such as the Yarlung Tsangpo dam, must undergo **rigorous risk assessments** to ensure safety and sustainability.

3. Disaster Preparedness:

- Regional governments must prioritize **early warning systems**, **emergency response plans**, and **public awareness programs** to reduce casualties and economic losses.

Conclusion:

The **7.1 magnitude earthquake** in China's Tibetan region serves as a stark reminder of the intricate interplay between **geological forces**, **environmental sensitivity**, and **geopolitical considerations**. While immediate relief efforts focus on rescuing affected communities, a long-term strategy is essential. This includes **enhanced seismic research**, **sustainable development practices**, and **international cooperation**, particularly in regions as interconnected and fragile as the Himalayas.

By fostering resilience and collaboration, nations can better prepare for such natural calamities and safeguard the lives and livelihoods of millions.

India and Taliban Strengthen Ties: Key Insights from Dubai Meeting

Context: A significant **high-level meeting** took place in **Dubai** between **Indian Foreign Secretary Vikram Misri** and **Taliban Acting Foreign Minister Mawlawi Amir Khan Muttaqi**. This marks a major shift in **India-Taliban relations**, which had remained subdued since the Taliban's takeover in **2021**. The discussions focused on **security, humanitarian aid, and regional cooperation**, signaling India's strategic move toward enhanced engagement.



Historical Context of India-Taliban Relations:

1. India's Position on the Taliban Regime:

- India, like most nations, does **not officially recognize** the Taliban due to concerns over its lack of **inclusivity** and its **treatment of women and minorities**.
- Despite this, India has maintained **limited engagement** to assist the Afghan people and ensure **regional stability**.

2. Timeline of Engagement:

- 2021:** India initiated contact through its ambassador in Doha after the Taliban seized power.
- 2022:** Low-profile meetings were held, and a **technical team** was deployed to the Indian embassy in Kabul.
- 2025:** The Dubai meeting represents India's **first high-level interaction**, signaling an upgrade in its diplomatic approach.

Highlights of the Dubai Meeting:

1. Security Cooperation:

- India raised concerns about **anti-India terror groups** operating in Afghanistan, including **Lashkar-e-Taiba (LeT)** and **Jaish-e-Mohammed (JeM)**.
- The Taliban assured sensitivity to these concerns, emphasizing their intent to prevent the use of Afghan territory for such activities.

2. Humanitarian Assistance:

- India committed to enhancing **humanitarian aid** and **developmental support**, including ongoing shipments of:
 - 50,000 MT of wheat**
 - 300 tons of medicines**
 - 27 tons of earthquake relief materials**
 - Millions of vaccine doses**
- The two sides also discussed expanding healthcare and **refugee rehabilitation programs**.

3. Trade via Chabahar Port:

- Both nations agreed to use **Iran's Chabahar Port** to facilitate **trade** and **aid delivery**, bypassing geopolitical challenges.

4. Sports Diplomacy:



- India pledged to support **Afghan cricket**, offering training facilities and infrastructure development in **Noida**.

Strategic Motivations Behind India's Engagement:

1. Shifting Regional Dynamics:

- Pakistan-Taliban Strains:** Rising tensions between Pakistan and the Taliban have created an opening for India to strengthen ties.
- China's Influence:** China's growing presence in Afghanistan through the **Belt and Road Initiative** pushes India to secure its own foothold.
- Russia's Reorientation:** Russia's focus on Ukraine limits its involvement in Afghanistan, offering India an opportunity.
- Iran's Internal Struggles:** Iran's reduced regional influence has created a gap India seeks to fill.

2. Preemptive Strategy:

- With possible **US re-engagement** under a Trump administration, India aims to position itself as a key player in Afghanistan's future.

Challenges and Opportunities:

Challenges:

- Human Rights Issues:** The Taliban's stance on **women's rights** and **minority inclusion** remains a significant concern.
- Security Threats:** Groups like **ISIS-Khorasan** continue to pose risks to regional stability.

Opportunities:

- Stability and Development:** India's support can contribute to long-term stability in Afghanistan.
- Economic Leverage:** Strengthening trade ties and utilizing Chabahar Port enhances India's regional influence.
- Strategic Partnerships:** The Taliban's willingness to collaborate provides India an avenue to safeguard its interests.

Conclusion:

The **India-Taliban meeting in Dubai** reflects a **pragmatic shift** in India's foreign policy, emphasizing security, humanitarian aid, and regional stability. While India continues to withhold formal recognition of the Taliban regime, this engagement underscores its intent to **protect national interests** and **shape regional dynamics** amidst evolving geopolitical challenges.

India's proactive approach demonstrates its readiness to navigate complex relations in pursuit of **strategic stability**, ensuring a balanced response to both opportunities and risks in Afghanistan.

Decoding the National Anthem Controversy: A Detailed Insight

Context: The Tamil Nadu Raj Bhavan recently alleged that the **National Anthem** and the **Constitution of Bharat** were disrespected in the Tamil Nadu Assembly. Traditionally, the session begins with the **State Anthem** (*Tamil Thai Vazhthu*) and concludes with the **National Anthem**. The controversy has reignited discussions about the **protocols and legalities** surrounding the **National Anthem**.



About the National Anthem:

1. Composition:

- '**Jana Gana Mana**', India's National Anthem, was composed by **Rabindranath Tagore** in Bengali.
- It was first performed on **December 27, 1911**, at the **Indian National Congress session in Kolkata**.

2. Adoption:

- The National Anthem was officially adopted on **January 24, 1950**, by the **Constituent Assembly of India**.
- Only the **first stanza** of Tagore's five-stanza poem is included in the official version.
- When sung or played in full, the anthem lasts **52 seconds**.

Constitutional Provisions for the National Anthem:

Fundamental Duty (Article 51A(a))

- It is the **duty of every citizen** to respect the **Constitution**, the **National Flag**, and the **National Anthem**.
- While the Constitution does not specify the rules for singing or playing the anthem, these are detailed in **statutes and government guidelines**.

Occasion for Playing the National Anthem:

According to the **Ministry of Home Affairs**, the **full version** of the anthem is played during:

1. **Civil and Military Investitures.**
2. **National Salute:** During ceremonial events for the **President, Governor, or Lieutenant Governor**.
3. **Parades:** Irrespective of the presence of dignitaries.
4. **Arrival and Departure** of the President at **state functions**.
5. **Presidential Addresses** on **All India Radio**.
6. **Governor's Functions:** At state events for **Governors or Lieutenant Governors**.
7. **Naval Ceremonies:** During the **hoisting of colours** in the Navy.

Code of Conduct for Singing the National Anthem:

Standing at Attention:

- **All individuals must stand** at attention during the anthem, with exceptions for **persons with disabilities**.

Newsreels or Documentaries:



- The audience is **not required to stand** when the anthem is played as part of a **newsreel** or **documentary**.

Shortened Version:

- A shorter version, lasting about **20 seconds**, is permitted for **ceremonial purposes**.

Legal Protections for the National Anthem

Prevention of Insults to National Honour Act, 1971

- **Intentional disruption** or **refusal to participate** in the singing of the anthem is punishable by:
 - **Up to three years imprisonment**,
 - **A fine**, or both.

About Tamil Thai Vazhthu: Tamil Nadu's State Anthem:

1. Composition:

- The **Tamil Thai Vazhthu** (*Invocation to Mother Tamil*) was written by **Manonmaniam Sundaram Pillai**, a celebrated Tamil scholar.
- It is part of the **prologue** to his 1891 Tamil drama, **Manonmaniam**.

2. Official Recognition:

- In **2021**, the Tamil Nadu government officially declared **Tamil Thai Vazhthu** as the **State Anthem**.
- It mandates that **everyone must stand** during its performance, except for **persons with disabilities**.

Conclusion:

The **National Anthem controversy** sheds light on the importance of respecting national and state symbols while adhering to established **protocols**. Both the **Jana Gana Mana** and **Tamil Thai Vazhthu** hold deep cultural and constitutional significance, symbolizing the unity and identity of the nation and the state. Maintaining decorum and understanding the **legal safeguards** ensures these symbols continue to inspire patriotism and respect.

Yemen Embassy Clarifies No Sanction for Indian Nurse's Death Sentence

Context: The **Yemen Embassy in India** has recently addressed the confusion surrounding the **death sentence** of Indian nurse **Nimisha Priya**. According to the embassy's statement, **Rashad al-Alimi**, the Chairman of Yemen's **Presidential Leadership Council**, has **not ratified** the death sentence passed on Nimisha Priya. This clarification comes amidst ongoing political turmoil in Yemen and differing governance claims.



Background of the Case:

- **Nimisha Priya**, an Indian nurse, was **sentenced to death** in Yemen for the alleged **murder** of her business partner, **Talal Abdo Mahdi**, in 2017.
- The **Houthi militias**, who control the capital **Sanaa** and its surrounding areas, have been handling the entire case, with limited involvement from Yemen's internationally recognized government.
- The government, led by **Rashad al-Alimi**, has clarified that it has **not approved** the death sentence, highlighting the **divided governance** in Yemen.

Yemen's Civil War and Its Impact on the Case:

Yemen has been embroiled in a **civil war** since 2014, when the **Houthi movement**, a **Zaidi Shia** group from northern Yemen, seized the capital **Sanaa** and ousted President **Abdrabbuh Mansur Hadi**'s government. The ongoing conflict has evolved into a complex web of factions and alliances, including:

- **Houthi Militias (Ansar Allah):** A **Shia Muslim group** controlling **Sanaa** and much of northern Yemen, backed by **Iran**.
- **Internationally Recognized Government:** Supported by **Saudi Arabia**, this government controls parts of the southern and eastern regions of Yemen and is acknowledged globally as Yemen's legitimate government.
- **Southern Transitional Council (STC):** Backed by the **UAE**, this council controls parts of **southern Yemen** and is involved in the broader conflict.

The Role of the Yemen Embassy in India:

- The **Yemen Embassy in India** represents the **Saudi-backed government** of Yemen, not the **Houthi militias**, which control **Sanaa**.
- This distinction is crucial, as the **Houthi rebels** do not have official diplomatic representation in India, meaning their stance on the case is not formally communicated through official channels in the country.

The Complexities of Yemen's Political Landscape:

- **Competing Political Claims:** The **Houthi-led government** in **Sanaa** and the **Saudi-backed government** in **Aden** continue to compete for control, making **international diplomacy** regarding Yemen's internal affairs extremely complicated.
- **Humanitarian Crisis:** Yemen's civil war has led to one of the **worst humanitarian crises** in recent history, with over **230,000 deaths** and millions displaced. Both sides are accused of **human rights violations**, including **targeting civilians** and disrupting access to essential services like food, water, and healthcare.

Future Prospects for the Case:

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The situation surrounding Nimisha Priya's death sentence highlights the **complexities** of dealing with justice in a country marked by **political fragmentation** and **military occupation**. Navigating such cases requires careful diplomacy, given the divisions between the internationally recognized government and the Houthi authorities.

The **Indian government** continues to work diplomatically through various channels, including the **Yemen Embassy in India**, to ensure the safety and well-being of its citizens abroad.

Additional Facts and Context:

- **Yemen's Strategic Location:** Yemen sits on the **Bab-el-Mandeb Strait**, a key maritime chokepoint between the **Red Sea** and the **Gulf of Aden**, making the country's stability vital for international trade routes.
- **Houthi Influence:** The **Houthi** rebels have become increasingly aligned with **Iran**, further complicating the geopolitical dynamics in the region.
- **Humanitarian Efforts:** Yemen remains dependent on international **humanitarian aid**. Organizations such as the **UNICEF**, **Red Cross**, and various NGOs continue to provide critical support amidst the conflict.

Conclusion:

The case of **Nimisha Priya** is not only a legal matter but also a reflection of Yemen's **deep political divisions**. As the **Yemen Embassy** in India reiterates, the death sentence has **not been sanctioned** by the internationally recognized Yemeni government. However, the **competing factions** and **complex regional geopolitics** make resolving the issue a delicate and prolonged process. While diplomatic efforts are ongoing, the situation in Yemen underscores the broader challenges of conflict resolution and international engagement in a war-torn region.

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