

Monthly Current Affairs – February 2024

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Art and Culture

Grammy Award 2024

Context: The fusion music group Shakti, comprising tabla maestro Zakir Hussain and singer Shankar Mahadevan, has clinched the 66th Grammy Award (2024) for Best Global Music Album for their work "This Moment." "This Moment" marks Shakti's third studio album, released on 23rd June 2023, marking their return after 46 years under the same name.

India's Performance in the 2024 Awards

- Shakti, comprised of Zakir Hussain, Shankar Mahadevan, John McLaughlin, Ganesh Rajagopalan, and Selvaganesh Vinayakram, secured the 2024 Grammy for their album "This Moment."
- Termed as an "unprecedented transcontinental collaboration," Shakti amalgamates musicians from Eastern and Western traditions, laying the groundwork for what is now acknowledged as world music.
- Zakir Hussain attained two additional victories, bagging Grammys for the best global music performance with 'Pashto' and for the best contemporary instrumental album 'As We Speak.'
- The album also features Indian flute player Rakesh Chaurasia, nephew of the renowned flautist Hariprasad Chaurasia.

What are Grammy Awards?

- The Grammy Award, originally named the Gramophone Award, is an annual series of accolades presented in the United States (US) by either the National Academy of Recording Arts & Sciences (NARAS) or the Latin Academy of Recording Arts & Sciences (LARAS), the latter solely for recordings in Spanish/Portuguese languages.
- These awards, initiated in 1959 to honor musical accomplishments of the year 1958, entail the presentation of a golden statuette resembling a gramophone.

Jnanpith for Gulzar, Sanskrit scholar Rambhadracharya

Context: Celebrated Urdu poet Gulzar and Sanskrit scholar Jagadguru Rambhadracharya have been chosen for the 58th Jnanpith Award, widely regarded as India's highest literary accolade.

About Urdu Poet Gulzar

- Gulzar, whose real name is Sampooran Singh Kalra, is renowned for his contributions to Hindi cinema and is esteemed as one of the foremost Urdu poets of contemporary times.
- He has previously been honored with the Sahitya Akademi Award for Urdu in 2002, the Dadasaheb Phalke Award in 2013, the Padma Bhushan in 2004, and has received at least five National Film Awards for his exceptional work.
- He wrote the lyrics for the song "Jai Ho" from the movie Slumdog Millionaire, which won an Oscar in 2009 and a Grammy in 2010.

Jnanpith Award

The Jnanpith Award stands as India's premier literary recognition.

Derived from the Sanskrit words "Jnana" and "Pitha," it signifies the seat of knowledge.

Established in 1961 by the Bharatiya Jnanpith trust, founded by the Sahu Shanti Prasad Jain family, owners of the Times of India newspaper group.

It is bestowed upon Indian citizens who write in any of the 22 official languages of India listed in the VIII Schedule of the Constitution, including English.

Initially, before 1982, the award was granted for a single work by a writer, but subsequently, it has been awarded for lifetime contributions to Indian literature.

The award comprises a cash prize of 11 lakh rupees, a citation plaque, and a bronze replica of Saraswati, the Hindu goddess of knowledge and wisdom.

About Jagadguru Rambhadracharya

- Jagadguru Rambhadracharya, the founder and leader of Tulsi Peeth in Chitrakoot, is a distinguished Hindu spiritual leader, educator, and author of over 240 books.
- He is fluent in 22 languages, holds the title of one of the four Jagadguru Ramanandacharyas of the Ramananda sect since 1982.
- A poet and writer in multiple languages, he was conferred with the Padma Vibhushan in 2015.

Geography

Ultradian rhythms

Life on Earth is sustained through various biological cycles, with the ultradian rhythm being a crucial cyclic process observed in all living organisms, ranging from single-celled entities to humans.

- In contrast to circadian rhythms, which operate on a 24-hour cycle (e.g., the sleep-wake pattern), ultradian rhythms occur more frequently, within a period of less than 24 hours.
- The ultradian rhythm encompasses cycles with a duration shorter than a day but longer than an hour.
- These rhythms play a significant role in regulating essential physiological functions such as heartbeat, breathing, hormonal releases, and brain-wave activity, thereby maintaining the health and well-being of organisms.
- A prominent example of an ultradian rhythm is the sleep cycle, characterized by alternating periods of rapid eye movement (REM) and non-REM sleep throughout the night.
- Each cycle typically lasts approximately 90 minutes, with REM sleep associated with dreaming and non-REM sleep contributing to physical restoration and memory consolidation.
- Additionally, ultradian rhythms govern the pulsatile secretion of hormones like growth hormone, cortisol, and insulin, which are crucial for regulating metabolism, energy levels, and managing stress responses.

Polity

What is Ladakh's demand on Gilgit-Baltistan?

Context: The Leh Apex Body (LAB) and Kargil Democratic Alliance (KDA) have presented ongoing dialogues and demands on Gilgit-Baltistan to the Ministry of Home Affairs (MHA) regarding Ladakh's socio-political landscape.

Ladakh's Current Status

- Ladakh, covering 59,146 square kilometers, became a Union Territory on August 5, 2019, after the abrogation of Article 370.
- Governed by elected hill councils (LAHDC-Kargil and LAHDC-Leh), lacking a legislature, and with a population of 2.74 lakh (2011 census).

Latest Demands of the Region

- Protests against UT status, advocating for the restoration of statehood.
- Collective demand for special status under the Sixth Schedule and Article 371 to preserve ecological fragility.
- Seeking exclusive rights over recruitment and proposing Ladakh Public Service Commission for gazetted jobs.



Centre's Response and Committees Formed

- Committees led by Ministers G. Kishan Reddy (2022) and Nityanand Rai (2024) formed in response to street protests.
- Assurance from the Centre to address language, culture, and land conservation issues.
- Ongoing talks aim to engage LAB and KDA members in structured dialogue.



Territorial Control Expansion

- Historical connection to Gilgit-Baltistan emphasized, demanding territorial control extension.
- Advocacy for inclusion of Gilgit-Baltistan into Ladakh, with a request for reserved seats once a legislature is granted.
- Stresses strategic considerations for regional stability, especially along the Line of Actual Control (LAC) with China.

Conclusion

- Ladakh's socio-political dialogue reflects diverse sentiments and demands.
- Historical context, strategic considerations, and ecological concerns shape ongoing negotiations.
- As Ladakh awaits resolutions, the dialogue remains crucial in navigating the complex dynamics between the Centre and this unique Union Territory.

Budget Session begins and suspension of Opposition MPs revoked

Context: The suspension of 14 Opposition MPs, 11 from Rajya Sabha and three from Lok Sabha, was revoked on the eve of Parliament's Budget Session.

- The revocation aimed to allow their attendance at the customary President's address to both Houses of Parliament.

Parliamentary Sessions

Constitutional Provisions	<ul style="list-style-type: none">• Article 85 of the Indian Constitution empowers the President to summon each House of Parliament and prorogue or dissolve the Lok Sabha.
Power to Convene a Session	<ul style="list-style-type: none">• The Central government has the authority to call for a session, determined by the Cabinet Committee on Parliamentary Affairs (CCPA).• The President, after finalizing the schedule, calls upon MPs through summons, providing details about the session.
Timetable	<ul style="list-style-type: none">• No fixed number of sessions or days is provided by the Constitution.• Typically, three sessions occur each calendar year - Budget, Monsoon, and Winter sessions.
Current Status	<ul style="list-style-type: none">• The Budget Session runs from late January to the end of April or the first week of May, with a recess for Parliamentary Committees to discuss budget proposals.• The Monsoon Session lasts three weeks in July and August, while the Winter Session spans three weeks from November to December.

Suspension of MPs

Role and Duty of Presiding Officer

The Speaker of Lok Sabha and Chairman of Rajya Sabha maintain order to ensure smooth proceedings.

Rules for Lok Sabha

Rule 373 allows the Speaker to direct an MP to withdraw for disorderly conduct, remaining absent for the day. Rules 374 and 374A deal with more persistent disruptions, allowing suspension for the remainder of the session.

Rules for Rajya Sabha

Rule 255 empowers the Chairman to direct withdrawal for disorderly conduct.

Rule 256 allows naming members persistently disregarding authority, with suspension through a motion, unlike Lok Sabha.

Budget Session Begins and MP Suspensions Revoked

- The Budget session of Parliament's 17th Lok Sabha begins with the President's address on January 31.
- Suspension of 14 Opposition MPs, suspended during the Winter Session, revoked.
- Cases referred to Privileges Committees, and their return approved by Chairs in both Houses.

President's Budget Session Speech

Context: The Budget Session of Parliament, the last before the upcoming Lok Sabha elections, began with President Droupadi Murmu addressing a joint sitting of both houses.

Highlights of President's Budget Session Speech

- President Murmu highlighted the significance of the newly built Parliament building, reflecting the essence of 'Ek Bharat Shrestha Bharat' during the 'Amrit Kaal.'
- The government envisions a developed India with equal emphasis on economic, social, cultural, and strategic strengths.
- The four pillars for a developed India are identified as youth power, women power, farmers and the poor, with tax allocation for their empowerment.
- Achievements mentioned include the Women's Reservation Bill, successful G20 Summit, over 100 medals in the Asian Games, construction of Ram Temple in Ayodhya, abrogation of Article 370, and strict laws against triple talaq.
- Defence production crossed the Rs 1 lakh crore mark.

Economic Achievements Highlighted by the President

- India emerged as the fastest-growing major economy amidst global crises, maintaining a growth rate of over 7.5% for two consecutive quarters.
- Reforms contributed to India's movement away from the "fragile five" and reduced inflation from double digits to within 4%.
- India became the second-largest exporter of mobile phones globally, with exports surpassing \$775 billion.
- FDI flows doubled, Forex reserve exceeded \$600 billion, Khadi and Village Industries product sales quadrupled, and Income Tax Return filings increased from 3.25 crore to 8.25 crore.
- The government is committed to empowering MSMEs, small entrepreneurs, and creating a conducive environment for them.

Sessions of Parliament

- Article 85(1) of the Indian Constitution empowers the President to summon each House of Parliament with a six-month gap between sessions.
- The decision on convening Parliament is made by the government, particularly the Cabinet Committee on Parliamentary Affairs.
- India follows a convention of three sessions in a year, with the longest being the Budget Session starting in late January and concluding by April or early May, including a recess for committee discussions.

Union Budget/'Annual Financial Statement'

- Article 112 mandates the government to present an annual financial statement covering estimated receipts and expenditures from April 1 to March 31.
- The statement comprises three parts: Consolidated Fund, Contingency Fund, and Public Account.
- For each fund, the government presents statements of receipts and expenditures.

President's Address

- Article 87 of the Constitution outlines instances when the President addresses both Houses.
- The President speaks at the beginning of the first session after a general election and the first session of each year (Budget session).
- The President's speech outlines government policy priorities, plans for the upcoming year, and provides a broad framework of the government's agenda.

Internet Shutdowns in India

Context: The Supreme Court raised questions regarding the Union Territory of Jammu and Kashmir's failure to publish orders related to the suspension of Internet services.

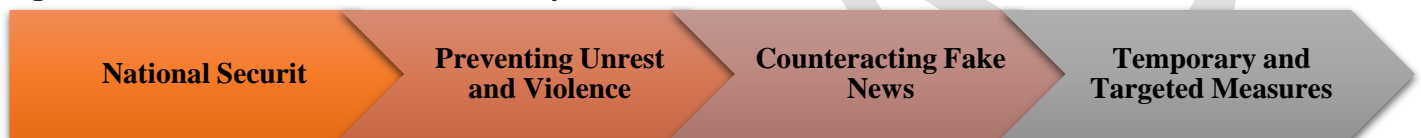
About

- In recent years, India witnessed instances of violence due to legislative actions like the Citizenship Amendment Act and the abrogation of Article 370, leading to potential internal aggression.
- Internet shutdowns became a common practice during moments of tension to maintain peace.

Legal Provisions

- Until 2017, shutdowns were primarily imposed under Section 144 of the Code of Criminal Procedure (CrPC).
- In 2017, the Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rule 2017 was enacted, allowing telecom/internet shutdowns in cases of public emergency or safety.
- The terms "public emergency" and "public safety" are not defined in the 1885 Act or the 2017 Rules.

Arguments in Favor of Internet Shutdown by the Government



- **National Security:** Internet suspension is a temporary measure to prevent misinformation, coordinate unlawful activities, or address security threats.
- **Preventing Unrest and Violence:** Online communication suspension helps prevent protests, riots, or civil unrest.
- **Counteracting Fake News:** Shutdowns address the spread of false information during crises.
- **Temporary and Targeted Measures:** Shutdowns are temporary and narrowly focused, addressing specific and immediate concerns.

Arguments Against Internet Shutdown by the Government



- **Impact on Freedom of Expression:** Shutdowns infringe upon the freedom of expression guaranteed by the Indian Constitution.
- **Economic Disruptions:** Internet shutdowns can lead to significant economic losses in India's growing digital economy.
- **Educational Challenges:** Shutdowns affect students' access to learning resources and online education platforms.
- **Healthcare Consequences:** Access to healthcare information and telemedicine services is hampered during shutdowns.
- **Social and Political Implications:** Shutdowns may be associated with controlling social unrest and limiting democratic dissent.

Anuradha Bhasin v. Union of India Case

- In 2020, the Supreme Court ruled that indefinite internet shutdowns are not permissible under the Indian Constitution.
- Section 144 cannot be used to avoid genuine protests, and its imposition has specific parameters.
- **Key Highlights**
 - Internet usage is a fundamental right under Article 19.

- Internet shutdowns can be temporary but not indefinite.
- Government must publish all orders imposing restrictions under Section 144.
- Orders related to internet shutdowns are subject to judicial scrutiny.

Conclusion

Governments in a democracy should provide rationale for periodic internet disruptions. Transparent publication of all orders is crucial for maintaining transparency. Indiscriminate shutdowns have high social and economic costs and are often ineffective. A proportionality and necessity test are essential for better internet governance, and civil society should advocate for a transparent and accountable system.

Use dictionary meaning of 'forest', SC tells Centre

Context: Supreme Court issued a significant order regarding petitions challenging the 2023 amendments to the Forest (Conservation) Act, 1980, directing that the term 'forest' will retain its broad and comprehensive meaning, as established in a 1996 order, encompassing approximately 97 lakh square km of undeclared forest lands.

Objective of the 1980 Act	The 1980 Act aimed to curb further deforestation and prevent ecological imbalance.
Concern	The amended Act introduced Section 1A, which allegedly narrowed the definition of 'forest' to only two categories: <ul style="list-style-type: none">• Declared forests.• Lands recorded as forests in government records post-1980.
Centre's Arguments	The Centre argued that Section 1A expanded the scope of 'government records' to include lands recognized as forests by various entities such as States, Union Territories, local bodies, councils, or recognized communities.
Present Status	However, the Supreme Court instructed the government to revert to the "dictionary meaning" of 'forest' upheld in the 1996 T.N. Godavarman Thirumulpad case, which denotes preserving green expanses regardless of their nature, classification, or ownership. <ul style="list-style-type: none">• The term 'forest' is not limited to lands recorded in government records alone.

Present Directions of the Supreme Court Regarding the 2023 Amendment

The Supreme Court mandated that the dictionary meaning would prevail until States and Union Territories compile a consolidated record of all lands designated as 'forest' in government records, including forest-like areas, unclassified lands, and community forest lands.

- This process, as per Rule 16 of a November 29, 2023, Environment Ministry notification, aligns with the principles of the N. Godavarman Thirumulpad case and must be completed by March 31, 2024.
- The Environment Ministry must issue circulars to the States and Union Territories.
- These comprehensive records should be published on the Environment Ministry's website by April 15, 2024.
- Additionally, any establishment of "zoos or safaris" requires the final approval of the Supreme Court.
- The case is scheduled for further hearing in July 2024.

Rules that allow a women from jobs due to marriage illegal: SC

Context: Recently, the Supreme Court addressed rules concerning the dismissal of women employees due to marriage or domestic issues, deeming such rules as constituting clear gender discrimination and being unconstitutional.

Observations by the Supreme Court

Rules against women due to marriage deemed illegal

- The Supreme Court highlighted that the rules leading to the dismissal of women from their jobs solely because of marriage were deemed illegal.
- Specifically, the court found the regulation against marriage to be arbitrary and applied exclusively to female nursing officers.

Gender discrimination and inequality

- The court emphasized that terminating employment based on a woman's marital status exemplifies gender discrimination and inequality.
- It underscored that adherence to patriarchal norms undermines human dignity, the right to non-discrimination, and fair treatment.
- Additionally, laws and regulations rooted in gender bias were deemed unconstitutional by the court.

Withdrawal of terms and conditions

- The Supreme Court noted that the Army's instructions regarding terms and conditions for granting permanent commissions in the Military Nursing Service were withdrawn in 1995.
- Consequently, the discharge of the female officer in the Military Nursing Service was deemed unlawful by the court.

On the right to maintenance for divorced Muslim women

Context: The Supreme Court (SC) has decided to examine the entitlement of a divorced Muslim woman to claim maintenance under Section 125 of the Criminal Procedure Code (CrPC) against her former husband, sparking a discussion on the precedence of secular laws over distinct personal laws.

Dispute Origin

- The case emerged when a Muslim man contested a Telangana High Court order directing him to pay interim maintenance to his former wife.
- He argued that maintenance in this scenario should be governed by the Muslim Women (Protection of Rights on Divorce) Act, 1986 (1986 Act), which prevails over Section 125 of the CrPC.

Evolution of the Muslim Women Act, 1986

Pre-1986: Maintenance under Section 125 of CrPC	Before the 1986 Act, Muslim women could seek maintenance under Section 125 of the CrPC, similar to women from other communities, as affirmed by the Supreme Court in <i>Mohd. Ahmad Khan v. Shah Bano Begum</i> , 1985.
1986 Act	Enacted in response to the <i>Shah Bano</i> case, the 1986 Act provided a specific mechanism for divorced Muslim women to claim maintenance, limiting the period to the iddat and tying the amount to the mahr or dowry.
Danial Latifi v. Union Of India Case, 2001	The SC upheld the 1986 Act's validity but extended maintenance rights until remarriage, reducing the period to the iddat.
2009	The SC reiterated that divorced Muslim women could claim maintenance under Section 125 of the CrPC beyond the iddat period, reaffirming the principle of its applicability regardless of religion.
2019	The Patna High Court highlighted the option for divorced Muslim women to seek maintenance under both Section 125 of the CrPC and the 1986 Act, ensuring concurrent applicability.

Current Case

- In the ongoing case, the Appellant's former wife sought maintenance under Section 125 of the CrPC, alleging triple talaq by her husband.

- The husband argued for the precedence of the 1986 Act, contending that relief should be sought before the First-Class Magistrate, not the family court, as per the Act's provisions.

Muslim Women (Protection of Rights on Marriage) Act 2019

- Introduced to nullify instant triple talaq, the Act grants maintenance allowance to divorced Muslim women, superseding Section 125 of the CrPC.
- However, women can opt out of the Act and pursue remedies under other laws or customs.

Supreme Court's Observations

Interpretation of Section 3 of the 1986 Act

The court noted that Section 3 of the 1986 Act does not bar alternative remedies under other laws like Section 125 of the CrPC.

Amicus Curiae Submission

The amicus curiae supported the court's stance and stressed the need for clarification on the Act's precedence.

Constitutional Principles

Judges emphasized that Muslim divorced women should have access to all maintenance rights, aligning with constitutional principles of equality.

Legislative Intent

Dismissing claims that the 1986 Act intended to debar Muslim women from Section 125 relief, the court highlighted the absence of explicit language to support such a restriction.

Related Precedents

Various High Court judgments affirm a divorced Muslim woman's right to claim maintenance under Section 125 of the CrPC, extending beyond the iddat period, under certain conditions.

Judicial clarity on free speech

Context: Justice Gautam Patel's landmark decision on the Kunal Kamra's case highlights the critical importance of upholding the constitutional right to free speech, particularly in social media. It emphasizes the dangers of arbitrary censorship and the necessity for clear, reasonable restrictions in line with constitutional principles.

Key Highlights

Upholding Free Speech	The decision reaffirms the constitutional guarantee of free speech, protecting it against undue state interference.
Rejection of Arbitrary Censorship	Justice Patel criticizes the amended Rule 3(1)(b)(v) of the IT Rules 2021 as vague and overbroad, posing a threat to critical discourse.
Constitutional Principles	Article 19 and Article 14 of the Constitution are invoked, arguing that the amended rule infringes upon fundamental rights without reasonable standards.
Importance of Judicial Review	The role of judicial review is emphasized in curbing potential abuses of power by government entities and safeguarding democratic principles.
Recognition of Digital Regulation	While acknowledging the need to combat misinformation, the judgment insists on balanced regulation respecting free speech rights.



Key Challenges

- Balancing free speech with regulation presents challenges in defining clear and reasonable restrictions.
- Ensuring compliance with constitutional principles and judicial decisions is challenging in a dynamic digital landscape.
- The government's response to judicial decisions may influence the effectiveness of legal interventions.

Critical Analysis

Justice Patel's decision safeguards against potential abuses of power and underscores the importance of free speech in the digital age. It sets a precedent for protecting democratic principles by rejecting arbitrary censorship.

Way Forward

- Ensure compliance with constitutional principles in regulating digital platforms.
- Encourage balanced regulation combating misinformation while respecting free speech.
- Foster inter-institutional comity by heeding judicial decisions and promoting democratic accountability.

A Sunshine Initiative

Context: PM Modi initiates a new rooftop solar power scheme aimed at providing solar power to one crore households in India through rooftop solar panels. Finance Minister Nirmala Sitharaman highlighted this initiative in her interim Budget address, stressing its potential to bring significant savings of ₹15,000 annually for households.

Eligibility and Subsidies

- Households consuming less than 300 units of electricity per month qualify for installing a mid-sized solar system (1-2 kilowatt) under this scheme.
- The government plans to increase the subsidy from the current 40% to 60% of the system's cost.
- Private developers associated with public sector enterprises linked to the Power Ministry will cover the remaining expenses, ensuring installation quality and reliability.

Net-Metering Mechanism

- The program incorporates a 'net metering' mechanism, allowing surplus electricity generated by households to be sold back to the grid to offset the loan. However, the implementation of this mechanism may pose complexities.
- While 300 units of monthly consumption might seem modest for households with appliances like air conditioners and heaters, it represents a significant average consumption metric nationally.
- Approximately 80% to 85% of India's 25 crore to 30 crore households consume between 100 and 120 units of electricity per month, making them eligible for the scheme.

Shift from State Discoms to Centre

- The Center will spearhead the solarization efforts instead of State power distribution companies (discoms), many of which show little interest in promoting decentralized solutions like rooftop solar.
- Given the detailed knowledge of household-level power supply possessed by discoms, bypassing them would not be a feasible strategy.

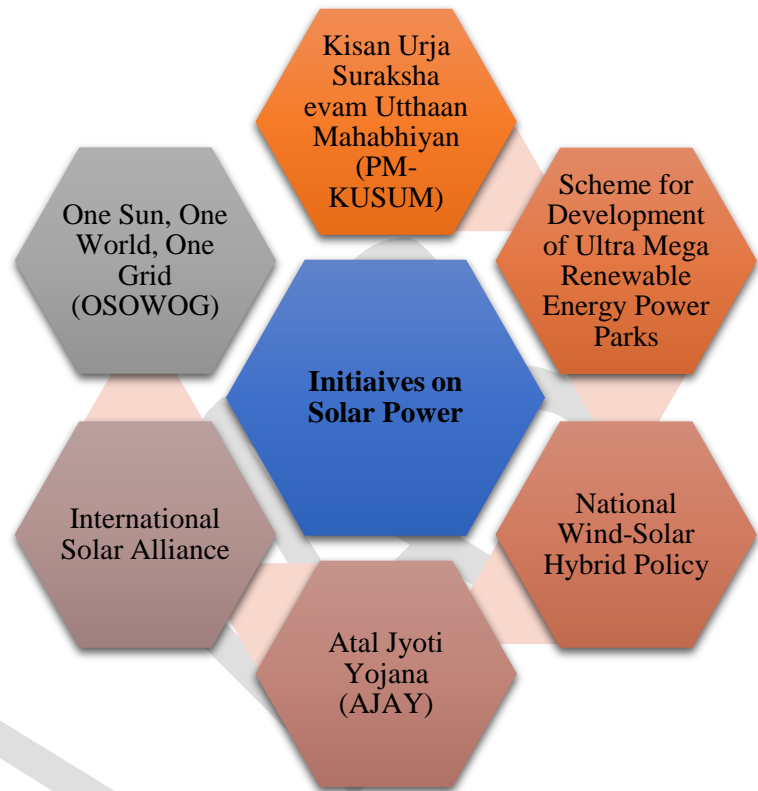
Current Status and Industry Impact

- Out of the targeted 40 GW of rooftop solar panels, only 12 GW have been installed so far, with household rooftops contributing just 2.7 GW, the remainder being commercial or building units.

- This initiative can invigorate the domestic solar panel industry, as subsidies will be exclusively available for domestically produced panels.

Other Initiatives

- **Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM):** Includes grid-connected Renewable Energy power plants (0.5 – 2 MW) and solar water pumps.
- **Scheme for Development of Ultra Mega Renewable Energy Power Parks:** Aims to establish Ultra Mega Renewable Energy Power Parks (UMREPPs) within the existing Solar Park Scheme framework.
- **National Wind-Solar Hybrid Policy:** Aims to promote large grid-connected wind-solar PV hybrid systems, enhancing grid stability and encouraging innovative technologies.
- **Atal Jyoti Yojana (AJAY):** Focuses on installing solar street lighting systems in states where less than 50% households have access to grid power.
- **International Solar Alliance:** Comprises solar resource-rich countries for global cooperation in solar energy development.
- **One Sun, One World, One Grid (OSOWOG):** Aims to establish a worldwide interconnected ecosystem of renewable energy resources, primarily focusing on solar energy.
- **National Solar Mission:** Part of the National Action Plan on Climate Change, dedicated to promoting and developing solar energy in India.



Uttarakhand's Uniform Civil Code

Context: Recently, the Uttarakhand Cabinet approved the draft report of the Uniform Civil Code (UCC), which is expected to be presented as a bill in the state assembly on February 6, 2024.

Key Players

- The UCC drafting committee, led by retired Supreme Court judge Ranjana Prakash Desai, formulated the proposed set of common laws for all residents of Uttarakhand, irrespective of religion, caste, or gender.
- Article 162 of the Indian Constitution empowers state executives to legislate on matters within the jurisdiction of the state legislature, including those related to personal laws as per Entry 5 of the Concurrent List.

Key Highlights of Uttarakhand's UCC Draft Report

- The UCC aims to replace individual personal laws of different religions, focusing on marriage, divorce, adoption, and inheritance, aligning with Article 44 of the Constitution.



- Proposed measures include the prohibition of practices like polygamy, triple talaq, and child marriage, along with uniform marriage age for girls across all religions and mandatory registration of live-in relationships.
- The draft emphasizes gender equality, ensuring equal treatment in matters of inheritance and marriage, including extending equal property share to Muslim women.

Concerns Regarding the UCC Draft Report for Uttarakhand

- Critics argue that the UCC may infringe upon fundamental rights like religious freedom and personal liberty, and may not respect the diverse customs and practices of different communities.
- Concerns are raised regarding its impact on the rights and interests of Scheduled Tribes (STs) in Uttarakhand, with activists highlighting potential erosion of cultural identity and autonomy.



Understanding the Uniform Civil Code

- Article 44 of the Constitution envisions a uniform civil code for all citizens of India, though its implementation is discretionary.
- Goa stands as the only state with a UCC, following the Portuguese Civil Code of 1867.
- The Supreme Court and the Law Commission have expressed differing views on the necessity and desirability of a UCC, with ongoing consultations seeking input from various stakeholders.

Panchayats earn only 1% of their revenue through tax

Context: The recent publication titled 'Finances of Panchayati Raj Institutions' by the Reserve Bank of India (RBI) for the fiscal year 2022-23 sheds light on the financial dynamics of Panchayati Raj Institutions (PRIs) in India.

Key Highlights of the Report

Revenue Composition

- Panchayats derive only 1% of their revenue from taxes, with the majority sourced from grants provided by the Centre and States.

- Approximately 80% of the revenue originates from Central government grants, while 15% comes from State government grants.

Revenue Statistics

- In the fiscal year 2022-23, panchayats amassed a total revenue of Rs 35,354 crore, of which only Rs 737 crore was generated through their own tax revenue.
- Non-tax revenue amounted to Rs 1,494 crore, primarily from interest payments and Panchayati Raj programs.
- Notably, panchayats received Rs 24,699 crore in grants from the Central government and Rs 8,148 crore from State governments.

Revenue Per Panchayat

- On average, each panchayat earned Rs 21,000 from its own tax revenue and Rs 73,000 from non-tax revenue.
- Conversely, grants from the Central government averaged approximately Rs 17 lakh per panchayat, with State government grants totaling over Rs 3.25 lakh per panchayat.

State Revenue Share and Inter-State Disparities

- Panchayats' share in their respective State's own revenue remains minimal, with wide variations among states regarding average revenue earned per panchayat.
- For instance, in Andhra Pradesh, revenue receipts of panchayats constitute just 0.1% of the State's own revenue, whereas in Uttar Pradesh, it accounts for 2.5%, the highest among states.

Recommendations of RBI

- The RBI advocates for greater decentralization and empowerment of local leaders and officials to enhance financial autonomy and sustainability of Panchayati Raj.
- The report underscores the importance of transparent budgeting, fiscal discipline, community involvement in development prioritization, staff training, and rigorous monitoring and evaluation for optimal resource utilization.

Revenue Composition

- Panchayats derive only 1% of revenue from taxes.
- Majority sourced from grants by Centre and States.

Major Grant Sources

- Approximately 80% of revenue from Central government grants.
- 15% from State government grants.

Total Revenue (2022-23)

- Panchayats amassed Rs 35,354 crore in FY 2022-23.
- Own tax revenue: Rs 737 crore.
- Non-tax revenue: Rs 1,494 crore.

Grant Contributions

- Central government grants: Rs 24,699 crore.
- State government grants: Rs 8,148 crore.

Revenue Per Panchayat

- Own tax revenue per panchayat: Rs 21,000.
- Non-tax revenue per panchayat: Rs 73,000.
- Central government grants per panchayat: Rs 17 lakh.
- State government grants per panchayat: Over Rs 3.25 lakh.

State Revenue Share and Disparities

- Panchayats' share in State revenue minimal.
- Wide variations among states in average revenue per panchayat.

RBI Recommendations

- Advocate for greater decentralization and empowerment.
- Emphasizes transparent budgeting, fiscal discipline, community involvement, staff training, and monitoring for optimal resource utilization.



Why do Panchayats Face Funding Related Issues?

Limited Taxation

Low Capacity and Utilization

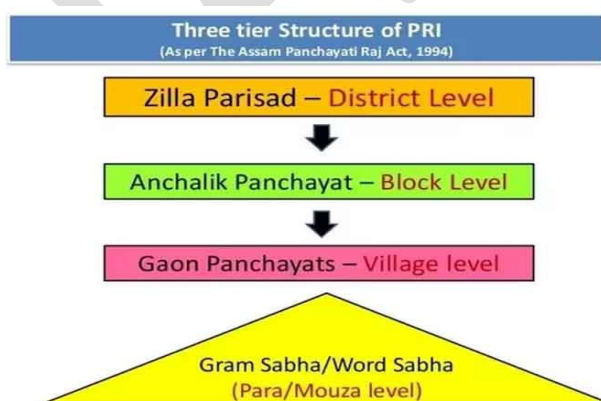
Fiscal Decentralization Issues

Repercussions of Panchayats' Financial Dependence

- **Limited Taxation:** PRIs possess restricted powers to impose cesses and taxes and receive minimal funds from the State Government, often hesitating to raise necessary funds due to concerns over popularity.
- **Low Capacity and Utilization:** PRIs may lack the capacity and skills to generate revenue from various sources and face challenges in utilizing funds efficiently due to inadequate planning, monitoring, and accountability mechanisms.
- **Fiscal Decentralization Issues:** Insufficient devolution of financial powers and functions from higher levels of government to PRIs hampers their ability to mobilize resources independently, undermining local governance and community empowerment.
- **Repercussions of Panchayats' Financial Dependence:** Dependence on external funding leads to interference from higher tiers of government and delayed release of funds, forcing panchayats to resort to private funds. Some regions report non-receipt of funds under key schemes, affecting their functioning adversely.

What is a Panchayati Raj Institution?

- The 73rd Constitutional Amendment Act, 1992 bestowed constitutional status upon PRIs and established a uniform structure comprising gram sabhas, panchayat samithis, and zila parishads.
- Article 243G of the Constitution empowers state legislatures to provide PRIs with authority and powers to function as self-government institutions.
- Provisions in Article 243H, Article 280(3)(bb), and Article 243-I of the Constitution aim at financial empowerment of PRIs.
- The Ministry of Panchayati Raj, established in May 2004, oversees all matters relating to PRIs.



Delimitation

Context: Delimitation of constituencies for the Lok Sabha and State Legislative Assemblies will be based on the First Census post-2026. The 2021 Census delay, initially due to the Covid-19 pandemic and subsequently due to Central government delays, has led to this development.

What is Delimitation?

- **About:** Delimitation involves fixing the number of seats and boundaries of territorial constituencies for the Lok Sabha and Legislative assemblies, including reserved seats for Scheduled Castes (SC) and Scheduled Tribes (ST).
- **Process:** The Delimitation Commission, established by Parliament, performs this task as mandated by respective Acts.

About Delimitation

- Delimitation fixes seats and boundaries for Lok Sabha and Legislative assemblies.
- Includes reserved seats for SC and ST.

History

- Conducted four times, first in 1950-51 by the President with Election Commission assistance.
- Last exercise in 1976 adjusted Lok Sabha based on 1971 census.

- **History:** Delimitation has occurred four times, with the first exercise conducted in 1950-51 by the President (with Election Commission assistance).
- **Last Exercise:** The most recent delimitation in 1976 adjusted Lok Sabha composition based on the 1971 census.

Constitutional Provisions

- **Article 82:** Parliament enacts a Delimitation Act post every Census.
- **Article 170:** States divide into territorial constituencies according to Delimitation Act post every Census.

What is the Significance of Delimitation?

- **Representation:** Delimitation ensures fair representation in Parliament and State Legislative Assemblies, adhering to the democratic principle of "one citizen-one vote-one value."
- **Equity:** By adjusting constituency boundaries, delimitation ensures equitable seat distribution, preventing underrepresentation or overrepresentation.
- **Reserved Seats:** It determines reserved seats for SC/ST communities, ensuring their political representation.
- **Federalism:** Delimitation balances federal principles by distributing political power among states while considering population shifts.
- **Population Control:** Historical policies aimed at population control, such as freezing seats based on the 1971 Census, raise questions amid changing demographics.

Concerns Related to Delimitation

- **Regional Disparity:** Concerns arise about regional representation disparities, particularly between northern and southern India.
- **Funding:** Using the 2011 Census for funding allocation may disadvantage states, especially in the south.
- **SC/ST Reservations:** Delimitation may alter SC/ST reservation dynamics, potentially shifting political power.

International Practices Related to Delimitation

- **US:** Seat redistribution occurs after every Census, maintaining proportional representation among states.
- **EU:** EU Parliament seats are allocated based on population size, following the principle of degressive proportionality.

What is the Delimitation Commission?

Appointment

- The President appoints the Commission, which collaborates with the Election Commission of India.

Composition

- It comprises a retired Supreme Court judge, the Chief Election Commissioner, and State Election Commissioners.

Functions

- The Commission determines constituency numbers and boundaries, as well as reserved seats for SC/ST communities.

Powers

- Commission decisions hold legal force and are not subject to court review.

Way Forward

Balancing representation and federalism is crucial, with suggestions including capping Lok Sabha seats, increasing MLA numbers based on population, and empowering local governance for grassroots democracy.

Public Examinations (Prevention of Unfair Means) Bill, 2024

Context: The Public Examinations (Prevention of Unfair Means) Bill, 2024, recently introduced in Lok Sabha, aims to combat "Unfair Means" to enhance transparency, fairness, and credibility in the Public Examinations System. Once enacted, the Bill will also serve as a model for states to adopt at their discretion.

What's in new Bill to stop cheating in exams

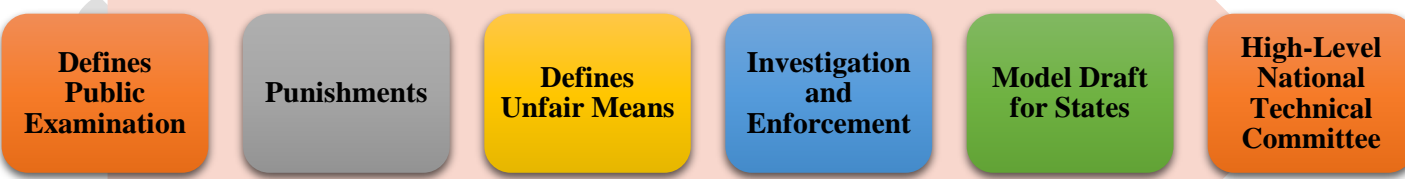
Public Examinations (Prevention of Unfair Means) Bill, 2024, was introduced in Lok Sabha on Feb 5.

It aims to prevent "unfair means" in order to "bring greater transparency, fairness and credibility to the public examinations system".

What is the Need for Such a Bill?

- **Instances of Question Paper Leaks**
 - Numerous cases of question paper leaks in recruitment exams nationwide have occurred in recent years.
 - Over the last five years, 48 instances of paper leaks in 16 states disrupted the government job hiring process, affecting approximately 1.51 crore applicants for about 1.2 lakh posts.
- **Malpractices Lead to Delay in Examinations**
 - Malpractices in public examinations cause delays and cancellations, adversely affecting the aspirations of millions of youth.
 - Currently, there is no specific substantive law addressing unfair means or related offenses.
 - Comprehensive central legislation is crucial to identify and address vulnerabilities within the examination system effectively.
- **To Bring Greater Transparency**
 - The Bill aims to enhance transparency, fairness, and credibility in public examination systems, reassuring youth that sincere efforts will be duly rewarded and their future secured.
 - It seeks to deter individuals, organized groups, or institutions from engaging in unfair means that undermine public examination systems for personal gain.

What are the Key Provisions of the Bill?



- **Defines Public Examination**
 - Under Section 2(k), a Public Examination encompasses any examination conducted by listed "public examination authorities" or other notified authorities by the Central Government.
 - Designated authorities include UPSC, SSC, RRBs, IBPS, NTA, and ministries or departments of the Central Government and their attached offices.
- **Punishments**
 - Offenses are cognizable, non-bailable, and non-compoundable, necessitating police investigation without magistrate permission and trial following a complaint.

What is meant by the use of “unfair means” in an examination?

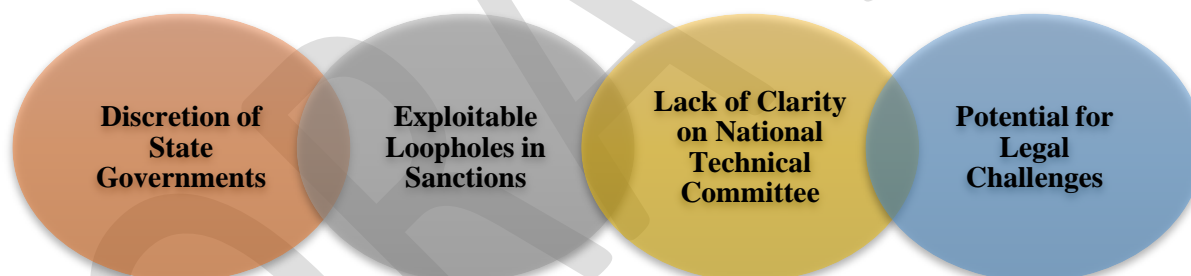
Section 3 of the Bill outlines 15 unfair actions in public exams for monetary or wrongful gain.

Acts include **leaking question papers**, **unauthorized access** to exam materials, tampering with answer sheets, and **creating fake documents** or websites for cheating.



- Punishments include imprisonment for three to five years and a fine up to Rs 10 lakh, with additional imprisonment for non-payment.
- Service providers involved in illegal practices face fines up to Rs 1 crore, with examination costs recovered proportionately.
- **Defines Unfair Means**
 - Section 3 lists 15 actions constituting unfair means, including question paper leaks, tampering with documents or computer systems, and creation of fake websites.
- **Investigation and Enforcement**
 - Offenses will be investigated by officers not below the rank of Deputy Superintendent of Police or Assistant Commissioner of Police.
- **Model Draft for States**
 - The Bill provides a model draft for states to adopt, aiding them in preventing disruptions in state-level public examinations.
- **High-Level National Technical Committee**
 - Establishment of a committee to develop protocols for securing digital platforms and formulating national standards for examination conduct.

What are the Concerns Related to the Bill?



- **Discretion of State Governments**
 - State government discretion in adopting the model may lead to variations in implementation, potentially weakening the law's effectiveness.
- **Exploitable Loopholes in Sanctions**
 - Provisions such as fines for service providers may not serve as adequate deterrents if not commensurate with gains from unfair means.
- **Lack of Clarity on National Technical Committee**
 - Lack of clarity regarding committee composition, qualifications, and mandate may raise concerns about expertise and impartiality.
- **Potential for Legal Challenges**
 - Stringent measures on cognizability and non-bailability may face legal challenges regarding proportionality and adherence to natural justice principles.

Conclusion

While the Bill addresses investigation and enforcement by designated officers, comprehensive oversight mechanisms are needed to ensure accountability and transparency in the examination process, including monitoring, complaint handling, and auditing procedures.

SC strikes down electoral bonds scheme, calls it unconstitutional

Context: On February 15, 2024, the Supreme Court delivered a significant judgment declaring the Electoral Bonds Scheme unconstitutional. The unanimous decision addressed various challenges raised against the scheme and ordered immediate actions to be taken.

Reasons for Supreme Court's Decision

- The scheme allowing anonymous political donations was deemed to infringe upon the fundamental right to information under Article 19(1)(a) of the Constitution.
- The court emphasized the role of transparency in fostering participatory democracy and holding the government accountable.

Not Proportionally Justified

- The government's failure to adopt less restrictive methods, such as imposing a cap on anonymous donations, was highlighted.
- The objective of curbing black money was deemed insufficient to justify restrictions on the right to information.

Donor Privacy and Free Elections

- The court distinguished between genuine political support and contributions made with the expectation of influencing policies.
- Unlimited corporate donations were found to undermine the fairness of elections.

Implications and Recommendations

- The SBI was instructed to cease issuing electoral bonds and provide detailed information on past transactions to the Election Commission of India (ECI).
- Electoral bonds within the validity period but not yet encashed by political parties must be returned.

Suggestions for Electoral Funding

- Regulation of donations and expenditure, public funding for parties, and disclosure requirements were proposed.
- Balancing transparency and anonymity in donation reporting was emphasized.
- Establishing a National Election Fund to allocate funds based on electoral performance was suggested.

Conclusion

The Supreme Court's decision to strike down the Electoral Bonds Scheme signifies a crucial step towards ensuring transparency and fairness in India's electoral process. It underscores the need for comprehensive reforms in political funding to safeguard the integrity of elections and promote public trust in democratic institutions.

What is the Electoral Bond Scheme?

Electoral bonds are financial instruments similar to promissory notes, purchasable by companies and individuals from the State Bank of India (SBI) and subsequently donated to political parties. These bonds are redeemable only in the designated account of registered political parties. Individuals, either singly or jointly, can purchase these bonds.

Electoral Bond Scheme

- Introduced in 2018, the Electoral Bonds Scheme aimed to enhance transparency in political funding in India.
- It was promoted as an electoral reform to align with the country's move towards a cashless-digital economy.

Amendments Made to the Scheme in 2022

- Introduced an additional 15-day period during general elections to the Legislative Assembly.
- Validity of electoral bonds extended to fifteen calendar days from the date of issue.

Eligibility

Only political parties meeting certain criteria, such as securing at least 1% of votes polled in the last General Election, are eligible to receive electoral bonds.

Rights of Forest-Dwellers in India

Context: Earlier this month, the notification of the Thanthai Periyar Sanctuary in Erode district of Tamil Nadu triggered consternation among forest-dwellers around it. They have expressed fear that this is a prelude to their rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (FRA) being denied. They have accused the district and State administrations of violating the relevant laws.

Forest Rights Act, 2006

Background

- Recently, the notification of the Thanthai Periyar Sanctuary in Erode district, Tamil Nadu, has raised concerns among forest-dwellers in the vicinity.
- These residents fear that their rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) might be denied.
- They accuse the district and state administrations of violating relevant laws.
- The Thanthai Periyar Sanctuary is situated between the Sathyamangalam Tiger Reserve of Tamil Nadu and the Male Mahadeshwara Wildlife Sanctuary and Cauvery Wildlife Sanctuary of Karnataka.
- Six tribal forest villages, excluded from the sanctuary due to not being revenue villages, lack basic rights and amenities and are confined to a 3.42 sq. km area.

The Forest Rights Act (FRA), 2006 recognizes the rights of forest-dwelling tribal communities and other traditional forest dwellers to forest resources for various needs such as livelihood, habitation, and socio-cultural purposes.

Objectives include rectifying historical injustices, ensuring land tenure, livelihood, food security, and strengthening forest conservation efforts.

Rights Granted by the Act

Land Rights

Forest dwellers are entitled to land ownership up to 4 hectares per family for cultivated land, with restrictions on transfer.

Use Rights

Rights extend to extracting Minor Forest Produce and grazing areas, excluding timber.

Right to Protect and Conserve

Communities have the right to manage and protect forests, crucial for safeguarding against threats like forest mafias and land grabbers.

Eligibility and Recognition Process

- Scheduled Tribes members primarily dependent on forests for livelihood or residing there for at least three generations can claim rights.
- The recognition process involves Gram Sabha recommendations followed by scrutiny by screening committees at Taluka and

Gram Sabha

Consists of all eligible voters at the village level, defined under Article 243(b) of the Indian Constitution.

District levels, culminating in a decision by the District Level Committee.

Rights in Thanthai Periyar Sanctuary

- A recent notification prohibits cattle-grazing in the sanctuary, potentially impacting Bargur cattle's access to traditional grazing areas.
- Despite the FRA recognizing grazing rights, an order from the Madras High Court imposes restrictions on cattle grazing only in national parks, sanctuaries, and tiger reserves, unique to Tamil Nadu.

New changes in the Water Act

Context: The Lok Sabha recently passed the Water (Prevention and Control of Pollution) Amendment Act, 2024. It makes important changes to the Water (Prevention and Control of Pollution) Act, 1974.

About Water (Prevention and Control of Pollution) Act of 1974 and Recent Amendments

- The Water (Prevention and Control of Pollution) Act of 1974 was enacted to address water pollution in India.
- It established the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCB) in September 1974.
- These boards are responsible for monitoring and preventing water contamination from sewage and industrial effluents.
- Industrial units need permission from state boards before establishing factories and must adhere to environmental norms.
- The CPCB collects data on water pollution and sets technical standards, while the SPCB enforces compliance with penalties including fines and imprisonment.
- Amendments to the Act have been made to improve water management and pollution control.
- The central government's legislative power is limited unless requested by two or more states due to water being a state subject.
- Recent amendments apply to certain states and union territories, replacing imprisonment for minor violations with fines.
- The central government gains authority to override SPCBs in specific scenarios and exempt certain industrial plants from SPCB consent requirements.
- Operating an industrial unit without SPCB consent remains a serious offense with potential imprisonment and fines.
- The central government can issue guidelines for SPCB consent procedures and penalties for unauthorized industry operation.
- It also gains authority over selecting SPCB chairpersons and issuing guidelines for consent-related procedures.

About CPCB

- A statutory organization under Mo.E.F.C.C. established in 1974.
- Derives authority from the Water (Prevention and Control of Pollution) Act, 1974.
- Also functions under the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986.
- Coordinates State Pollution Control Boards' activities, provides technical assistance, and resolves disputes.
- Apex pollution control organization in India, advising the central and Union Territory governments.
- Conducts environmental assessments, research, and monitors water and air quality.
- Works with industries and governments on pollution prevention and energy conservation.
- Employs approximately 500 full-time staff, including engineers, scientists, and environmental specialists.



Governance & Social Justice

Dispute over Varanasi, Mathura mosques

Context: With the escalation of the Babri-Masjid Ram Janmabhoomi conflict, attention turned to two other mosques: the Gyanvapi mosque in Varanasi and the Shahi Idgah in Mathura. In September 1991, a special law was enacted by the government to freeze the status of places of worship as it stood on August 15, 1947, excluding the ongoing Ayodhya litigation from its purview.

About Places of Worship (Special Provisions) Act, 1991

- Described as legislation to prohibit the conversion of places of worship and to maintain their religious character as of August 15, 1947.
- Stipulates that the religious character of a place of worship shall remain unchanged from that date and prohibits conversion of any place of worship to a different denomination or section.
- Exemptions include the disputed Ayodhya site, ancient and historical monuments, settled disputes, and conversions by acquiescence before the Act's enforcement.

2022 Lawsuit by Hindu Women

- Hindu women worshippers filed a suit in 2022.
- Objective: Assert their right to worship deities on the premises.

1991 Suits for Lord Vishweshwar

- Suits filed in 1991.
- Aim: To declare a specific site as belonging to Lord Vishweshwar.

Court Orders Support

- Ongoing court orders support the continuation of these suits.
- Archaeological Survey of India (ASI) reports the existence of a temple before the mosque's construction.

ASI Findings

- ASI's findings strengthen the case for the existence of a temple prior to the mosque's construction.

Legal Context

- Ongoing legal battles underline the significance of the dispute.
- Highlights the struggle for the rights of Hindu worshippers.

Historical Significance

- ASI's discovery adds historical weight to the Hindu claims.

Continued Litigation

- Ongoing legal proceedings indicate the unresolved nature of the issue.
- Signifies the complexity and importance of the dispute.

Criticism

The law bars judicial review

Imposes an arbitrary retrospective cutoff date

Infringes upon the religious rights of certain groups

Status of Ongoing Cases on the Gyanvapi Mosque

- A suit filed in 2022 by Hindu women worshippers seeks to assert their right to worship deities they claim exist on the premises.
- Another batch of suits filed in 1991 aims to declare a part of the site as belonging to Lord Vishweshwar.

- Court orders have favored the continuation of these suits, with the Archaeological Survey of India (ASI) reporting the existence of a temple prior to the mosque's construction.

Status of Ongoing Cases on the Mathura's Shahi Idgah

- Suits concerning the Shahi Idgah mosque challenge its construction over the birthplace of Lord Krishna.
- A compromise settled in 1968, implemented through a decree in 1974, is contested as fraudulent, with suits seeking the transfer of the entire land to the deity.
- The Allahabad High Court has consolidated all suits related to the Mathura dispute.

SALIENT POINTS

- ▶ The original suit of 1991 is not barred by the Places of Worship Act 1991
 - ▶ The suits are of national importance, not between two parties, but two communities
 - ▶ Trial court should expeditiously decide the suit
- preferably within a period of six months
- ▶ The report of the ASI survey just done in the Shringar Gauri case should be submitted in this case also
 - ▶ If the trial court wants further survey, it can order the agency



Why Did the Places of Worship (Special Provisions) Act Not Cover Gyanvapi and Shahi Idgah?

- Court rulings assert that the Act does not bar suits concerning Gyanvapi and Shahi Idgah, as they aim to assert worship rights and challenge past agreements rather than convert the mosques.
- The Act's lack of definition for 'religious character' and the examination of evidence to determine it undermine claims of absolute prohibition on proceedings to ascertain religious character.

Rethinking India's Examination System

Context: As the examination season approaches, the discourse on India's Examination system gains momentum, shedding light on its deficiencies and suggesting avenues for improvement.

Issues Related to the Examination System in India

School-Leaving Examinations and Limited Secondary Education

- The school-leaving exam, originating in the late 19th century, served to select candidates for further education, then scarce, and lower-level office jobs, functioning as an elimination tool.
- This practice persists today, with Grade 10 exams barring many from further education due to the scarcity of secondary and higher secondary education opportunities.

Illusion of Equal Opportunity

- Exams purportedly provide equal opportunities to all, regardless of background, as the identities of paper-setters and evaluators remain undisclosed, fostering a facade of equality amid diverse circumstances.

Emphasis on Competition over Comprehension

- India's educational system prioritizes competition, fostering rote memorization over genuine understanding.
- The rigid school structure and curriculum exacerbate this issue, leaving little room for exploration and holistic learning.

Intense Competition and Stress

- India's examination system unfavorably compares to assessment systems in other societies, promoting intense competition and stress from an early age, leading to rote learning.

School-Leaving Examinations and Limited Secondary Education

Illusion of Equal Opportunity

Emphasis on Competition over Comprehension

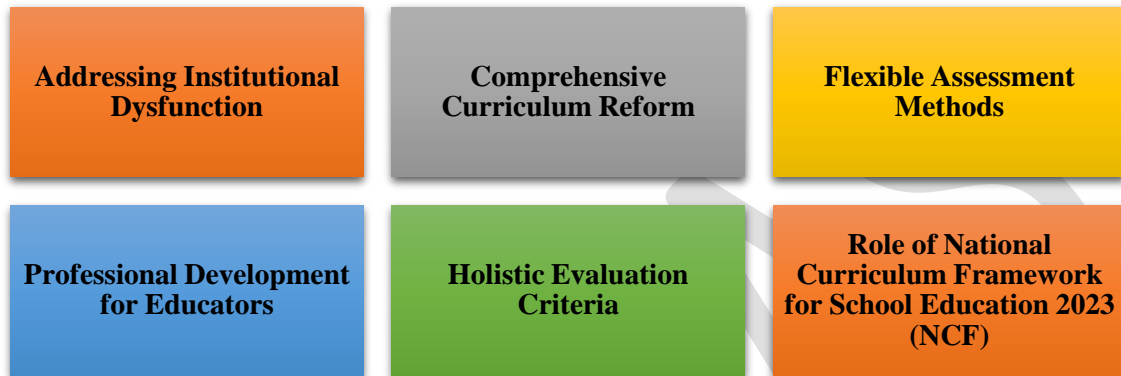
Intense Competition and Stress

Poor Academic Infrastructure

Poor Academic Infrastructure

- Many Boards lack sufficient staff and academic faculty to oversee procedures, with several State Boards facing significant academic infrastructure challenges.
- Even prominent boards like CBSE and ICSE operate bureaucratically, potentially compromising examination quality.

What can be Done to Reform India's Examination System?



Addressing Institutional Dysfunction

- Rectify systemic inadequacies within examination boards, including staffing shortages and infrastructure deficiencies.
- Prioritize enhancement of academic faculty and administrative capabilities for effective monitoring and evaluation.
- Foster transparency and accountability within examination boards to uphold integrity and fairness.

Comprehensive Curriculum Reform

- Streamline and rationalize the curriculum to accommodate diverse learning needs while emphasizing critical thinking and problem-solving skills over memorization.
- Integrate interdisciplinary approaches to promote holistic understanding.

Flexible Assessment Methods

- Introduce modular examination formats to allow proficiency demonstration over time.
- Shift from high-stakes examinations to a nuanced assessment framework valuing continuous learning.

Professional Development for Educators

- Invest in comprehensive training programs for educators to deepen pedagogical and assessment understanding.
- Promote collaboration among teachers for continuous improvement and innovation.

Holistic Evaluation Criteria

- Expand evaluation criteria to include creativity, collaboration, and emotional intelligence.
- Develop alternative assessment methods such as portfolios and projects.

Role of National Curriculum Framework for School Education 2023 (NCF)

- Envisaged in NEP 2020, the NCF aims to positively transform India's school education system through curriculum changes aligned with constitutional principles.

What Initiatives have been Taken to Reform the Education System?



Conclusion

By adopting a multifaceted approach, India can reform its examination system structurally, pedagogically, and culturally, paving the way for an equitable, empowering education system. Collaboration among stakeholders is crucial to enact meaningful reforms prioritizing holistic student development and well-being, ensuring a brighter future for generations.

Global meet urges India to augment pulses production to meet nutritional needs

Context: The Global Pulses Conference, an annual gathering of pulse stakeholders, has advised India to increase pulse production to meet nutritional needs.

Key Remarks from Ministers

Ministers Arjun Munda and Piyush Goyal affirmed that the government has implemented measures to boost pulse cultivation, including regular increases in the minimum support price (MSP).

Conference Details

The two-day conference, organized by NAFED and GPC, aims to facilitate knowledge sharing on best practices and technological advancements in pulse cultivation.

Recent Trends in Pulse Production

- India leads globally in pulse production, consumption, and importation.
- Top five pulse-producing states include Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, and Karnataka.
- Pulse production has surged by 60% over the past decade, reaching 270 lakh tonnes in 2024.
- The partnership between NAFED and GPC seeks to position India as a global leader in pulse production.

Government Initiatives

- The government assures farmers a minimum support price, providing an attractive return on investment.
- MSP rates have seen significant increases, with up to 117% in masoor, 90% in moong, and 75% in chana dal over the past decade.
- India has achieved self-reliance in chickpeas and is nearing self-sufficiency in other pulse crops.
- Efforts are underway to achieve self-sufficiency in pulses by 2027, with a focus on expanding cultivation of tur and black gram.

About the Global Pulses Confederation (GPC)

- GPC is an organization representing the worldwide pulse industry.
- It encompasses various stakeholders, including growers, researchers, traders, and consumers.
- Headquartered in Dubai, GPC is licensed by the Dubai Multi Commodity Centre (DMCC).



The diversity blindspot in health policy

Context: Despite comprising nearly half of India's health workforce, women are significantly underrepresented in leadership positions within the health sector. An analysis of India's National Health Committees between 1943 and 2020 sheds light on the disparities and challenges faced by women in reaching the top of the health pyramid.

Key Highlights

Over-concentration of privileged actors

Lack of women in leadership positions

Gender pay gap and devaluation of women's work

Global trend

- **Over-concentration of privileged actors:** The pyramid's apex is dominated by men, doctors, individuals from Delhi-NCR, and bureaucrats, indicating a lack of diversity and over-representation of the privileged.
- **Lack of women in leadership positions:** Only 11% of women were present in health committees, with 36% of committees having no female representation.
- **Gender pay gap and devaluation of women's work:** Women, who constitute a significant portion of healthcare workers, earn 34% less than men on average and face limited opportunities for career advancement.
- **Global trend:** Similar gender disparities exist globally, with women occupying only a fraction of leadership roles in healthcare despite comprising the majority of the workforce.

Unique Challenges in Indian Health Policy Approaches

Concentration of medical leadership

- Delhi-NCR dominates, while hilly areas like the North-Eastern states have low representation.

Top-down approach and uniform policies

- Lack of consideration for diverse needs and contexts across different regions of India.

Inadequate representation of directly affected people

- Policies often fail to consider the perspectives of those directly impacted, such as patients and marginalized communities.

Recommendations

Identity-based considerations in decision-making

Instituting dedicated resources for women

Representation of directly affected people

- **Identity-based considerations in decision-making:** Take into account challenges faced by women and marginalized groups in hiring, promotion, and rotating decisions.
- **Instituting dedicated resources for women:** Provide flexible working arrangements and support mechanisms to help women break through glass ceilings.
- **Representation of directly affected people:** Include diverse voices in policy-making processes to ensure policies are responsive to the needs of all stakeholders, particularly those most affected by healthcare decisions.

Way Forward

- **Equitable representation:** Stakeholders from diverse backgrounds should be included in decision-making processes to ensure more inclusive health policies.

- **Addressing gender disparities:** Implement measures such as reserving seats for women and marginalized individuals on health committees.
- **Empowering women in leadership:** Provide resources and support systems to promote the advancement of women in healthcare leadership roles.
- **Incorporating diverse perspectives:** Ensure policies consider the needs and experiences of all stakeholders, including patients and marginalized communities.

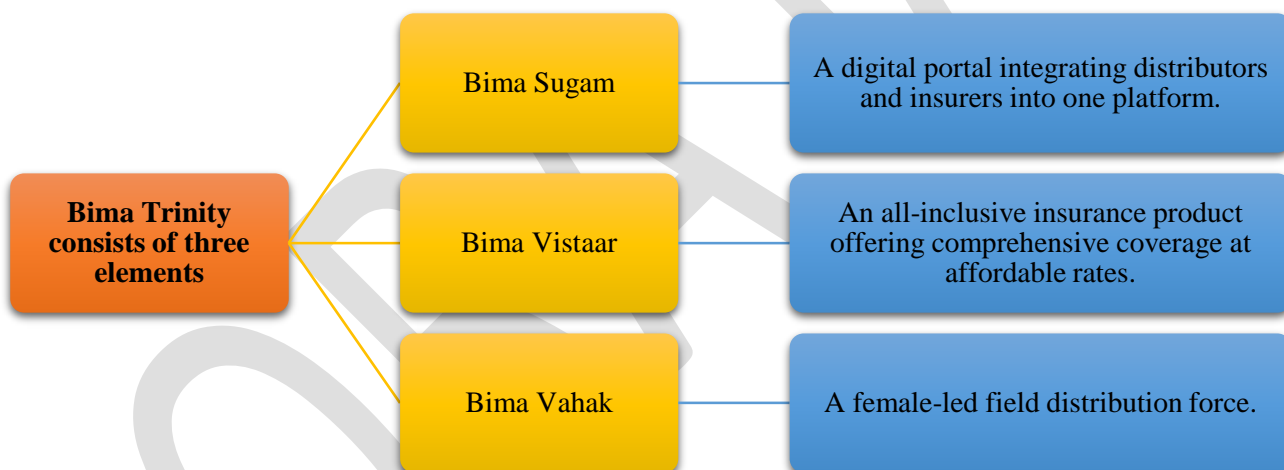
Addressing gender disparities in Indian health leadership requires concerted efforts to promote diversity, equity, and inclusion. By empowering women and incorporating diverse perspectives, India can build a more inclusive and responsive healthcare system for all.

IRDAI issues exposure draft on Bima Sugam e-marketplace for insurance

Context: The Insurance Regulatory and Development Authority (IRDAI) has introduced an exposure draft proposal for an insurance electronic marketplace known as Bima Sugam. Bima Sugam is likened to the UPI moment for insurance and is one part of the Bima trinity.

Bima Trinity

Bima Trinity is a three-pronged strategy by the Indian government to boost insurance penetration. It's an initiative aimed at enhancing the availability, affordability, and accessibility (the three As) of insurance products to a broader population.



Bima Sugam

About	<ul style="list-style-type: none"> • It's an online platform where customers can select a suitable insurance scheme from multiple options provided by various companies. • Bima Sugam caters to all insurance needs, including life, health, and general insurance (such as motor and travel). • This platform facilitates paperless settlement of claims, be it for health coverage or death claims, based on policy numbers.
Steps taken by IRDA	<ul style="list-style-type: none"> • IRDAI has formed a committee to develop the platform. • It plans to solicit proposals soon to appoint a service provider for the platform. • The service providers will be technological partners responsible for creating and operating the platform.
Benefits of Bima Sugam	<ul style="list-style-type: none"> • Single window for policyholders • Empowerment of consumers

	<ul style="list-style-type: none"> • Benefits for insurance companies and intermediaries • Universalization and democratization of insurance • Transition from physical to online mode • Aligning with the demat account model
Key highlights of the proposed guidelines	<ul style="list-style-type: none"> • Not-For-Profit Structure • Multi-Stakeholder Ownership • Regulatory Oversight • Risk Management • Consent-Based Architecture • Free Services for Consumers

Insurance Regulatory and Development Authority of India (IRDAI)

- IRDAI is a statutory body established under the Insurance Regulatory and Development Authority Act, 1999.
- Its responsibilities include regulating the insurance business, promoting its orderly growth, and safeguarding policyholders' interests.

Granting bail in UAPA cases

Context: The Supreme Court recently denied bail to Gurwinder Singh, an accused in an alleged Khalistan module, who is implicated in a larger conspiracy involving Sikhs for Justice, a pro-Khalistan group banned by the Indian government.

- Although courts have occasionally granted bail under the UAPA, despite its stringent conditions, they have generally interpreted Section 43D (5) to allow bail only in exceptional cases.

Unlawful Activities Prevention Act (UAPA), 1967	
About	Enacted in 1967, the UAPA serves as India's primary counter-terrorism law, aimed at outlawing and penalizing unlawful and terrorist activities threatening the nation's integrity and sovereignty.
Key provisions	<ul style="list-style-type: none"> • The UAPA grants extensive powers to the Central Government to designate organizations as terrorist and prescribes penalties for involvement in such activities. • It applies to offenses committed both within and outside India, with both Indian and foreign nationals liable for charges.
Timeline	<ul style="list-style-type: none"> • A charge sheet must be filed within 180 days of arrest, with the investigation completed within 90 days. • Failure to complete the investigation within the stipulated time entitles the accused to default bail.
Special court	The act establishes special courts designated to conduct trials under UAPA.
Sanction to prosecute under UAPA	<ul style="list-style-type: none"> • Section 45(1) mandates prior sanction from the central or state government, or an authorized officer, for any offense under the act. • The sanction must be given within a prescribed time frame after considering the competent authority's report.
2019 Amendment of UAPA	The 2019 amendment broadened the scope of the act, empowering the government to designate individuals as terrorists and requiring NIA approval for property seizure during NIA-led investigations. It also added a treaty to the list of treaties defining terrorist acts.
Section 43D(5) of UAPA	This provision addresses the granting of bail to terror accused, making bail virtually impossible under UAPA.

Supreme Court on Section 43D(5) of UAPA

- In various cases, the Supreme Court has upheld the stringent bail provisions under UAPA, emphasizing acceptance of the state's case without scrutinizing its merits.
- However, recent rulings have recognized the right to speedy trial as a ground for granting bail, and there's ongoing debate regarding the interpretation of the "prima facie true" test for bail under UAPA.

Clause in draft India-EFTA pact may hit drug industry

Context: A provision within a preliminary text of a free trade agreement being discussed between India and the European Free Trade Association (EFTA) could potentially postpone access to affordable generic versions of patented medications in India by at least six years.

Trade and Economic Partnership Agreement (TEPA)

- Established in 2018, TEPA is geared towards enhancing trade and investment ties between India and EFTA.
- Its objectives encompass reducing tariffs, ensuring equitable market access, and strengthening intellectual property (IP) rights protection.

European Free Trade Association (EFTA)

- EFTA is a regional trade bloc and free trade area consisting of four European countries: Iceland, Liechtenstein, Norway, and Switzerland.
- These nations operate alongside the European Union (EU), participating in the European Single Market and the Schengen Area, but they are not part of the EU Customs Union.
- Formed on May 3, 1960, as an alternative trading bloc for European states that were not part of the European Economic Community (EEC), the EU's precursor.
- The Stockholm Convention of 1960 established EFTA, with seven founding countries (referred to as the "outer seven").
- A revised Vaduz Convention was signed on June 21, 2001, and came into effect on June 1, 2002.
- While EFTA member states retain the autonomy to engage in bilateral trade deals with third countries, they maintain a coordinated trade policy.
- Consequently, EFTA nations have collectively negotiated free trade agreements with the EU and numerous other nations.
- Iceland, Liechtenstein, and Norway are signatories to the Agreement on the European Economic Area (EEA) to access the EU's single market, overseen by the EFTA Surveillance Authority and the EFTA Court.

Navy chief inaugurates new defence systems

Context: Admiral R Hari Kumar, the Navy Chief, inaugurated the Precision Approach Radar (PAR) at INS Utkrosh in the South Andaman Islands during his 3-day visit from 6 to 9 February 2024. The visit aimed to bolster the operational capabilities of the Andaman and Nicobar Command (ANC).

About Precision Approach Radar (PAR)

- Manufactured by a Chennai-based company, PAR facilitates safe aircraft landings in adverse weather conditions like heavy rain and fog.
- It offers precise horizontal and vertical guidance even in low visibility scenarios, aiding pilots in aligning with the runway centerline.
- Positioned near the runway midpoint, PAR operates remotely and assists controllers in providing accurate navigational guidance to pilots.
- Its accuracy allows for lower minimum descent during landings, increasing visibility and safety for pilots.

IUHDSS Launch in Port Blair

- The Integrated Underwater Harbor Defence and Surveillance System (IUHDSS) was inaugurated at Naval Jetty, Port Blair, to bolster the security of Port Blair port.
- IUHDSS is proficient in detecting, identifying, and tracking surface and underwater targets in the vicinity of Naval Dockyards, enhancing port security.

Purpose of Navy Chief's Visit

- Admiral Kumar's visit aimed to evaluate and enhance the operational capabilities of India's sole operational Joint Services Command.
- Discussions during the visit encompassed Andaman and Nicobar Islands' role in military operations, the strategic significance of the Andaman and Nicobar Command, and support for India's 'Act East' policy.

Foundational Stone Laying and Facility Inaugurations

- Admiral Kumar laid the foundation stone for sailors' accommodation at Vijay Baugh and inaugurated various facilities to strengthen ANC capabilities.
- Additionally, he inaugurated Naval Communication Network (NCN) centers at Northern and Southern Islands units of ANC, promoting communication and situational awareness among tri-services.
- 'Saksham' VC Facility Inauguration:
- Kala Hari Kumar inaugurated the 'Saksham' VC facility at Navy Children School, Port Blair, during a special event, primarily for ANC personnel's spouses.
- The facility aims to enhance communication and support jointness among tri-services in ANC operations.

New guidelines released for community radio stations

Context: The Information and Broadcasting Minister released revised policy guidelines for establishing Community Radio Stations (CRSs) in India on World Radio Day (February 13th), aiming to bolster the community radio sector.

- These guidelines were unveiled during the Regional Community Radio Sammelan (South) at Anna University, Chennai, commemorating 20 years of Community Radio in India.

What are Community Radio Stations (CRS)?

- Community Radio is a distinct tier in Radio Broadcasting, separate from Public Service Radio broadcasting and Commercial Radio.
- CRSs are low-power Radio Stations operated by local communities.
- In 2002, the Indian government approved a policy allowing well-established educational institutions to set up CRSs.
- The policy was amended in 2006, enabling community-based organizations like ICAR institutions, Krishi Vigyan Kendras, Registered Societies, Public Charitable Trusts, etc., to establish and operate CRSs, fostering greater community participation in developmental and social issues.

Significance of Community Radio

- CRSs offer a platform for local voices to address issues related to Health, Nutrition, Education, Agriculture, etc.
- Broadcasting in local languages and dialects facilitates instant connection and engagement.
- CRSs promote people's involvement in development programs through a comprehensive approach.
- They preserve local folk music and cultural heritage, reflecting India's linguistic and cultural diversity.
- CRSs serve as instruments for positive social change, empowering communities.

Establishment of CRS in India

- India's first Community Radio began at Anna University, Chennai, on February 1st, 2004.

- Licenses were later extended to well-established educational institutions and expanded to include 'Non-profit' organizations.
- The government facilitated ease of registration by transitioning the application process online.
- The sector has witnessed significant growth, with CRS numbers rising from 140 in 2014 to 481 in 2023, with 155 added in the last two years.
- The target is to establish over 1000 CRSs in India within the next three years.

Revised Policy Guidelines

- The revised guidelines entail an increase in advertising rate to ₹74 per 10 seconds and advertising time to 12 minutes per hour.
- Licensees must form an advisory and content committee with 50% representation for women.
- Eligible organizations operating in multiple districts can establish a maximum of six CRSs in different districts, subject to specific conditions.
- The initial permission period has been extended to 10 years, and the validity of the Letter of Intent is set at one year.
- A three-month buffer is provided for unforeseen circumstances, with fixed timelines for the application process.
- The revised policy aims to stimulate growth in the community radio sector.

Weather Information Network and Data System (WINDS)

Context: The Union Ministry of Agriculture & Farmers Welfare, Government of India, has initiated the Weather Information Network and Data System (WINDS) to produce long-term, hyper-local weather data.

Reasons for Transitioning to Hyperlocal Extreme Weather Forecasting in India

- Weather forecasting is crucial for informed decision-making in disaster management, especially regarding rain, cyclones, heatwaves, and drought.
- The Indian Meteorological Department (IMD) is the primary government agency for meteorology, employing complex techniques to forecast weather patterns.
- Despite improvements, Indian forecasts can still be inaccurate, particularly during winter and summer monsoons, due to the inherently higher variability of tropical weather.

Main Challenges in Indian Weather Forecasting

- Lack of sufficient weather monitoring ground stations, with only around 800 automatic weather stations (AWS) and 37 doppler weather radars (DWR) against the required 3,00,000 and 70 respectively.
- Reliance on outdated prediction technologies, necessitating the development of an integrated system to address data gaps.

Challenges in Predicting Air Pollution and the Way Ahead

- Air pollution, particularly dense fog, poses health risks, necessitating affordable and reliable air quality monitoring systems.
- Indian initiatives such as Make in India and efforts by IITs to establish affordable air quality sensors aim to address this issue.

About the WINDS Portal

- Launched in July 2023 by the Department of Agriculture & Farmers Welfare, it aims to install over 200,000 ground stations to enhance weather data collection.
- The system will generate hyper-local weather data to improve predictions and decision-making, facilitating wider applications in agriculture and other sectors.

- An integrated AI/ML-based model incorporating data from new sensors can improve fog prediction, aiding transportation and health-related decision-making.
- About the India Meteorological Department (IMD):
- Established in 1875, IMD is the National Meteorological Service of India under the Ministry of Earth Sciences.
- It provides meteorological observations and forecasts for various sectors and issues warnings for severe weather phenomena.
- Additionally, IMD conducts research in meteorology and allied disciplines.

Over 3 lakh ASHAs apply for Centre's health cover

Context: The Indian government has decided to expand the coverage of the Ayushman Bharat free public health insurance scheme to include Accredited Social Health Activists (ASHAs), Anganwadi workers, and helpers.

- The Health Ministry has collected Aadhaar details for over three lakh ASHA workers and 23 lakh Anganwadi personnel from various states.

Key Highlights

- The Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) provides health coverage up to ₹5 lakh annually to impoverished families, recently extended to include healthcare workers as per the Finance Minister's announcement during the interim Union Budget 2024-25.
- The ASHA program, vital for community health, has played a significant role in providing healthcare access, particularly during the COVID-19 pandemic.
- As of December 31, 2023, India had over 13 lakh Anganwadi workers, over 10 lakh helpers, and 9.83 lakh ASHAs, making it the largest community volunteer program worldwide.
- Currently, 55 crore individuals across 12 crore families benefit from AB-PMJAY, with states/UTs expanding coverage at their expense.
- Up to December 20, 2023, approximately 28.45 crore Ayushman cards have been issued, leading to 6.11 crore hospital admissions valued at ₹78,188 crore, including 1.7 crore admissions in 2023 worth over ₹25,000 crore.
- The scheme has achieved gender equity in healthcare access, with women comprising about 49% of Ayushman cardholders and 48% of hospital admissions, across 26,901 empanelled hospitals, including 11,813 private ones.

Accredited Social Health Activists (ASHA)

Accredited Social Health Activists (ASHA)	
About	<ul style="list-style-type: none"> • The ASHA program began in 2005-06 under the National Rural Health Mission, initially targeting rural areas and later extended to urban settings through the National Urban Health Mission in 2013. • It has become the largest community health worker program globally, fostering community participation in health. • As of June 2022, there are over 10.52 lakh ASHAs in all states/UTs (excluding Goa).
Role of ASHA	<ul style="list-style-type: none"> • ASHA serves as a community-level health care facilitator and service provider, raising awareness on health issues. • They deliver crucial services in maternal child health, family planning, and under the National Disease Control Programme. • ASHA workers, predominantly women, serve populations of about 1,000 in rural areas and 2,000 in urban settings, with adjustments made based on local needs.
Selection of ASHA	<ul style="list-style-type: none"> • ASHA must primarily be a woman resident of the village, married/widowed/divorced, aged preferably between 25 to 45 years, and literate. • Preference is given to those with at least a 10th standard qualification if available in sufficient numbers.

- ASHA workers are considered honorary/volunteer positions, not government employees.

Ayushman Bharat Approach

- It comprises establishing health and wellness centers for accessible healthcare and implementing the Pradhan Mantri Jan Arogya Yojana (PMJAY) to financially safeguard poor families from health-related expenses.
- PMJAY provides a ₹5 lakh insurance cover per family for secondary and tertiary care, with beneficiaries identified through the latest Socio-Economic Caste Census (SECC) data.
- Beneficiaries can seek treatment in any empanelled hospital, with costs shared between the center and state governments.
- Empanelled hospitals adhere to predefined rates for medical procedures under PMJAY, ensuring affordability and transparency.
- The National Health Agency, established as an autonomous entity, collaborates with state governments for effective PMJAY implementation.

PSBs can now check on big borrowers on unified portal

Context: Public sector banks (PSBs) can now swiftly check the background of large borrowers and verify the presence of any non-performing assets (NPAs) with just one click.

Benefit

- This development is anticipated to accelerate lending decisions.

Unified portal

- The Indian Banks' Association reports the launch of an "Automated Search Portal" by the Central Economic Intelligence Bureau (CEIB) in partnership with the State Bank of India (SBI).

Objective

- The portal aims to streamline the process of intelligence clearance for banks by facilitating antecedent verification of potential borrowers and NPAs.

Importance

- The initiative aims to facilitate the timely disbursement of funds.

Features

- The Department of Financial Services, under the Finance Ministry, has mandated PSBs to obtain a report from the CEIB before approving loans exceeding ₹50 crore for new borrowers or if existing borrower accounts become NPAs.
- The CEIB, in collaboration with SBI, has developed a digital platform enabling all PSBs to promptly obtain mandatory intelligence clearance.

Centre amends surrogacy rules, allows couples to use donor gametes

Context: The Centre has recently amended the 2022 surrogacy rules, overturning the ban on donor gametes imposed in March 2023.

What is Surrogacy?

Surrogacy involves a legal arrangement wherein a woman carries and delivers a child for another individual or couple, typically when they are unable to conceive or carry a pregnancy themselves.

Surrogacy Rules Amendment

Medical condition of intended couple

The latest amendments allow surrogacy using donor gametes if the District Medical Board certifies that either the husband or wife in the intending couple has a medical condition necessitating the use of donor gametes.

At least one gamete from the intending couple

Surrogacy with a donor gamete is permitted with the stipulation that the child born through surrogacy must have at least one gamete from the intending couple.

Single woman (widow or divorcee)

The rules specify that a single woman (widow or divorcee) opting for surrogacy must utilize her own eggs and donor sperm for the procedure.

UGC's Draft Guidelines Spark Outrage over 'Dereservation' in Faculty Recruitment

Context: The Union government and the University Grants Commission (UGC) clarified that reserved faculty positions in universities for SC, ST, OBC, and EWS candidates will not be opened to the general category.

Mandate of UGC

- Promoting and coordinating university education.
- Determining and maintaining standards of teaching, examination, and research in universities.
- Framing regulations on minimum standards of education.
- Monitoring developments in collegiate and university education and disbursing grants.
- Serving as a vital link between the Union and State governments and advising on measures for the improvement of university education.

About University Grants Commission (UGC)

- The UGC is a statutory body under the UGC Act, 1956, responsible for coordinating, determining, and maintaining standards of higher education.
- It provides recognition to Indian universities, disburses funds to recognized universities and colleges, and operates under the Department of Higher Education, Ministry of Education.

News Summary

- In December 2023, the UGC shared draft guidelines on implementing the reservation policy in higher education institutions for public feedback.
- The draft proposed de-reservation of unfilled quota posts for teachers, officers, and employees in universities in exceptional circumstances, with adequate justification.
- Recommendations included submitting proposals for de-reservation to the Education Ministry for Group A and B posts and to the Executive Council for Group C and D posts.
- The draft faced criticism, leading to clarification by the UGC chairman that it is a draft, and considerations related to de-reservation will be removed in the final document.

Current Position

- Reserved faculty positions are not converted to recruit general candidates.
- The Department of Personnel and Training (DoPT) permits de-reservation in exceptional circumstances for Group A posts, but this provision has not been implemented in universities.
- Unfilled quota positions undergo re-advertisement, and universities conduct special recruitment drives without opening these positions to the general category.

LABHA

Context: The Odisha government recently unveiled initiatives for the welfare of the tribal population.

LABHA (Laghu Bana Jatya Drabya Kraya) Yojana

- A 100% State-funded minimum support price (MSP) scheme for minor forest produce (MFP) was announced.
- The MSP will be determined annually by the State government.
- Primary collectors, predominantly tribal individuals, can sell MFP under this scheme.
- Tribal Development Cooperative Corporation Limited of Odisha (TDCCOL) will manage procurement centers.
- SHGs and other notified agencies, assisted by TDCCOL, will manage these procurement centers.
- Integration with Mission Shakti's Women SHGs, recognizing the majority of primary collectors as tribal women.
- Implementation of a procurement automation system to track total MFP collection, details of primary collectors, and procurement points.
- **Significance:** Aims to prevent distress sales of produce to middlemen.

Commission for the Preservation and Promotion of the Tribal Languages

- Establishment of a commission dedicated to preserving and promoting tribal languages of Scheduled Tribes in Odisha.
- Objectives include encouraging multilingual education, documenting and preserving tribal languages, promoting language use, and protecting linguistic rights.
- Efforts to include tribal languages like Ho, Mundari, Kui, and Saora in the 8th Schedule of the Indian Constitution.

Tribal Population in Odisha

- Odisha is home to 62 distinct tribes, including 13 Particularly Vulnerable Tribal Groups (PVTG).
- Scheduled Tribes in Scheduled Areas constitute about 68.09% of the total tribal population in the state.
- Odisha ranks as the third-largest concentration of tribal population, following Madhya Pradesh and Maharashtra.
- The state has 21 tribal languages.

International Relations

Burkina, Mali, Niger quit West African bloc

Context: Military regimes in Burkina Faso, Mali, and Niger have declared an immediate withdrawal from the Economic Community of West African States (ECOWAS). Termed as a "sovereign decision," the exit was made promptly.

About ECOWAS	<ul style="list-style-type: none">• ECOWAS, formed on 28 May 1975 through the Treaty of Lagos, is a regional political and economic union.• Encompassing 15 West African countries, it spans over 5 million square kilometers with an estimated population of 424 million.
ECOWAS Objectives	<ul style="list-style-type: none">• A key regional bloc within the Africa-wide African Economic Community.• Aims for continental integration, collective self-sufficiency, and the elimination of trade barriers to create a single integrated trading area.• Focuses on raising living standards and fostering economic development across West Africa.

Struggles with Insurgencies

- Burkina Faso, Mali, and Niger, facing jihadist insurgencies and deep poverty, have strained relations with ECOWAS.

- Military coups in Niger (2021), Burkina Faso (2022), and Mali (2020) resulted in their suspension despite sanctions.

Formation of Sahel Alliance

- Junta leaders, facing ECOWAS penalties, established the "Alliance of Sahel States" to collectively address criticism.
- Regional security concerns drove their joint decision to withdraw.

Reversals of Democratic Gains

- Military takeovers reversed democratic progress in West Africa, with suspended regimes resisting ECOWAS pressure for a swift return to civilian rule.

Trade-offs Between Security and Democracy

- Withdrawal underscores tensions between stabilizing coup-affected nations and upholding democratic values.
- Balancing sanctions to support counter-insurgency efforts versus resisting unconstitutional governance changes is a complex trade-off.

Uncertain Future for Citizens

- Exit leaves citizens in Burkina Faso, Mali, and Niger facing uncertain political and economic futures.
- Regimes show no signs of planning elections or relinquishing power, risking further isolation and economic hardships.

Potential Consequences

- Prolonged uncertainty may lead to refugee outflows and radicalization.
- Economic and political disenfranchisement of younger citizens could increase vulnerability to militant recruitment.

What's Next for Alliance States and Region

- The future of Burkina Faso, Mali, and Niger within the proclaimed Sahel Alliance remains uncertain.
- Progress depends on evolving security conditions, economic situations, and pressures to restore civilian administration.
- Withdrawal poses potential destabilizing threats to regional peace.

India-UAE: Bilateral Investment Treaty

Context: Recently, the Union Cabinet approved the signing and ratification of a Bilateral Investment Treaty (BIT) with the United Arab Emirates (UAE) to significantly boost bilateral economic engagement, including Foreign Direct Investment (FDI).

About the Bilateral Investment Treaty (BIT)

- An agreement between two countries setting terms and conditions for private investment by nationals and companies of one state in another.
- Part of International Investment Agreements (IIAs) under the United Nations Conference on Trade and Development (UNCTAD).
- Expected to enhance investor confidence, increase foreign investments, overseas direct investment opportunities, and positively impact employment generation.

India and BIT

- Actively negotiating Bilateral Investment Treaties (BITs) with various countries to boost Foreign Direct Investment (FDI).
- India's position highlighted in the recent Interim Budget, emphasizing negotiations from a position of strength.
- India adopted the model BIT in 2016, aiming to provide suitable protection to foreign and Indian investors while maintaining a balance between investor rights and government obligations.

- Pursuing economic integration with western nations, including the United Kingdom (UK) and the European Union, through Free Trade Agreements and investment treaties.

Significance of BITs

Investor Confidence

Foreign Direct Investment (FDI)

Economic Growth

Legal Protection

- **Investor Confidence**
 - Boosts investor confidence by ensuring a level playing field and non-discrimination.
 - Provides an independent forum for dispute settlement through arbitration.
- **Foreign Direct Investment (FDI)**
 - Aids in increasing FDI inflow by addressing challenges, such as improving ease of enforcing contracts.
- **Economic Growth**
 - Attracts foreign investment, contributing to economic growth and employment generation in the host country.
- **Legal Protection**
 - Offers legal protection to investors, crucial in countries with unpredictable or unstable legal frameworks.
 - Imposes obligations under international law on host states to protect foreign investment.

Challenges associated with BITs

Unequal Distribution of Rights and Obligations

Creates an unequal distribution of rights and obligations between developed and developing countries.

Risk of Litigation

Increases the risk of litigation, with some developing countries facing significant financial penalties.

Ambiguous Legal Standards

Awards often based on expansive interpretations of ambiguous legal standards like 'fair and equitable treatment' and 'indirect expropriation.'

Limitations in Addressing Issues

Unable to address all challenges companies face abroad, such as protecting and enforcing intellectual property rights.

Loss of Policy Space

May lead to a loss of policy space for the host country, limiting its ability to regulate in the public interest.

Treaty Shopping

Investors may exploit the most favorable nation clause in BITs to sue a host country under a treaty to which it is not a party.

Conclusion and Way Forward

- Current trends indicate the global south is experiencing 'normal capitalism,' introducing new patterns of uneven development, inequality, and injustice.
- BITs are viewed as tools to boost investor confidence by ensuring a level playing field and non-discrimination.
- Negotiation and implementation of BITs require careful balancing of interests, considering the challenges involved.

Rising tensions in the Korean peninsula

Context: Ongoing tensions in the Korean peninsula raise concerns about the deterioration of the international security environment.

Background

- Korean peninsula divided post-World War II under Soviet Union and U.S. influence.
- Creation of ideologically different regimes reflecting Cold War dynamics.
- Korean War (1950-53) initiated by North's attempt to take over the South.
- Despite Cold War end, ideological and political divisions persist.

India's Role in the Korean War

- Sponsored resolution accepted by both sides during the Korean War.
- Ceasefire declared on July 27, 1953, through the Korean Armistice Agreement.

Recent Tensions in Korean Peninsula

- North Korea demonstrates nuclear weapons capability.
- Key stakeholders: U.S., China, and Russia engaged in global strategic competition.
- Russia and China strengthen ties with North Korea.
- South Korea enhances military alliance with the U.S.

Threat to International Security

- North Korea's provocative actions, including military drills and cyber-attacks.
- Possibility of targeting the U.S. mainland with its nuclear arsenal.
- Russia and China gain from North Korea, creating a distraction for the U.S.

India-Republic of Korea Bilateral Relations

- Diplomatic relations established in 1973.
- "Strategic Partnership" formed in 2010, elevated to "Special Strategic Partnership" in 2015.
- Economic relations boosted by CEPA implementation in 2010.
- 'Korea Plus' initiative promotes Korean investments in India.
- Bilateral trade in 2022 reaches record levels of US\$ 27.8 billion.
- Defense relations involve regular interactions between Defence Ministers since 2015.
- Annual service level talks across the three arms of the military.



- Roadmap for Defence Industries Cooperation signed in 2019.
- Indian community in ROK estimated around 15,000, with professionals in IT, shipping, and automobile sectors.

Way Ahead

- Growing concern about tensions leading to conflict.
- Denuclearization of North Korea and ending the U.S. hostile policy necessary for global security and regional peace.

Why have fresh protests erupted in Senegal?

Context: Senegal's President Maky Sall postponed the Presidential elections scheduled for February 25 due to a dispute between the National Assembly (parliament) and the Constitutional Council over candidate selection methods, rescheduling the next election for December 15.

- Protests erupted across Senegal, particularly in Dakar, the capital, with opposition leaders being forcibly removed by riot police.

Senegal's Recent Democratic Record

- President Sall's decision to delay elections marks a departure from Senegal's history of periodic and smooth power transitions under a multi-party democratic system.
- Unlike its neighbors, Senegal has never experienced a military coup or civil war since gaining independence from France in 1960.
- Senegal is considered a beacon of democracy in a region increasingly plagued by military takeovers, with President Sall playing a pivotal role in facilitating the timely transfer of power to elected governments within the Economic Community of West African States (ECOWAS).
- Senegalese troops successfully ousted Yahya Jammeh in the Gambia in early 2017 after he refused to step down following electoral defeat.

Pattern of Elections

- Senegal's situation echoes that of Guinea, where President Alpha Condé's controversial re-election for a third term in 2020 led to a subsequent coup.
- Burkina Faso, Mali, and Niger are already under military rule, indicating a regional trend away from democratic governance.
- The resurgence of military dictatorships in African countries has been notable in the 2020s, marking a regression from the progress made since independence in the 1960s.

Way Forward

- Major powers need to reconsider their traditional roles in the region.
- Senegal, situated in the westernmost part of the continent and bordered by Mauritania, Mali, Guinea, and Guinea-Bissau, has a population of 16.7 million, with a quarter residing in the Dakar region.
- The Economic Community of West African States (ECOWAS), established in 1975, aims to promote economic integration, cooperation, and development among West African nations, with its Secretariat headquartered in Abuja, Nigeria.
 - ECOWAS consists of 15 member states, including

Background to the Current Crisis

- According to Amnesty International, the current unrest in Senegal is the worst in a decade.
- Clashes arose following a two-year prison sentence imposed on leading opposition candidate Ousmane Sonko, who criticized the country's elites for corruption and opposed the influence of France, the former colonial power.
- In January of this year, the Constitutional Council barred Mr. Sall, convicted in a trial for immoral behavior against a woman, from the Presidential race, yet he seeks a third term.



India to open diplomatic mission in Albanian capital

Context: India and Albania announced plans to establish diplomatic missions in each other's capitals.

- India had an honorary consul in Albania until 2022.
- The role was less formalized and had limited capacity compared to a full-fledged mission.

Objectives

Strengthen Bilateral Relations

• Enhance communication, collaboration, and understanding between the two countries.

Facilitate Trade and Investment

• Create a supportive environment for businesses, investors, and entrepreneurs.

Provide Greater Support to Indian Citizens in Albania

• Assist Indian nationals residing in or visiting Albania with various needs, such as visa applications, emergency assistance, and cultural events.

About Albania

Location	Southeast Europe, bordering the Adriatic and Ionian Seas
Bordering Countries	<ul style="list-style-type: none"> • North: Montenegro, Kosovo • East: North Macedonia • South: Greece • West: Italy (across the Adriatic Sea)
Water Bodies	<ul style="list-style-type: none"> • Seas: Adriatic Sea, Ionian Sea; • Lakes: Lake Ohrid (shared with North Macedonia), Lake Skadar (shared with Montenegro)
Physical Features	<ul style="list-style-type: none"> • Mostly mountainous terrain, with the Albanian Alps in the north. • Coastal lowlands along the Adriatic and Ionian Seas. • Numerous rivers flow into the Adriatic and Ionian Seas.
Climate	<ul style="list-style-type: none"> • Mediterranean climate along the coast, with warm, dry summers and mild, wet winters. • Continental climate in the mountains, with colder winters and more precipitation.
Economy	<ul style="list-style-type: none"> • Lower-middle-income country according to the World Bank. • Reliant on tourism, agriculture, and remittances from Albanians working abroad. • Emerging sectors include energy, manufacturing, and information technology.

Are Interpol's notices being politically exploited?

Context: Critics argue that countries often exploit protocols and notices of Interpol to target political refugees and dissidents. While efforts have been made to address this, questions remain about striking the right balance between facilitating police cooperation and preventing misuse of this powerful tool.

INTERPOL (International Criminal Police Organization)

Interpol Overview	<ul style="list-style-type: none"> • Interpol is an intergovernmental organization of 196 countries that facilitates cooperation between the Police Forces of member states. • Headquartered in Lyon, France, it is the only police organization that spans the entire globe. • Each member country hosts an Interpol National Central Bureau (NCB), with the CBI designated as the National Central Bureau of India for Interpol.
Blue Corner and Red Corner Notice	<ul style="list-style-type: none"> • Interpol's main function includes issuing "notices," which are alerts to member states for missing or wanted persons. • There are seven types of notices, including the Blue Corner Notice and the Red Corner Notice. • Blue Corner Notices allow sharing of critical crime-related information among member states. • Red Corner Notices are issued to arrest wanted criminals through extradition or other lawful actions.
Misuse of the Notice System	<ul style="list-style-type: none"> • Activists accuse Interpol of neglecting its Constitution by allowing notices of a political character. • Russia has been a significant target of criticism for repeatedly issuing notices against political dissidents. • Other countries like China, Iran, Turkey, and Tunisia are also accused of abusing the notice system. • Interpol toughened oversight of its red notice system in response to criticism, but vulnerabilities remain, particularly with the issuance of blue notices. • Some countries argue that restraint in issuing notices hampers police cooperation and should not interfere with internal affairs.

Interpol Red Notices, when exploited by authoritarian regimes, pose significant risks to personal freedom. Reforms are needed to reduce the dangers of Interpol abuse to individuals and democracies.

Grey-zone warfare latest entry in lexicon of warfare, says CDS

Context: Chief of Defence Staff Gen. Anil Chauhan noted the emergence of "grey-zone" in the lexicon of warfare, attributing it to recent events in the South China Sea and along India's northern borders in reference to China.

About Grey Zone Warfare

Grey Zone Warfare entails a strategy wherein a country seeks to gain an advantage over another without resorting to open warfare.

- **Tactics:** It involves employing tactics such as cyberattacks, misinformation campaigns, and economic pressures to subtly undermine or destabilize an opponent.
- **China's Employment:** China has been proficient in utilizing Grey Zone Warfare tactics, particularly against India and its neighboring countries.

China's Grey Zone Tactics against India

South China Sea Activities

China asserts dominance in the South China Sea using naval and civilian vessels, causing tensions with neighboring countries including India.

Infrastructure Near Borders

China constructs infrastructure and settlements near India's borders, reinforcing territorial claims and gaining strategic advantages.

Digital Investments

China invests in Indian apps, media, and digital platforms, influencing public narratives and perceptions.

India's Counter-Measures

Inter-agency Collaboration

- India encourages collaboration among defense, intelligence, and police forces to strategize and counter Grey Zone Warfare challenges.

Increased Vigilance

- India enhances surveillance and presence in border areas and strategic locations to counter covert Chinese activities effectively.

Regulating Tech Inflows

- India scrutinizes foreign tech investments more closely to safeguard national security.

Long-term Implications for India

Information Warfare

Economic Leverage

Tech Dependency

- **Information Warfare:** Grey Zone Warfare includes a significant digital component where misinformation can shape public opinion.
- **Economic Leverage:** Dependency on foreign investments, especially in critical sectors, could pose vulnerabilities if exploited by investing nations.
- **Tech Dependency:** India's reliance on foreign technology exposes it to risks, highlighting the need to strengthen indigenous tech capabilities.

India has rejected demand for data exclusivity in drug development in FTA talks'

Context: India has firmly rejected the demand from four European nations in the EFTA bloc for the inclusion of a 'data exclusivity' provision in proposed free trade agreements, citing its commitment to protecting the interests of the domestic generic drugs industry.

About the European Free Trade Association (EFTA) Bloc

The EFTA bloc consists of

- Iceland
- Liechtenstein
- Norway
- Switzerland

Formation

- Established in 1960 by seven European countries as an alternative trade bloc to the EU.

Trade Relations

- Members have free trade agreements among themselves and with other regions.

Activities

- Participate in the European Single Market through the EEA Agreement.

Institutions

- EFTA Court, EFTA Surveillance Authority, EFTA Secretariat.

Relationship with EU

- Not part of the EU, but have close economic ties and trade agreements with EU countries.

Debate over Data Exclusivity

- **Pharmaceutical Sector Implications:** Data exclusivity grants innovator companies exclusive rights over technical data, hindering competitors from obtaining marketing licenses for cheaper versions during the exclusivity period.
- **Influence of Swiss Pharma Firms:** Despite Switzerland advocating for data exclusivity, India maintains its stance against it.

Protection of Generic Industry

Significance of Generic Industry

Export Growth

Trade and Economic Partnership Agreement (TEPA)

Advanced Stage of Talks

- **Significance of Generic Industry:** India emphasizes the generic drug industry's significant contribution to exports and the government's commitment to safeguarding its interests.
- **Export Growth:** India highlights the industry's growth aligning with export promotion objectives, showcasing its importance to the national economy.
- **Trade and Economic Partnership Agreement (TEPA):** India and EFTA have been negotiating the TEPA since January 2008, covering chapters including intellectual property rights.
- **Advanced Stage of Talks:** Negotiations cover trade in goods, rules of origin, intellectual property rights, and other key areas.



Issue in the India– European Free Trade Agreement (EFTA)

Intellectual Property Rights

- Management of intellectual property rights in the pharmaceutical sector is a major issue in the India-EFTA Free Trade Agreement.
- Discussions on this issue have been ongoing since 2008, with both sides aiming to find a compromise.
- The agreement grapples with patenting, where drug originators are granted exclusive rights for a certain period.
- Governments can enforce ‘compulsory licensing’ to override monopolies in the interest of public health.

	<p style="text-align: center;">EFTA Overview</p> <ul style="list-style-type: none"> • Inter-Governmental Organization: EFTA promotes and intensifies free trade among member states, serving as an alternative for states not part of the EU. • Trade Dynamics: India’s exports to EFTA countries have shown steady growth, with the trade gap currently favoring the EFTA group.

Data Exclusivity

- A critical point of debate is data exclusivity, which protects clinical trial data for a minimum of six years.
- India has resisted including data exclusivity in the agreement to protect its pharmaceutical industry.

High Cost of Drug Discovery

- Negotiations are influenced by the high cost of drug discovery, which creates a divide between original drug inventors and generic drug manufacturers.
- The expense of developing new drugs contrasts with the lower costs of producing generic versions, highlighting tensions in the global pharmaceutical industry.

India’s Position in the Negotiations

- India opposes data exclusivity to protect its significant pharmaceutical industry and ensure access to affordable medication.
- Balancing drug patents with access to affordable medication is crucial for India.
- India's experience with COVID-19 vaccine development underscores its push for a more flexible intellectual property regime in the Free Trade Agreement.

Trade and Economic Partnership Agreement (TEPA)

Objective	Coverage	Recent Highlights
<ul style="list-style-type: none"> • TEPA aims to enhance trade and investment between India and EFTA by eliminating/reducing tariffs and non-tariff barriers. • It seeks to ensure fair market access conditions, protect intellectual property rights, and enhance cooperation in various areas. 	<ul style="list-style-type: none"> • Comprehensive agreement covering trade in goods, services, investment, intellectual property rights, competition, government procurement, trade facilitation, and dispute settlement. 	<ul style="list-style-type: none"> • Acknowledgment of challenges in the global economic and trade environment. • Commitment to address bilateral trade and economic partnership issues constructively. • India's proposal to include talks on gender equality and women empowerment in TEPA negotiations.



India's Relations with EFTA Countries

India and Switzerland Relations

India and Norway Relations

India and Iceland Relations

India and Liechtenstein Relations

- **India and Switzerland Relations:** Collaboration in technical and scientific cooperation, skill training, and investment. Switzerland is a significant investor in India.
- **India and Norway Relations:** Cooperation in the blue economy, academic collaborations, and investment. More than 100 Norwegian companies operate in India.
- **India and Iceland Relations:** Common values of democracy and multilateralism, cooperation in trade, renewable energy, and culture. Support for India's candidature for a permanent seat at the UN Security Council.
- **India and Liechtenstein Relations:** Friendly relations with modest bilateral trade and cooperation in economic matters.

Way Forward

- India should invest more in fundamental research and ethical drug trials to secure its pharmaceutical future. The successful development of COVID-19 vaccines in India serves as a model for this approach.
- India's firm stance reflects its commitment to safeguarding the interests of its generic drug industry. As negotiations with EFTA progress, India focuses on promoting fair trade while protecting domestic industries.

PM Modi's visit to the United Arab Emirates

Context: Prime Minister Modi is currently on an official trip to the United Arab Emirates (UAE), marking his seventh visit to the country since 2015 and his third in the last eight months.

India – UAE Bilateral Relationship

Political Relations

- Diplomatic relations between India and the UAE were established in 1972, evolving significantly over time.
- In January 2017, a Comprehensive Strategic Partnership Agreement was signed between India and the UAE.
- High-level visits from both sides have strengthened bilateral relations.
- In February 2019, India was invited as the "Guest of Honour" at the Organisation of Islamic Cooperation's 46th Session in the UAE.
- PM Modi visited the UAE in August 2019, receiving the highest civilian award, the 'Order of Zayed'.
- The Crown Prince of the UAE visited India as the Chief Guest at the Republic Day celebrations in January 2017.

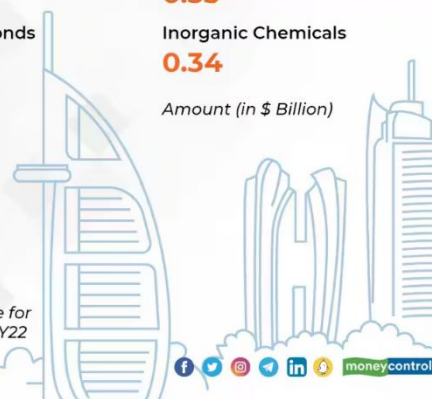


MAJOR EXPORTS TO UAE

Processed petroleum	3.7	Ocean vessels	1.01
Jewellery	2	Organic Chemicals	0.51
Mobile phones & components	1.5	Cereals (mostly Rice)	0.35
All forms of Diamonds	1.4	Inorganic Chemicals	0.34
Apparel	1.4		
Iron & Steel	1.17		

Amount (in \$ Billion)

Note : All figures are for Apr-Dec period of FY22
Source : Commerce Department



- The foundation stone for the first traditional Hindu Temple in Abu Dhabi was laid in April 2019.
- In February 2022, PM Modi and the Crown Prince held a Virtual Summit, issuing a Joint Vision Statement.

Trade Relations

- India-UAE trade reached USD 85 billion in 2022-23, making the UAE India's third-largest trading partner and second-largest export destination.
- Both countries aim to achieve a trade target of USD 100 billion before the G-20 meeting in Delhi in September 2023.
- The Comprehensive Economic Partnership Agreement (CEPA) between India and the UAE was signed in February 2022.

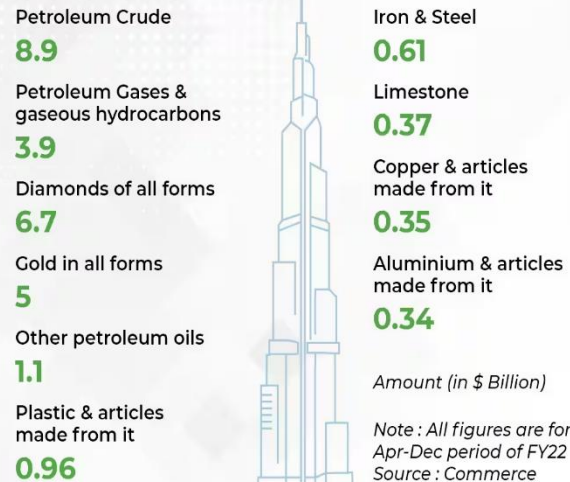
Investment

- UAE emerged as the fourth-largest investor in India in 2022-23, witnessing a three-fold increase in Foreign Direct Investment (FDI).
- NRI remittances from UAE to India amounted to US\$ 17.56 billion in 2018.
- Energy Cooperation:
 - Agreements between ADNOC and ISPRIL have been signed to establish strategic crude oil reserves in Mangalore and explore storage possibilities in Padur.
 - ONGC-led consortium secured a stake in the Lower Zakum Concession.

Highlights of PM Modi's Visit to UAE

- PM Modi met UAE's President Sheikh Mohamed bin Zayed Al Nahyan, signing eight pacts to enhance cooperation.
- Key pacts include the Bilateral Investment Treaty, MoU on energy cooperation, and agreements on regional connectivity, digital infrastructure, and heritage preservation.
- PM Modi addressed the Indian community in the UAE at 'AHLAN MODI' and inaugurated the first Hindu stone temple in Abu Dhabi, depicting universal values and stories of harmony from various cultures.

MAJOR IMPORTS FROM UAE



moneycontrol

Military Exercises, Defence & Security

Indian martial arts training for Army post Galwan clash

Context: In response to heightened tensions following the Galwan clash between India and China, the Indian Army has introduced martial arts training alongside regular physical exercises. This initiative aims to enhance the combat skills and physical fitness of troops.



Major Inclusions

Punjab Regiment – Gatka

•The Punjab regiment has incorporated Gatka, a traditional martial art originating from Punjab in the 15th century. Gatka involves stick-fighting techniques using wooden sticks to simulate swords. It has historical significance as it was taught by Sikh gurus.

Gorkha Regiment - Khukuri Dance

•The Gorkha Regiment has integrated the Khukuri Dance into its training regime. This dance, performed exclusively by men, symbolizes victory and is an integral part of Gurkha culture. The Khukuri, a small knife, holds symbolic importance in this dance form.

Madras Regiment Kalaripayattu

•The Madras regiment has embraced Kalaripayattu, an ancient martial art from Kerala. Kalaripayattu emphasizes physical conditioning, weapon training, and indigenous healing techniques. It aims to achieve harmony between mind and body.

Udhampur-based - Krav Maga

•The Udhampur-based regiment has adopted Krav Maga, an Israeli-origin martial art. Krav Maga focuses on practical self-defense techniques, including strikes, kicks, and grappling. It equips soldiers with skills for real-life combat situations.

Exploration of Various Indian Martial Art Forms

Martial Art	State	Description	Famous For
Thang Ta	Manipur	A martial art with two main components: Thang-ta (armed combat) and Sarit Sarak (unarmed fighting).	Known for its use of primary weapons like the thang (sword) and ta (spear).
Lathi Khela	West Bengal	Utilizes lathi (wooden stick) as a weapon, an ancient martial art in Punjab and Bengal.	Practitioners known as lathials.
Gatka	Punjab	Traditional martial art associated with Sikh gurus, emphasizing sword and sticks fighting skills.	Known for incorporating self-defense techniques and controlled combat.
Kalaripayattu	Kerala	Ancient martial art based on knowledge of the human body, practiced in Kerala and parts of Tamil Nadu.	Considered one of the oldest fighting systems and a precursor to Kung-Fu.

Martial Art	State	Description	Famous For
Mallakhamb	Madhya Pradesh	Traditional sport involving gymnastic postures and wrestling grips with a vertical pole, cane, or rope.	Known for its aerial yoga and gymnastic postures on a stationary pole.
Silambam	Tamil Nadu	Weapons-based martial art, incorporating a broad range of weapons and animal motions like snake, tiger, and eagle forms.	Famous for its use of various weapons and animal-inspired movements.
Musti Yuddha	Varanasi	Unarmed combat technique emphasizing punches, kicks, knees, and elbows, originating in Varanasi, Uttar Pradesh.	Known for teaching self-defense without the use of arms and ammunition.
Kathi Samu	Andhra Pradesh	Ancient martial art using various kinds of swords, with stick fights known as 'vairi' as a precursor to real sword fights.	Prominent for its use of different sword techniques and stick fights.
Sqay	Kashmir	Sword-fighting martial art with a curved single-edged sword and a shield.	Known for its use of armed tactics with swords and various unarmed techniques.
Paikha Akhadha	Odisha	Traditional warrior school, used as a peasant militia training school in Odisha.	Known for conventional physical activities and rhythmic gestures with weapons.

The incorporation of diverse martial arts into Indian Army training reflects a strategic approach to enhancing combat skills and physical fitness. By drawing from various Indian and international martial art forms, the Army aims to equip its personnel with a wide range of techniques for effective self-defense and combat operations.

Environment

Dusted Apollo sighted for first time in Himachal's Chamba

Context: Recently, the Dusted Apollo (*Parnassius stenosemus*), a rare butterfly species found at high altitudes, was observed and photographed in Chamba, Himachal Pradesh, marking its first sighting in the region.

Key Highlights

- Discovered in 1890, the Dusted Apollo inhabits regions ranging from Ladakh to West Nepal, typically flying at elevations between 3,500 to 4,800 meters within the inner Himalayas.
- Belonging to the snow Apollo genus (*Parnassius*) of the swallowtail family, the Dusted Apollo is characterized by its unique features.



- The species bears a striking resemblance to the Ladakh Banded Apollo (*Parnasius stoliczkanus*), yet can be distinguished by the completeness and extension of the discal band on the upper fore wing. In the Dusted Apollo, this band spans from costa to vein one, whereas in the Ladakh Banded Apollo, it extends only up to vein four.
- The sighting event also included another rare species, the Regal Apollo (*Parnasius charltonius*), which enjoys protection under Schedule II of the Wildlife Protection Act, 1972.

Characteristics of Apollo Butterfly

Characteristics	Details
Historical Rarity	Discovered in 1890, Dusted Apollo is a rare high-altitude butterfly.
Sighting Details	Spotted and photographed in September 2023 near Manimahesh Lake in Chamba during a trek.
Endangered Species	Many Apollo butterfly species are endangered, requiring immediate conservation efforts.
Wide Range	Distribution extends from Ladakh to West Nepal.
Altitude Preference	This unique butterfly thrives at altitudes ranging from 3,500 to 4,800 meters in the inner Himalayas.

Ergosphere: making a black hole work

Context: Rotating black holes have an ergosphere outside their event horizon, where matter and energy can be extracted.

What is an Ergosphere?

Origin

The term "ergosphere" originates from the Greek word 'ergon', meaning 'work', owing to its capability to yield energy and mass.

Definition

An ergosphere is the region situated between the event horizon and the stationary limit.

Stationary Limit

The stationary limit denotes a boundary encircling the exterior of a rotating black hole.

Event Horizon

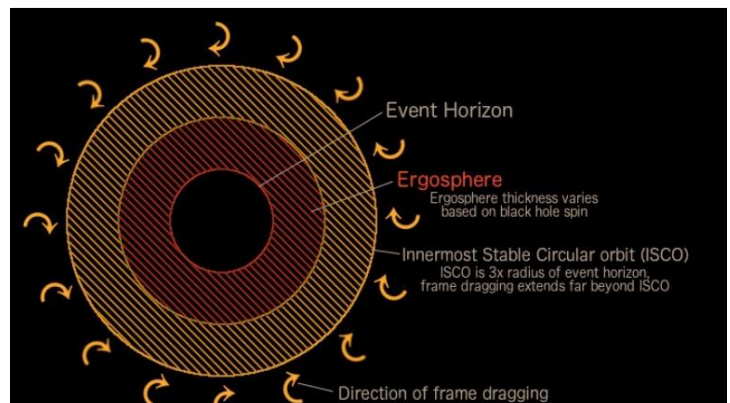
This is a sphere encompassing the singularity of a black hole, where objects cannot escape unless surpassing the speed of light.

Shape

The ergosphere assumes the shape of an oblate spheroid, resembling a pumpkin, with points of contact with the event horizon at the top and bottom, extending further outwards towards the middle.

Features of Ergosphere

- **Size:** The ergosphere constitutes a larger sphere compared to the event horizon, enabling the entry and exit of objects moving at velocities below the speed of light.
- **Extraction of Matter and Energy:** Matter and energy extraction is feasible within the ergosphere, distinct from beyond the event horizon.



Significance

- Scientists propose the potential of sending objects into the ergosphere and facilitating acceleration along the black hole's rotational axis, leading to enhanced velocity upon exiting. This process results in the transfer of energy from the black hole, thereby diminishing its angular momentum.

Black Hole

- **Formation:** Black holes originate from the implosion of the core of a massive star following its supernova explosion.
- **Einstein's Theory of General Relativity:** According to this theory, when a massive star undergoes collapse, it leaves behind a compact core. If this core's mass surpasses a certain threshold, gravity dominates, resulting in the formation of a black hole.
- **Visibility:** Black holes are observable solely through their effects on surrounding matter and radiation, as their gravitational pull impedes even light from escaping.
- **Gravitational Singularity:** At the heart of a black hole lies a gravitational singularity—a point of infinite density and infinitesimal volume—where space and time undergo extreme distortion. The immense gravitational force of a black hole emanates from its singularity.

What is a black hole?



- A black hole is a point in space where gravity pulls so much that even light can not get out
- There are four types of black holes: stellar, intermediate, supermassive, and miniature
- Because no light can get out, people can't see black holes
- Regardless of how big a black hole starts out, they can grow throughout their lives

Black necked Crane

Context: The Wildlife Institute of India and the Zoological Survey of India have conducted assessments on black-necked cranes.

- In the Ladakh region, a survey conducted by the Wildlife Institute of India in 2016-2017 found a population size of approximately 66-69 black-necked cranes.
- Arunachal Pradesh hosts a small population of about 11 black-necked cranes during the winter months.

Conservation status of the species

- The Black-necked Crane (*Grus nigricollis*) holds Schedule I status under the Wild Life (Protection) Act, 1972, affording them the highest level of protection.
- Additionally, the species is listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species (CMS).
- The IUCN Red List of Threatened Species categorizes the black-necked crane as near threatened.



Habitat Areas of Black-necked Crane

- Black-necked cranes breed in high-altitude marshes and lakes of the Tibetan Plateau (Tibet, Qinghai, Xinjiang, Gansu), Sichuan (China), and Eastern Ladakh (India).
- Major wintering flocks are found in Tibet, Yunnan, and Guizhou (China), as well as Bhutan (Phobjika and Bomdaling Valleys).

Important steps taken to protect the species

- Key habitats of the black-necked crane, like the Changthang Sanctuary in Ladakh, have been declared as Protected Areas.



- The Tso Kar Wetlands Complex, crucial for foraging and breeding, was designated as a Ramsar Site in December 2020.
- The National Wildlife Action Plan (2017-2031) released by the Ministry in October 2017 outlines specific chapters and priority actions for wildlife conservation.
- Financial assistance is provided to State/Union Territory Governments under the Centrally Sponsored Schemes 'Development of Wildlife Habitats' for wildlife and habitat management.
- Guidelines for the management planning process for Protected Areas have been issued under Section 33 of the Wild Life (Protection) Act, 1972.
- The Government of India launched the Mission LiFE (Lifestyle for Environment) program to raise public awareness about the environment and conservation.
- Important wildlife-related days like World Wildlife Day, Wetlands Day, Migratory Bird Day, and Wildlife Week are celebrated to enhance public awareness of wildlife and biodiversity.

Key Habitats Protection

Changthang Sanctuary in Ladakh declared as Protected Area for Black-necked crane habitat conservation.

Ramsar Site Designation

Tso Kar Wetlands Complex designated as a Ramsar Site in December 2020 for crucial foraging and breeding grounds of Black-necked crane.

National Wildlife Action Plan

Ministry released National Wildlife Action Plan (2017-2031) in October 2017.

Financial Assistance

Financial assistance provided to State/Union Territory Governments under Centrally Sponsored Schemes 'Development of Wildlife Habitats.'

Management Guidelines

Guidelines for the management planning process for Protected Areas issued under Section 33 of the Wild Life (Protection) Act, 1972.

Mission LiFE

Government of India launched Mission LiFE (Lifestyle for Environment) program.

Characteristics of Black Crane

Category	Description
State Bird	<ul style="list-style-type: none"> • Jammu and Kashmir, India • Recently, Ladakh has adopted Snow Leopard and Black-Necked Crane, as State animal and State bird
Conservation Status	Vulnerable (IUCN) CITES Appendix I
Taxonomy	<ul style="list-style-type: none"> • Family: Rallidae; • Order: Gruiformes; • Class: Aves; • Phylum: Chordata; Kingdom: Animalia
Scientific Name	Grus nigricollis
Common Name	Black-necked crane
Description	<ul style="list-style-type: none"> • Medium-sized crane; 120-140 cm height; • 5,000-7,000 grams weight; • Wingspan: 200-235 cm;

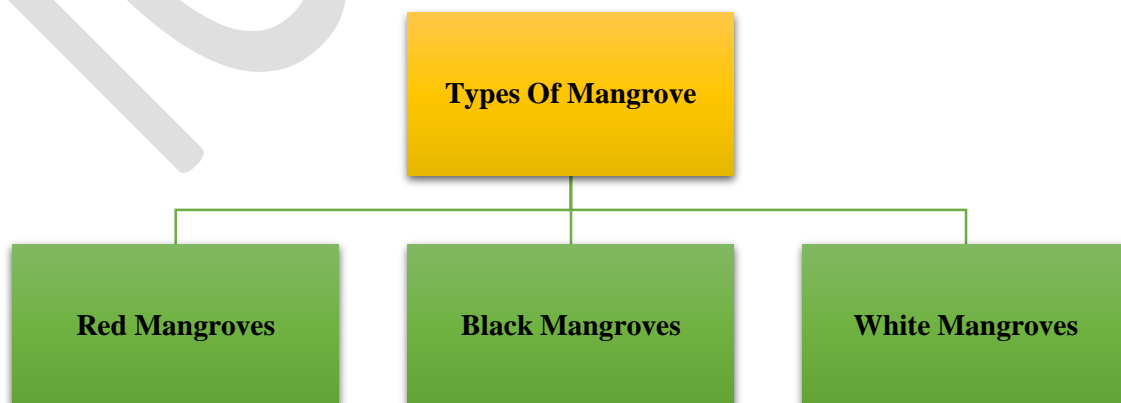
Category	Description
	<ul style="list-style-type: none"> • Overall plumage: Whitish gray; • Black head, upper neck, tail, and legs; Reddish bare lores and crown; • White patch behind the eye; Pale yellow iris; Trumpeting call
Habitat	Alpine bog meadows, riverine marshes, wetlands, barley and wheat fields
Diet and Feeding Habits	Omnivorous; Plant matter (rhizomes, seeds, sprouts, roots, tubers, stems, shoots, leaves); Agricultural crops (barley); Insects, frogs, crabs, rodents
Breeding	<ul style="list-style-type: none"> • May breeding season; • Territorial; Nest construction with grass, rushes, and weeds; • One or two eggs laid in May-June; • Chicks forage independently
Distribution	Breeds in: <ul style="list-style-type: none"> • Qinghai-Tibetan plateau (China) • Ladakh (India); Wintering in Bhutan, • Arunachal Pradesh (India), • Tibet (China)
Movement and Migration Patterns	<ul style="list-style-type: none"> • Summer migration to high altitudes in Tibetan plateau and Ladakh; • Winter migration from early September to December to lower altitudes in Bhutan, Arunachal Pradesh (India), and Tibet (China)
Conservation Concerns	Declining global population (10,000-11,000 individuals); Threats - wetland and marsh degradation, grassland degradation, tourism and recreation disturbance, pesticide poisoning, hunting, power line collisions

Schemes for Restoration of Mangrove Forests

Context: Union Minister of State for Environment, Forest and Climate Change, Shri Ashwini Kumar Choubey, provided details about various schemes for mangrove forest conservation in a written reply in the Lok Sabha.

About Mangroves

- **Definition and Function:** Mangroves are plant communities found in inter-tidal zones along tropical and subtropical coastlines, serving multiple ecological functions such as habitat provision, coastline protection, and sediment accretion.
- **Unique Adaptations:** Mangrove plants possess unique adaptations allowing them to survive in harsh environments, with different types of roots including prop, air, and stilt roots.





Presence of Mangroves

Global Distribution

• Approximately 40% of the world's mangrove cover is found in South East Asia and South Asia, with India hosting about 3% of the total cover in South Asia.

Mangrove Cover in India

• India's mangrove cover has increased by 54 sq km (1.10%) compared to the previous assessment, totaling 4,975 sq km (1.2 million acres), which is 0.15% of the country's total geographical area.

Regional Distribution

• West Bengal, Gujarat, and the Andaman & Nicobar Islands are the top three regions with significant mangrove cover, with South 24 Parganas district in West Bengal hosting the Sunderban National Park, one of the largest mangrove forests globally.

Schemes for Conservation of Mangroves

- **MISHTI:** The 'Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI)' was announced in the Union Budget 2023-24 to promote and conserve mangroves as a unique ecosystem with high biological productivity and carbon sequestration potential. It aims for restoration/reforestation covering approximately 540 km² across 9 States and 3 Union Territories.
- **MAC:** The "Mangrove Alliance for Climate" was launched by the UAE and Indonesia, aiming to establish an international mangrove research center in Indonesia to study ecosystem services such as carbon sequestration and ecotourism. Partner countries include India, Australia, Japan, Spain, and Sri Lanka.

Important Mangrove Region in India

- Gulf of Kutchh
- Gulf of Khambhat
- Dumas-Ubhrat

Gujarat



- Coringa East Godavari Delta
- Krishna Delta

Andhra Pradesh



- Bhaitarkanika
- Mahanadi
- Subarnarekha
- Devi-Kauda

Odisha



- Sunderbans

West Bengal



- North Andaman
- Nicobar

Andaman & Nicobar



- Achra-Ratnagiri
- Devgarh-Vijay Durg
- Veldur

Maharashtra



- Goa

Goa



- Coondapur
- Dakshin Kannada/Hannavar
- Karwar

Karnataka



- Vembanad
- Kannur (North Kerala)

Kerala



- Pichavaram
- Muthupet
- Ramnad
- Pulicat

Tamil Nadu



Brumation: winter is coming for reptiles

Context: An alligator was seen lying still underwater with only its snout visible. It was undergoing brumation.

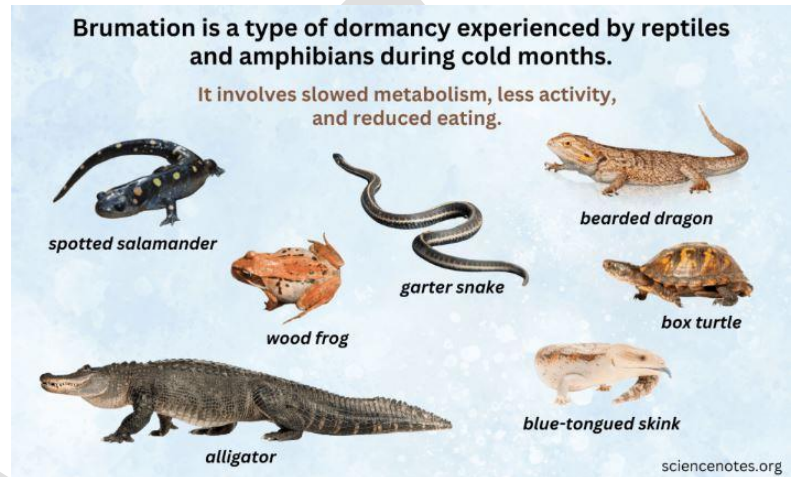
During Brumation



- **Slow Down:** Reptiles reduce their activity levels to conserve energy during winter.
- **Reduced Eating and Excretion:** They consume little to no food and excrete less (or not at all) for several weeks.
- **Decreased Movement:** Reptiles become less active and typically seek out the darkest and coldest areas.
- **Hydration:** They may venture outside to drink water in order to stay hydrated.
- **Extended Rest:** While not fully asleep, reptiles remain very still and quiet during brumation.
- **Survival Strategy:** Brumation serves as a survival mechanism during cold periods when food sources are scarce.

What is Brumation?

Brumation is a period of dormancy observed in reptiles. This process bears resemblance to hibernation in mammals. The timing and duration of brumation vary based on factors such as species, age, and gender, with males often emerging from dormancy before females.



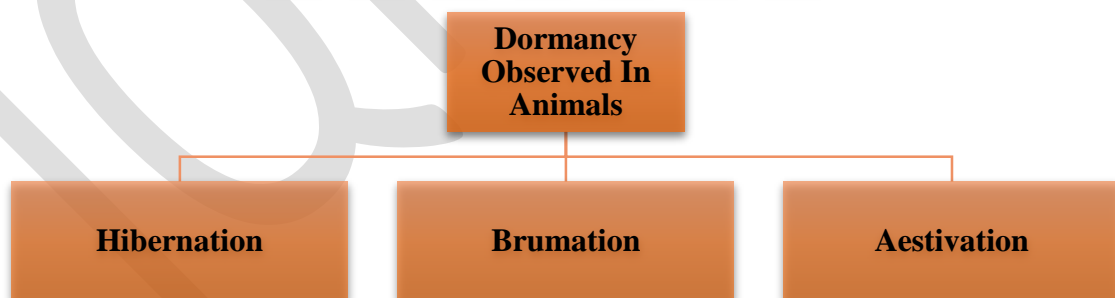
Why Do Reptiles Brumate?

Temperature Regulation

Reptiles enter a state of brumation because they are unable to regulate their body temperature effectively.

Environmental Adaptation

Brumation allows reptiles to endure cold weather and periods of limited food and water availability.



Comparison with Hibernation and Aestivation

- Hibernation is predominantly found in endothermic animals and involves a decrease in metabolic rate, leading to a state of dormancy during colder months.
- On the other hand, brumation is characteristic of ectothermic animals, such as reptiles and amphibians, where metabolic activity slows down but not to the same extent as in hibernation, often triggered by cooler temperatures.

- Aestivation, primarily seen in ectotherms, occurs in response to hot and dry conditions, leading to a reduction in metabolic activity and behavioral changes during the summer season.
- While hibernating animals like bears, bats, and groundhogs remain completely inactive, those undergoing brumation, like snakes and turtles, may display partial activity on warmer days.
- Meanwhile, aestivating creatures like snails and desert tortoises rely on the external environment to regulate their body temperature.
- Despite differences in mechanisms and timing, all three strategies serve to conserve energy and survive challenging environmental conditions.

The patterns of global warming are more important than its levels

Context: A recent study has sparked renewed discussions regarding whether the Earth's surface temperature has surpassed the critical threshold of 1.5 degrees Celsius above pre-industrial levels.

Rising Global Temperature

- Conducted by scientists from Australia and the U.S., the research employed paleo-thermometry to estimate historical temperatures, suggesting that the global average temperature has indeed exceeded the 1.5 degrees Celsius mark.
- However, the study's conclusions are drawn from data collected at a single location, which the researchers then extrapolated to infer global temperature trends, presenting a notable limitation.

Limitations

However, these findings represent localized temperature changes and cannot precisely determine minor deviations in historical global temperatures compared to instrumental records.

Lack of Explanations for Patterns

- The discourse regarding the crossing of the 1.5 degrees Celsius global warming threshold lacks clear explanations for exceptional warming and its correlation with specific climatic events or disasters.
- There is a significant gap in understanding the patterns associated with surpassing this threshold and global warming in general, essential for managing associated disasters effectively.

Unexplained Monsoon Dynamics

- The dynamics of the 2023 monsoons, including their amount and distribution, remain unexplained, particularly concerning the interactions between the El Niño phenomenon, its atypical pattern, and global warming.
- Interestingly, the Indian subcontinent experienced noticeable cooling in 2023, adding complexity to the understanding of regional climate trends.

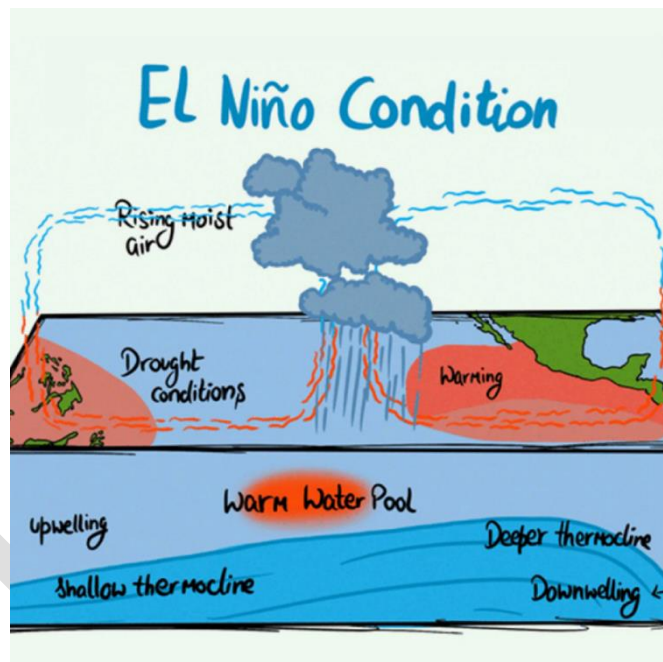
What is Paleothermometry?

- Paleothermometry, also known as 'paleo proxies,' relies on chemical evidence found in organic materials such as corals, stalactites, and stalagmites to estimate past temperatures.
- Although this method provides valuable insights into historical climate conditions, it offers indirect evidence and does not directly measure temperatures.
- These proxies indicate historical temperature variations by analyzing the relationship between specific chemical compounds in biogenic materials and the local temperatures during their formation.
- By examining the chemical composition of ancient biogenic materials and the decay rate of certain isotopes, scientists can infer past local temperature anomalies.

El Niño as a Warming Paradigm

El Niño's Influence

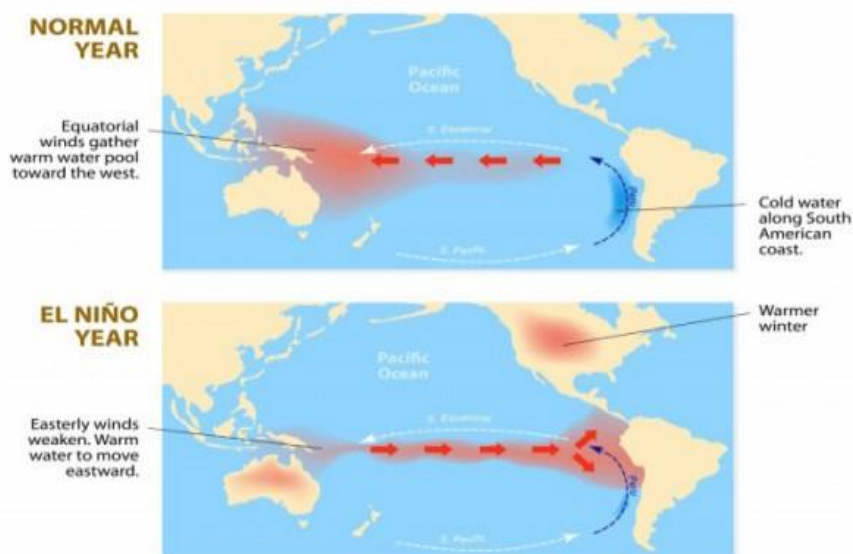
- The tropical Pacific Ocean's cyclic behavior, alternating between absorbing heat during La Niña years and releasing it during El Niño years, leads to temporary global warming effects known as teleconnections.
- These teleconnections highlight the significance of warming patterns, with the location of El Niño warming impacting its effects on the monsoon and other global regions.
- Moreover, El Niño teleconnections themselves influence the warming pattern, contributing to various climatic outcomes, with droughts potentially affecting temperature changes more significantly than floods in some cases.



Impacts of El Niño

- Current heavy rainfall and snowfall in California, attributed to El Niño, are likely intensified by global warming, further influencing local and global temperatures.
- The broader pattern of global warming, driven by human-made greenhouse gases, results in amplified warming in certain regions while reducing warming in others, impacting local and global climates differently.
- The specific effects of local warmings and coolings, along with their magnitudes, determine the combined impact of natural variability and global warming in different areas.

THE EL NIÑO PHENOMENON



Radioactive Discharges from Indian Nuclear Plants

Context: Recently, Bhabha Atomic Research Centre (BARC) researchers conducted an analysis on Radioactive Discharges from Indian Nuclear Plants.

Bhabha Atomic Research Centre (BARC)

- ✓ India's premier nuclear research facility located in Mumbai, Maharashtra.
- ✓ Multidisciplinary center focused on advancing peaceful applications of nuclear energy, particularly for power generation.



Key Findings of the Analysis

- **Minimal Environmental Impact**
 - Radioactive discharges from nuclear plants had minimal impact on the environment.
 - Concentrations of fission products beyond 5 km radius were below minimum detectable activity, making monitored values "insignificant."
- **Types of Radioactive Discharges**
 - Gaseous waste includes fission product noble gases, Argon 41, radioiodine, and particulate radionuclides.
 - Liquid discharge consists of fission product radionuclides, radioiodine, tritium, strontium-90, caesium-137, and cobalt-60.
- **Air Particulates**
 - Average gross alpha activity in air particulates at all nuclear plants was less than 0.1 megabecquerel (mBq) per cubic meter.
 - Narora Atomic Power Station, Uttar Pradesh, exhibited higher values due to a higher atmospheric dust load.
- **Specific Marker Concentrations**
 - Average concentrations of radionuclides in air particulates were below 1 mBq per cubic meter.
 - Caesium-137 and strontium-90 concentrations in water bodies near nuclear plants were below specified levels.
- **Sediment Concentrations**
 - Concentrations of caesium-137 and strontium-90 in sediments were within statistical variation, showing no trend of deposition or accumulation.
- **Tritium Detection**
 - Tritium detectable at all sites except Kudankulam Nuclear Power Station.
 - Relatively higher tritium concentrations at Rajasthan Atomic Power Station.

Significance of the Findings

- ✓ Reinforces India's commitment to advancing its nuclear power program.
- ✓ Minimal public doses highlight the safe operation of Indian nuclear power plants.

Implications of Radioactive Discharge	
Environmental Impact	<ul style="list-style-type: none"> • Radioactive substances can impact ecosystems, contaminating soil, water bodies, and affecting plant and animal life.
Human Health Concerns	<ul style="list-style-type: none"> • Exposure to ionizing radiation from radioactive discharges may increase the risk of radiation-related health issues, including cancer.
Long-term Health Risks	<ul style="list-style-type: none"> • Certain radioactive substances pose an increased risk of cancer and genetic mutations, potentially affecting future generations.
Impact on Agriculture and Food Chain	<ul style="list-style-type: none"> • Radioactive substances entering the food chain may contaminate agricultural products and livestock, posing risks to consumers.
Economic Consequences	<ul style="list-style-type: none"> • Areas near nuclear facilities may experience a decline in property values due to safety concerns, affecting the nuclear industry's reputation and development.

Initiatives Related to Safe Radioactive Discharge

International Conventions & Agreements

- Early Notification of a Nuclear Accident (1986)
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997)
- Convention on Nuclear Safety (1994)

European Union (EU) Directives

- EU Directives on Radioactive Waste and Spent Fuel Management.

India's Initiatives

- Atomic Energy Regulatory Board (AERB) ensures nuclear and radiation safety in India.
- Environmental Impact Assessment (EIA) for rigorous assessment of potential environmental and health impacts.
- Effluent Treatment and Dilution techniques used to manage liquid radioactive waste before discharge.

Black Tigers or Melanistic Tigers

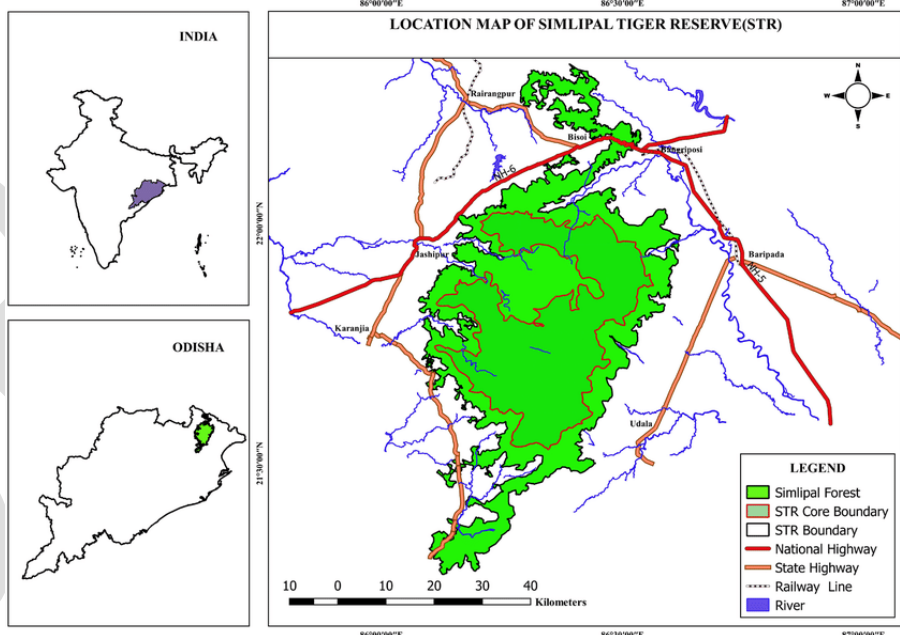
Context: The Odisha government plans to establish a melanistic tiger safari near Similipal Tiger Reserve (STR), expected to be open for visitors by October this year. It will be the world's first safari of its kind, offering tourists a chance to witness the rare and majestic melanistic tiger species unique to Odisha.

Similipal Tiger Reserve (STR)

- Located in Mayurbhanj district, Odisha, covering 2,750 km².
- Part of the Mayurbhanj Elephant Reserve, including Similipal Tiger Reserve, Hadagarh Wildlife Sanctuary, and Kuldiha Wildlife Sanctuary.
- Home to Bengal tigers, Asian elephants, gaur, and chausingha.
- Designated as a UNESCO World Network of Biosphere Reserves since 2009.
- Asia's second-largest biosphere and the only habitat for melanistic royal Bengal tigers in India.

Black Tigers or Melanistic Tigers

- Melanism is a genetic condition resulting in increased melanin production, causing black or nearly black skin, feathers, or hair.



What are Black Tigers or Melanistic Tigers?

- They are a **rare colour variant** of the tiger and are not a distinct species or geographic subspecies.
- The **abnormally dark** or black coat in such tigers is termed pseudomelanistic or false coloured.
- The **darker coat colour of the mutants** offers them a selective advantage when hunting in the dense closed-canopy and relatively darker forested areas.

- Similipal's royal Bengal tigers have a unique lineage with higher melanin levels, leading to black and yellow interspersed stripes (pseudo-melanistic).
- According to the 2022 All-India Tiger Estimation, 16 tigers recorded at STR, with 10 being melanistic.



What Makes Tigers (Pseudo) Melanistic?

- Research by the National Centre for Biological Sciences suggests a single mutation in the gene Taqpep causes stripes to enlarge.
- Similipal black tigers may have originated from a small founding population, leading to inbreeding due to isolation from other tiger populations.

Odisha's Plan for Melanistic Tiger Safari

- In-principle approval from the National Tiger Conservation Authority's (NTCA) technical committee.
- Proposed safari site identified along Dhanbad-Balasore NH-18, 15 km from STR.
- Initial inhabitants to include three melanistic tigers from Nandankanan zoo and rescued/orphaned tigers not fit for the wild.
- NTCA committee to conduct a feasibility study before final clearance, requiring other statutory approvals, including Central Zoo Authority.

Why Odisha Came up with this Plan?

- Aims to facilitate close encounters for wildlife conservationists, researchers, and enthusiasts with rare big cats.
- Addresses the challenge of tiger sightings in the vast STR, enhancing Similipal's appeal for visitors.
- Demonstrates the state's commitment to biodiversity preservation and awareness.

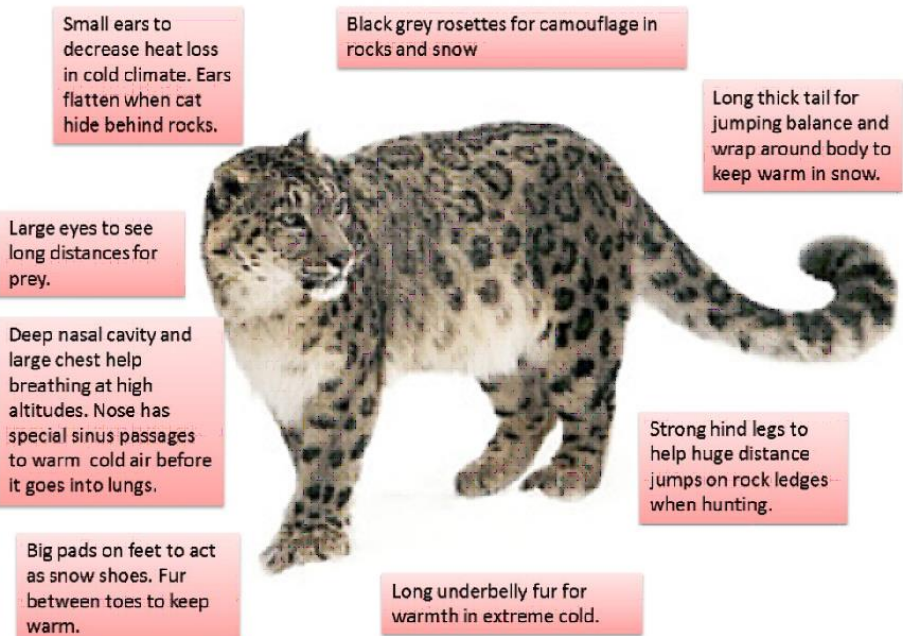
The Report on the Status of Snow Leopards in India

Context: The Union Minister of Environment, Forest and Climate Change unveiled the Status of Snow Leopards in India report during the National Board for Wildlife meeting in New Delhi.

Snow Leopard Overview

- Snow leopard belongs to the Felidae family in the Carnivora order.
- Classified as Vulnerable on the IUCN Red List, native to Central and South Asian mountain ranges.
- Global presence in 12 countries, with the largest habitat in China's Tibetan plateau, followed by Mongolia and India.

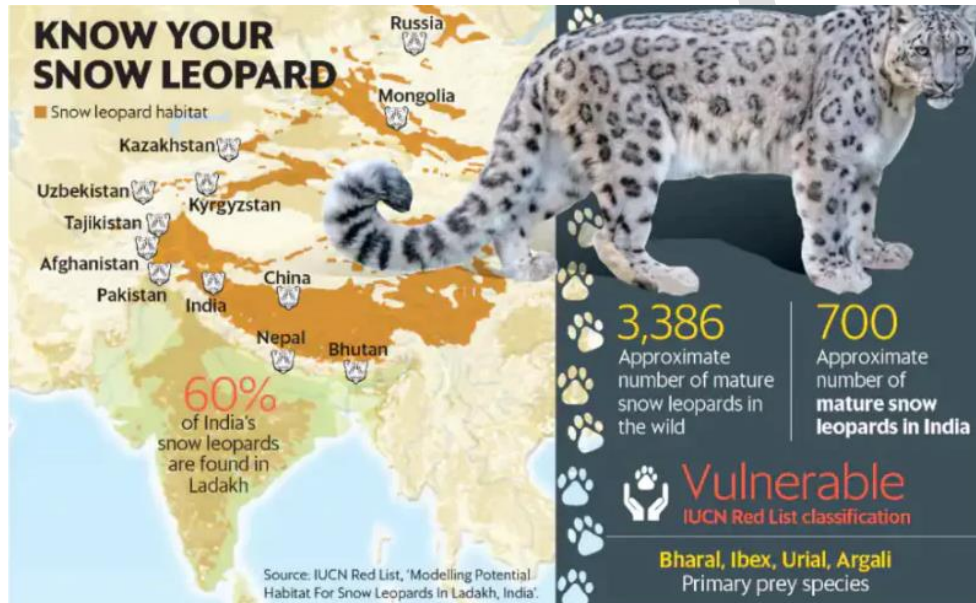
Snow Leopard (Panthera Uncia) adaptations to its cold high altitude



- Other countries include Russia, Afghanistan, Pakistan, Nepal, Bhutan, Kazakhstan, Tajikistan, and Uzbekistan.
- In India, primarily found in high-altitude terrains of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh.
- Key role as a top predator, indicator of high-altitude habitat health, and a signal for climate change impacts on mountain environments.
- Threats include poaching, habitat loss, decline in natural prey, and human-wildlife conflict.

Global Snow Leopard Population

- Estimated between 4,000 and 6,500 according to the Global Snow Leopard & Ecosystem Protection Programme.



Snow Leopard Population Assessment in India (SPA) Program

About	<ul style="list-style-type: none"> • Conducted by the Wildlife Institute of India (WII) with support from snow leopard range states and conservation partners. • Spanning 2019 to 2023, covering over 70% of potential snow leopard range using a two-step framework. • Step 1: Evaluate spatial distribution through occupancy-based sampling. • Step 2: Estimate abundance using camera traps in identified stratified regions.
Findings of the SPA Program	<ul style="list-style-type: none"> • India has an estimated 718 snow leopards in the wild. • Distributed across two Union Territories and four states in the Himalayan Mountain range. • State-wise estimates: Ladakh (477), Uttarakhand (124), Himachal Pradesh (51), Arunachal Pradesh (36), Sikkim (21), and Jammu and Kashmir (9).
Significance of the SPA Program	<ul style="list-style-type: none"> • Essential for long-term survival with consistent monitoring. • Recent surveys provide a clearer understanding of the snow leopard range in India compared to earlier estimates. • Data showcases coexistence between local communities and snow leopards. • Regular assessments offer insights for identifying challenges, addressing threats, and formulating conservation strategies.

Recommendations of the SPAI Program

- Advocate for establishing a dedicated Snow Leopard Cell at WII focusing on long-term population monitoring.
- Emphasize well-structured study designs and consistent field surveys.
- Propose periodic population estimation every 4th year in the snow leopard range for states and Union Territories.

Acid Rain

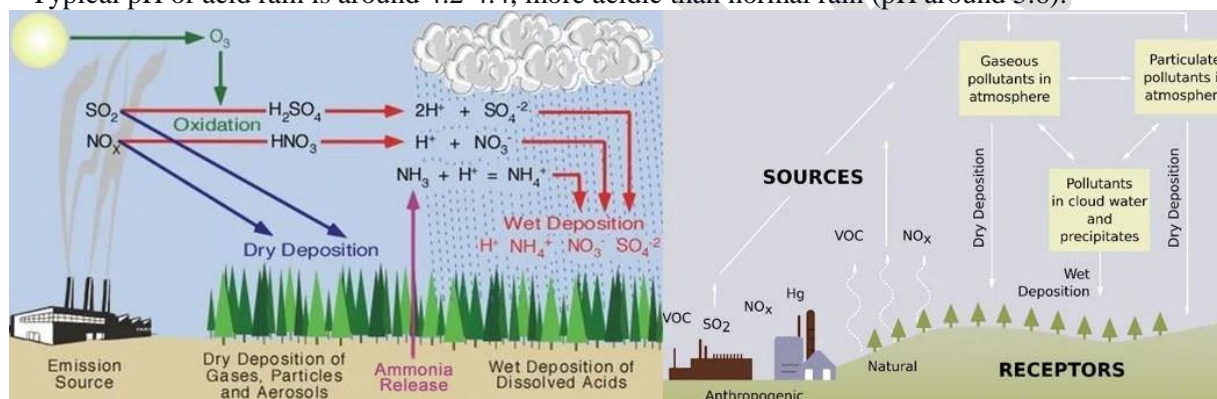
Context: Acid Rain is a complex environmental issue with various causes and widespread consequences, originating from Fossil Fuels.

What is Acid Rain?

Acid rain or acid deposition encompasses any precipitation with acidic components, such as sulfuric or nitric acid, falling to the ground in wet or dry forms. It includes rain, snow, fog, hail, or acidic dust.

Formation of Acid Rain

- SO₂ (Sulphur Dioxide) and NO_x (Nitrogen Oxide) combine with water and oxygen, forming sulfuric acid (H₂SO₄) and nitric acid (HNO₃).
- These acids dissolve in water droplets, resulting in the formation of acid rain, snow, or fog.
- Typical pH of acid rain is around 4.2-4.4, more acidic than normal rain (pH around 5.6).



Causes of Acid Rain

Fossil Fuel Combustion

Burning Fossil Fuels, especially sulfur-containing ones, releases SO₂ and, at higher temperatures, nitrogen oxides (NO_x).

Prevalent in vehicles, power plants, and industrial processes.

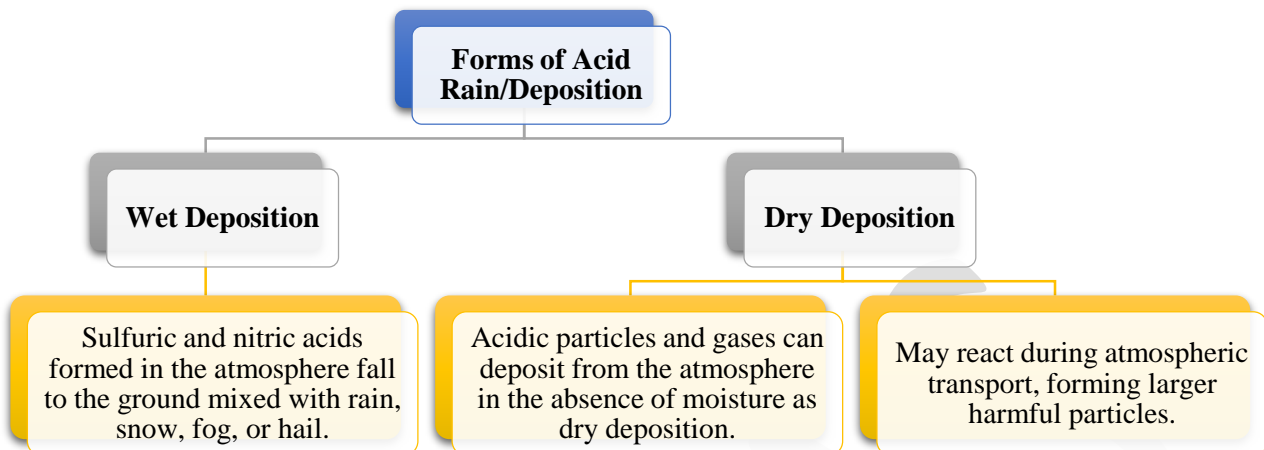
Natural Sources

Volcanic Eruptions and Lightning contribute to sulfur dioxide and nitrogen oxides in the atmosphere.

Air Pollution

SO₂ and NO_x undergo chemical reactions in the atmosphere, forming sulfuric and nitric acids.

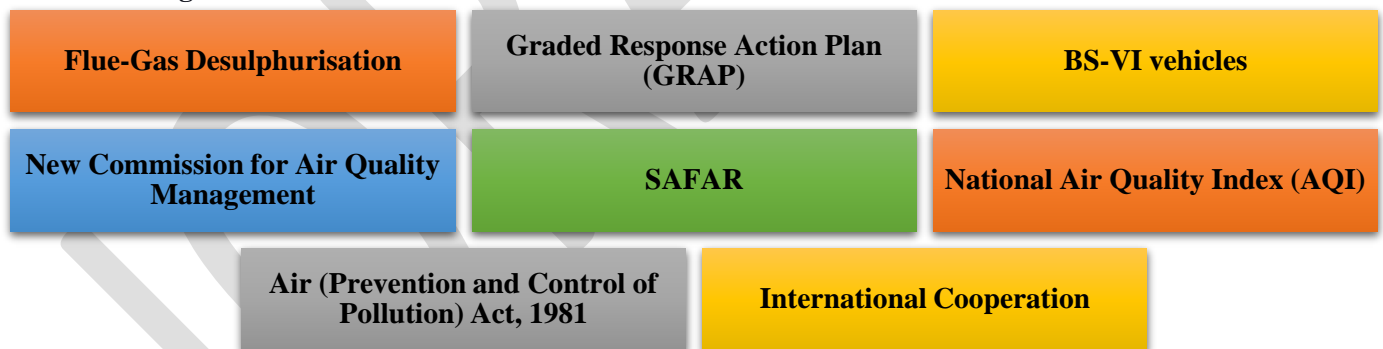
Combining with water vapor, they create acid rain during precipitation.



Impacts of Acid Rain

- **Impact on Aquatic Life**
 - Makes water bodies inhospitable to certain aquatic species, disrupting reproductive patterns and leading to population decline.
- **Impacts on Marine Environment**
 - Alters pH of marine environments, affecting distribution and survival of organisms.
 - Acidification interferes with shell-forming marine species.
- **Impacts on Physical Infrastructure**
 - Poses threats to structures and monuments, causing deterioration and discoloration.
 - Notable examples include the Taj Mahal and buildings made of limestone or marble.

Acid Rain Mitigation Measures



- **Flue-Gas Desulphurisation:** Implemented in coal power plants to reduce sulfur dioxide emissions by over 90%.
- **Graded Response Action Plan (GRAP):** Emergency measures to prevent air quality deterioration in Delhi-NCR region.
- **BS-VI vehicles, New Commission for Air Quality Management, SAFAR, National Air Quality Index (AQI), Air (Prevention and Control of Pollution) Act, 1981:** Measures and regulations addressing air quality and pollution.
- **International Cooperation:** Initiatives like the Acid Deposition Monitoring Network in East Asia (EANET) to monitor and address acid deposition.

Implement sustainable practices, promote renewable energy, enforce stringent emissions regulations, foster international cooperation, and invest in innovative technologies to address environmental challenges and combat climate change.

Economy

Importance of Fiscal consideration

Context: During her Budget speech, the Finance Minister (FM) surprised analysts by revealing the government's plans to reduce the fiscal deficit to 5.1% of GDP in 2024-25 and below 4.5% by 2025-26, contrary to expectations of higher deficit targets.

- This article aims to elucidate the concept of fiscal deficit, its importance, the methods through which the government finances it, and the implications associated with reducing the deficit.

Government Funding of Fiscal Deficit



- **Borrowing:** To bridge the fiscal deficit, the government borrows funds from the bond market, where lenders vie to acquire government-issued bonds.
- **Central Banks:** Central banks, like the Reserve Bank of India (RBI), wield considerable influence in the credit market by purchasing government bonds in the secondary market, thereby indirectly providing funds to the government.
- **Borrowing Amount:** The Centre aims to borrow ₹14.13 lakh crore from the market in 2024-25, a figure lower than the target set for 2023-24.

What is Fiscal Deficit?

- **Definition:** Fiscal deficit denotes the disparity between a government's revenue and its expenditure, wherein expenses surpass revenues, necessitating borrowing or asset sales to cover the shortfall.
- **Revenue Sources:** Taxes constitute the primary revenue source for the government, with tax receipts expected to amount to ₹26.02 lakh crore in 2024-25, out of a total estimated revenue of ₹30.8 lakh crore. Government expenditure for the same period is projected to reach ₹47.66 lakh crore.

Why Does Fiscal Deficit Matter?

- **Inflation:** Elevated fiscal deficits can precipitate inflation, as the government might resort to printing currency to finance the deficit.
- **Market Confidence:** Fiscal prudence, evidenced by reduced deficits, can instill confidence among lenders, potentially enhancing bond ratings and lowering borrowing costs.
- **Debt Management:** A heightened fiscal deficit can strain the government's capacity to manage public debt, potentially leading to a significant increase in India's public debt and impacting fiscal well-being.
- **International Borrowing:** A diminished fiscal deficit may facilitate easier issuance of bonds overseas for the government, enabling access to cheaper credit.



Future Prospects

- **Reducing Fiscal Deficit:** The government aims to decrease the fiscal deficit to 5.1% of GDP in 2024-25, primarily through an anticipated 11.5% increase in tax collections.
- **Balancing Act:** Achieving the ambitious fiscal deficit target entails a delicate balance between revenue augmentation and expenditure restraint, which could potentially dampen economic growth.

Conclusion

Fiscal deficit, delineating the variance between government revenue and expenditure, bears significant ramifications for inflation, market confidence, debt management, and international borrowing. The government's strategy to diminish the fiscal deficit in the forthcoming years necessitates a meticulous equilibrium between revenue generation and expenditure control.

RBI Monetary Policy Preview

Context: After staying put on the key policy rate for the last five consecutive rate-setting meetings, the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) is likely to maintain a status quo for the sixth time tomorrow, which will also be the last policy of fiscal 2023–24. The MPC, in its previous monetary policy, retained the repo rate at 6.5 per cent

Key Highlights



Repo Rate Expectations

- **Expected to Remain Unchanged:** The RBI's Monetary Policy Committee (MPC) is anticipated to uphold the repo rate at 6.5% for the sixth consecutive time.
- **Steady Repo Rate:** If this expectation holds, it would signify a year of uninterrupted stability in the repo rate.

Monetary Policy Stance

- **Expected as 'Withdrawal of Accommodation':** The likely stance of the monetary policy is expected to continue as a 'withdrawal of accommodation.'
- **Consistent with Inflation Targets:** The focus remains on maintaining Consumer Price Index (CPI) inflation at the targeted 4%.

Inflation Scenario

- **December CPI Inflation:** Experienced an uptick to 5.69%, reaching a four-month high, primarily driven by elevated food prices.
- **Government's Band:** Inflation is within the 2-6% band but surpasses the 4% target.
- **RBI's Projection for FY24:** Forecasts CPI inflation at 5.4%, with the third quarter at 5.6% and the fourth quarter at 5.2%.

GDP Growth Forecast

- **RBI's FY24 Forecast:** Envisions real GDP growth at 7%, indicating optimism towards growth and acknowledging fiscal consolidation efforts.

Liquidity Measures

- **Expectations:** Some economists anticipate the RBI to introduce liquidity measures to alleviate tight liquidity conditions.

- **Liquidity Gap:** The gap between incremental credit and deposits in the fiscal year to date (FYTD) 2024 stands at Rs 3.6 lakh crore.

External Benchmark Lending Rates (EBLR)

- **Linked to Repo Rate:** If the repo rate remains steady, EBLRs linked to it will not see an increase, offering relief to borrowers with loans tied to EBLRs.

MCLR-Linked Loans

- **Possible Rate Hike:** There's a possibility of lenders increasing interest rates on loans linked to the Marginal Cost of Funds based Lending Rate (MCLR).
- **Incomplete Transmission:** Full transmission of previous repo rate hikes hasn't been observed in MCLR-linked loans.

Future Rate Expectations

- **Nomura's View:** Anticipates 100 basis points of rate cuts, beginning from August, with potential risks of earlier cuts.
- **Goldman Sachs' View:** Expects the RBI to maintain the policy repo rate unchanged until the third quarter of calendar year 2024.

Monetary Policy Stance in April

- **Expected Timing:** A formal change to the monetary policy stance may be considered in April, while the RBI is expected to actively manage liquidity with the current stance.

Overall Impact on Borrowers

- **EBLR-Linked Loans:** Borrowers won't experience an immediate increase in Equated Monthly Installments (EMIs).
- **MCLR-Linked Loans:** There's a possibility of interest rate hikes, which could affect EMIs for loans linked

SBI in talks with RBI to lower CRR on green deposits

Context: The State Bank of India (SBI) is currently in discussions with the Reserve Bank of India (RBI) regarding a potential reduction in the cash reserve ratio (CRR) requirement specifically for green deposits. Green deposits, a type of fixed-term investment, are gaining traction among individuals and entities looking to support environmentally friendly initiatives.

Understanding Green Deposits

- **Purpose:** Green deposits are tailored investments aimed at backing environmentally sustainable projects.
- **ESG Principles:** These deposits align with Environmental, Social, and Governance (ESG) investing, reflecting the growing trend towards sustainable finance.
- **Utilization of Funds:** Funds from green deposits are directed towards projects promoting renewable energy, clean transportation, pollution control, green infrastructure, and sustainable water management.

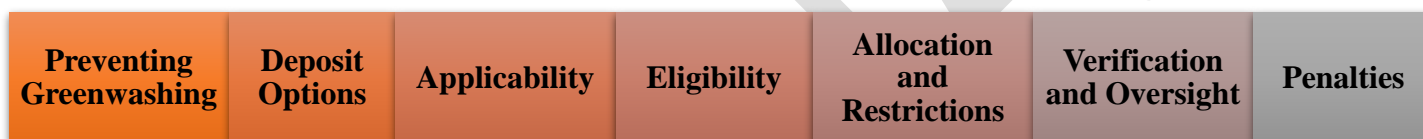
Comparison with Normal Deposits

Features	Regular Deposits	Green Deposits
Deployment of Funds	Goes into a common pool	Carved out specifically for green financing
Purpose of Funds	General financing purposes	Channelized towards environmentally sustainable projects



Features	Regular Deposits	Green Deposits
Applicability of Rules	Same rules as regular deposits	Same rules as regular deposits
Maturity Options	Option to redeem or carry forward	Option to redeem or carry forward
Interest Rate Variation	Varies among different lenders	Varies among different lenders
Interest Rates Comparison	Generally similar to regular deposits	Comparable to regular deposits, but some lenders may offer slightly lower rates (e.g., Citibank and HSBC globally)
ESG Mandate Impact on Returns	No impact	Slightly lower returns for investments with Environmental, Social, and Governance (ESG) mandates

RBI Framework for Green Deposits



- **Preventing Greenwashing:** The RBI's framework ensures transparency in environmental claims associated with green deposits.
- **Deposit Options:** Banks offer green deposits in rupees, with choices between cumulative or non-cumulative options.
- **Applicability:** Scheduled commercial banks, small finance banks, NBFCs, and HFCs must comply with this framework.
- **Eligibility:** Both corporate entities and individual customers can invest in green deposits.
- **Allocation and Restrictions:** Funds raised through green deposits are directed towards sectors such as renewable energy, waste management, and afforestation. However, investments in sectors like fossil fuels, nuclear power, or tobacco are prohibited.
- **Verification and Oversight:** Independent Third-Party Verification is conducted annually to assess fund allocation and impact, while lenders are required to review the impact of funds lent for green finance activities annually.
- **Penalties:** Financial institutions face no penalties for underutilization of funds raised through green deposits, offering flexibility.

Conclusion

SBI's proposal to reduce the CRR requirement for green deposits underscores the bank's commitment to promoting environmentally sustainable finance. By incentivizing investments in green initiatives, financial institutions can play a crucial role in addressing environmental challenges while meeting the growing demand for sustainable investment options.

Science & Technology

What our ancestors' genomes can tell us about modern health

Context: Researchers utilize ancestral DNA sequences to comprehend genetic diseases affecting ancient humans and the medical practices of early human societies.

- Ancient DNA (aDNA) studies, alongside advanced genomic techniques, offer unprecedented insights into the genetic characteristics of our ancestors through the analysis of ancient skeletal remains' DNA.
- Ancestral DNA studies yield information regarding genetic diversity, population dynamics, migration patterns, interactions, adaptations to local environments, encountered diseases, and their impact on human evolution.
- Researchers can study pathogens prevalent in ancient times, tracing their origins and evolutionary paths, thereby reconstructing the emergence, spread, and adaptation of infectious diseases throughout human history.
- Such studies enhance our understanding of evolutionary history and have implications for modern healthcare, shedding light on diseases to which genetic predispositions render us susceptible and elucidating the origins of health disparities among different populations.

Examples

- Chromosomal abnormalities, such as changes in chromosome number (e.g., extra copies or deletions of entire chromosomes), lead to common genetic diseases with distinct clinical syndromes.
 - Down's syndrome results from an extra chromosome 21.
 - Klinefelter's syndrome arises from an extra X chromosome.
 - Turner syndrome occurs due to the loss of one of the two X chromosomes in women.

Ancestral DNA and Disease History

- Chromosomal karyotyping, a technique to visualize the complete set of chromosomes in a cell, is commonly used to diagnose chromosomal abnormalities, albeit requiring live cells and labor-intensive cell culturing and staining.
- Advances in science enable the use of whole-genome sequencing data from fragmented or degraded DNA to understand chromosomal abnormalities.
- For instance, researchers from the Francis Crick Institute in London identified ancient instances of Turner syndrome, Klinefelter's syndrome, and Down's syndrome in ancient DNA dating back to the Iron Age in Britain.
- Another research group from Italy, Germany, and the U.S. studied DNA from mummified individuals spanning different geographical regions and time periods, revealing genetic variants associated with atherosclerotic cardiovascular disease in modern humans and establishing connections with ancient humans.

Linking Ancestral DNA to Diets

- Insights into the lifestyles of ancient humans can be gleaned from their genetic remains.
- DNA analysis of microbes found in birch tree pitch, used extensively by ancient humans, provides information about the oral health and diet of individuals who chewed it.
- Scientists also identified DNA matches with various plant and animal species, offering insights into ancient people's diets.

Other Insights from Ancestral DNA

- Ancestral DNA can provide significant clues about the creation and development of stone tools.
- For example, DNA sequences from ancient stone tools found in a cave in Germany, dating back approximately 50,000 years, unequivocally pointed

Neanderthals and Denisovans

- Neanderthals and Denisovans are extinct hominin groups that diverged more than 390,000 years ago and inhabited Eurasia until they were replaced by modern humans around 40,000 years ago.
- Scientists at the Max Planck Institute for Evolutionary Anthropology sequenced the genome of Denisova 11, a 50,000-year-old individual from Denisova Cave in Siberia, revealing a Neanderthal mother and a Denisovan father.



to Homo sapiens through high-throughput sequencing and radiocarbon dating.

Hundred years ago, Satyendra Nath Bose changed physics forever

Context: In 1924, amidst a significant upheaval in physics, a new 'quantum theory' began to take shape, marking a pivotal moment in the field.

- This year commemorates the centenary of Bose's groundbreaking discovery.

Background of Bose	<ul style="list-style-type: none"> • Bose, born in Calcutta (now Kolkata) in 1894, possessed exceptional mathematical skills and pursued Physics at Presidency College, where he encountered another brilliant mind, Meghnad Saha. • Both Bose and Saha served as faculty members at Rajabazar Science College during a period of rapid change in physics, particularly with Einstein's theory of relativity revolutionizing the understanding of space and time.
Challenges Faced	<ul style="list-style-type: none"> • Despite the challenges of accessing German-language papers, which were integral to the new physics, Bose and Saha persevered, becoming early adopters and translating Einstein's seminal papers on general relativity into English. • Bose's transition to a lecturer at Dhaka University led him to grapple with understanding Planck's law of black-body radiation, a topic he found challenging to teach.

Planck's Law

Origin and Importance

- Planck's law, proposed by Max Planck in 1900, revolutionized physicists' understanding of radiation and demonstrated that physics operated differently at the microscopic level.
- It remains one of the most successful conjectures in physics history, describing the radiation emitted by hot objects across a range of frequencies.

Earlier Attempts and Issues

- Initial attempts to derive Planck's law were hindered by conceptual issues, as they combined results from both quantum and classical physics, leading to logical inconsistencies.

Bose's Contribution

- Bose's seminal contribution lay in his synthesis of Einstein's and Compton's hypotheses, eliminating classical physics from the derivation of Planck's law.
- He proposed that Planck's law was a statistical property of radiation quanta, known as photons, and introduced the concept that the total number of photons is not conserved.

Bose Statistics and Legacy

- **Impact of Bose's Work**
 - Bose's paper laid the foundation for quantum statistics and introduced the distinction between bosons and fermions.
 - Bosons, with integer spin values, and fermions, with odd half-integer spin values, form the basis of modern quantum theory.
- **Evaluation of Bose**
 - Bose's discovery revolutionized the understanding of photon behavior and had a profound impact on the development of quantum theory.
 - Despite his sparse publication record, Bose's contributions remain enduring, with Albert Einstein himself recognizing the significance of his work by personally ensuring its publication.
 - Bose's analogy of himself as a comet that appeared only once underscores the magnitude of his impact on physics.



Saturn's moon Mimas may have ocean under its crust

What is Mimas?

Mimas is the smallest among Saturn's major moons, referred to as the "big seven" or the "inner moons." It earned the nickname "Death Star" due to its cratered surface resembling a space station from the Star Wars franchise.

Presence of an Ocean Under Crust:

- Initially considered an unlikely host for an ocean due to typical surface modifications indicating the presence of such water bodies.
- Scientists analyzed Mimas's orbital motion using data from NASA's Cassini spacecraft and deduced that the moon's oscillations suggest either an elongated silicate core or a global ocean.

Possibility 1:

- If Mimas were solid, its librations would be influenced by gravitational coefficients and changes in orbit, particularly by a factor called J2.
- Despite efforts to measure its librations and orbital changes, scientists could not determine values for these parameters if Mimas were entirely solid, ruling out the possibility of an elongated silicate layer.

Possibility 2: Mimas Hosting a Subsurface Ocean

- Researchers adopted a theoretical approach to assess how an underground ocean would affect the moon's movements, considering the shape of three deformed layers, gravity coefficients, and librations.
- The outer icy layer is modeled as viscoelastic, while interior interfaces are assumed to be hydrostatic.
- Calculations indicated the need for an ice sheet 20-30 km thick to align with observations, consistent with a previous 2022 study.
- Estimated surface heat release of approximately 25 milliwatts per square meter would reduce Mimas's eccentricity by half within 4-5 million years.
- Simulations suggested the ocean may have formed between 2-25 million years ago, with surface heat predictions matching those of Enceladus, indicating potential hydrothermal activity despite surface conditions.

Mimas likely possesses a liquid ocean situated around 20-30 km beneath its heavily cratered ice shell.

Astronomers find the small, hot helium stars they were looking for

Context: Led by assistant professor Maria Drout of the University of Toronto, the research team found these stars after spending seven years of hard work.

Outcome of Research (Looking for)

A unique class of stars (cosmic engines) hot and relatively small orbs covered in helium.

Importance of Research

Understanding stars' diverse influences on the universe, from the creation of heavy elements to the release of gravitational waves.

Why Sun doesn't collapse onto itself?

- Newton's law of gravity states that all objects with mass attract each other.
- Applying this, the Sun's outer and inner layers should be attracted to each other, causing it to continuously fall inwards and eventually collapse.

Nuclear Fusion

- In the star's core, nuclear fusion occurs where nuclei of light elements merge to form heavier nuclei, releasing enormous heat.
- This energy counters gravity, maintaining the star's equilibrium.

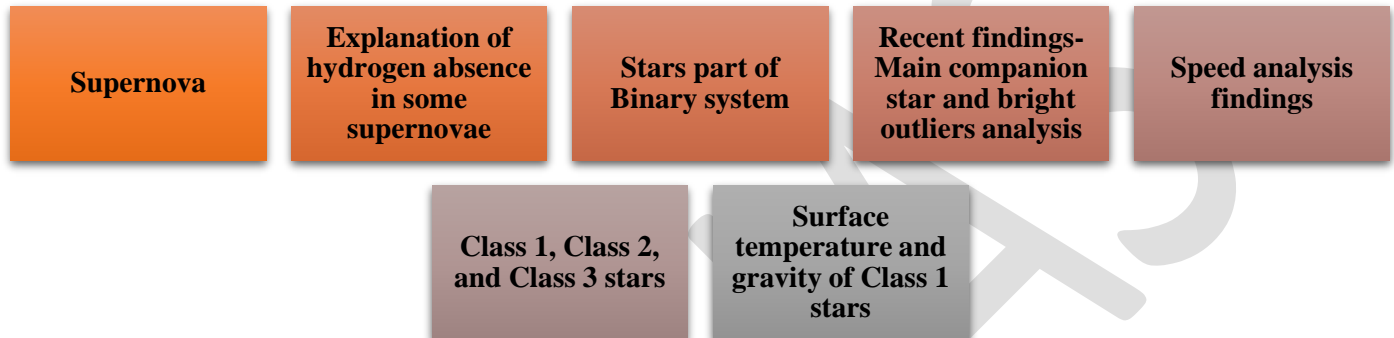
- However, nuclear fusion prevents the Sun from shrinking.

Fusion energy pushes the star out while gravity pulls it in, holding the balance for billions of years, placing them in the main sequence.

Main sequence

On plotting stars' colors against their brightness, many stars occupy a prominent band in the middle of the graph, referred to as the 'main sequence'.

Other possibilities and associated features



- **Supernova:** Occurs when a star (heavy enough) exhausts fusion material, leading to an explosion.
- **Explanation of hydrogen absence in some supernovae:** The outer layers of some stars are stripped away before the supernova explosion, possibly due to being part of a binary system.
- **Stars part of Binary system:** Most stars with more than eight solar masses are expected to be part of binary systems.
- **Recent findings- Main companion star and bright outliers analysis:** Drout & co. reported a population of these stars using ultraviolet light data.
- **Speed analysis findings:** Some stars had varying speeds over time, hinting at the presence of a companion.
- **Class 1, Class 2, and Class 3 stars:** Class 1 stars have no hydrogen and are helium-rich, with companions being low-mass main sequence stars or compact objects.
- **Surface temperature and gravity of Class 1 stars:** Roughly 20 times hotter than the Sun with surface gravity about 1,000 times that of Earth.

Final outcome

- The team discovered the long-awaited intermediate-mass hydrogen-stripped helium stars in binaries after seven years.
- These stars will end their lives as hydrogen-poor supernovae, leaving behind ultra-dense neutron stars, which may collide in powerful kilonova explosions, releasing gravitational waves.

ISRO key test over, CE20 cryogenic engine is now human-rated for Gaganyaan missions

Context: ISRO has achieved human rating for its cryogenic engine (CE20), used in the cryogenic stage of the human-rated LVM3 launcher for India's first human space flight mission Gaganyaan.

Human rating achieved for CE20 cryogenic engine

- Rigorous testing confirms the engine's suitability for Gaganyaan missions.
- The CE20 engine slated for the first uncrewed flight LVM3 G1 has undergone acceptance tests.
- Human-rating involves ensuring a system's capability to safely transport humans.

- The final test occurred on February 13, the seventh in a series of vacuum ignition tests simulating flight conditions at the High Altitude Test Facility at ISRO Propulsion Complex, Mahendragiri.

CE20 cryogenic engine

- The CE-20, an indigenous cryogenic engine developed by ISRO, enhances the GSLV Mk III, now named LVM-3, launch vehicle.
- It improves upon the CE-7.5 cryogenic engine and is crucial for ISRO's Gaganyaan mission.
- Operating on the gas-generator cycle, the CE-20 engine improves ease of construction and testing by discarding exhaust from the pre-burner.
- It serves as the powerhouse of the Cryogenic Upper Stage (CUS), propelling the upper stage (C25) of the LVM3 vehicle.
- With a higher maximum thrust (~200 kilonewton vs. 73.5 kilonewton) and shorter burn duration compared to the CE-7.5 engine, the CE-20 engine has demonstrated its capability in six successive LVM3 missions.
- Ground qualification tests for human rating involved life demonstration, endurance, and performance assessments under nominal and off-nominal conditions regarding thrust, mixture ratio, and propellant tank pressure.

Updates on first unmanned Gaganyaan (G1) mission

- Acceptance tests for the flight engine designated for the first unmanned Gaganyaan (G1) mission have been successfully completed.
- Scheduled tentatively for Q2 of 2024, this engine will power the upper stage of the human-rated LVM3 vehicle with a thrust capability of 19 to 22 tonnes and a specific impulse of 442.5 seconds.

Gaganyaan Mission

- Gaganyaan is an ISRO mission comprising three flights: two unmanned and one human spaceflight.
- The Orbital Module will carry three Indian astronauts, including a woman, orbiting Earth at a low-earth-orbit for 5-7 days.
- Payloads include the crew module for human transport and the service module powered by two liquid propellant engines, equipped with emergency escape and mission abort capabilities.
- GSLV Mk III, or LVM-3, a three-stage heavy lift launch vehicle, will launch Gaganyaan due to its payload capacity.

ISRO: PAPA detects solar wind impact of coronal mass ejections

Context: The Indian Space Research Organisation (ISRO) reports that the advanced sensors of the Plasma Analyser Package for Aditya (PAPA) payload aboard the Aditya-L1 have detected the impact of coronal mass ejections (CMEs).

What is PAPA?

- The Plasma Analyser Package for Aditya (PAPA) is an energy and mass analyser designed for in-situ measurements of solar wind electrons and ions in the low energy range.
- It consists of two sensors:
 - SWEEP: The Solar Wind Electron Energy Probe, measuring electrons in the energy range of 10 eV to 3 keV.
 - SWICAR: The Solar Wind Ion Composition Analyser, measuring ions in the energy range of 10 eV to 25 keV and mass range of 1-60 amu.

Coronal Mass Ejections (CMEs)

- CMEs are large expulsions of plasma and magnetic field from the sun's atmosphere—the corona—that propagate outward into interplanetary space.
- During a CME, the sun releases a significant amount of material, including electrons, protons, heavier ions, and magnetic fields.



- These sensors are also capable of measuring the direction of arrival of solar wind particles.
- The payload has been operational since December 12, 2023.

Aditya-L1

- Aditya-L1 is a coronagraphy spacecraft designed and developed by ISRO for studying the solar atmosphere.
- It orbits at about 5 million km from Earth in a halo orbit around the Lagrange point 1 (L1) between Earth and the Sun.
- The main objectives of Aditya-L1 include observing the dynamics of the Sun's chromosphere and corona, studying solar magnetic storms, and understanding space weather.

Solar Wind

- Solar wind originates from the sun's outermost layer (corona) and consists of high-energy charged particles, such as protons and electrons, along with smaller amounts of heavier ions.
- Solar wind particles are emitted at extremely high speeds, reaching supersonic velocities.
- It is a continuous and constant flow of charged particles from the sun into space, permeating the entire solar system.
- Solar wind interacts with Earth's magnetic field, leading to phenomena like auroras near the polar regions.
- The intensity and speed of solar wind can vary due to solar activity, such as solar flares and coronal mass ejections.

The unusual cabbage mutation that could boost crop yield

Context: Recent research highlights the remarkable ability to induce sterility in a variety of plants, such as cabbage, cauliflower, broccoli, tomato, and rice, through a tiny genetic deletion. This deletion holds the potential to significantly increase crop yields by leveraging heterosis.

Unveiling Genetics



- **DNA Structure:** DNA comprises two long strands containing four nucleotide bases: Adenine (A), Cytosine (C), Guanine (G), and Thymine (T), forming pairs (A-T and G-C) connected by hydrogen bonds.
- **Genome Organization:** The genome of the cabbage plant (*Brassica oleracea*) spans about 1.06 billion base pairs across 18 chromosomes, with each chromosome pair sharing a mostly identical sequence from pollen and egg.
- **Role of Genes:** Genes are specific DNA sequences, typically spanning a few thousand base pairs, which, when expressed, are transcribed into RNA, guiding protein synthesis.
- **Protein Production:** RNA is processed by ribosomes, directing the assembly of amino acids into proteins.

Role of Sterility in Hybrid Vigor



- **Discovery of Ms-cd1:** Around 44 years ago, researchers identified a cabbage plant with a natural mutation called Ms-cd1, rendering it male-sterile yet capable of fertilizing eggs from normal plants, resulting in robust hybrid seeds.
- **Hybrid Seeds:** Seeds from mutant plants were a result of out-crossing, where eggs were fertilized by pollen from different strains, leading to enhanced vigor in resulting hybrid plants, known as heterosis.



- **Dominant Mutation:** The Ms-cd1 mutation, found to be dominant, caused male sterility with the presence of just one mutated chromosome.
- **Recessive Mutations:** Mutations in both copies of the Ms-cd1 gene were necessary for male fertility, becoming recessive in such cases.

Crucial Missing Base-Pair

Genetic Mapping

Promoter's Role

ERF Binding

Fine-Tuning of Protein Levels

- **Genetic Mapping:** Researchers identified a critical difference between mutated and non-mutated Ms-cd1 genes: the mutated gene lacked a single DNA base pair in its promoter region.
- **Promoter's Role:** The promoter sequence binds regulatory proteins that control gene transcription timing and location.
- **ERF Binding:** The missing base-pair in the mutated gene disrupted its binding to the regulatory protein ERF, resulting in continued expression of the Ms-cd1 gene and subsequent male sterility.
- **Fine-Tuning of Protein Levels:** Proper pollen development relies on precise Ms-cd1 protein level balance, with ERF binding regulating its expression during various developmental stages.

Extending the Discovery

- **Cross-Species Applicability:** The dominant mutant gene was introduced into other plant species like rice, tomato, and arabidopsis, resulting in pollen developmental disruptions.
- **A Promising Tool:** The genetic deletion of a single base-pair emerges as a potent tool for hybrid seed production not only in cabbage but also in various other crops.
- **Implications for Agriculture:** This breakthrough has the potential to harness heterosis and elevate crop yields across diverse plant species, tackling global food security challenges.

Conclusion

The genetic deletion inducing male sterility in plants represents a significant advancement in agricultural science, offering the possibility of abundant harvests through hybrid seeds. This discovery paves the way for sustainable agriculture and underscores the pivotal role of genetic research in addressing the world's escalating food demands.

Reducing ammonia emissions through fertilizer management

Context: Researchers have utilized machine learning techniques to provide detailed estimations of ammonia emissions originating from rice, wheat, and maize crops.

Key findings of the study

A crop-specific evaluation regarding potential emission reductions suggests that implementing effective fertilizer management practices during the cultivation of rice, wheat, and maize could lead to a decrease in atmospheric ammonia emissions from farming by up to 38%.

This optimized approach entails the application of enhanced-efficiency fertilizers at greater depths into the soil using conventional tillage methods throughout the growing season.

The study reveals that, within the context of fertilizer management, rice cultivation could contribute 47% towards the total reduction potential, while maize and wheat could contribute 27% and 26%, respectively.

Without the implementation of any management strategies, the authors predict that ammonia emissions could escalate between 4.6% to 15.8% by 2100, contingent upon the level of future greenhouse gas emissions.



The methodology adopted in the study

- Researchers from the Southern University of Science and Technology in Shenzhen, China, along with collaborators, employed machine learning algorithms to model ammonia output from global rice, wheat, and maize agriculture. This modeling incorporated various variables such as climate conditions, soil attributes, crop varieties, irrigation methods, tillage practices, and fertilizer application techniques.
- To enrich the model, the researchers compiled a dataset comprising over 2,700 observations sourced from a systematic review of published literature detailing ammonia emissions.
- Utilizing this model, the researchers estimated that global ammonia emissions amounted to 4.3 teragrams (4.3 billion kilograms) in the year 2018.

Why the reduction in ammonia emissions is necessary?

- Atmospheric ammonia stands as a significant environmental pollutant with ramifications for ecosystems worldwide and human health.
- Approximately 51-60% of anthropogenic ammonia emissions can be attributed to crop cultivation, with half of these emissions (25-30%) linked to three primary staple crops: rice, wheat, and maize.
- Ammonia plays a crucial role in various environmental issues, including acidification, eutrophication, and the formation of secondary particulate matter, thereby impacting human health and contributing to climate change.

About Ammonia (NH₃)

- Gaseous ammonia (NH₃) constitutes the most prevalent alkaline gas in the atmosphere and represents a significant component of total reactive nitrogen.
- Agriculture, including animal husbandry and NH₃-based fertilizer applications, serves as the primary source of NH₃ emissions, alongside industrial processes, vehicular emissions, and volatilization from soils and oceans.
- Ammonia serves essential functions in the human body as a building block for proteins and other complex molecules and occurs naturally in soil from bacterial processes and through decay processes of plants, animals, and animal waste.

Properties of ammonia

- Ammonia is a colorless, highly irritating gas possessing a sharp, suffocating odor, which readily dissolves in water to form an ammonium hydroxide solution, causing irritation and burns.
- Although not highly flammable, ammonia gas may lead to container explosions under high heat conditions, and it is usually transported as a compressed liquid in steel cylinders.

Property	Value or Details
Chemical Formula	NH ₃
Type of Base	Weak
Affinity (water)	High
Corrosiveness	Corrosive to Some Metals
Oxidation Power	Strong Reducing Agent
Reactivity	Quite Reactive
Volatility	Increase with increase in pH

Uses of ammonia

Agriculture	Refrigeration	Water Purification
Plastics Manufacturing	Explosives	Textiles
Pesticides	Dyes	Various Chemical Products



Approximately 80% of industrial ammonia production is utilized in agriculture as fertilizer, with additional applications in refrigeration, water purification, plastics manufacturing, explosives, textiles, pesticides, dyes, and various chemical products.

Conclusion

This research underscores the environmental significance of addressing ammonia emissions stemming from rice, wheat, and maize cultivation, offering a viable pathway to mitigate adverse impacts on ecosystems and human health.

Kufos Joins NISAR Phase II Project

- The Kerala University of Fisheries and Ocean Studies (KUFOS) is set to engage in the advanced NASA-ISRO Synthetic Aperture Radar (NISAR) Phase II research initiative, which concentrates on forest biomass and carbon monitoring via radar data.
- This partnership stems from the successful conclusion of the initial phase of the Indian Space Research Organisation (ISRO)-NISAR program, which focused on validating ground truth data concerning forest biomass across diverse regions.
- NASA and ISRO are collaboratively developing a space-borne synthetic aperture radar, slated for launch in 2024.
- NISAR aims to transform earth resource observation by furnishing high-resolution data for vast areas.
- The project holds immense promise for the systematic surveillance of agriculture, forestry, wetlands, and estimation of soil moisture.

NASA-ISRO Synthetic Aperture Radar (NISAR)
NISAR will be world's most expensive satellite with estimated cost of US \$1.5 billion. It will also become world's first radar satellite to operate on dual frequency.

NISAR is joint project between NASA and ISRO to observe the earth in never before resolution! It will observe earth's most complex processes like volcanoes, earthquakes, ecosystem disturbance and various hazards. NISAR is expected to launch in December, 2021 from Satish Dhawan Space Center, India.

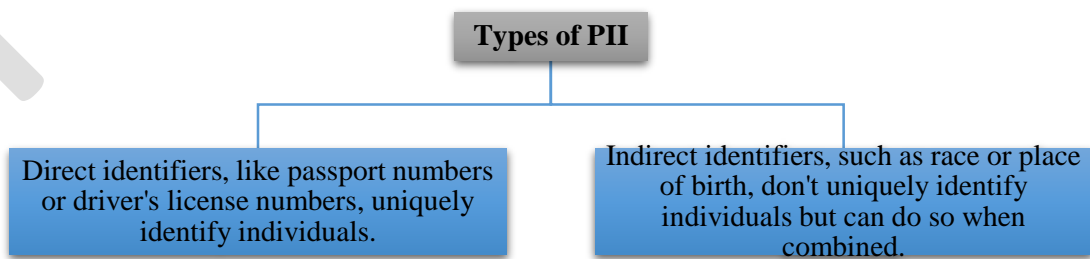
Safeguarding Personally Identifiable Information

Context: Recently, the Ministry of Corporate Affairs resolved a significant vulnerability in its online portal after a cybersecurity researcher notified the Computer Emergency Response Team of India (CERT-In).

- The vulnerability exposed Personally Identifiable Information (PII), including Aadhaar, Permanent Account Number (PAN), Voter identity, date of birth, contact number, and communication address of over 98 lakh directors of Indian companies.

What is Personally Identifiable Information (PII)?

- **About:** PII encompasses data held by organizations that can potentially



identify specific individuals, including Aadhaar, PAN, voter identity, passport, date of birth, contact number, communication address, and biometric information.

- **Sensitive vs. Non-sensitive PII**
 - Sensitive PII directly identifies individuals and, if leaked, can cause significant harm, necessitating strict privacy measures.
 - Non-sensitive PII, like social media handles or zip codes, is less harmful if leaked and may or may not be unique to individuals.
- **Non PII**
 - Non-personally identifiable information (non-PII) alone cannot trace or identify a person but, combined with additional data, can do so. It includes photographic images, place of birth, religion, etc.

What are the Risks of PII Exposure?

Identity Theft

PII exposure heightens the risk of identity theft, leading to financial fraud and privacy violations.

Financial Fraud

Exposed PII can lead to unauthorized access to bank accounts and payment fraud.

Privacy Violations

Unauthorized access to PII compromises individuals' confidentiality and autonomy.

Phishing and Social Engineering Attacks

Exposed PII enables cybercriminals to conduct phishing and social engineering attacks.

Data Breach Fallout

PII exposure through data breaches results in significant financial losses and reputation damage.

Reputation Damage

Exposure of sensitive PII can tarnish individuals' reputations and lead to social and professional consequences.

Instances of Data Breach in Past

- **CoWIN Data Breach Allegations:** Reports surfaced about CoWIN portal data leaks and alleged sales of Indian citizens' PII on the dark web.
- **Aadhaar:** Aadhaar data leaks were reported multiple times, including instances of large-scale leaks and data breaches on government platforms.
- **RailYatri Platform Data Breach:** A data breach occurred on the RailYatri platform in January 2023.
- **Increase in Cyberattacks on Government and Essential Services:** A significant increase in cyberattacks on Indian government and essential services was reported, highlighting vulnerabilities in digital infrastructure.

Legislations Related to Data Governance in India

Various laws and regulations, including the Information Technology Rules 2021, the Digital Personal Data Protection Act 2023, and the establishment of CERT-In, aim to govern data protection and cybersecurity in India.

What are the Challenges in Protecting PII?

- **Diverse Sources:** PII is stored across multiple locations due to cloud computing and SaaS services.
- **Increasing Data Volume:** The growing volume of sensitive data poses challenges in ensuring its security.
- **Evolving Threat Landscape:** Cybercriminals constantly evolve their tactics to steal PII.

- **Complex Regulatory Environment:** Organizations must navigate different data privacy regulations.

Way Forward



- **Encryption:** Employ encryption techniques to protect PII.
- **Identity and Access Management (IAM):** Implement two-factor authentication and zero-trust architecture.
- **Training:** Provide employees with training on handling and protecting PII.
- **Anonymization:** Anonymize sensitive data to remove identifying characteristics.
- **Cybersecurity Tools:** Deploy data loss prevention (DLP) and extended detection and response (XDR) tools.
- **Collaboration and Partnerships:** Collaborate with cybersecurity experts and regulatory bodies to stay informed about emerging threats.

CSIR NAL flies test-drone that can double up as ‘pseudo satellite’

Context: National Aerospace Laboratories (NAL) recently conducted successful tests on a solar-powered High Altitude Pseudo Satellite (HAPS), a UAV.

About HAPS

- NAL conducted successful tests on an unmanned aerial vehicle known as High Altitude Pseudo Satellite (HAPS) in Challakere, Karnataka, earlier this month.
- The system measures 5 meters in length, has an 11-meter wingspan, and weighs 23 kg. It ascended to approximately 3 km and remained in position for around eight hours.
- NAL has planned a series of tests expected to result in a full-scale craft, with a wingspan of 30m (similar to a Boeing 737), by 2027, capable of reaching 23 km altitude and remaining airborne for at least 90 days.
- The institute aims to design and manufacture various components of the HAPS, including propellers, battery management systems, carbon-composite airframes, flight-control systems, and high-powered electric motors capable of withstanding extreme temperatures.
- In an unrelated project, a Bengaluru-based private company recently conducted the first test flight of a solar-powered, long-endurance drone, which flew for 21 hours.

Benefits/Advantages of HAPS

- These solar-powered vehicles bridge the gap between UAVs flying at lower altitudes and conventional satellites in space.
- HAPS have diverse applications, including telecommunications, emergency/public safety communications, intelligent transportation systems, maritime surveillance, environmental monitoring, and land border control.
- Compared to ground-based communication networks, HAPS can cover larger areas with less interference and facilitate data transfer between satellites and ground-based telecom networks.
- HAPS are more cost-effective and easier to launch compared to conventional satellites.

Significance w.r.t. India

- Hindustan Aeronautics Limited (HAL) announced in 2022 its collaboration with a startup to develop a high altitude pseudo satellite, recognizing the need for innovative solutions to safeguard India's extensive land borders and coastline.

- HAPS, hovering at the edge of the Earth’s atmosphere, can enhance border patrolling, track movements in enemy territory or deep seas, and provide round-the-clock surveillance, navigation, and missile detection.
- Equipped with advanced cameras and sensors, HAPS platforms contribute significantly to border security, similar to efforts by China’s AVIC in developing surveillance-oriented HAPS platforms.
- NAL, India’s sole government aerospace R&D lab established in 1959, focuses on high-tech aerospace disciplines and has made substantial contributions to global aerospace programs over five decades, supporting national strategic objectives.

Earth-wide telescope confirms black hole’s shadow is ‘real’

Context: Scientists have unveiled new details of a colossal black hole 53 million lightyears away first photographed by the earth-wide Event Horizon Telescope (EHT) in 2017. The feat provided the first visual evidence that black holes exist, confirming a fundamental prediction of general relativity.

Imaging the Black Hole	
Advancements in Black Hole Imaging	<ul style="list-style-type: none"> • Scientists have made significant strides in understanding black holes, notably one located 53 million light-years away, initially imaged in 2017 by the Event Horizon Telescope (EHT). • This groundbreaking imaging marked the first visual confirmation of black holes' existence, aligning with a fundamental aspect of general relativity.
Detailed Analysis of Black Hole’s Image	<ul style="list-style-type: none"> • Recent enhancements in EHT capabilities have enabled finer observations near the black hole’s event horizon, revealing a distinct ring formation around it. • Initial observations identified the black hole’s "shadow," shaped by gravitational effects, validating its mass, size, and shape against predictions from general relativity. • Latest findings, from improved telescope resolution and coverage, reaffirm the dimensions and characteristics of the black hole’s shadow, enhancing our understanding of these enigmatic cosmic entities.

Event Horizon Telescope (EHT)

The EHT comprises a global network of 8 radio telescopes, utilizing very-long baseline interferometry, including telescopes such as the Atacama Large Millimetre/sub-millimetre Array and the South Pole Telescope.

- Data synchronization among these telescopes, employing highly accurate clocks, enables the study of celestial objects.
- The addition of the Greenland Telescope has notably enhanced resolution in the north-south direction.

Enhancements and Discoveries

- Efforts to improve EHT capabilities involved increased data recording rates, enhanced spatial information capture, and the incorporation of the Greenland Telescope.
- Notable discoveries include a bright, asymmetric ring of light detected in 2017, aligning with characteristics of a supermassive black hole.

Piecing the Data Together

- In a recent campaign, EHT collected data over six days in April 2018, involving nine stations and four frequencies.
- General relativistic magnetohydrodynamic simulations were employed to model the M87 black hole, considering its gravitational influence as per Einstein's theory.

Gravitational Lensing

- Recent EHT findings confirmed an asymmetric ring structure around the black hole, indicating consistent gravitational lensing effects.
- Observations from 2017 and 2018 demonstrated the ring's stable diameter, showcasing the consistent bending of light by the black hole's gravity.

Significance of EHT Observations

- Observations revealed a brighter southwest portion of the ring, attributed to the black hole's rotation.
- These findings align with expectations for a rotating black hole, with implications for understanding its dynamics.
- Changes in the orientation of the black hole's accretion disk and emitted jet suggest complex interactions influenced by the black hole's spin.
- EHT's efforts consistently validate ring formation and black hole traits, showcasing advancements in observational techniques.
- Future plans include a "movie project" in 2026 to observe changes in the black hole's brightness, offering further insights into its dynamics.

Untapped potential of stem cells in menstrual blood

Context: About 20 years ago, biologist Caroline Gargett identified two cell types in the endometrium through intensive microscopy, suspected to be adult stem cells due to their regenerative properties. These cells, termed endometrial stromal mesenchymal stem cells, opened new avenues for tissue repair and disease treatment research.

Blood Cells in Menstrual Blood

Endometrial stem cells can be obtained non-invasively from menstrual blood, termed menstrual blood-derived stem cells. The discovery of menstrual stem cells was first made from menstrual blood in 2007. These cells offer various advantages, being easily obtainable from women and potentially usable in treatments without risk of tissue rejection.

Key Role

- The endometrium plays a crucial role in repairing and regenerating the upper tissue layer shed during menstruation, vital for pregnancy by supporting embryo development.
- Endometrial stem cells contribute to this regrowth and may also influence infertility.

Embryonic vs. Adult Stem Cells

- Stem cells are derived from embryos or adult tissues.
- Embryonic stem cells are pluripotent but ethically controversial due to embryo destruction during retrieval.
- Adult stem cells, like those in bone marrow, are less controversial but have limited capabilities and may require invasive collection procedures.

Endometrium

The endometrium lines the uterus, consisting of a basal layer and an upper functional layer that sheds during menstruation. Throughout the menstrual cycle, the endometrium thickens to support a fertilized egg, then regresses as the upper layer sheds.

Stem Cells

- Stem cells possess the unique ability to differentiate into specialized cell types in the body and replace damaged or lost cells.
- They are capable of self-renewal, unspecialized, and can give rise to specialized cell types.

Brainware

Context: Scientists have recently achieved the seamless integration of brain-like tissue with electronics, resulting in the creation of Brainware, an 'organoid neural network (ONN)' capable of recognizing voices and solving complex mathematical problems.

What is Brainware?

Brainware is an innovative computing system that combines brain-like tissue with electronics. It integrates brain organoids with microelectrodes, forming an 'organoid neural network (ONN)' that directly incorporates living brain tissue into the computing process. Brain organoids are 3D tissues derived from human embryonic stem cells, simulating the structure and function of the human brain and used to study human brain development and related diseases.

Operational Mechanism: Three-Layered Architecture: Input, Reservoir, and Output

- **Input Signals Processing:** ONNs process electrical stimulation signals as input.
- **Reservoir:** The reservoir, acting as a black-box, converts signals into mathematical entities, eliminating constant back-and-forth data transfer.
- **Output Readout:** The output layer interprets Brainware's neural activity, providing tangible results using modified conventional computer hardware.

Advantages over Traditional Neuromorphic Computing

- **Memory and Processing Separation**
 - Traditional neural networks face challenges with separate memory and processing units, leading to increased time and energy demands.
 - Brainware's biological neural network, with live brain cells, addresses these inefficiencies, resulting in significantly lower energy consumption.
- **Challenges and Considerations**
 - The system faces challenges, including the need for technical expertise and infrastructure to maintain a biological neural network.
 - Ethical concerns arise regarding the consciousness of organoids and their mechanistic use.

Future Prospects

- While in its early stages, continued study of the 'organoid neural network' could provide foundational insights into learning mechanisms, neural development, and cognitive implications of neurodegenerative diseases.
- This research could contribute to advancements in neuroscience and medical research, exploring possibilities at the intersection of tissue engineering, electrophysiology, and neural computation.

Western Equine Encephalitis Virus

Context: The Western Equine Encephalitis Virus outbreak has been identified in horses in Argentina and Uruguay.

Outbreak of Virus	<ul style="list-style-type: none"> • Background: Argentina's International Health Regulations National Focal Point reported a human case of Western Equine Encephalitis Virus (WEEV) infection to PAHO/WHO. • Outbreak Overview: Concurrent outbreaks in horses in Argentina and Uruguay emphasize the severity and potential for cross-species transmission.
Historical Perspective	<ul style="list-style-type: none"> • Past Human Cases: Last reported human infections in Argentina occurred in 1982, 1983, and an isolated event in 1996, highlighting the re-emergence of Western Equine Encephalitis after a prolonged hiatus. • Regional Context: Previous outbreaks and human cases have been documented in the U.S. and Canada, with over 3,000 reported cases over the years. • Virus Threats: The virus, a recombinant of Eastern Equine Encephalitis Virus (EEEV) and a Sindbis-like virus, poses a significant threat.

Virology and Transmission	<p>Western Equine Encephalitis Virus (WEEV)</p> <ul style="list-style-type: none"> • WEEV belongs to the Togaviridae family, with an 11.5-kilobase single-stranded RNA genome. • Passerine birds serve as reservoirs, while equine species act as intermediate hosts. • Mosquitoes, as vectors, transmit the virus to humans, emphasizing the importance of vector control.
Control and Prevention Strategies	<ul style="list-style-type: none"> • PAHO/WHO Alert: PAHO/WHO has issued an alert on the risk of WEE spread in the Americas. • One Health Approach: Emphasizes collaboration between human, animal, and environmental health sectors, crucial for effective control and prevention of the virus. • Interventions: Environmental modifications, vector control, and equine vaccination are recommended in affected and high-risk regions. Enhanced surveillance and detection are crucial for preventing further spread.

Way Forward

- The Western Equine Encephalitis outbreak in Argentina and Uruguay poses a significant public health threat.
- Immediate and coordinated efforts are essential to curb the spread, with a focus on the One Health approach and targeted interventions.

Health

Typbar Typhoid Vaccine

Context: Recently, a phase-3 trial conducted in Malawi, Africa, an area endemic for typhoid fever, showcased the long-term efficacy of Bharat Biotech's Typhoid conjugate vaccine (TCV), Typbar, demonstrating efficacy across all age groups of children studied.

Major Findings of the Typbar Vaccine Trials

- Typbar TCV is hailed as the world's first clinically proven conjugate Typhoid vaccine.
- A conjugate vaccine, it combines a weak antigen with a strong antigen, known as a carrier protein, thereby stimulating a robust and effective immune response

About Typhoid Fever

- Caused by Salmonella Typhi, a severe and life-threatening infection.
- Typically spreads through contaminated food or water.

Transmission

- Spreads via faecal-oral route.
- Mainly through ingestion of contaminated food or water.

Symptoms

- Fever, fatigue, gastrointestinal Issues, headache, occasionally a rash
- Severe Cases May Lead To Complications Or Death.

Risk Factor and Disease Burden

- In 2019, approximately 9.24 million cases and 110,000 deaths worldwide.
- Lack of access to safe water and sanitation heightens the risk, especially among children.

Treatment

- Antibiotics are the primary treatment.
- Increasing antibiotic resistance poses a challenge, particularly in communities lacking access to safe water and sanitation.

Prevention

- Ensure access to safe water, sanitation, and hygiene.
- WHO recommends integrating typhoid conjugate vaccines into routine childhood immunization programs in endemic countries.

against the pathogen associated with the weak antigen.

What is Typhoid?

- **About:** Typhoid fever, caused by the bacterium *Salmonella Typhi*, is a severe infection that poses a threat to life. Typically, it spreads through contaminated food or water.
- **Transmission:** It spreads via the faecal-oral route, primarily through the ingestion of contaminated food or water, leading to bacterial multiplication and dissemination into the bloodstream. Urbanisation and climate change are factors that could exacerbate the global burden of typhoid.
- **Symptoms:** Symptoms include fever, fatigue, gastrointestinal issues, headache, and occasionally, a rash. Severe cases may lead to complications or death, confirmed through blood testing.
- **Risk Factor and Disease Burden:** In 2019, there were approximately 9.24 million cases of typhoid and 110,000 deaths worldwide, with a substantial burden in developing regions, particularly South-East Asia and Africa. Lack of access to safe water and sanitation heightens the risk, especially among children.
- **Treatment:** Antibiotics are the primary treatment, but increasing resistance poses a challenge, particularly in communities lacking access to safe water and sanitation.
- **Prevention:** Strategies for prevention include ensuring access to safe water, sanitation, and hygiene. The WHO recommends integrating typhoid conjugate vaccines into routine childhood immunization programs in endemic countries, with support from organizations like Gavi, which aims to provide equal access to vaccines for children in the world's poorest nations. At the Global Vaccines Summit in June 2020, India pledged USD 15 million for Gavi's 2021–2025 program.

Can rheumatoid arthritis be prevented?

Context: Context: The Lancet study explores the potential use of Abatacept, a drug commonly used for rheumatoid arthritis (RA) treatment, in preventing the disease among individuals at high risk due to specific antibodies (ACPA).

Details

- The Lancet study suggests repurposing Abatacept for preventing Rheumatoid Arthritis in individuals identified as high risk due to the presence of autoantibodies linked with Rheumatoid Arthritis.
- Abatacept, a biological DMARD, modulates co-stimulation, affecting the immune response. The study aimed to assess the feasibility, efficacy, and acceptability of Abatacept use in high-risk individuals before clinically apparent arthritis develops.

Rheumatoid Arthritis	<ul style="list-style-type: none"> • Rheumatoid Arthritis is a chronic inflammatory disorder affecting joints and occasionally other body parts. • It's an autoimmune condition where the immune system mistakenly attacks the body's tissues. • Rheumatoid Arthritis predominantly affects women, with hormonal factors possibly playing a role in the gender difference.
Causes of Rheumatoid Arthritis	<ul style="list-style-type: none"> • The exact cause is unknown but believed to involve genetic and environmental factors. • Certain genes may predispose individuals to Rheumatoid Arthritis, with triggers like infections, stress, hormones, or smoking activating the immune system and causing joint inflammation.
Symptoms of Rheumatoid Arthritis	<ul style="list-style-type: none"> • Main symptoms include joint pain, swelling, stiffness, and tenderness, typically affecting small joints first. • Symptoms are often symmetrical and may vary in severity and frequency, with flare-ups and remissions.
Diagnosis of Rheumatoid Arthritis	<ul style="list-style-type: none"> • Diagnosis involves a combination of medical history, physical examination, blood tests (RF, anti-CCP antibodies, ESR, CRP), and imaging tests (X-rays, ultrasound, MRI).

Treatment of Rheumatoid Arthritis	<ul style="list-style-type: none"> • No cure exists, but treatments aim to control symptoms and prevent or slow joint damage. • Medications include NSAIDs, corticosteroids, DMARDs, and biologic agents. • Physical therapy, occupational therapy, and surgery may also be part of the treatment plan.
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Rheumatoid Arthritis is a chronic inflammatory disorder with multifactorial causes, diagnosed through various methods. Treatment focuses on symptom management, joint damage prevention, and may involve medication, therapy, nutrition, and surgery.

Nearly 50% of pregnancies in India are high-risk

Context: Findings from a recent comprehensive study by researchers at the ICMR’s National Institute for Research in Reproductive and Child Health (NIRRCH) in Mumbai are presented.

- The study utilizes data extracted from the National Family Health Survey-5 (2019-2021) to offer insights into the prevalence and determinants of high-risk pregnancies among Indian women.

Pregnancy Issues: Key Statistics

- Data from nearly 24,000 pregnant women across India is encompassed in the study.
- Prevalence of high-risk pregnancies is alarmingly high at 49.4%.
- Northeastern states like Meghalaya (67.8%), Manipur (66.7%), and Mizoram (62.5%), alongside Telangana (60.3%), exhibit the highest prevalence rates.
- Meghalaya records the highest frequency of multiple high-risk factors at 33%.
- Regional disparities highlight the need for tailored interventions to address local challenges effectively.

Methodology Used

Data Analysis Approach

Primary Risk Factors

- **Data Analysis Approach:** The study employs unit-level data from the Demographic Health Surveys (DHS) program to scrutinize the prevalence of high-risk pregnancies among women aged 15-49.
- **Primary Risk Factors:** Short birth spacing, adverse birth outcomes, and caesarean deliveries are identified as primary contributors to high-risk pregnancies.

Major Risks Identified

Maternal Risks

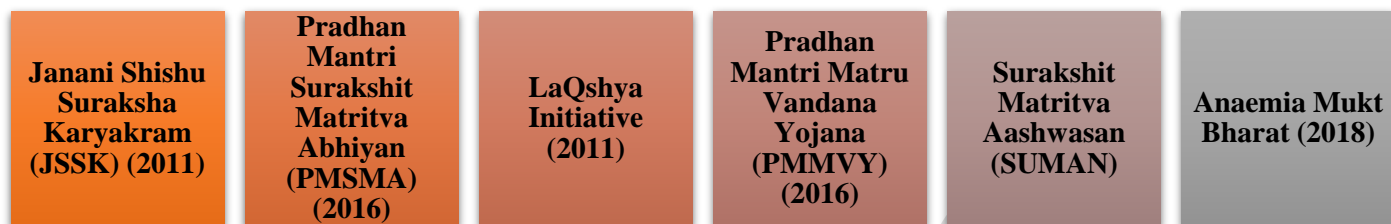
Lifestyle and Birth Outcome Risks

Educational Disparities

Temporal Patterns

- **Maternal Risks:** Critical maternal factors such as age, height, body mass index (BMI), and gestational weight gain are pivotal determinants of pregnancy-related risks.
- **Lifestyle and Birth Outcome Risks:** Lifestyle choices like tobacco use, alcohol consumption, along with previous birth outcomes significantly influence the likelihood of high-risk pregnancies.
- **Educational Disparities:** Pregnant women with limited formal education are disproportionately affected, exhibiting heightened prevalence rates of multiple high-risk factors.
- **Temporal Patterns:** High-risk factors tend to escalate during the third trimester, highlighting the need for vigilant monitoring and timely interventions.

Major Government Interventions



Way Forward

- **Tailored Interventions:** Develop region-specific interventions to address local challenges effectively.
- **Strengthened Antenatal Care:** Ensure access to quality antenatal care services, particularly for high-risk women.
- **Capacity Building:** Invest in training healthcare professionals to manage high-risk pregnancies effectively.
- **Integration of Initiatives:** Foster coordination among existing government initiatives for holistic maternal care.

Advocate for a comprehensive approach to mitigate the prevalence of high-risk pregnancies, safeguard maternal and child health, and promote equitable access to healthcare.

World's race to eradicate Guinea worm disease nears the finish line

Context: There were more than 3.5 million cases of this disease in the 1980s, but according to the World Health Organization's (WHO) weekly epidemiological report, they dwindled to 14 cases in 2021, 13 in 2022, and just six in 2023.

Progress Against Guinea Worm Disease

- Nations like South Sudan and Mali, once hotspots for Guinea worm disease, have made significant strides.
- However, the battle continues in Chad and the Central African Republic.
- Globally, the eradication of Guinea worm disease is within reach, marking a potential public health triumph.

Decline in Cases

- In the 1980s, Guinea worm disease afflicted over 3.5 million people worldwide.
- According to the World Health Organization (WHO), cases dwindled to 14 in 2021, 13 in 2022, and just six in 2023.
- Notably, only six cases were recorded in 2023.
- Despite progress, challenges persist in certain regions.

Unique Challenges and Triumphs

- Guinea worm disease, unlike many viruses, offers no immunity and resists vaccines and most treatments.
- Yet, human resilience and ingenuity have brought eradication closer.
- India's successful elimination in the late 1990s through comprehensive public health measures stands as a commendable example.

About Guinea Worm Disease

Overview	<ul style="list-style-type: none"> • Caused by the parasite <i>Dracunculus medinensis</i>, Guinea worm disease is a neglected tropical disease. • It primarily affects impoverished communities lacking access to safe drinking water.
Transmission and Symptoms	<ul style="list-style-type: none"> • Transmission occurs through drinking water contaminated with Guinea worm larvae. • Symptoms include painful skin lesions as the adult worm, sometimes over a meter long, emerges. • Affected individuals experience pain, swelling, and sometimes secondary infections.

	<ul style="list-style-type: none"> • Most infections manifest in the legs and feet.
Risk Factors	<ul style="list-style-type: none"> • Anyone consuming water contaminated with Guinea worm larvae is at risk.
India's Success	<ul style="list-style-type: none"> • India achieved Guinea worm disease elimination in the late 1990s. • This success was attributed to rigorous surveillance, water safety measures, and community education.
Prevention Strategies	<ul style="list-style-type: none"> • Prevention focuses on ensuring clean water access, larvicide application, community awareness, and case tracking.

Brainware

Context: Scientists have recently achieved the seamless integration of brain-like tissue with electronics, resulting in the creation of Brainware, an 'organoid neural network (ONN)' capable of recognizing voices and solving complex mathematical problems.

What is Brainware?

Brainware is an innovative computing system that combines brain-like tissue with electronics. It integrates brain organoids with microelectrodes, forming an 'organoid neural network (ONN)' that directly incorporates living brain tissue into the computing process. Brain organoids are 3D tissues derived from human embryonic stem cells, simulating the structure and function of the human brain and used to study human brain development and related diseases.

Operational Mechanism: Three-Layered Architecture: Input, Reservoir, and Output

- **Input Signals Processing:** ONNs process electrical stimulation signals as input.
- **Reservoir:** The reservoir, acting as a black-box, converts signals into mathematical entities, eliminating constant back-and-forth data transfer.
- **Output Readout:** The output layer interprets Brainware's neural activity, providing tangible results using modified conventional computer hardware.

Advantages over Traditional Neuromorphic Computing

- **Memory and Processing Separation**
 - Traditional neural networks face challenges with separate memory and processing units, leading to increased time and energy demands.
 - Brainware's biological neural network, with live brain cells, addresses these inefficiencies, resulting in significantly lower energy consumption.
- **Challenges and Considerations**
 - The system faces challenges, including the need for technical expertise and infrastructure to maintain a biological neural network.
 - Ethical concerns arise regarding the consciousness of organoids and their mechanistic use.

Future Prospects

- While in its early stages, continued study of the 'organoid neural network' could provide foundational insights into learning mechanisms, neural development, and cognitive implications of neurodegenerative diseases.
- This research could contribute to advancements in neuroscience and medical research, exploring possibilities at the intersection of tissue engineering, electrophysiology, and neural computation.

Western Equine Encephalitis Virus

Context: The Western Equine Encephalitis Virus outbreak has been identified in horses in Argentina and Uruguay.

Outbreak of Virus	<ul style="list-style-type: none"> • Background: Argentina's International Health Regulations National Focal Point reported a human case of Western Equine Encephalitis Virus (WEEV) infection to PAHO/WHO.
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	<ul style="list-style-type: none"> • Outbreak Overview: Concurrent outbreaks in horses in Argentina and Uruguay emphasize the severity and potential for cross-species transmission.
Historical Perspective	<ul style="list-style-type: none"> • Past Human Cases: Last reported human infections in Argentina occurred in 1982, 1983, and an isolated event in 1996, highlighting the re-emergence of Western Equine Encephalitis after a prolonged hiatus. • Regional Context: Previous outbreaks and human cases have been documented in the U.S. and Canada, with over 3,000 reported cases over the years. • Virus Threats: The virus, a recombinant of Eastern Equine Encephalitis Virus (EEEV) and a Sindbis-like virus, poses a significant threat.
Virology and Transmission	<p>Western Equine Encephalitis Virus (WEEV)</p> <ul style="list-style-type: none"> • WEEV belongs to the Togaviridae family, with an 11.5-kilobase single-stranded RNA genome. • Passerine birds serve as reservoirs, while equine species act as intermediate hosts. • Mosquitoes, as vectors, transmit the virus to humans, emphasizing the importance of vector control.
Control and Prevention Strategies	<ul style="list-style-type: none"> • PAHO/WHO Alert: PAHO/WHO has issued an alert on the risk of WEE spread in the Americas. • One Health Approach: Emphasizes collaboration between human, animal, and environmental health sectors, crucial for effective control and prevention of the virus. • Interventions: Environmental modifications, vector control, and equine vaccination are recommended in affected and high-risk regions. Enhanced surveillance and detection are crucial for preventing further spread.

Way Forward

- The Western Equine Encephalitis outbreak in Argentina and Uruguay poses a significant public health threat.
- Immediate and coordinated efforts are essential to curb the spread, with a focus on the One Health approach and targeted interventions.

Report & Index

5 takeaways from higher education survey 21-22

Context: The Ministry of Education, Government of India, unveiled the All India Survey on Higher Education (AISHE) 2021-2022 in January 2024.

- AISHE, initiated by the Ministry in 2011, encompasses all Higher Educational Institutions (HEIs) registered with AISHE across the nation.
- Released on January 25, the AISHE 2021-22 report highlighted a surge in higher education enrolment, with 4.33 crore students currently enrolled, up from 4.14 crore in 2020-21 and 3.42 crore in 2014-15.
- The survey covers student enrolment across eight levels, including undergraduate, postgraduate, PhD, MPhil, diploma, PG diploma, certificate, and integrated programs, with participation from 10,576 standalone institutions, 42,825 colleges, and 1,162 universities/university level institutions.

Key Findings of the Report



Female Enrolment Surpasses Male

- The AISHE report illustrates a consistent rise in the number of women enrolled in higher education institutes.
- From 1.5 crore in 2014-15, female enrolment increased by 32% to 2.07 crores in 2021-22.
- PhD enrolment among women doubled from 47,717 in 2014-15 to 98,636 in 2021-22.
- Among the 91 lakh additional students joining higher education in 2021-22 compared to 2014-15, 55% were women.

Gross Enrollment Ratio (GER) and Gender Parity

- The GER for the age group 18-23 years reached 28.4 in 2021-22, compared to 23.7 in 2014-15.
- Gender Parity Index (GPI) reflects a notable disparity in favor of women, with 26 states and Union Territories showing a higher GER for women.
- At the national level, the GPI stands at 1.01, while for SC and ST categories, it's 1.01 and 0.98 respectively.

Preference for Arts and Social Sciences

- The Bachelor of Arts (BA) program leads in enrolment, accounting for 34.2% of total undergraduate enrolment.
- Social science programs attract the highest number of postgraduate students, with 10.8 lakh enrolled.
- Master of Arts (MA) program tops postgraduate enrolments, constituting 40.7% of the total.

Government Institutions Dominate

- Government universities witness a significant enrolment of 71.06 lakh students, comprising 73.7% of the total student body.
- State public universities account for around 31% of total university enrolment, despite comprising a smaller proportion of all universities.

Graduation Demographics

- Approximately 1.07 crore students graduated in 2021-22, with women constituting 50.8%.
- Around 35% of graduates belong to Other Backward Classes (OBC), 13% to Scheduled Caste (SC), and 5.7% to Scheduled Tribe (ST) communities.
- Arts and social sciences streams witness higher graduation rates, with BA and MA programs leading at undergraduate and postgraduate levels respectively.

About All India Survey of Higher Education (AISHE)

Established by the Ministry of HRD, AISHE conducts an annual web-based survey to portray the status of higher education in India. The survey encompasses various categories such as teachers, student enrolment, programs, examination results, education finance, and infrastructure. AISHE serves as a crucial tool for informed policy decisions and research for the advancement of the education sector.

30 Indian fugitives were located abroad in 2022: Govt. Report

Context: According to the 2022-23 annual report of the Department of Personnel and Training (DoPT), India harbored 278 fugitives wanted in other countries.

Interpol Reports to CBI (2022)

- In 2022, Interpol shared 304 reports concerning "foreign terrorist fighters" with the Central Bureau of Investigation (CBI).
- Reports forwarded to the CBI are subsequently directed to the Multi Agency Centre (MAC), operated under the Intelligence Bureau (IB) and the National Investigation Agency (NIA).

About Multi-Agency Centre (MAC)

- Established post-Kargil war in 2001, the Multi-Agency Centre (MAC) functions as a centralized counter-terrorism grid under the Intelligence Bureau.
- It serves as a pivotal platform for sharing intelligence among various agencies, with its headquarters in Delhi, and subsidiary MACs (SMACs) in state capitals.
- Daily meetings are conducted at SMACs to analyze inputs received within the preceding 24 hours, with focused group discussions addressing specific theatres involving relevant agencies.
- Membership of the MAC includes all organizations contributing to counter-terrorism efforts, spanning 28 entities such as the Research and Analysis Wing (R&AW), armed forces, and state police.
- Approximately 400 secured sites are linked with the MAC headquarters.

MAC Establishment

- Established post-Kargil war in 2001.
- Centralized Counter-Terrorism

Grid

- Multi-Agency Centre (MAC) functions as a centralized counter-terrorism grid under the Intelligence Bureau.

Headquarters and Subsidiaries

- Headquarters in Delhi.
- Subsidiary MACs (SMACs) in state capitals.

Intelligence Sharing Platform

- Serves as a pivotal platform for sharing intelligence among various agencies.

Daily Meetings

- Daily meetings at SMACs to analyze inputs received in the preceding 24 hours.

Focused Group Discussions

- Focused group discussions address specific theatres involving relevant agencies.

Membership

- Membership includes 28 counter-terrorism entities including R&AW, armed forces, and state police.

Secured Sites

- Approximately 400 secured sites linked with the MAC headquarters.

Fugitive Economic Offender

- As defined by the Fugitive Economic Offenders Act of 2018 (FEO), a fugitive economic offender is an individual involved in scheduled crimes amounting to 100 crore rupees or more, who either absconds from India or refuses to return to evade prosecution.
- The act enables confiscation of properties belonging to such offenders and facilitates expeditious trials, aiming to combat economic offenses and prevent financial fraud.

Letters Rogatory (LR)

Letters Rogatory, originating from the Latin term "rogatorius," are formal requests sent by the courts of one country to another for assistance in criminal investigations or prosecutions.

HEAT ON ECONOMIC ABSCONDERS

■ **Bill name:** Fugitive Economic Offenders Bill

■ **Purpose:** Catch alleged absconders. Nirav Modi, his uncle Mehul Choksi have been charged of defrauding PNB and leaving the country. Also Vijay Mallya

■ **What will govt do:** Try to put bill before Parliament as early as second part of budget session starting next month



Bill highlights

■ ED to start proceedings in special court by first issuing notice to 'fugitive economic offender'

■ If offender appears in six weeks, notice will be terminated

■ Prosecution starts if he chooses to stay away from country and sends counsel

Mutual Legal Assistance (MLA)

- Mutual Legal Assistance entails cooperative mechanisms between countries to provide and obtain formal assistance in crime prevention, suppression, investigation, and prosecution.
- The Ministry of Home Affairs serves as India's Central Authority for managing requests for mutual legal assistance in criminal matters, transmitting and receiving such requests directly or through diplomatic channels.
- Bilateral Mutual Legal Assistance Treaties (MLATs) in criminal matters are agreements between countries to facilitate international cooperation and assistance.

Joblessness rising in country with education levels: study

Context: A study conducted by the Indian Institute of Management (IIM) reveals concerning trends in India's employment landscape over the past four decades, characterized by jobless growth, high unemployment rates among educated individuals, and low female workforce participation.

Key Highlights

- The study, conducted by IIM Lucknow in collaboration with researchers from the Birla Institute of Technology and Science, Pilani, and the Union Ministry of Agriculture and Farmers Welfare, analyzed data from the National Sample Survey Office (NSSO) Employment and Unemployment Survey, and Periodic Labour Force Survey Dashboard.
- Unemployment rates (UR) increase with education levels, with the highly educated class experiencing a UR of 14.73% in 2020–21, compared to 0.57% for the illiterate and 1.13% for the less educated class.
- Economic growth has led to net labor displacement rather than job creation, resulting in stagnating employment growth, weakened employment elasticity, and structural issues in the labor market such as low female labor force participation.
- While the agricultural sector employs a significant portion of the youth, it contributes low value-added to the economy, exacerbating employment challenges.
- In 2020–21, the total labor force in India was estimated at 556.1 million, with self-employment being the primary driver of the job market.
- There is a persistent gender-based disparity in the Labor Force Participation Rate (LFPR), with female LFPR significantly lower than that of males.
- The shift towards non-standard employment types has led to new forms of precariousness and extended disparities in the labor market.

Remedies Suggested in the Study

- The study suggests promoting the labor-intensive manufacturing sector to achieve inclusive growth and improve job quality.
- It emphasizes the importance of assessing job quality alongside quantity, as productivity is closely linked to job decency.
- The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and similar public works projects are highlighted for their positive impact on rural livelihoods, including increased female labor force participation, improved bargaining power for low-caste workers, and higher rural wage levels.

The study underscores the growing issue of joblessness among educated individuals and low female workforce participation, urging for a multi-faceted approach to address employment challenges, including promoting labor-intensive manufacturing, enhancing job quality, and recognizing the positive impacts of programs like MGNREGA on rural livelihoods.

What are IPCC's assessment reports?

Context: The UN Intergovernmental Panel on Climate Change (IPCC) has been issuing assessment reports since 1988, guiding estimations of greenhouse gas emissions and removals.



- These reports, prepared by scientists from 195 countries under the UNFCCC, cover the science, consequences, adaptation, vulnerability, and mitigation aspects of climate change.

What is IPCC and its Assessment Reports?

- The IPCC is a UN intergovernmental body formed in 1988 by the World Meteorological Organization and the UN Environment Programme.
- With 195 member states, it elects a bureau of scientists for assessment cycles, drawing experts from government and observer nominations.
- Through assessment cycles starting in 1990, the IPCC synthesizes research on global warming, human contributions, long-term impacts, and solutions.

The Sixth Assessment Report (AR6) and Afterwards

- The AR6, finalized in March 2023, consolidates findings from three working groups and integrates evidence from special reports.
- It warns of limited time to limit global surface temperature rise and nearing adaptation limits, suggesting strategies for mitigation and resilience.

What follows AR6?

- After AR6, the IPCC began its seventh cycle (AR7) with a bureau election and discussions on budgeting, timelines, and work program.
- Member countries propose ensuring IPCC input for the 2nd global stocktake in 2028.

What is Meant by 'Global Stocktake'?

- The 'global stocktake' assesses progress towards Paris Agreement goals every five years, identifying gaps and guiding climate action.
- The first stocktake in 2022-2023 requested IPCC alignment for subsequent stocktakes.
- The second stocktake is due in 2028, prompting requests for IPCC AR7 reports, but consensus on release dates is pending due to assessment report timelines and content concerns.

Important Days

Important Days

Date	Event	Details and Significance
1 February	Indian Coast Guard Day	On 1st February, the Indian Coast Guard celebrates its foundation day. This year, the Indian Coast Guard is celebrating its 46th Raising Day. Indian Coast Guard has played a significant role in securing the Indian Coasts and enforcing regulations within the Maritime Zones of India
2 February	World Wetlands Day	This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971, in Ramsar, Iran. It was first celebrated in 1997. World Wetlands Day 2020 theme is 'Wetlands and biodiversity'.
2 February	RA Awareness Day	RA Awareness Day is Rheumatoid Arthritis Awareness Day and is observed on 2 February to spread awareness for patients suffering from rheumatoid arthritis.
4 February	World Cancer Day	Every year on 4 February World Cancer Day is observed globally and is celebrated by WHO to aware people of the disease Cancer and how to cure it. The 2020 theme was 'I Am and I Will'. According to WHO, the theme is an empowering call to action urging personal commitment and represents the power of individual action taken now to impact the future.

4-12 February	International Development Week	International Development Week (IDW) is celebrated from 6 February to 12 February and this year marks the 30th anniversary of International Development Week in Canada. This day informs about different roles and career paths in the international development sector.
6 February	International Day of Zero Tolerance for Female Genital Mutilation	International Day of Zero Tolerance for Female Genital Mutilation is observed on 6 February to spread awareness and educate people about the consequences and problems that females face due to genital mutilation. The theme for 2023 was “Partnership with Men and Boys to Transform Social and Gender Norms to End FGM”.
6 February	Safer Internet Day	This year, it is celebrated on 8 February. The day calls for all stakeholders to join together to make the internet a safer and better place for all, mainly for children and young people.
8 February	National Opera Day	Opera Day is celebrated every year on 8 February. An opera is a combination of acting, scenery, costumes, and dance. The term ‘opera’ in Italian means ‘work’, and the text is called the ‘libretto,’ which means “small book.”
10 February	National Deworming Day	It is observed on 10 February. It is an initiative of the Ministry of Health and Family Welfare, Government of India to make every child worm-free in the country.
10 February	World Pulses Day	It is observed on 10 February to spread awareness about the nutritional and environmental benefits of pulses as part of sustainable food production.
11 February	World Day of the Sick	It is observed on 11 February. The day was introduced by Pope John Paul II as a way for believers to offer prayers for those suffering from illness.
11 February	International Day of Women and Girls in Science	It is observed on 11 February to recognize the role of women and girls in science, not only as beneficiaries but also as agents of change. Therefore, the day focuses on achieving full and equal access to and participation in science for women and girls. Also, to achieve gender equality and empowerment of women and girls.
12 February	Darwin Day	12 February is celebrated every year as Darwin Day to commemorate the birth anniversary of the father of evolutionary biology, Charles Darwin in 1809. This day highlights Darwin's contribution to evolutionary and plant science. In 2015, Darwin's ‘Origin of Species’ was voted the most influential academic book in history.
12 February	National Productivity Day	It is observed on 12 February annually to increase the productivity culture in India. It is celebrated by the National Productivity Council (NPC) with a theme.
13 February	World Radio Day	World Radio Day is celebrated on 13 February to raise awareness about the importance of Radio. In several countries, it is the primary source for providing information.
13 February	International Epilepsy Day	Every year the second Monday of February is observed as International Epilepsy Day, and this year it is celebrated on 14 February which coincides with Valentine's Day. The day spreads awareness and educates people about the facts of epilepsy and the urgent need for improved treatment, better care, and greater investment in research.

14 February	World Congenital Heart Defect Awareness Day	Every year on February 14, there is a celebration called World Congenital Heart Defect Awareness Day to bring attention to and educate people about congenital heart defects.
16 February	World Anthropology Day	Every year on the third Thursday of February, World Anthropology Day is observed. And it occurs on February 16 this year. The day is designated to honour the untapped area and educate the general public about anthropology. However, let's first define anthropology before moving on to the history and significance of World Anthropology Day.
20 February	Arunachal Pradesh Foundation Day	Arunachal Pradesh Foundation Day is celebrated on 20 February as on this day it gained the status of the Union Territory and was named Arunachal Pradesh.
20 February	Mizoram Foundation Day	Every year on February 20, Mizoram, one of the northeastern Indian states, observes its Foundation Day. This marks the day in 1987 when the state became the official 23rd state of India.
20 February	World Day of Social Justice	World Day of Social Justice is observed every year on 20 February to encourage people to see how social justice affects poverty eradication. The main aim of this day is to achieve full employment and support for social integration. This day tackle issues like poverty, exclusion, and unemployment.
21 February	International Mother Language Day	International Mother Language Day is celebrated annually on 21 February worldwide to aware of the diversity of the language and its variety. This day promotes the awareness of language and cultural diversity across the world. On 17 November 1999, it was first announced by UNESCO.
22 February	World Thinking Day	World Thinking Day is also known as Thinking Day and is observed on 22 February annually by Girl Scouts and Girl Guides across 150 countries.
23 February	World Peace and Understanding Day	Every year on February 23, World Understanding and Peace Day is celebrated. Actually, this day serves to remember Rotary International's inaugural convention. This gathering of businessmen was intended to be a place where their backgrounds didn't matter, which set off a series of developments that eventually resulted in the creation of Rotary International.
24 February	Central Excise Day	Central Excise Day is observed in India on 24 February every year to encourage the employees of the excise department to carry out the central excise duty in a better way to prevent corruption in the manufacturing business and to carry out the best possible exercise services in India.
27 February	World NGO Day	World NGO Day is dedicated to recognizing, celebrating, and honouring all non-governmental and non-profit organizations, and also the people behind them that contribute to society.
28 February	National Science Day	National Science Day is celebrated every year in India on 28 February to mark the discovery of the Raman Effect by the Indian physicist Sir Chandrasekhara Venkata Raman. He discovered the Raman Effect on 28 February 1928 and for this discovery, he was honored with the Nobel Prize in Physics subject in 1930.
28 February	Rare Disease Day	The day raises awareness and generates change for the people who are living with a rare disease, their families, and their carers

Important Editorials of the Month

Deepfakes

Why in News?

Disinformation and hoaxes have evolved from mere annoyance to warfare that can create social discord, increase polarisation, and in some cases, even influence the election outcome. Nation-state actors with geopolitical aspirations, ideological believers, violent extremists, and economically motivated enterprises can manipulate social media narratives with easy and unprecedented reach and scale. The disinformation threat has a new tool in the form of deepfakes.

About Deepfakes

Deepfakes refer to synthetic media created through the application of Artificial Intelligence (AI), where visual and audio content is manipulated or generated. The primary purpose of deepfakes is typically to deceive or mislead individuals. Deepfake gained public attention in 2017 when a Reddit user shared explicit videos featuring celebrities, marking the initial instance. Subsequently, various cases of deepfake occurrences have been documented.

What are Deepfakes?

- **Definition:** Deepfakes encompass fabricated content, including videos, images, and audio, generated through advanced artificial intelligence (AI) tools.
- **Technology:** Deepfakes leverage powerful AI algorithms to manipulate and create realistic-looking media with the intent of deceiving or misleading.
- **Origin:** The term "deepfake" originated in 2017 when a Reddit user, using the username "deepfakes," shared explicit videos featuring celebrities, bringing attention to this emerging technology.

Technology behind deepfakes



GAN Implementation

- Begin with the application of Generative Adversarial Network (GAN) for image and video manipulation.
- GAN facilitates the detection and replication of subjects' movements and facial expressions.

Source Image Database

- Utilize a vast database of source images to enhance the realism of deepfake content.
- Select diverse source images, often focusing on public figures, celebrities, and politicians.

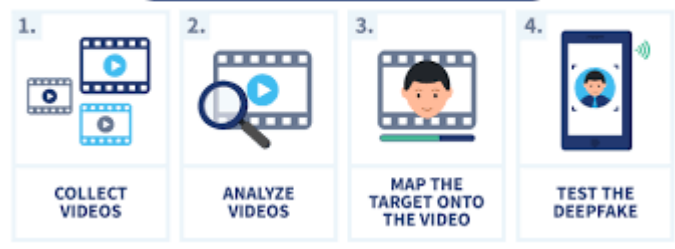
Dataset Utilization

- Implement the dataset in one software to generate a fake video.
- Another software is employed to detect signs of forgery in the video.

Unsupervised Learning

- Engage in collaborative work between the two software for unsupervised learning.

HOW IS A DEEPFAKE MADE?



- Continue the rendering process until the second software can no longer detect the forgery.

Complexity for Detection

- Result in a process that makes it challenging for other software to identify deepfakes.
- The method involves machine-language models teaching themselves, increasing the difficulty of detection.

Usage of Deepfake Technology

Film Dubbing: Enables realistic lip-syncing for actors speaking different languages, enhancing film accessibility and immersion for global audiences.

Education: Restores lost voices and recreates historical figures for engaging lessons.

- Example: Deepfake video of Abraham Lincoln delivering the Gettysburg Address for teaching about the American Civil War.

Art: Serves as a creative tool for artists to express themselves or experiment with styles.

- Example: Deepfake video of Salvador Dali interacting with visitors to promote his museum in Florida.

Amplification of Message: Amplifies the impact of individuals with important messages, especially those facing discrimination or censorship.

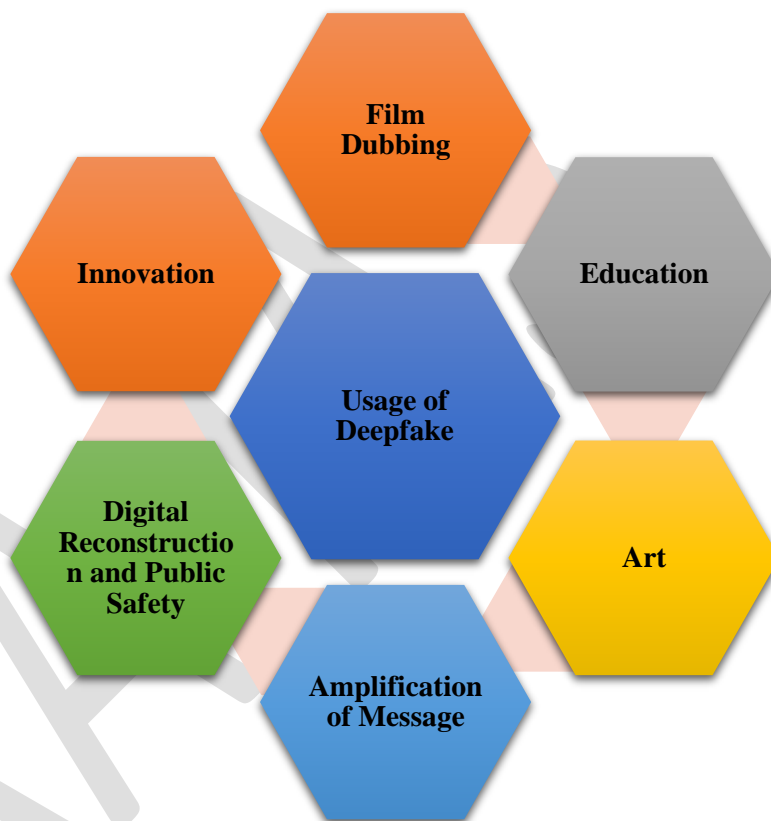
- Example: Deepfake video of a journalist delivering a final message and calling for justice.

Digital Reconstruction and Public Safety

- Reconstructs missing or damaged digital data, such as restoring old photos or enhancing low-quality footage.
- Creates realistic training materials for emergency responders, law enforcement, and military personnel.
- Example: Deepfake video used to train teachers on responding to a school shooting.

Innovation

- Spurs innovation in entertainment, gaming, marketing, and various industries.
- Enables new forms of storytelling, interaction, diagnosis, and persuasion.
- Example: Deepfake video of Mark Zuckerberg illustrating the potential of synthetic media and its societal implications.



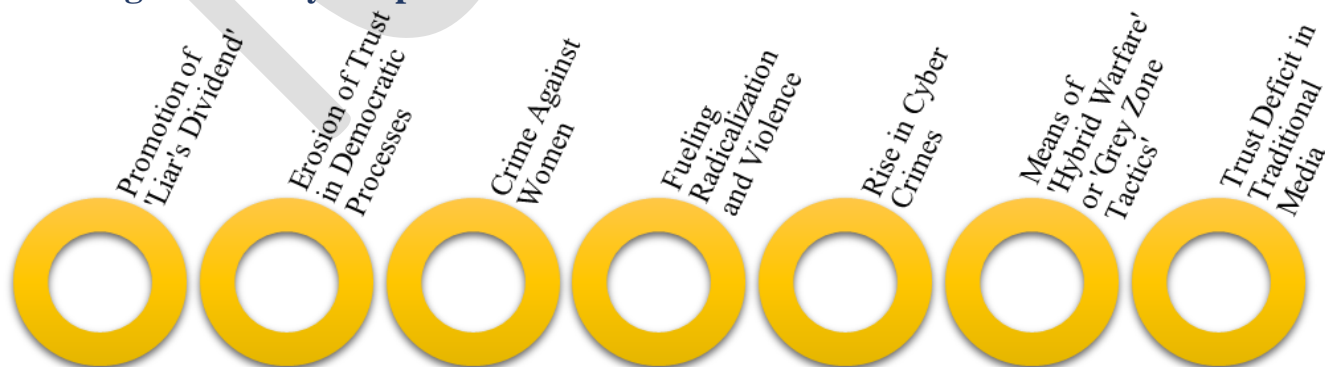
Approaches to tackle Deepfake

Approach	Details
India	<ul style="list-style-type: none"> • No specific laws on deepfake technology. • Calls for a global framework on "ethical" AI tools.



Approach	Details
	<ul style="list-style-type: none"> Existing laws like Sections 67 and 67A of the IT Act, 2000 may apply to certain aspects of deepfakes. Section 500 of IPC (1860) addresses defamation. Digital Personal Data Protection Act, 2023 provides some protection against personal data misuse. IT Rules, 2021 mandate the removal of impersonation and morphed images within 36 hours. Need for a comprehensive legal framework specifically targeting deepfakes.
Worldwide Approach	<ul style="list-style-type: none"> World's first AI Safety Summit 2023 involving 28 major countries agreed on the need for global action. 'Bletchley Park Declaration' acknowledged risks of intentional misuse of AI technologies. GPAI summit in New Delhi (December 2023) adopted the New Delhi Declaration on AI, focusing on safe, secure, and trustworthy AI. GPAI members committed to supporting sustainability of GPAI projects.
European Union	<ul style="list-style-type: none"> Code of Practice on Disinformation requires tech companies to counter deepfakes within six months. Non-compliance can lead to fines up to 6% of annual global turnover. Passed the world's first comprehensive laws to regulate AI - the AI Act. Aims for a common regulatory and legal framework for AI, ensuring safety and respect for fundamental rights and EU values.
United States	<ul style="list-style-type: none"> Introduced bipartisan Deepfake Task Force Act to assist the Department of Homeland Security. Aimed at countering deepfake technology.
China	<ul style="list-style-type: none"> Comprehensive regulation on deep synthesis effective from 2023. Focus on curbing disinformation with clear labeling and traceability of deep synthesis content. Regulations impose obligations on providers and users of "deep synthesis technology."

Challenges Posed by Deepfakes



Promotion of 'Liar's Dividend'

- Liar's Dividend occurs when undesirable truths are dismissed as deepfake or fake news.
- Leaders exploit deepfakes to replace authentic media, creating confusion between reality and falsehood.

Erosion of Trust in Democratic Processes

- Doctored content, often in the form of realistic fake videos, is presented as fact to manipulate public perception.
- Example: Capitol Hill violence in 2021 incited by the use of deepfake media.

Crime Against Women

- Deepfakes are weaponized to attack the dignity and chastity of women.
- Over 90% of deepfake videos are reported to be pornographic in nature.

Fueling Radicalization and Violence

- Non-state actors, such as ISIS and Al-Qaeda, use fake videos to incite anti-state sentiments.
- Example: Fake videos showing armed forces committing 'crimes in conflict areas.'

Rise in Cyber Crimes

- Cybercriminals employ deepfake technology for phishing attacks, financial fraud, and identity theft.
- A 230% increase in deepfake usage by cybercriminals and scammers has been observed.

Means of 'Hybrid Warfare' or 'Grey Zone Tactics'

- Countries use deepfakes for spreading misinformation and espionage.
- The European Union terms these deepfakes as 'Foreign Information Manipulation Interference.'
- Example: China employing deepfakes of injured Indian soldiers by the PLA Army.

Trust Deficit in Traditional Media

- Mainstream news sources can fall for propagandist misinformation, leading to a trust deficit.
- Example: Morphed video of Zelensky asking his soldiers to surrender widely played on mainstream media.

India's Current Position Regarding Deepfakes

Existing Legal Framework	• India currently relies on existing laws, specifically Sections 67 and 67A of the Information Technology Act (2000), to address certain aspects of deepfakes, including defamation and the dissemination of explicit material.
Defamation Provisions	• Section 500 of the Indian Penal Code (1860) provides punishment for defamation, and it can be applied in cases involving deepfakes.
Personal Data Protection Bill (2022)	• While the Personal Data Protection Bill (2022) may offer some protection against the misuse of personal data, it does not explicitly address the challenges posed by deepfakes.
Lack of Comprehensive Legal Framework	• India currently lacks a comprehensive legal framework dedicated specifically to regulating deepfakes, despite their potential implications for privacy, social stability, national security, and democracy.

Deepfakes

are videos that have been digitally manipulated to make a person appear to say or do something that the person never said or did.



#DidYouKnow

Laws Against Deepfake Technology in India

IT Act of 2000 – Section 66E

- Applicable in cases of deepfake crimes involving capturing, publishing, or transmitting a person's images in mass media, violating their privacy.
- Offenders can face imprisonment for up to three years or a fine of up to ₹2 lakh.

IT Act of 2000 – Section 66D

- Allows for the prosecution of individuals using communication devices or computer resources with malicious intent to cheat or impersonate someone.
- Can result in imprisonment for up to three years and/or a fine of up to ₹1 lakh.

Copyright Protection

- The Indian Copyright Act of 1957 provides copyright protection for works, including films, music, and other creative content.
- Copyright owners can take legal action against individuals creating deepfakes using copyrighted works without permission.
- Section 51 of the Copyright Act stipulates penalties for copyright infringement.

Government Advisory (January 9, 2023)

- On January 9, 2023, the Ministry of Information and Broadcasting issued an advisory to media organizations, urging caution when airing content susceptible to manipulation. The ministry recommended labeling manipulated content as “manipulated” or “modified” to inform viewers of alterations.

Implications of Deepfake Technology

Entertainment Industry

Social Media and Misinformation

Cybersecurity Threats

Political Manipulation and Disinformation

Privacy and Consent

Identity Theft and Fraud

Impacts on Journalism and Media Integrity

Regulatory Challenges

- **Entertainment Industry:** Deepfake technology is applied in the entertainment industry, facilitating the creation of compelling visual effects, digital doubles, and lifelike character animations in movies and video games.
- **Social Media and Misinformation:** The widespread presence of deepfake content on social media platforms raises concerns about the dissemination of misinformation. Manipulated videos and audio recordings can deceive the public, influencing opinions and perceptions.
- **Cybersecurity Threats:** Deepfakes present substantial cybersecurity threats as malicious actors can exploit this technology for identity theft, impersonation, and fraud. This endangers the security and privacy of individuals and organizations.

- **Political Manipulation and Disinformation:** The potential use of deepfake technology in political manipulation and disinformation campaigns raises apprehensions about the integrity of democratic processes and erodes public trust in political institutions.
- **Privacy and Consent:** Deepfake technology prompts critical inquiries into privacy and consent, particularly regarding the use of individuals' images and voices without explicit permission.
- **Identity Theft and Fraud:** The potential for identity theft and fraud through the creation of convincing fake identities using deepfake technology underscores the need for robust legal frameworks to discourage and penalize such malicious activities.
- **Impacts on Journalism and Media Integrity:** Deepfakes possess the capability to undermine the credibility of journalistic content and media integrity. This challenges the authenticity and trustworthiness of audiovisual evidence.
- **Regulatory Challenges:** Addressing the ethical and legal implications of deepfake technology requires the development of comprehensive regulatory frameworks. These frameworks must strike a balance between fostering innovation and freedom of expression while safeguarding individuals' rights and societal integrity.

Way Forward



- **Clear Definitions:** A specialized legal framework addressing deepfake videos should commence with a precise definition of what constitutes a deepfake, providing clarity for legal interpretation.
- **Prohibitions Against Misuse:** Incorporate clear prohibitions within the legal framework, outlining specific misuse scenarios for deepfake videos, such as fraud, impersonation, or interference with elections.
- **Timely Redressal:** Given the rapid dissemination of deepfake videos, the establishment of an agile watchdog mechanism is imperative. This is crucial as traditional legal avenues may operate at a slower pace.
- **Involving Social Media Platforms:** Impose requirements on social media platforms to actively detect and remove deepfake videos within specified timeframes, ensuring a swift response to curb their spread.
- **Legal Remedies:** Ensure legal remedies are available for victims of deepfake videos, empowering them to seek recourse against the creators and distributors of such content.
- **Protection for Minors:** Recognize the potential severe consequences of deepfakes, particularly when involving minors, and implement safeguards to mitigate harm and protect vulnerable individuals.
- **Protecting the Rights of the Artist:** Strike a balance in the legal framework by safeguarding the rights of artists, emphasizing principles such as fair use, copyright, and the right to privacy. This ensures an equitable approach to the creators of content.

Electoral Bond

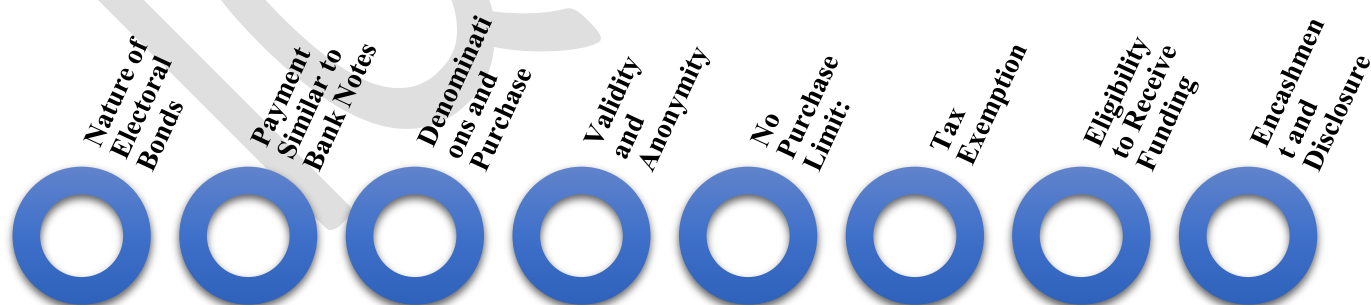
Why in News?

Anonymous donations of high value tend to undermine electoral democracy and governance as they facilitate a quid pro quo culture involving donors and beneficiaries. In striking down the Electoral Bond Scheme (EBS) under which anyone could buy electoral bonds and donate them to political parties for encashment, the Supreme Court of India has recognised this malaise and struck a blow for democracy and transparency in political funding.

Key Highlights

- The Court found that the entire scheme violates the Constitution, especially the voters' right to information.
- It further found manifestly arbitrary, the amendment to the Companies Act that removed the cap of 7.5% of a company's profit that can be donated to political parties without any requirement to disclose details of the recipient parties in its profit and loss accounts.
 - It has also mandated disclosure of donation details since 2019.
- The judgment is one more in a long line of verdicts the Court has handed down to promote voter rights and preserve the purity of elections.
- Its earlier interventions led to the featuring of the 'None of the Above' option on the ballot, the removal of the protection given to legislators from immediate disqualification on conviction for a criminal offence, the mandatory disclosure of the assets and criminal antecedents of candidates in their election affidavits and expedited trials for MPs and MLAs involved in criminal offences.
- The Court's reasoning is unexceptionable. It found that the primary justification for the EBS — curbing the use of 'black money' for political or electoral funding by allowing donations through banking channels — failed the test of proportionality, as it was not the least restrictive measure to abridge the voters' right to know.
- It has made the logical connection between unidentified corporate donations and the likelihood of policy decisions being tailored to suit the donors.
- The judgment is a natural follow-up to a principle it had laid down years ago that the voters' freedom of expression under Article 19(1)(a) will be incomplete without access to information on a candidate's background.
- The principle has now been extended to removing the veil on corporate donors who may have been funding ruling parties in exchange for favours.
- While the verdict may help ease the hold that donors may have on governance through money power, a question that arises is whether the validity of the scheme could have been decided earlier or the issuance of bonds on a regular basis stayed.

What are Electoral Bonds (EBs)?



Nature of Electoral Bonds

- Interest-free bearer bonds or money instruments.
- Purchased by companies and individuals in India from authorized State Bank of India (SBI) branches.

Payment Similar to Bank Notes

- Similar to bank notes, payable to the bearer on demand.
- Devoid of interest.

Denominations and Purchase

- Sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore.
- Can be purchased through a KYC-compliant account for making political party donations.

Validity and Anonymity

- Have a lifespan of only 15 days for making political donations.
- Anonymous as the name and donor information are not recorded on the instrument.

No Purchase Limit: No cap on the number of electoral bonds an individual or company can acquire.

Tax Exemption: Considered tax-exempt under Sections 80 GG and 80 GGB of the Income Tax Act for electoral bond donations.

Eligibility to Receive Funding

- Only political parties registered under Section 29A of the Representation of the People Act, 1951.
- Parties must secure not less than 1% of votes polled in the last general election to the House of the People or the Legislative Assembly of the State.

Encashment and Disclosure

- Political parties must encash bonds within a stipulated time.
- Eligible political parties can encash through a designated bank account.
- Disclosure of the amount to the Election Commission is mandatory.

Electoral Bond Scheme

Launch and
Legislative
Amendments

Pre-existing
Regulations

Eligibility and
Allotment

Encashment
and Unclaimed
Bonds

Donation
Statistics

Introduced by former Finance Minister Arun Jaitley in the 2017 budget session. Framed as an initiative to cleanse the political funding system and enhance transparency in political donations.

Launch and Legislative Amendments

- Launched through a notification on January 2, 2018.
- Amendments made to four legislations—the Representation of the People Act, 1951, the Companies Act, 2013, the Income Tax Act, 1961, and the Foreign Contributions Regulation Act, 2010 (FCRA)—via Finance Acts of 2016 and 2017.

SIMPLY PUT: ELECTORAL BONDS

Out of total donations of ₹469.89 cr, ₹422.04 cr (89.82%) were made by corporate/ business houses to political parties. BJP received ₹400.23 cr from corporate donation while INC received ₹19.298 cr



ONLY THREE POLITICAL PARTIES DECLARED RECEIVING DONATIONS FROM ELECTORAL BONDS



Why 'electoral bonds' trigger storm?

- Bond do not carry the name of the donor
- The donor doesn't have to disclose which party he's giving electoral bond money to, so how exactly is transparency encouraged?
- With only SBI knowing who buys the bonds, this information will easily move to the RBI and in turn to the Finance Ministry
- The biggest beneficiary of the electoral bonds scheme is the ruling party
- General public remains in dark



2018: ₹1,056 CRORE WORTH BONDS PURCHASED

2019: ₹1,716 CRORE WORTH BONDS PURCHASED

ARE ELECTORAL BONDS EXEMPTED FROM INCOME TAX?

- Electoral bonds purchased by individual / corporates are exempted from Income Tax Act
- The donation received by a political party through electoral bonds is exempted from Income Tax Act
- Previously, under Income Tax Act, political parties had to maintain a record (name and address of the donor) of all donations greater than ₹20,000

Because of Finance Act, 2017, now political parties don't need to record the details of the donations more than ₹20,000 which are made through electoral bonds

Pre-existing Regulations

- Before the scheme, political parties had to disclose all donations above ₹20,000 publicly.
- Corporate companies were restricted from making donations exceeding 10% of their total revenue.

Eligibility and Allotment

- Every political party under Section 29A of the RP Act, securing at least 1% of votes in recent Lok Sabha or State elections, allotted a verified account by the Election Commission of India (ECI).
- Bond amounts must be deposited within 15 days of issuance.

Encashment and Unclaimed Bonds

- If a party fails to encash bonds within 15 days, the SBI deposits them into the Prime Minister's Relief Fund.
- Bonds available for purchase for ten days at the start of each quarter and an additional 30-day period during Lok Sabha election years.

Donation Statistics

- According to an analysis by the Association of Democratic Reforms (ADR), between 2016-17 and 2021-22.
- Seven national and 24 regional parties received ₹9,188.35 crore from electoral bonds.
- BJP's share was ₹5,271.9751 crore, while other national parties collectively received ₹1,783.9331 crore.

'ONLY PERSON DEPRIVED IS THE VOTER'

“As it is, everybody knows about it (who EB donors are), the party knows about it. The only person who is being deprived is the voter. **Your contention that the voters do not have right to know...is slightly difficult**

In the present regime, a company making a loss can also donate... This gives credence to allegations about shell companies being used by big corporations to donate to political parties

...This (EBs) **should not become a legitimisation of the quid pro quo** between the power centres...and people who are really in that sense benefactors of that power. You can **design another system which does not have the flaws** of this system

When a balance is drawn, it is not the electoral bond or the previous system. **This system puts a premium on opacity. It has to be removed.** How it is to be done is for the govt or legislature to decide

— CJI-led bench

Why is the scheme facing a challenge in the Supreme Court?

Petitions Filed

- Two petitions challenging the scheme submitted to the Supreme Court.
- A joint filing in 2017 by ADR and Common Cause.
- Another filed in 2018 by the Communist Party of India (Marxist).

Allegations and Contention

- Petitions argue that the scheme facilitates unlimited political donations and enables anonymous funding from Indian and foreign companies.
- Accusations of legitimizing electoral corruption on a massive scale.

Violation of Right to Know

- Emphasis on the violation of a citizen's 'right to know,' a facet of freedom of speech and expression under Article 19(1)(a) of the Constitution.

Key Concerns

- Opening "floodgates" to unregulated political contributions.
- Anonymous funding of political parties.
- Potential for electoral corruption at a significant scale.

Legal Aspect

- Assertion that scheme's anonymity contradicts established judgments on the 'right to know' in previous Supreme Court decisions.
- The 'right to know' considered an integral part of freedom of speech and expression.

Overall Implication

- Supreme Court faced with evaluating the constitutional validity and potential impact of the Electoral Bonds Scheme in response to the filed petitions.

Amendments to the Electoral Bond Scheme

Additional Period of 15 Days:

- Introduced a new para specifying an additional 15-day period during general elections to Legislative Assembly of States and Union territories with Legislature.
- In 2018, when the Electoral Bond Scheme was introduced, bonds were available for 10 days each in January, April, July, and October, as specified by the central government.
- An additional 30-day period was to be specified during the General election to the House of People (Lok Sabha).

Validity

- Electoral Bonds valid for fifteen calendar days from the date of issue.
- No payment to any payee Political Party if the Electoral Bond is deposited after the expiry of the validity period.
- Deposited Electoral Bonds credited to an eligible Political Party's account on the same day.

Eligibility

- Only political parties registered under Section 29A of the Representation of the People Act, 1951 (RPA, 1951) are eligible.
- Parties must secure at least 1% of votes polled in the last General Election to the Lok Sabha or the State Legislative Assembly to receive Electoral Bonds.

Key takeaways on SC verdict on electoral bonds scheme

Violation of the Right to Information

- The scheme allowed anonymous political donations, violating the fundamental right to information under Article 19(1)(a) of the Constitution.
- The right to information extends beyond freedom of speech, playing a crucial role in enhancing participatory democracy and government accountability.

Not Proportionally Justified to Curb Black Money

- The government did not adopt the least restrictive methods to achieve its objective, as emphasized in the KS Puttaswamy case on the right to privacy.
- Examples of least restrictive methods include the ₹20,000 cap on anonymous donations and the concept of Electoral Trusts.

Right to Donor Privacy Does Not Extend to Contributions Made

- Financial contributions to political parties, often made for support or quid pro quo, should not be treated uniformly for all contributors.
- The right to privacy of political affiliation does not extend to contributions made to influence policies, reserved for genuine political support.

Unlimited Corporate Donations Violate Free and Fair Elections

- Amendment to Section 182 of the Companies Act, 2013, allowing unlimited political contributions by companies, deemed manifestly arbitrary.
- Changes removed the cap on company donations and eliminated the disclosure requirement in Profit and Loss accounts.

Amendment to Section 29C of RPA, 1951 Quashed

- The Finance Act, 2017, amended Section 29C of the Representation of the People Act, 1951, creating an exception for donations through electoral bonds.
- Striking down the amendment, the court found the original requirement to disclose contributions above ₹20,000 to balance voters' right to information with donor privacy.

Other Observations by SC

- SBI ordered to cease further issuance of electoral bonds and provide purchase details to ECI by March 6, 2024.
- ECI to publish information on its official website by March 13, 2024.
- Electoral bonds within the validity period but not encashed must be returned, and the issuing bank will refund the amount to the purchaser's account.

Concerns Raised by the ECI

- In 2019, the ECI filed an affidavit in the Supreme Court expressing concerns about electoral bonds.
- It warned that the scheme could undermine transparency in political funding and invite foreign corporate influence.
- Amendments could lead to the creation of shell companies for making political donations, rendering ECI guidelines redundant.

ECI's Caution and Opposition

- The ECI cautioned against amendments in May 2017, emphasizing the importance of declaring donations for transparency.
- It opposed the RP Act amendment allowing parties to skip recording donations through electoral bonds, terming it retrograde.
- The ECI urged the Ministry to permit political donations only from profitable companies with a proven track record.

RBI Objections

The RBI raised concerns about electoral bonds contributing to black money, money laundering, and cross-border counterfeiting.

Electoral bonds were termed 'opaque financial instruments,' allowing inherent anonymity and potential misuse for money laundering.

RBI suggested that formal banking channels like cheques or digital payments could achieve the government's intended purpose.

Government's Defense of the Scheme

- The government emphasized that electoral bonds promote transparency in political funding.
- Bonds can only be encashed by eligible political parties through authorized banks, ensuring anonymity.
- The scheme is deemed transparent, preventing the funneling of black money, according to the Solicitor General.

Supreme Court's Earlier Actions

- Before the 2019 Lok Sabha elections, the Supreme Court refused to stay the scheme, recognizing its weighty impact on the electoral process.
- An interim order directed political parties to provide information on donors and contributions through electoral bonds to the ECI.
- In March 2021, the Court declined to stay the sale of bonds, stating safeguards had been provided in earlier orders.

Recent Supreme Court Proceedings

- In January, the Court divided petitions into three sets, addressing challenges to the scheme, RTI applicability to political parties, and amendments in the Foreign Contribution Regulation Act.
- In March, petitioners requested the matter to be referred to a Constitution Bench for an authoritative pronouncement due to its impact on democratic polity and party funding.

Child Pornography Is An Offence

Why in News?

Recently, the Madras High Court, in *S. Harish vs Inspector of Police*, quashed the judicial proceedings and held that downloading child pornography was not an offence under Section 67B of the Information Technology (IT) Act, 2000. The High Court categorically said that watching child pornography per se was not an offence as the accused had merely downloaded it onto his electronic gadget and had watched it in private.

Key Highlights

- High Court referred to a case decided by the Kerala High Court where it had been held that watching pornography in private space was not an offence under **Section 292 of the Indian Penal Code (IPC)**.
- This case related to the quashing a criminal case registered against a youth in 2016 by the Aluva police as he had been watching pornographic material on his mobile phone on the roadside at night.
- In this case, after investigation, the police had filed the final report and cognisance had been taken by the High Court under Section 14(1) of the Protection of Children from Sexual Offences (POCSO) Act, 2012 and Section 67B of the IT Act.
- **Section 67B(b) of the IT Act** says that ‘whoever, - creates text or digital images, collects, seeks, browses, downloads, advertises, promotes, exchanges or distributes material in any electronic form depicting children in obscene or indecent or sexually explicit manner’ shall be punished on first conviction with imprisonment of either description for a term which may extend to five years and with fine which may extend to ten lakh rupees....’
- It is undisputed that two files pertaining to child pornography were downloaded and available on the mobile phone of the accused. The forensic science report also corroborated the presence of the two files.
- These facts are sufficient to attract the application of Section 67B(b) of the IT Act, but the High Court held that in order to constitute an offence, the accused must have published, transmitted, created material depicting children in sexually explicit act or conduct.
- The High Court did not reproduce Section 67B in its judgment for justification. Section 67B has five sub-clauses, from (a) to (e). While sub-clause (a) talks about publishing or transmitting material depicting children engaged in sexually explicit act or conduct, sub-clause (b) deals with acts including downloading of child pornography material. Sub-clause (c) talks about cultivating, enticing or inducing children to [an] online sexually explicit relationship. Sub-clause (d) talks about facilitating abuse of children online and sub-clause (e) talks about recording abuse/a sexually explicit act with children.

- Thus, the High Court reached its judgment without analysing all of Section 67B, and reading into sub-clause (b), which clearly delineates the act of the accused.
- The High Court referred to a precedent, without mentioning details, i.e., title or year, of that case, where the High Court of Kerala dealt with the scope of Section 292 of the IPC and held that watching an obscene photograph or obscene videos by a person by itself was not an offence. The ratio of this case does not apply to the cases of child pornography, particularly the one under consideration.
- A case decided by the High Court of Kerala in September 2023 (Aneesh vs State of Kerala) did not pertain to child pornography. While watching adult pornography in privacy has been held as not to be an offence under Section 292 of the IPC (both by the High Court of Kerala and the Supreme Court of India), downloading sexually explicit material pertaining to children is clearly an offence under the IT Act. In none of the cases so far has the constitutionality of Section 67B(b) been challenged and its vires held unconstitutional.
- The Madras High Court used its inherent powers under Section 482 of the Criminal Procedure Code (CrPC) to prevent misuse of the process of court and quashed the judicial proceedings.
- The Supreme Court has laid down certain guidelines in State of Haryana vs Bhajan Lal (1992) to exercise powers under Section 482 of the CrPC (or extraordinary powers under Article 226) including that such powers could be used where the allegations made in the first information report or the complaint, even if taken at face value and accepted in their entirety do not, prima facie, constitute an offence or make out a case against the accused.
- Therefore, under the given facts and circumstances of the case, the Madras High Court could not in its wisdom quash the judicial proceeding when an offence was clearly made out under Section 67B(b) of the IT Act.
- However, it is agreed that the police had wrongly applied Section 14 of the POCSO Act as there was no evidence pertaining to the use of any child or children for pornographic purposes by the accused himself. Also, Section 15 of the POCSO Act punishes storage or the possession of child pornographic material only if it is done with an intent to share or transmit, or display or distribute, or for commercial purpose.
- It is important to mention here that Section 67 read with Sections 67A and 67B of the IT Act are a complete code and the given acts are exclusively punishable under this code.
- This section was amended in October 2009 and, inter alia, even seeking or downloading child pornography made a specific offence.
- The purpose of enacting special Acts such as the POCSO Act and making special provisions in the IT Act is to protect children from sexual exploitation and punish people involved in different forms of exploitation.
- The National Crime Records Bureau, Ministry of Home Affairs, under an agreement with the American National Center for Missing & Exploited Children, regularly gets geo-tagged CyberTipline reports to prosecute those who upload the child sexual abuse materials (CSAM) from anywhere in India.
- The use of the term CSAM is preferred because the term pornography implies consent which a child is not capable of giving.
- Therefore, it will be better if the term 'child pornography' is replaced with the term 'CSAM' in Indian laws. Similarly, the POCSO Act may also be amended and mere possession of CSAM be made a separate offence to remove inconsistency between the provisions of the POCSO Act and the IT Act.
- Finally, the State government must appeal against this judgment of the Madras High Court. Otherwise, it will set a bad precedent for the State.



Issues in Madras High Court's Recent Judgement

Different Interpretation of Section 67B	Incomplete Reference to Kerala HC's Judgement	Negligence of Constitutional Validity of Section 67B	Excessive Reliance on Section 482 of CrPC
<p>The Madras HC's interpretation of Section 67B(b) raises concerns about the accused's actions.</p> <p>Failure to analyze the entire Section 67B impacts the clarity of the judgement.</p>	<p>The Madras HC cites a precedent from Kerala HC without providing specific details.</p> <p>Reference to a case on the scope of Section 292 of IPC in the context of child pornography lacks relevance.</p>	<p>Lack of consideration for the constitutionality of Section 67B(b).</p> <p>Failure to challenge the vires of Section 67B(b) weakens the judgement.</p>	<p>Madras HC invokes Section 482 to prevent misuse of the court process.</p> <p>Overreliance on this section, without ensuring the allegations constitute an offense, raises concerns.</p>

What is Child Pornography?

Child pornography involves the creation, distribution, or possession of sexually explicit material featuring minors. It is considered a heinous crime with severe implications, contributing to the sexual exploitation and abuse of children.

Online Child Pornography

- Digital exploitation of minors through the production, distribution, or possession of sexually explicit material on digital platforms.

Indian Scenario

The spike in child pornography cases mirrors the alarming prevalence of online child sexual abuse in India. According to the NCRB (National Crime Report Bureau) 2021, cases have risen from 738 in 2020 to 969 in 2021.

Increasing Prevalence of Child Pornography

- Child pornography is on the rise in today's society and ranks among the fastest-growing Internet activities.

Distinguishing Producers and Possessors

- Producers are involved in the creation of child pornography, while possessors do not engage in physical and sexual abuse but are viewers of such material.

Responsibility of Possessors

- Possessors, though not directly involved in abuse, contribute to the perpetual victimization of innocent youth by viewing documented abuse and rape.

Impact on Innocent Youth

- Possessors are similarly responsible for the harm caused to children, even if they are not directly participating in the physical and sexual abuse

- The Protection of Children from Sexual Offences (Amendment) Act, 2019, defines it as any visual depiction of sexually explicit conduct involving a child, including photographs, videos, or digitally generated images indistinguishable from an actual child.

Impact of Child Pornography



- **Psychological Impact:** Pornography has a profound psychological impact on children, contributing to feelings of depression, anger, and anxiety.
 - It can lead to mental distress, affecting various aspects of a child's life, including their biological clock, work, and social relationships.
- **Impact on Sexuality:** Regular exposure to pornography creates a sense of sexual gratification and obsession, potentially influencing a willingness to replicate such behaviors in real life.
- **Sexual Addiction:** Some experts liken pornography to addiction, as it can produce similar effects on the brain comparable to the regular consumption of drugs or alcohol.
- **Behavioral Impact:** Adolescent pornography use is linked to stronger beliefs in gender stereotypes, particularly among males.
 - Male adolescents who frequently view pornography are more likely to perceive women as sex objects, influencing their attitudes and behaviors.
- **Supportive Attitudes to Violence:** Pornography may strengthen attitudes supportive of sexual violence and violence against women, contributing to a concerning societal impact.

Challenges to Deal with Pornography



- **Challenges in Addressing Pornography:** The impact of pornography varies between children from different socioeconomic classes, necessitating diverse approaches for effective intervention.
- **Cultural Context in India:** In India, sex is often viewed negatively, creating a lack of healthy family discussions on the subject. This absence leads children to seek information externally, often resulting in the development of a pornography addiction.
- **Difficulty in Detection:** Agencies face significant challenges in detecting and effectively monitoring child pornography activities.
- **Ubiquity of Obscene Content:** The widespread availability of explicit content on mainstream websites and OTT services like Amazon Prime, Netflix, Hotstar, etc., complicates the differentiation between non-vulgar and vulgar content, posing a challenge for effective regulation.

Legislations related to Child Pornography in India

Legislation	Details
Section 67B of IT Act, 2000	<ul style="list-style-type: none"> • Sub-clause (a): Deals with publishing or transmitting material depicting children engaged in sexually explicit acts or conduct. • Sub-clause (b): Covers acts including downloading of child pornography material. • Sub-clause (c): Addresses cultivating, enticing, or inducing children into online sexually explicit relationships. • Sub-clause (d): Addresses facilitating the abuse of children online. • Sub-clause (e): Pertains to recording abuse or a sexually explicit act with children.
Section 14 of POCSO Act, 2012	<ul style="list-style-type: none"> • Sub-section 1: Specifies that whoever uses a child or children for pornographic purposes shall be punished with imprisonment for a term not less than five years, along with a fine. In the event of a second or subsequent conviction, the imprisonment term shall not be less than seven years, coupled with a fine. • Sub-section 2: States that whoever, using a child or children for pornographic purposes under sub-section (1), directly participates in pornographic acts violating specified sections, shall face additional punishment as per those sections.

What is the POCSO Act?

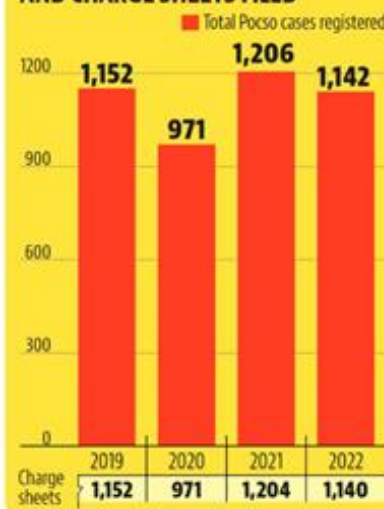
- The Protection of Children from Sexual Offences (POCSO) Act became effective on 14th November 2012, in alignment with India's ratification of the UN Convention on the Rights of the Child in 1992.
- The **primary objective** is to address sexual exploitation and abuse of children, offering precise definitions and appropriate penalties for offenses that were either undefined or insufficiently penalized.
- Enacted with the primary objective of safeguarding children from sexual assault, harassment, and pornography, the Protection of Children from Sexual Offences Act, 2012 **prioritizes** the best interests and welfare of children throughout its provisions. The Act defines a child as an individual below eighteen years, emphasizing the paramount importance of ensuring the child's healthy physical, emotional, intellectual, and social development at every stage.
- This legislation encompasses various forms of sexual abuse, distinguishing between penetrative and non-penetrative assault, sexual harassment, and pornography. In specific circumstances, such as when the abused child is mentally ill or when the perpetrator holds a position of trust or authority, like a family member, police officer, teacher, or doctor, the Act categorizes sexual assault as "aggravated."

Sensitive cases delayed

Cases of Pocsos convicts assaulting minors again have emerged



TOTAL POCSO CASES REGISTERED AND CHARGE SHEETS FILED



PUNISHMENTS

- Minimum punishment under Section 15 for storing pornographic material involving a child is imprisonment upto 3 years or fine or both
- Maximum punishment under Section 6 for aggravated penetrative sexual assault on a child is minimum rigorous imprisonment of 20 years which may extend for the remainder of natural life plus fine or death penalty

- The Act assigns a crucial role to the police as child protectors during the investigative process. It mandates the prompt disposal of child sexual abuse cases within one year from the date of reporting the offense. In an effort to enhance its effectiveness, the Act underwent amendments in August 2019, introducing more severe punishments, including the death penalty, for individuals found guilty of sexual crimes against children.

Key Features

Definition of Child

- The Act defines a child as an individual below 18 years, with punishment commensurate to the severity of the offense.

Amendments in 2019

- The Act was amended in 2019 to introduce more stringent penalties, including the death penalty for committing sexual crimes against children, aiming to deter perpetrators and prevent such crimes.

POCSO Rules, 2020:

- The Government of India has notified the POCSO Rules, 2020, for effective implementation.

Gender-Neutral Nature

- The Act recognizes that sexual abuse can affect both girls and boys, emphasizing that such crimes are offenses regardless of the gender of the victim. Aligns with the principle that all children have the right to protection from sexual abuse, avoiding gender-based discrimination.

Ease in Reporting Cases

- The Act encourages reporting of sexual exploitation cases, making it an offense not only for individuals but also for institutions, making it challenging to conceal offenses against children.
- Non-reporting is explicitly identified as an offense, contributing to increased awareness and reporting.

New Offences

- The Act introduces new offenses such as the storage of child pornography material.

Sexual Assault

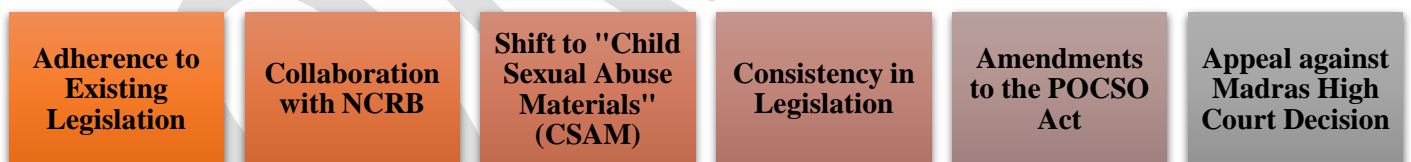
- It provides a clear and explicit definition of 'sexual assault' with increased minimum punishment, departing from the abstract definition of 'outraging modesty of a woman' in the Indian Penal Code.

Issues and Challenges with the POCSO Act



- **Low Representation of Women in Police Force:** The Act requires the statement of the affected child to be recorded by a woman sub-inspector, but with only 10% representation of women in the police force, and many stations lacking women staff, compliance is challenging.
- **Lapses in Investigation:** While there is a provision for recording statements using audio-video means, reports indicate lapses in investigation and crime scene preservation, as highlighted in the Shafhi Mohammad vs The State of Himachal Pradesh (2018) case.
- **No Examination by Judicial Magistrates:** Although the Act mandates recording the prosecutrix's statement by a judicial magistrate, they are not called for cross-examination during trial, undermining the credibility of these statements.
- **Issue of Age Determination:** The Act lacks a provision for age determination for juvenile victims, relying on school records. The Jarnail Singh vs State of Haryana (2013) case emphasized using statutory provisions for age determination.
- **Delays in Filing Charges:** Despite the Act's stipulation for completing investigations within a month, practical challenges such as resource shortages, forensic delays, or case complexity often lead to extended investigation periods.
- **No Conditions to Prove Recent Intercourse:** The Act does not impose conditions on the prosecution to prove recent intercourse, contrary to the Indian Evidence Act. This absence may hinder achieving an expected increase in the conviction rate, as observed during trials.

Way Forward



- **Adherence to Existing Legislation:** Sections 67B of the IT Act, in conjunction with related sections such as 67, 67A, and Section 14 of the POCSO Act, 2012, forms a comprehensive legislative framework targeting offenses related to child pornography. Specific provisions demonstrate the commitment to combating the sexual exploitation of children in cyberspace.
- **Collaboration with NCRB:** The National Crime Records Bureau (NCRB), Ministry of Home Affairs, collaborates with the American National Center for Missing & Exploited Children, receiving geo-tagged CyberTipline reports to prosecute individuals uploading child sexual abuse materials (CSAM) anywhere in India. This process should prioritize safeguarding the privacy and bodily integrity of child victims, avoiding open publication on websites.

- **Shift to "Child Sexual Abuse Materials" (CSAM):** Advocates recommend replacing "child pornography" with "child sexual abuse materials" (CSAM) to accurately convey the non-consensual nature of the content. This linguistic adjustment aims to enhance legal clarity and underscore the gravity of the offense.
- **Consistency in Legislation:** There is a demand to harmonize provisions between the POCSO Act, 2012, and the IT Act, 2000 to ensure uniformity in addressing offenses related to child sexual exploitation. Aligning these acts would streamline legal procedures, reinforcing the protection of children.
- **Amendments to the POCSO Act:** Proposed amendments to the POCSO Act may be necessary to categorize the possession of CSAM as a distinct offense, aligning it with the provisions of the IT Act, 2000. Such changes would rectify inconsistencies and provide clearer legal guidance in prosecuting perpetrators.
- **Appeal against Madras High Court Decision:** It is imperative for state governments and relevant investigating agencies to appeal against the Madras High Court's decision to prevent setting a detrimental precedent. Upholding the integrity of laws related to child protection is crucial for safeguarding vulnerable populations and ensuring justice.

Farmers Protest and Minimum Support Price

Why in News?

Nearly two years after farmers, mainly from Punjab, Haryana and Western Uttar Pradesh laid siege to Delhi to protest against three farm laws, farmers are again marching to Delhi. Expecting another siege of Delhi, the police in Haryana as well as Delhi have put in place massive security arrangements and sealed borders between Punjab and Haryana and Haryana and Delhi to deter farmers from entering the national capital.

Key Demands of Farmers

- Guarantee Minimum Support Price (MSP) for all crops and determine crop prices based on the Dr M S Swaminathan Commission's report
- Swaminathan Commission recommends raising MSP to at least 50% more than the weighted average cost of production (C2+ 50% formula)
- C2 formula includes imputed cost of capital and rent on land to ensure 50% returns for farmers
- Imputed cost accounts for opportunity cost of using resources like land, labour, and capital
- Imputed cost of capital factors in the interest or returns that could have been earned if capital was invested elsewhere
- **Additional demands**
 - Full debt waiver for farmers and labourers

DELHI CHALO 2.0: WHO'S LEADING THE NEW PROTEST

SKM (NON-POLITICAL)

► Farm organisation **BKU (Ekta Sidhupur)**, led by Jagjit Singh Dallewal, took along smaller groups and formed a parallel organisation, **SKM (Non-Political)**

Also has farm groups from | Haryana, Rajasthan, MP

► It joined hands with **Kisan Mazdoor Morcha** and held rallies in Amritsar and Barnala with the call for 'Dilli Chalo 2.0'



KISAN MAZDOOR MORCHA

► Another farmer block was formed with 18 farmer groups. With more farmer groups coming together, this block was renamed as **Kisan Mazdoor Morcha**

Convener | Punjab-based Kisan Mazdoor Sangharsh Committee leader Sarvan Singh Pandher

Has farm groups from | Punjab, Haryana, Rajasthan, UP and MP

► It has decided to align with SKM (Non-Political)

NO INVOLVEMENT IN DELHI CHALO 2.0

Sanyukt Kisan Morcha (SKM)

► It has stayed intact, but witnessed several splits. Balbir Singh Rajewal and Jagjit Singh Dallewal formed other groups, but Rajewal with four other groups returned to SKM on Jan 15

► SKM led marches across Punjab on Jan 26 and has given a call for a **Grameen Bharat Bandh** on Feb 16

Other groups

► **BKU (Rajewal)**, All India Kisan Federation, Kisan Sangharsh Committee Punjab, BKU (Mansa) and Azad Kisan Sangharsh Committee formed an entity after the 2022 polls

► They have joined SKM

Split in biggest group

► Punjab's biggest farmer group, **BKU (Ekta Ugrahan)**, saw a split when senior leader Jaswinder Singh Longawal formed **BKU (Ekta Azad)**

► This outfit has joined hands with **KMSC** to join the **Kisan Mazdoor Morcha**

Split in BKU (Ekta Dakaunda)

► The group has split into two parallel outfits:

BKU (Ekta Dakaunda) continues to be headed by Buta Singh Burjgill

Ekta Dakaunda (Manjit Dhaner) with Manjit Singh Dhaner as its president

- Implementation of the Land Acquisition Act of 2013 with provisions for farmers' written consent and compensation at four times the collector rate
- Collector rate is the minimum property value for registration, preventing undervaluation and tax evasion
- Punishment for perpetrators of the October 2021 Lakhimpur Kheri killings
- Withdrawal from the World Trade Organization (WTO) and freezing of all free trade agreements (FTAs)
- Pensions for farmers and farm labourers
- Compensation for farmers who died during the 2020 Delhi protest, including job placement for one family member
- Scrapping of the Electricity Amendment Bill 2020
- Increase MGNREGA employment to 200 days per year, set daily wage at Rs 700, and link the scheme with farming
- Strict penalties and fines on companies producing fake seeds, pesticides, fertilisers, along with improvements in seed quality
- Establishment of a national commission for spices such as chilli and turmeric
- Ensure the rights of indigenous peoples over water, forests, and land.

MS Swaminathan Committee

The late MS Swaminathan, celebrated as the 'Father of India's Green Revolution' and recently honored with the Bharat Ratna, chaired the National Commission on Farmers (NCF). The NCF made several key recommendations, including:

- Adoption of the C2+50 percent formula for Minimum Support Price (MSP), ensuring MSP is at least 50 percent more than the weighted average cost of production.
- Inclusion of 'Agriculture' in the Concurrent List of the country's Constitution, a recommendation aimed at enhancing governance in the agricultural sector.
- Opposition to the diversion of 'prime' agricultural land and forest to the corporate sector for non-agricultural purposes, emphasizing the preservation of vital resources.
- Advocacy for increased investment in agriculture-related infrastructure and improved credit availability for farmers to support their agricultural activities.
- Promotion of conservation farming practices, aligning with sustainable and environmentally friendly agricultural approaches.

Background of Farmers Protest 2024

In 2020, the government introduced three farm laws. Farmers were protesting against these laws.

Farm Laws Introduced in 2020

- Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act: Allows farmers to sell produce outside Agriculture Produce Market Committees (APMCs).
- Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services

The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020

PROS It will open more choices for farmers, reduce marketing costs, and help them get better prices.

CONS States will lose revenue if farmers sell produce outside APMC markets. Also, commission agents stand to lose if the entire farm trade moves out of mandis

The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill

PROS Gives farmers the right to enter into a contract with agribusiness firms, processors, wholesalers, exporters, or large retailers for the sale of future farming produce at a pre-agreed price.

CONS Opposition claims that the law is framed to suit "big corporates who seek to dominate the Indian food and agriculture business".

The Essential Commodities (Amendment) Bill

PROS It seeks to remove commodities like cereals, pulses, oilseeds, onion, and potatoes from the list of essential commodities and will do away with the imposition of stock holding limits on such items.

CONS Big companies will have the freedom to stock commodities, helping them dictate terms to farmers.



Act: Permits contract farming and free marketing of produce.

- Essential Commodities (Amendment) Act: Excludes certain items from trade regulation, except in crisis situations.

Concerns of Farmers

Fear of reduced government agency buying in approved mandis due to outside APMC trade.

Concerns about the MSP system becoming irrelevant.

Apprehension about lacking assured income, being dependent on large corporations.

Farmers Protests

- Unprecedented protests at Delhi borders persisted for over a year.
- The laws were eventually withdrawn in 2021.
- Farmers have now resumed their protests.

Government's Response

Repeal of Farm Laws: In November 2021, the Indian Government repealed the controversial three farm laws.

Formation of MSP Committee: Following the repeal, the government announced the formation of a committee on Minimum Support Price (MSP) in July 2022.

- The committee's objectives include discussing MSP, promoting zero-budget natural farming, and deciding on cropping patterns.

Recent Development - New Committee

Proposal: In a recent meeting between Cabinet ministers and farmer union leaders, the government proposed the creation of a new committee.

- This committee would include representatives from agriculture, rural, and animal husbandry ministries.
- The new committee aims to address farmers' demands for MSP for all crops.
- The government has pledged that the new committee will convene regularly and operate within a defined timeframe, demonstrating its commitment to addressing farmers' concerns in a timely manner.

Understanding Minimum Support Price (MSP)

MSP is the guaranteed amount paid to farmers when the government purchases their produce. Determined based on recommendations from the Commission for Agricultural Costs and Prices (CACP).

Objectives: Aims to ensure remunerative prices for farmers and encourages crop diversification.

Constitutional Provisions related to Right to Protest

- The Indian Constitution safeguards the right to protest peacefully through specific provisions. Article 19(1)(a) ensures the freedom of speech and expression, while Article 19(1)(b) guarantees citizens the right to assemble peaceably and without arms.
- However, Article 19(2) imposes reasonable restrictions on the right to assemble peaceably and without arms. These limitations are imposed in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency, or morality. Additionally, restrictions may be applied in cases related to contempt of court, defamation, or incitement to an offence.
- In the case of Ramlila Maidan Incident v. Home Secretary, Union Of India & Ors. (2012), the Supreme Court emphasized that citizens possess a fundamental right to assembly and peaceful protest, which cannot be deprived by arbitrary executive or legislative actions.

Commission for Agricultural Costs and Prices (CACP)

- CACP considers factors such as cost of production, demand and supply, market price trends, and inter-crop price parity.
- The Commission for Agricultural Costs and Prices (CACP) is an attached office of the Ministry of Agriculture and Farmers Welfare, established in January 1965.
- The Cabinet Committee on Economic Affairs (CCEA), chaired by the Prime Minister of India, approves the level of MSPs.

Determination of MSP

Factors Considered: The Commission considers various factors in formulating recommendations for minimum support prices (MSP) and other non-price measures.

Factors determined for MSP

Cost of production

Changes in input prices

Input-output price parity

Market price trends

Demand and supply

Inter-crop price parity

Effect on industrial cost structure

Effect on cost of living

Effect on the general price level

International price situation

Parity between prices paid and received by farmers

Effect on issue prices and implications for subsidy

Data Used by the Commission: The Commission utilizes micro-level data and aggregates at the district, state, and national levels. The following data is used by the commission:

- Cost of cultivation per hectare and structure of costs in different regions
- Cost of production per quintal in various regions
- Prices of inputs and changes
- Market prices of products and changes
- Prices of commodities sold and purchased by farmers
- Supply-related information - area, yield, production, imports, exports, domestic availability, and stocks
- Demand-related information - total and per capita consumption, processing industry capacity
- Prices in the international market and changes
- Prices of derivatives of farm products and changes



- Cost of processing agricultural products and changes
- Cost of marketing - storage, transportation, processing, marketing services, taxes/fees, and margins retained by market functionaries
- Macro-economic variables like general price levels, consumer price indices, and factors reflecting monetary and fiscal aspects.

MSP Increase for Kharif Crops

- The increase in MSP for Kharif Crops aligns with the Union Budget 2018-19 announcement.
- The goal is to fix MSPs at a level of at least 1.5 times the All-India weighted average Cost of Production (CoP), aiming for reasonably fair remuneration for farmers.

Crops Under MSP: CACP recommends MSPs for 22 mandated crops and fair and remunerative price (FRP) for sugarcane.

- Mandated crops include 14 kharif crops, 6 rabi crops, and 2 other commercial crops.

Three Types of Production Cost: CACP projects three kinds of production cost:

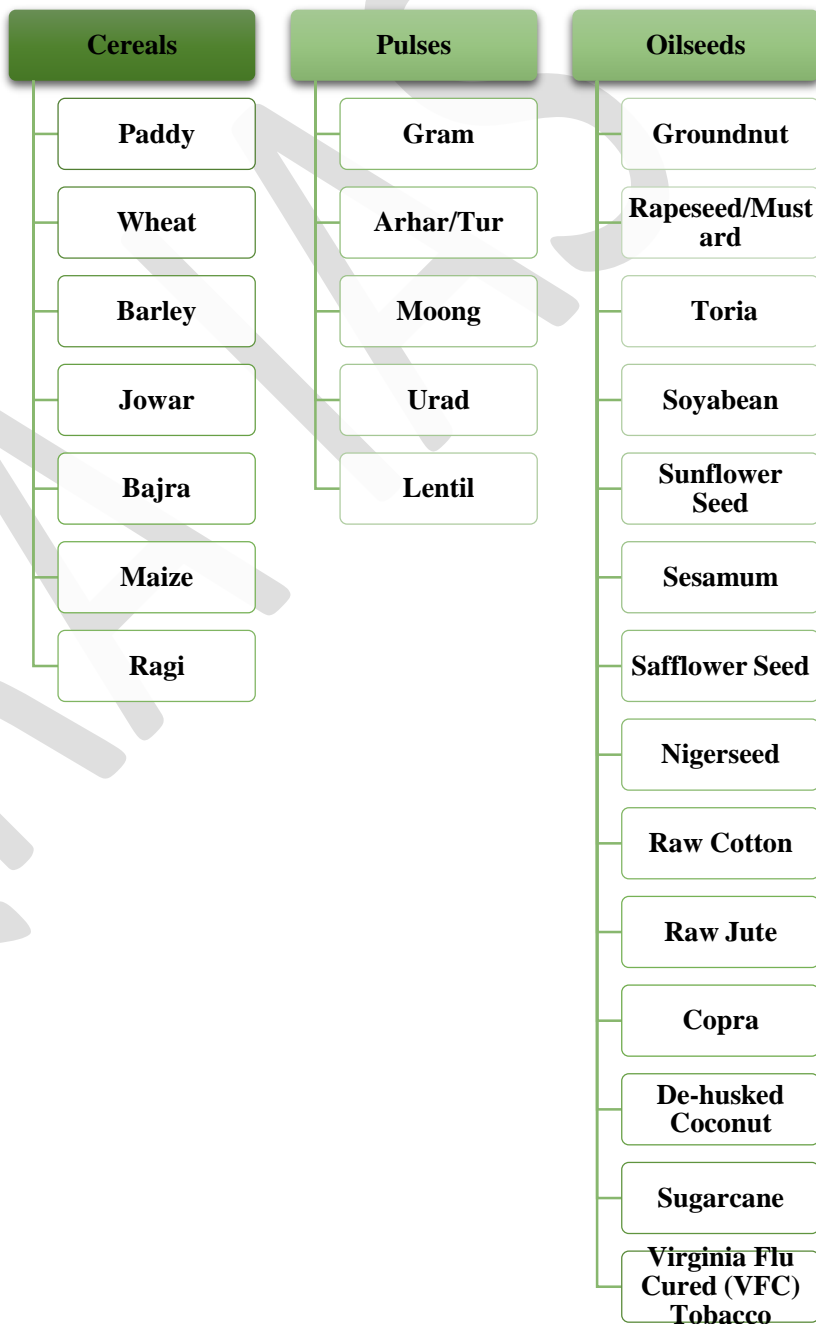
- 'A2': All paid-out costs directly incurred by the farmer.
- 'A2+FL': Includes A2 plus an imputed value of unpaid family labour.
- 'C2': Comprehensive cost including rentals and interest for owned land and fixed capital assets.

Cost Consideration for MSP: CACP considers both 'A2+FL' and 'C2' costs while recommending MSP.

Only 'A2+FL' cost is considered for return, while 'C2' costs serve as benchmark reference costs.

Need for MSP: Evolved due to the following challenges faced by farmers:

- Twin droughts of 2014 and 2015.
- Shocks of Demonetisation and the Rollout of GST.
- Economic slowdown post-2016-17 and the impact of the pandemic.
- Addresses higher input prices and ensures fair income for farmers.





- Crucial in states where agriculture is a major source of livelihood to reduce farm distress and poverty.

Section 144 and Protests

Prohibitory orders under Section 144 of the Criminal Procedure Code (CrPC) have been enforced in the entire Delhi, banning large gatherings, ahead of the farmers' proposed 'Delhi Chalo' march to maintain law and order, said Delhi Police commissioner Sanjay Arora on Monday.

About Section 144 CrPC

- This law grants authority to the magistrate of any state or union territory in India to issue an order prohibiting the gathering of four or more people in a specified area.
- It is applied in urgent cases of nuisance or anticipated danger that has the potential to cause trouble or damage to human life or property.
- The order under Section 144 can be directed towards a specific individual or the general public.

Features of Section 144

Restrictions are imposed on handling or transporting any type of weapon within the specified jurisdiction, with a maximum punishment of three years for violating this regulation.

The order prohibits public movement and mandates the closure of all educational institutions.

Public meetings or rallies are completely barred during the period covered by this order.

Obstructing law enforcement agencies from dispersing an unlawful assembly is considered a punishable offence.

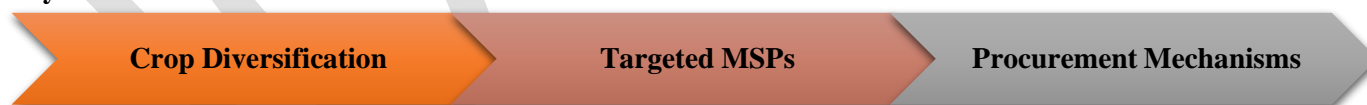
Authorities are empowered to block internet access in the region under this section.

The primary objective of Section 144 is to uphold peace and order in areas where disturbances could potentially disrupt normal life.

Duration of Section 144 Order

- No order under Section 144 can remain in force for more than 2 months.
- Under the discretion of the state government, the validity can be extended for an additional two months, with the maximum validity extendable to six months.
- Once the situation returns to normal, the imposed Section 144 can be withdrawn.

Way Forward



Crop Diversification

- Gradually expand the list of crops eligible for Minimum Support Price (MSP) support.
- Provide farmers with a wider range of choices for cultivation aligned with market demand.
- Reduce the dominance of rice and wheat through diversified crop options.

Targeted MSPs

- Focus on setting MSPs for crops crucial for food security and impactful on farmer livelihoods.
- Avoid providing MSP for all crops across all regions.
- Implement a targeted approach to optimize resource allocation.

Procurement Mechanisms

- Improve and modernize procurement mechanisms to ensure farmer access to MSPs.
- Enhance efficiency in procurement systems to streamline the process.
- Reduce reliance on middlemen and explore direct procurement methods.
- Expand the reach of procurement agencies to cover more farmers and regions.

India-UAE Ties

Why in News?

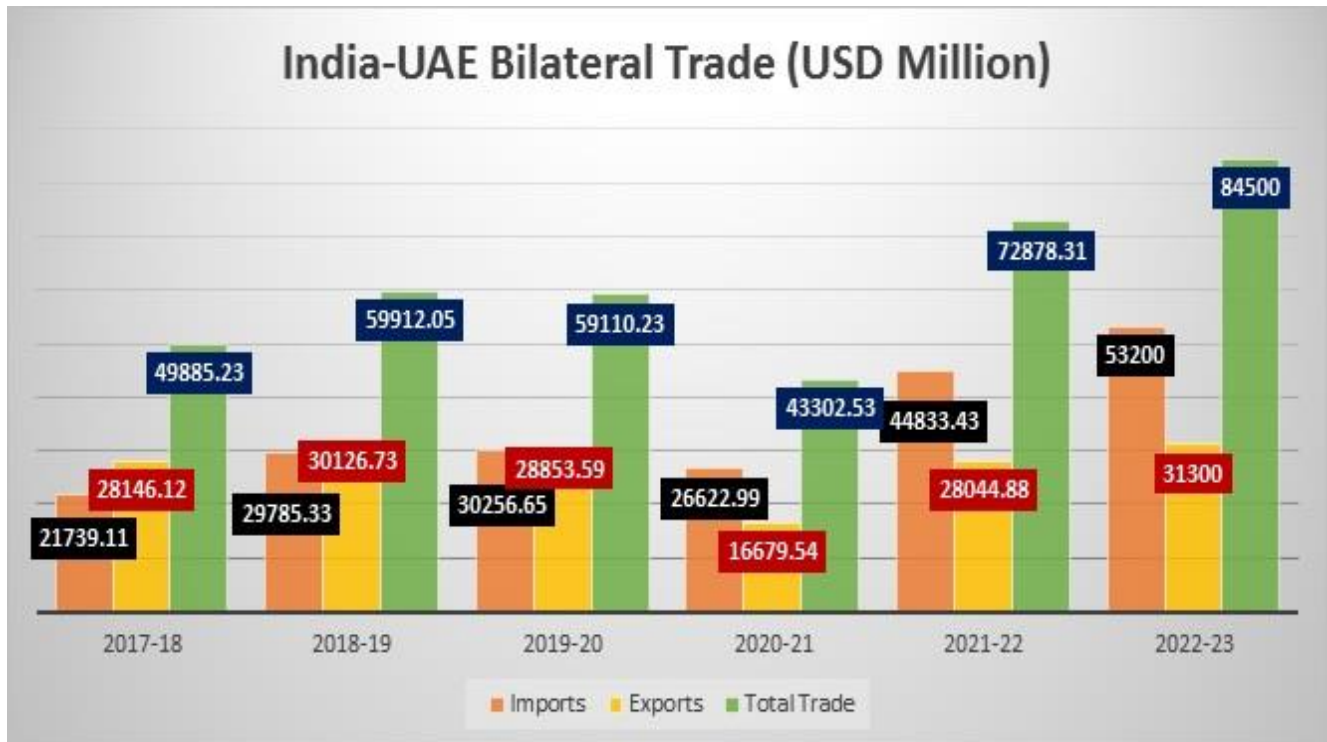
Prime Minister Narendra Modi's UAE visit might have seemed like any other bilateral visit he has undertaken. But this visit, Mr. Modi's seventh to the UAE since 2014 indicates the government's desire to signal more about the salience and prominence of the Emirates, than it has with any of the other countries in the Gulf region.

Key Highlights



- **Strategic Significance of the UAE**
 - The frequency of Prime Minister Modi's visits to the UAE since 2014 indicates the Indian government's emphasis on the strategic importance of the UAE in the Gulf region.
 - The visit is seen as a signal of the salience and prominence of the UAE in India's diplomatic and economic priorities.
- **Economic Agreements and Partnerships**
 - The signing of the Comprehensive Economic Partnership Agreement (CEPA) in 2022 and the Bilateral Investment Treaty (BIT) during the recent visit. These agreements signify a deepening economic relationship between India and the UAE.
 - The UAE is highlighted as the first country with which India has signed both trade and investment agreements.
- **Trade and Investment Statistics**
 - The UAE is identified as India's third-largest trading partner, second-largest export destination, and fourth-largest source of Foreign Direct Investment (FDI).
 - The inauguration of Bharat Mart for Indian MSMEs is expected to strengthen trade ties further.
- **Technological Cooperation:** Agreements on technological ties, including digital infrastructure, research and development (R&D) for energy security, and trade in green hydrogen and energy storage, demonstrate a commitment to advancing technology and innovation together.
- **Strategic Cooperation and Multilateral Initiatives**
 - The Agreement for an Intergovernmental Framework on the India-Middle East Economic Corridor is highlighted as paving the way for multilateral cooperation between the two countries.

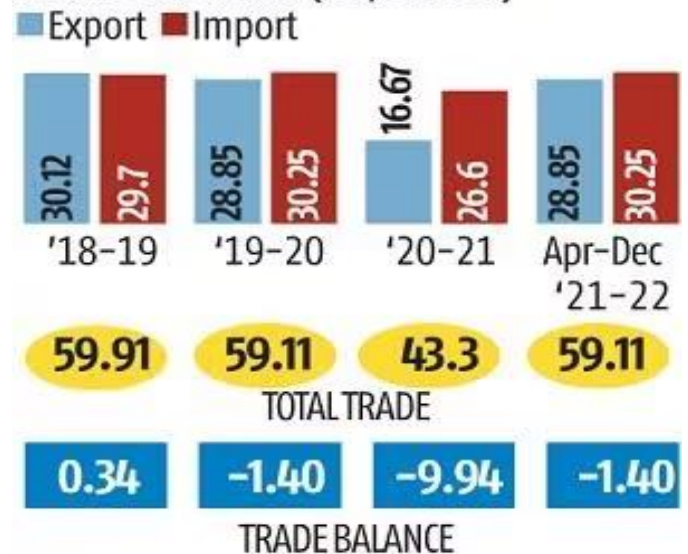
- Mention of coordination over the I2U2 initiative with the U.S. and Israel and future cooperation within the BRICS framework highlights the broader geopolitical context.
- **Stability and Diplomacy in the Region:** Discussions on the Israel-Gaza operations and Red Sea attacks underscore India's recognition of the UAE as a stable partner in the tumultuous Middle East.



- **Historical and Cultural Ties**
 - The strong historical and cultural ties between India and the UAE, including centuries-old maritime trade and a significant Indian diaspora.
 - The UAE's concern over majoritarian and sectarian forces in India is addressed in the context of changes in governance and society.
- **Shared Values of Tolerance and Pluralism:** Prime Minister Modi's emphasis on mutual values of tolerance and pluralism, as well as a "shared heritage of humanity," is considered significant in fostering strong bonds between the two countries.

STRENGTHENING TIES

India-UAE trade (in \$ billion)



Source: Department of Commerce

Admission Help Line: +91 9823256625 & 9579247470
(WhatsApp)

Email: info@iqraias.com, support@iqraias.com

Pact Signed Between India-UAE

Interlinking of Digital Payment Platforms

- Agreements signed for interlinking digital payment platforms UPI (India) and AANI (UAE).
- Facilitates seamless cross-border transactions, enhancing financial connectivity.

Interlinking Domestic Debit/Credit Cards

- Pact signed for interlinking domestic debit/credit cards — RuPay (India) with JAYWAN (UAE).
- Enhances financial sector cooperation and boosts universal acceptance of RuPay in the UAE.
- JAYWAN, UAE's domestic card, based on the digital RuPay credit and debit card stack.

Bilateral Investment Treaty

- Signing of Bilateral Investment Treaty (BIT) viewed as a "Key Enabler" for increased investments.
- UAE, a significant investor in India's infrastructure, committed to investing USD 75 billion.

Intergovernmental Framework Agreement on India-Middle East Economic Corridor (IMEC)

- Aims to foster India-UAE cooperation and enhance regional connectivity.
- IMEC announced during the G20 leaders' summit in New Delhi in September 2023.

Energy Cooperation

- Pacts signed on cooperation in electrical interconnection and trade.
- Focus on energy security and trade, with India entering long-term LNG contracts.

Cultural Cooperation

- Cooperation protocol signed between National Archives of both countries to restore and preserve archival material.
- Joint support for the Maritime Heritage Complex at Lothal, Gujarat.

Gratitude for BAPS Temple Construction

- India expresses gratitude to the UAE for supporting the construction of the BAPS Temple in Abu Dhabi.
- Emphasizes the temple's significance as a symbol of friendship and cultural bonds.

Port Infrastructure Development

- Agreements between RITES Limited, Gujarat Maritime Board, and Abu Dhabi Ports Company to enhance port infrastructure and connectivity.

Bharat Mart

- Foundation stone laid for Bharat Mart at Jebel Ali Free Trade Zone in Dubai.
- A platform combining retail, warehousing, and logistics to promote exports from India's micro, small, and medium sectors.

India's Bilateral Relations with the UAE

Economic Relations

Economic Relations

Cultural Relations

Fintech Collaboration

Energy Security Cooperation

Strategic Regional Engagement

- Bilateral trade reached USD 85 billion in 2022-23.
- UAE is India's third-largest trading partner and second-largest export destination.
- Goal to surpass USD 100 billion in merchandise trade and USD 15 billion in services trade in five years.
- UAE's investment in India estimated at USD 11.67 billion, making it the ninth-largest investor.
- Indian companies investing in various sectors, including manufacturing, tourism, hospitality, and education.
- India prioritizes UAE in its revamped FTA strategy for an early harvest deal.

Cultural Relations

- Over 3.3 million Indians in the UAE, contributing to cultural familiarity.
- India was the Guest of Honour Country at Abu Dhabi International Book Fair 2019.
- Indian cinema/TV/radio widely available with significant viewership.
- Emirati community participates in annual International Day of Yoga events.

Fintech Collaboration

- Active collaboration in the fintech sector.
- Acceptance of RuPay card in the UAE since August 2019.
- Operationalization of Rupee-Dirham settlement system to facilitate transactions in domestic currencies.

About India UAE Relationship

- Diplomatic relations established in 1972.
- New strategic partnership initiated during Prime Minister's visit in August 2015.
- Upgraded to a comprehensive strategic partnership during the Crown Prince's visit in January 2017.

Energy Security Cooperation

- UAE crucial for India's energy security.
- Strategic oil reserves stored in India.
- Investment in the strategic crude oil storage facility in Mangaluru.

Strategic Regional Engagement

- Active engagement in regional groupings and initiatives.
- Participation in I2U2 and India-Middle East-Europe Economic Corridor (IMEC).
- Reflects shared interests and strategic alignment between India and the UAE.

Challenges in India-UAE Relations

Trade Barriers Impacting Indian Exports

Chinese Economic Influence in the UAE

Challenges of the Kafala System

Concerns Over UAE's Financial Support to Pakistan

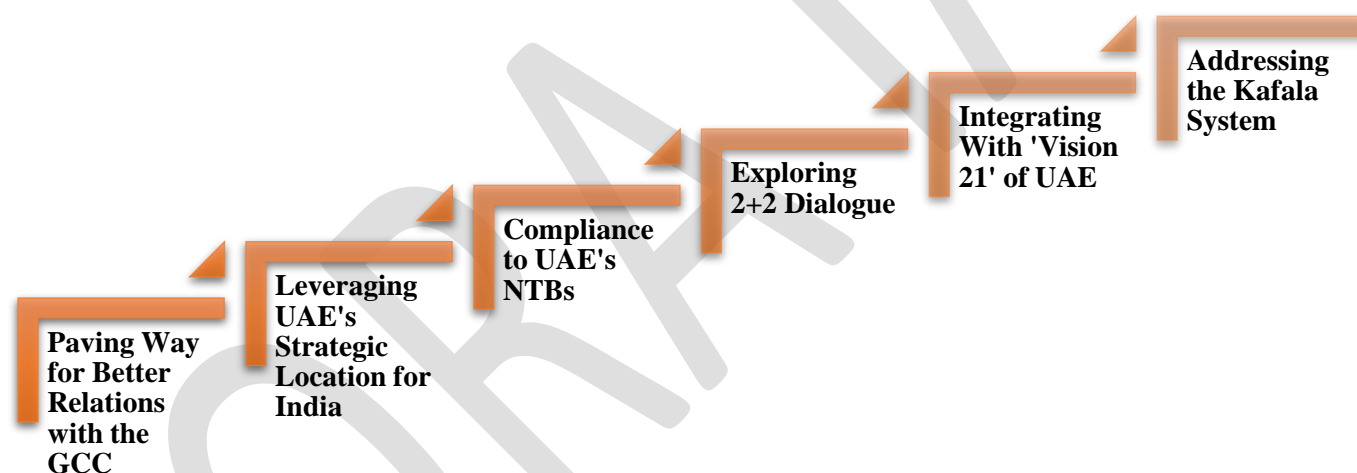
Diplomatic Balancing Act Amid Regional Conflicts

Trade Barriers Impacting Indian Exports

- Non-tariff barriers (NTBs) such as Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) hinder Indian exports, especially in poultry, meat, and processed foods.
- Mandatory Halal certification contributes to a nearly 30% decline in processed food exports to the UAE.

- **Chinese Economic Influence in the UAE:** China's "Cheque Book Diplomacy" with low-interest loans surpasses Indian economic efforts in the UAE and the wider Middle East.
- **Challenges of the Kafala System**
 - The Kafala system in the UAE, granting employers significant power over low-wage immigrant laborers, raises human rights concerns.
 - Issues like passport confiscation, delayed wages, and poor living conditions highlight the difficulties faced by migrant workers.
- **Concerns Over UAE's Financial Support to Pakistan:** The UAE's substantial financial aid to Pakistan raises concerns about potential misuse, given Pakistan's history of supporting cross-border terrorism against India.
- **Diplomatic Balancing Act Amid Regional Conflicts**
 - Ongoing conflicts, such as between Iran and Arab nations, particularly the UAE, pose diplomatic challenges for India.
 - Recent hostilities between Israel and Hamas impact proposed initiatives like the India-Middle East-Europe Economic Corridor (IMEC).

Steps required to Overcome these Challenges



Paving Way for Better Relations with the GCC

- The UAE's Participation in Regional and Bilateral FTAs.
- Strong Economic Ties within the GCC.
- Common Market and Customs Union with Saudi Arabia, Kuwait, Bahrain, and Oman.
- Free Trade Access under GAFTA Agreement.

Leveraging UAE's Strategic Location for India

- Utilizing UAE's strong economic ties and common market.
- Facilitating India's access to the Africa market.
- Opportunities in handlooms, handicrafts, textiles, and pharma.

Compliance to UAE's NTBs

- UAE's Tariff Structure Bound with GCC.
- Addressing Non-Tariff Barriers (NTBs) Challenges.
- Bringing Transparency and Predictability.

- Updates on Labelling, Licensing, Permits, and Import Monitoring.

Exploring 2+2 Dialogue

- Establishing High-Level Dialogues with the UAE.
- Addressing Strategic, Defense, and Political Matters.
- Enhancing Bilateral Understanding and Cooperation.

Integrating With 'Vision 21' of UAE

- Opportunities in 'Vision 2021' for India.
- Collaboration in Renewable Energy, Technology Startups, Fintech.
- Aligning Economic Ties with UAE's Vision for Diversification.

Addressing the Kafala System

- Diplomatic Engagement to Reform the Kafala Labor System.
- Learning from Indian Advocacy in Qatar.
- Enhancing Welfare of Migrant Workers in the UAE.

Way Forward

Addressing Non-Tariff Barriers

Boosting Economic Presence

Countering Chinese Economic Influence

Improving Migrant Workers' Rights

Promoting Entrepreneurship

Addressing Non-Tariff Barriers

- Collaborative Efforts to Overcome Non-Tariff Barriers.
- Focus on Sectors like Processed Foods.
- Dialogues to Streamline Regulations and Enhance Trade Flows.

Boosting Economic Presence

- Increasing Indian Investments in Key Sectors.
- Exploring Joint Ventures and Partnerships.
- Creating a Conducive Business Environment.

Countering Chinese Economic Influence

- Collaborative Efforts to Counter Chinese Influence.
- Promoting Transparency, Sustainability, and Fair Business Practices.
- Strengthening Economic Resilience in the Region.

Improving Migrant Workers' Rights

- Reforming the Kafala System for Migrant Workers.
- Ensuring Fair Wages and Decent Living Conditions.
- Protecting the Rights and Welfare of Migrant Workers.

Promoting Entrepreneurship

- Encouraging Entrepreneurship for Economic Growth.
- Facilitating Indian Businesses to Flourish in the UAE.
- Creating Opportunities for Innovation and Collaboration.

Interim Budget

Why in News?

The Finance Minister presented her sixth consecutive Budget. The Finance minister presented an interim budget, rather than a comprehensive annual budget due to National Elections.

Key Highlights

- Doubts that this would be anything more than a vote-on-account had been settled when Prime Minister Narendra Modi publicly declared that “when polls are this close, the government presents an interim budget” — and went on to say with confidence of a victory in the polls, “we will bring a full budget when a new government is formed”.
- Meanwhile, an ‘interim Economic Survey’, innocuously titled “The Indian Economy: A Review”, has presented a survey of post-Independence economic development, with a periodisation that divides those years into the pre- and post-Modi government eras.
- In language reflective of an electioneering pamphlet, peppered with the Prime Minister’s own assessments of his government’s record, the document concludes that the decade 2014-24 was one of “transformative growth”.
- Periods of significant or even high episodes of growth prior to that transformative decade are identified as wanting, on the grounds that such growth either left structural challenges unaddressed or was the result of an unsustainable credit boom that damaged the banking sector.
- Given this background, it was to be expected that the Budget speech would be a vocal expression of this eulogy of the two governments of the last 10 years.
- For years, Part A of the Budget speech has been a tiresome recounting of policies already adopted, and to be adopted, many of which have little to do with the issues of resource mobilisation and allocation and the strategy they signal, which must be the actual concern.
- That has been true of this year’s Interim Budget as well, which focused on all the “welfare” schemes, in areas varying from housing to food, which have been largely attributed to the Prime Minister.
- It is another matter that the Prime Minister has in the past dismissed such schemes as representative of a “revdi” (sweet gifts) culture when implemented by non-Bharatiya Janata Party (BJP) State governments.
- With the Interim Budget being identified as a mere vote-on-account, Part B of the speech was a declaration that while pursuing consolidation in the sense of achieving periodically revised fiscal deficit to GDP ratios, the government will be stepping up spending on infrastructure and welfare.
- In the circumstances, what can be assessed from the detailed Budget documents is the fiscal performance of the Centre in the current (rather than next) financial year, 2023-24.
- Even that exercise is fraught with difficulty because the practice of presenting Budgets on February 1 adopted in recent years has meant that “revised estimates” for the financial year incorporate projections relating to most of the last quarter of the financial year extending to March 31.
- The only substantial figures at hand are the estimates of actual expenditure under different broad heads for the first three quarters of 2023-24 provided by the Controller General of Accounts (CGA), which can be compared with the estimates for the whole year provided in the Budget.

Vote on Account

Since Parliament is not able to vote the entire budget before the commencement of the new financial year, the necessity to keep enough finance at the disposal of the Government in order to allow it to run the administration of the country remains.

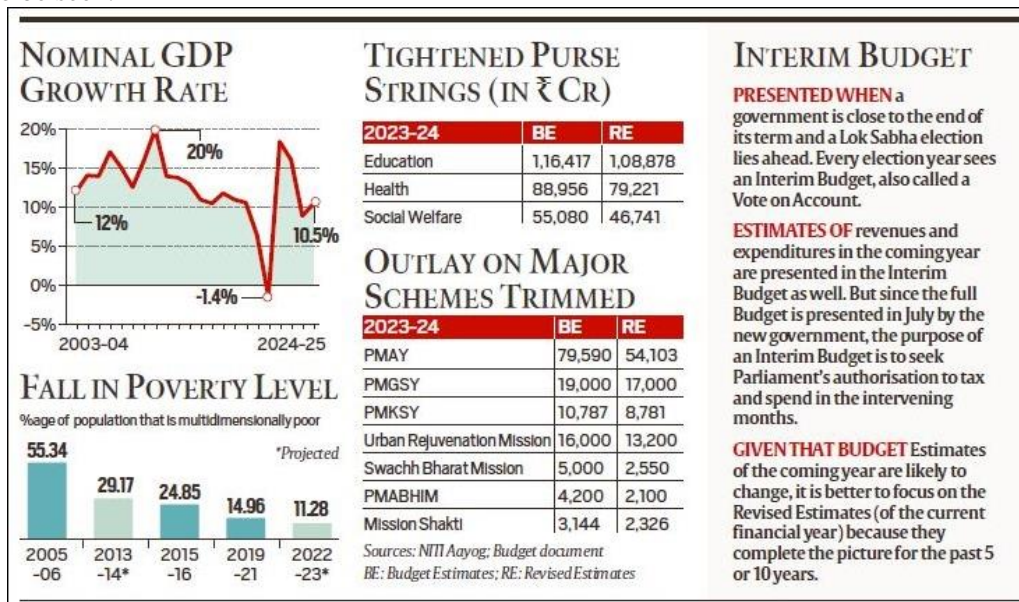
According to Article 116 of the Indian constitution, vote on account is a grant in advance for the Central government to meet short-term expenditure, generally lasting for a few months till the new financial year starts.

A special provision is, therefore, made for "Vote on Account" by which the Government obtains the Vote of Parliament for a sum sufficient to incur expenditure on various items for a part of the year.

- This is, in certain areas, quite revealing. For example, if we take the estimates for the Department of Rural Development, under which the all-important Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme falls, as compared to budgeted expenditures of ₹1,57,545 crore for 2023-24, the revised estimates are placed at a much higher ₹1,71,069 crore.
- That points to a significant step up relative to that budgeted, despite claims that the NREGA scheme is being inadequately funded, wages are in arrears and job card holders are being excluded from work because wage payments are to be linked to Aadhaar.
- But a comparison of revised and budgeted expenditures conceals what is actually occurring.
- The actual expenditure on the MGNREGA scheme was ₹1,11,170 crore in the COVID-19 year 2020-21 and ₹98,468 crore in 2021-22.
- That came down to ₹90,806 crore in 2022-23 and the revised estimate projects spending on the programme in 2023-24 at an even lower ₹86,000 crore.
- The figures clearly do not match the government's pro-poor rhetoric. Interestingly, the CGA reports that expenditure of the Department of Rural Development till December 2023 amounted to only ₹1,07,912 crore or 63% of the total projected in the revised estimates.
- So, more than a third of the estimated expenditure for the financial year is projected to occur in the last quarter of the year.
- That deviation between revised expenditures over the financial year and the actual till December 2023 is even larger in the case of the Department of Agriculture and Farmers Welfare, under which the much-touted Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme of transfers falls.
- The budgeted expenditure for 2023-24 for that department was placed at ₹1,15,532 crore and the revised estimate is projected at ₹1,16,789 crore.
- The actual till December is placed at ₹70,797 crore by the CGA, or 61% of the revised estimate. Spending on the PM-KISAN scheme alone, which amounted to ₹66,825 crore in 2021-22, fell to ₹58,254 crore in 2022-23 and is projected at ₹60,000 crore in 2023-24.
- There are two ways in which such deviations between actual spending till December and the revised estimates in the Budget can be interpreted.
- One could be that the Finance Minister has chosen to inflate revised estimates of spending to back her claim that the government has provided massive support to farmers and rural workers.
- The other could be that, despite tardy spending till December, the government plans to launch a pre-election spending blitz in areas where it believes it can swing votes in favour of the BJP.
- Being election season, the latter is a possibility. But trends of the kind noted with regard to spending on the MGNREGA scheme suggest that the government believes that rhetoric can be a substitute for actual allocations.
- Thus, despite claims that free rations for 80 crore people are a huge expansion of food support under the National Food Security Act, the total food subsidy has fallen from ₹5,41,330 crore in 2020-21 to ₹2,88,060 crore in 2021-22 and a projected ₹2,87,194 crore (RE) in 2023-24.
- At the macroeconomic level, the Budget's claim is that in 2023-24, the central government has managed to ensure that its receipts other than borrowing are almost equal to that budgeted.
- This is because it has met budgetary expectations with respect to tax revenues as well as expects to raise its non-tax revenue receipts by 25% relative to budget.
- The explanation for that hefty increase is that income from dividends and profits is slated to rise from ₹99,913 crore in 2022-23 to ₹1,54,407 crore in 2023-24 (RE).
- This is because, as compared with a budgeted ₹48,000 crore to be received as dividend/surplus from the Reserve Bank of India and nationalised financial institutions, the revised estimates suggest that the actual inflow will be more than twice that figure at ₹1,04,407 crore, largely because of transfers from the central bank.
- This has more than made up for a projected fall in miscellaneous capital receipts, consisting of receipts from disinvestment from a budgeted ₹61,000 crore to ₹30,000 crore.



- It is not clear whether even the figure of ₹30,000 crore can be realised, since the CGA estimates that ‘other non-debt capital receipts’, consisting of disinvestment proceeds, just crossed ₹10,000 crore by December.
- Estimates and projections of this kind allow the Finance Minister to claim that even while ensuring total expenditure in line with the budgeted, she has managed to keep the fiscal deficit, at 5.8% of GDP, marginally below the budgeted level, hoping to please financial markets with her government’s prudence.
- Whether it would please voters to give the National Democratic Alliance a “resounding victory”, as she hopes, is yet to be seen.



What is an Interim Budget?

An interim budget is essentially a temporary financial statement presented by the government.

- It is typically introduced in a year when general elections are scheduled, and a new government is expected to take power.
- The main purpose of the interim budget is to allow the government to continue its operations and meet its financial obligations until the new government is formed and presents the full budget.
- The interim budget covers the government’s expenditures and receipts for a part of the fiscal year.



BUDGET AT A GLANCE

₹ crore	2022-2023 (Actuals)	2023-24 (Budget Estimates)	2023-24 (Revised Estimates)	2024-25 (Budget Estimates)
1. Revenue receipts	23,83,206	26,32,281	26,99,713	30,01,275
2. Tax revenue *(Net to Centre)	20,97,786	23,30,631	23,23,918	26,01,574
3. Non tax revenue	2,85,421	3,01,650	3,75,795	3,99,701
4. Capital receipts	18,09,951	18,70,816	17,90,773	17,64,494
5. Recovery of loans	26,161	23,000	26,000	29,000
6. Other receipts	46,035	61,000	30,000	50,000
7. #Borrowings and other liabilities	17,37,755	17,86,816	17,34,773	16,85,494
8. Total receipts (1+4)	41,93,157	45,03,097	44,90,486	47,65,768
9. Total expenditure (10+13)	41,93,157	45,03,097	44,90,486	47,65,768
10. On revenue Account of which	34,53,132	35,02,136	35,40,239	36,54,657
11. Interest payments	9,28,517	10,79,971	10,55,427	11,90,440
12. Grants in aid for creation of capital account	3,06,264	3,69,988	3,21,190	3,85,582
13. On capital account	7,40,025	10,00,961	9,50,246	11,11,111
14. Effective capital expenditure (12+13)	10,46,289	13,70,949	12,71,436	14,96,693
15. Revenue deficit (10-1)	10,69,926	8,69,855	8,40,527	6,53,383
	(3.9)	(2.9)	(2.8)	(2.0)
16. Effective revenue deficit (15-12)	7,63,662	4,99,867	5,19,337	2,67,801
	(2.8)	(1.7)	(1.8)	(0.8)
17. Fiscal deficit [9-(1+5+6)]	17,37,755	17,86,816	17,34,773	16,85,494
	(6.4)	(5.9)	(5.8)	(5.1)
18. Primary deficit (17-11)	8,09,238	7,06,845	6,79,346	4,95,054
	(3.0)	(2.3)	(2.3)	(1.5)

Key Characteristics of an Interim Budget

Duration

Unlike the full annual budget, the interim budget typically covers a shorter period, often spanning a few months until the new government assumes power.

Expenditure Approval

Seeks Parliament's approval for incurring expenses and withdrawing funds from the Consolidated Fund of India to sustain ongoing government operations until the comprehensive budget is passed.

Limited Announcements

Generally avoids significant policy announcements or the introduction of new schemes; focuses more on maintaining continuity in government spending and operations.

Vote on Account

The primary component involves the "vote on account," seeking approval for essential government spending, including salaries, administrative expenses, and ongoing project expenditures, without detailed discussion on each demand.

Revenue and Expenditure Estimates

Provides an overview of the government's revenue and expenditure for a part of the fiscal year. However, it might not include detailed economic projections or tax proposals, typically reserved for the full budget.

Political Considerations

Given its timing before elections, the interim budget is often scrutinized for measures that could influence voters. However, it traditionally aims to be a neutral financial statement.

Timeline of Interim Budgets in India

Year	Presented By	Reason for Interim Budget
1947 (Nov 26)	R K Shanmukham Chetty	After the Constituent Assembly's Budget passed in March 1947 ceased due to partition.
1952-53	CD Deshmukh	Before the first General Elections.
1957-58	T T Krishnamachari	Just before the second general elections.
1962-63, 1967-68	Morarji Desai	Interim Budgets presented in both years.

Year	Presented By	Reason for Interim Budget
1971-72	Y B Chavan	Presented by Y B Chavan.
1977	Haribhai M Patel	Shortest-ever interim budget speech; first presented by a finance secretary and former bureaucrat.
1980-81	R Venkataraman	Presented after the Janata government lost power to Congress (I).
1991	Yashwant Sinha	Presented after the fall of the Chandra Shekhar government.
1991-92	Dr. Manmohan Singh	Dr. Manmohan Singh's only interim budget.
1998-99	Yashwant Sinha	Presented during Atal Bihari Vajpayee's government.
2004-05	Jaswant Singh	Presented in the final year of Atal Bihari Vajpayee-led NDA government.
2008-09	Pranab Mukherjee	Presented at the end of UPA's first term.
2014 (Feb 17)	P Chidambaram	Presented at the end of UPA's second term.
2019	Piyush Goyal	Presented before the end of PM Narendra Modi-led NDA government's first term.

Difference between Interim Budget and Annual Budget

Points of difference	Interim Budget	Annual Budget
Scope and duration	Temporary measure presented during elections or transition.	Comprehensive plan covering an entire fiscal year.
Expenditure allocations	Allocates funds for essential operations, ongoing schemes.	Outlines planned expenditures across various sectors.
Policy initiatives	Avoids introducing new policies or reforms with long-term impact.	Unveils new policies, schemes, and reforms for the year.
Approval process	Presented for a vote-on-account, less scrutiny in Parliament.	Rigorous examination, discussion, and approval in Parliament.
Parliamentary scrutiny	Limited scrutiny and debate in Parliament.	Involves detailed analysis, debates, and possible amendments.
Economic implications	Ensures stability during transitions, prevents disruption.	Influences investor sentiment, guides economic direction.
Significance and impact	Temporary stability during transitions.	Shapes the nation's economic direction for an entire year.
Stability vs. Vision	Ensures continuity and prevents financial disruption.	Charts the course for economic growth and long-term vision.
Investor confidence	May have limited impact on investor sentiment.	Influences investor confidence, shapes market expectations.

Key Highlights from Interim Budget 2024

Welfare

- Assistance to 25 crore people in escaping multi-dimensional poverty.
- Direct Benefit Transfer of 34 lakh crore through PM-Jan Dhan accounts, resulting in 2.7 lakh crore savings.
- PM-SVANidhi provided credit assistance to 78 lakh street vendors.
- PM-JANMAN Yojana targeting vulnerable tribal groups.
- PM-KISAN SAMMAN Yojana providing direct financial assistance to 11.8 crore farmers.
- Electronic National Agriculture Market integrated 1361 mandis, serving 1.8 crore farmers with a trading volume of INR 3 lakh crore.

Empowering Youth

- National Education Policy 2020 bringing transformational reforms.
- Skill India Mission training 1.4 crore youth, establishing 3000 new ITIs.
- Establishment of 7 IITs, 16 IIITs, 7 IIMs, 15 AIIMS, and 390 universities.
- PM Mudra Yojana sanctioning 43 crore loans totaling 22.5 lakh crore.

Women Empowerment

- Thirty crore Mudra Yojana loans given to women entrepreneurs.
- Female enrolment in higher education increased by 28% in ten years.
- 43% enrolment of girls and women in STEM courses.

Geopolitics: Introduction of India-Middle East-Europe Economic Corridor.

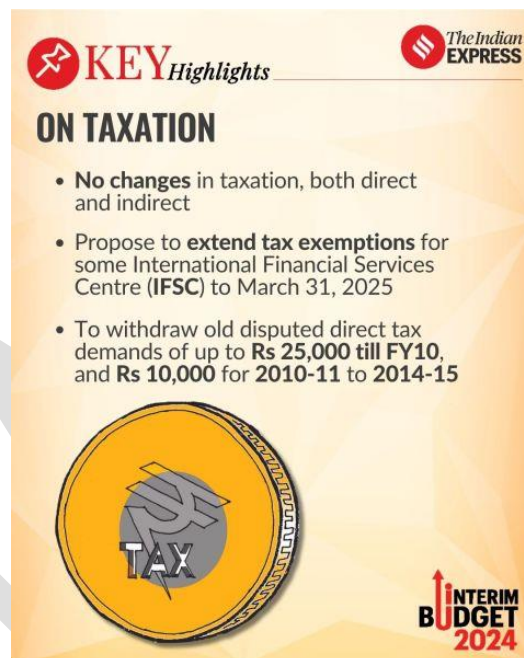
Vision for Viksit Bharat: Prosperous Bharat with modern infrastructure and opportunities for all citizens.


Strategy for 'Amrit Kaal'

- Next-generation reforms guided by 'Reform, Perform, and Transform.'
- Focus on MSME growth, regulatory environment, high resource-efficient economic growth, and energy security.

Aspirational Districts Programme: Government support for faster development of aspirational districts and blocks.

Development of the East: Special attention to making the eastern region a powerful driver of India's growth.



KEY Highlights 

ON TAXATION

- No changes in taxation, both direct and indirect
- Propose to extend tax exemptions for some International Financial Services Centre (IFSC) to March 31, 2025
- To withdraw old disputed direct tax demands of up to Rs 25,000 till FY10, and Rs 10,000 for 2010-11 to 2014-15

INTERIM BUDGET 2024



KEY Highlights 

ON FISCAL DEFICIT, GDP

- FY25 fiscal deficit seen at 5.1% vs FY24 revised estimate of 5.8%
- FY25 nominal GDP growth seen at 10.5%
- FY25 divestment target at Rs 50,000 crore
- FY25 capex seen at Rs 11.1 lakh crore vs FY24 revised estimate of Rs 9.50 lakh crore

INTERIM BUDGET 2024

PM Awas Yojana (Grameen): Close to achieving the target of three crore houses, with two crore more in the next five years.

Rooftop Solarization and Muft Bijli: Goal to enable one crore households to obtain up to 300 units of free electricity monthly through rooftop solarization.

Housing for Middle Class: Scheme to help middle-class individuals in rented houses, slums, or chawls to buy or build their own houses.

Health

- Plans to set up more medical colleges and encourage vaccination for cervical cancer prevention.
- Comprehensive program for maternal and child care.
- Extension of Ayushman Bharat scheme to ASHA workers, Anganwadi Workers, and Helpers.

Agriculture and Food Processing

- Efforts for value addition in the agricultural sector and boosting farmers' income.
- Focus on post-harvest activities, research, and innovation.

SHGs: Recognition and support for the success of 83 lakh SHGs with nine crore women, enhancing the Lakhpati Didi target from 2 crore to 3 crore.

Research and Innovation: Establishment of a corpus of INR 1 lakh crore for long-term financing of research and innovation.

Infrastructure

- Outlay increased by 11.1% to INR 11,11,111 crore (3.4% of GDP).
- Implementation of three major economic railway corridor programs under PM Gati Shakti.

Building on the massive tripling of the capital expenditure outlay in the past 4 years resulting in huge multiplier impact on economic growth and employment creation, the outlay for the next year is being increased by 11.1 per cent to eleven lakh, eleven thousand, one hundred and eleven crore rupees (₹ 11,11,111 crore). This would be 3.4 per cent of the GDP

— Union Finance Minister Nirmala Sitharaman during the budget speech



Aviation: Expansion of airports, development of new airports, and support for the e-vehicle ecosystem.

Green Energy: Measures to achieve 'net-zero' by 2070, including offshore wind energy, coal gasification, and phased mandatory blending of Compressed Biogas.

Electric Vehicle: Government support for the expansion and strengthening of the e-vehicle ecosystem.

Bio-manufacturing and Bio-foundry: Launch of a new scheme for bio-manufacturing and bio-foundry to promote environment-friendly alternatives.

Blue Economy 2.0: Scheme for restoration and adaptation measures, coastal aquaculture, and mariculture for promoting climate-resilient activities.

Tourism: Encouragement for comprehensive development of iconic tourist centers and financing long-term interest-free loans to States for such development.

Promoting Investments: FDI inflow during 2014-23 marked a golden era, and efforts to encourage sustained foreign investment continue.

Reforms in the States for 'Viksit Bharat': Provision of INR 75,000 crore as a fifty-year interest-free loan to support milestone-linked reforms by State Governments.

Societal Changes: Formation of a high-powered committee for extensive consideration of challenges arising from fast population growth and demographic changes.

Way Forward

The macroeconomic landscape outlined in the budget for 2023-24 highlights the central government's achievement of aligning its receipts, excluding borrowing, closely with the budgeted figures. The government has not only met expectations concerning tax revenues but also anticipates a 25% increase in non-tax revenue receipts compared to the budget. Recognizing the imperative of fostering a conducive environment for business growth, the budget places emphasis on addressing environmental concerns and uplifting marginalized segments of society. The overarching goal is to ensure the quality of growth, emphasizing equity, sustainability, and a green approach, thereby setting the stage for a balanced and inclusive economic trajectory.

Panchayats As Self-Governing Institutions

Why in News?

With the increase in the allocation of Central Finance Commission (CFC) grants, panchayats are evincing less interest in the collection of OSR.

Key Highlights

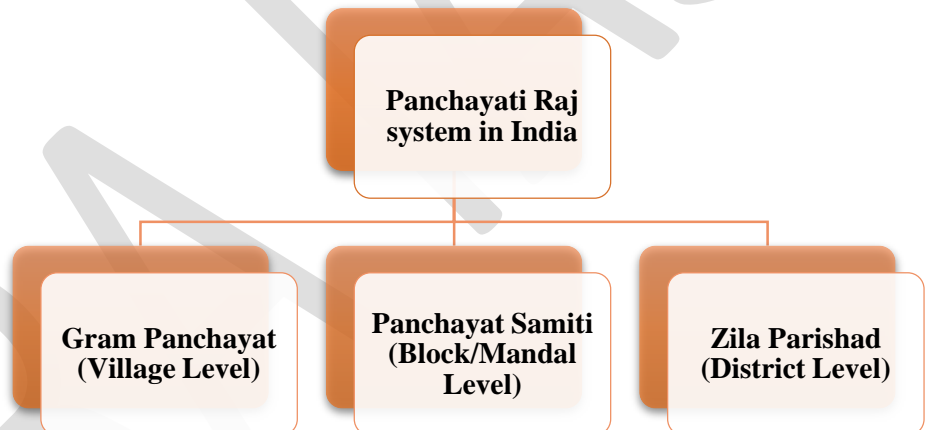
- 30 years since the 73rd and 74th Constitutional Amendments Acts came into effect, aiming to establish local bodies as institutions of local self-government.
- The Ministry of Panchayati Raj was formed in 2004 to strengthen rural local governments.
- The effectiveness of Panchayati Raj institutions varies among states, with some progressing well in decentralization, while others lag behind.
- The constitutional amendment emphasizes fiscal devolution, including the generation of own revenues by local bodies. However, the article highlights that only 1% of revenue comes from taxes, with the majority (80%) being grants from the Centre and 15% from the States.
- The expert committee report details various revenue sources for Panchayats, including property tax, land revenue cess, stamp duty surcharge, tolls, profession tax, advertisement tax, user charges for services, etc.
- Gram Sabhas play a significant role in local self-sufficiency and sustainable development by leveraging local resources for revenue generation. They have the authority to impose taxes, fees, and levies, directing funds toward local development projects.
- There is a need to demarcate OSR responsibilities for the entire three-tier Panchayati Raj system to ensure equitable sharing. Currently, gram panchayats collect the majority of own taxes.
- Despite the potential for revenue generation, Panchayats face obstacles, including a culture of aversion to paying taxes, dependency on grants, and reduced interest in collecting OSR due to increased grants from Central Finance Commission.

- Panchayats confront challenges in resource mobilization due to a 'freebie culture,' reluctance to impose taxes by elected representatives fearing a negative impact on popularity, and a dependency on grants rather than developing self-sufficiency.
- the need to educate elected representatives and the public on the importance of raising revenue for the development of Panchayats as self-governing institutions. It calls for dedicated efforts at all governance levels to minimize the dependency syndrome on grants.



About Local Self Government

- Local Self Government involves the management of local affairs by elected local bodies.
- It encompasses both rural and urban governance, representing the third level of government.
- Two types of local government operate in India: Panchayats in rural areas and Municipalities in urban areas.
- Rural Local Governments, known as Panchayati Raj Institution (PRI), were constitutionalized through the 73rd Constitutional Amendment Act in 1992.
- The amendment added Part-IX to the Constitution, titled 'The Panchayats,' comprising provisions from Articles 243 to 243 O.
- Additionally, it introduced the Eleventh Schedule containing 29 functional items of the panchayats, covered by Article 243-G.
- Despite 30 years of existence, further decentralization and strengthening of democracy at the grassroots level are deemed necessary for PRI.
- Urban Local Governments were established for democratic decentralization, including Municipal Corporation, Municipality, Notified Area Committee, Town Area Committee, Cantonment Board, township, port trust, and special purpose agency.
- The subject of 'urban local government' is managed by the Ministry of Housing and Urban Affairs, Ministry of Defense (for cantonment boards), and Ministry of Home Affairs (for Union Territories) at the Central level.
- The 74th Amendment Act in 1992, during P.V. Narsimha Rao's government, added Part IX-A to the Constitution, covering provisions from Articles 243-P to 243-ZG.
- It also added the Twelfth Schedule, encompassing 18 functional items of Municipalities and dealing with Article 243 W.



History of Local Administration in India

Ancient Period

Medieval Period

Colonial Period

Ancient Period	
Janapadas and Local Governance	In ancient India, the political landscape comprised numerous Janapadas, small kingdoms, and republics. Local governance was facilitated through councils known as "Sabhas" and "Samitis," handling administrative and judicial matters.
Mauryan Empire	Under the Mauryan Empire (322-185 BCE), Emperor Ashoka implemented a system of local administration. Officials called "Mahamatras" were appointed to oversee the welfare of people in different regions. Edicts were inscribed on pillars and rocks to communicate policies to the local population.
Medieval Period	
Feudal System	The medieval period witnessed the rise of feudalism, with feudal lords and local chieftains governing territories autonomously. The Delhi Sultanate and Mughal Empire introduced "jagirs" or land grants for revenue collection and military service.
Local Chiefs and Rajas	Regional rulers, such as Rajas and Zamindars, exercised local authority independently, collecting revenue from peasants.
Colonial Period	
British Administrative Changes	The British East India Company and later the British Crown introduced a centralized administrative system, altering local governance significantly. They established a revenue collection system, collecting land revenue directly or through intermediaries called zamindars.
Introduction of Local Self-Government	The British introduced local self-government institutions, including municipalities and panchayats. The Montagu-Chelmsford Reforms (1919) and the Government of India Act (1935) provided for some local representation in governance.
Village Panchayat in British Era	The village panchayat system emerged during the British era, aiming to address demands for local autonomy. The Government of India Act of 1935 authorized provinces to enact legislation, further shaping the landscape of local governance.



National Panchayat Raj Day

24 April 2023

The Constitution (73rd Amendment) Act, 1992 that came into force with effect from 24th April 1993

Key features

- ◉ Gram Sabha is the primary body of the Panchayati Raj system.
- ◉ 3 tier PRIs got constitutional status
- ◉ Direct election by the people
- ◉ Reservation of seats for women, SCs and STs
- ◉ Power and authority to the panchayats on all the 29 subjects
- ◉ People's participation at grassroots - propelling India's Growth

INDIA

2, 55, 241	Village Panchayats	32,00,000+ elected representatives
6696	Block panchayats	
665	Zilla (District) Panchayats	

KARNATAKA

5951	Village Panchayats	Over 80,000 elected representatives
233	Block panchayats	
31	Zilla (District) Panchayats	

Committees related to Local Self-Government in India

Balwant Rai Mehta Committee (1957)

Appointed by the Government of India to examine earlier programs, the committee recommended the establishment of a three-tier Panchayati Raj system.

• **Recommendations**

- Three-tier system: gram panchayat, panchayat Samiti, and Zila Parishad.
- District Collector as the Zila Parishad chairman.
- Transfer of resources and power to ensure effective functioning.

Ashok Mehta Committee (1977-1978)

Constituted by the Janata government to study Panchayati Raj institutions.

• **Recommendations**

- Shift from a three-tier to a two-tier system.
- Political parties' participation at all levels.
- Compulsory taxation powers for institutions.
- Zila Parishad responsible for state-level planning.

G V K Rao Committee (1985)

Appointed by the Planning Commission, highlighted the diminishing role of local self-government.

• **Recommendations**

- Zila Parishad to have prime importance.
- Creation of the post of District Development Commissioner.
- Emphasis on regular elections.

L M Singhvi Committee (1986)

Constituted by the Rajiv Gandhi government for the revitalization of Panchayati Raj institutions.

• **Recommendations**

- Constitutional recognition for PRI institutions.
- Establishment of Nyaya Panchayats for clusters of villages.

Constitutional Amendments (1992)

The 64th Constitutional Amendment bill faced opposition in 1989, but it materialized as the 73rd and 74th Constitutional Amendment Acts in 1992 under the Narasimha Rao government.

Amendment related to Local Self Governance

Amendment	73rd Constitutional Amendment Act	74th Constitutional Amendment Act
Year	1992	1992
Nature of Amendment	Constitutionalization of Panchayati Raj Institution (PRI)	Constitutionalization of Urban Local Governments
Effective Date	April 24, 1993	June 1, 1993
Part Added to Constitution	Part-IX	Part IX-A
Provisions Covered	Articles 243 to 243 O	Articles 243-P to 243-ZG
Schedule Added	11th Schedule	12th Schedule
Functional Items Covered	29 functional items of the Panchayats	18 functional items of Municipalities
Key Features	<ul style="list-style-type: none"> Constitutionalized PRI Empowered Panchayats with specific provisions Defined functional items through the 11th Schedule 	<ul style="list-style-type: none"> Constitutionalized Urban Local Governments Introduced provisions for planning at the state level by Zila Parishad Established the 12th Schedule outlining the functional items of Municipalities
Government Regime	P.V. Narsimha Rao's government	P.V. Narsimha Rao's government

Status of Finances of PRIs

Revenue Statistics

- Total revenue recorded by panchayats: Rs 35,354 crore.
- Own tax revenue: Rs 737 crore.
- Non-tax revenue: Rs 1,494 crore (primarily from interest payments and Panchayati Raj programs).
- Grants received: Rs 24,699 crore from the Central government and Rs 8,148 crore

Chart 1 | The chart shows the revenue receipts of panchayats in 2022-23. Figures in %

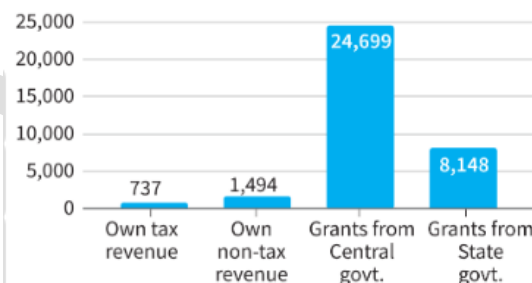


Chart 2 | The chart shows the average revenue per panchayat in 2022-23. Figures in ₹ thousand

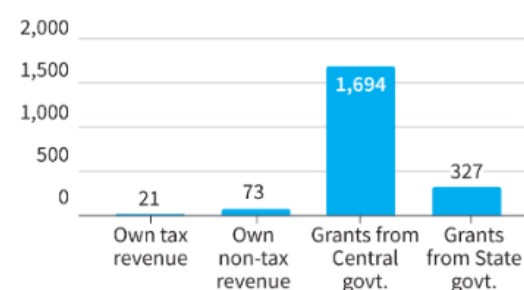


Chart 3 | The chart shows the revenue per panchayat in percentage terms in 2022-23.

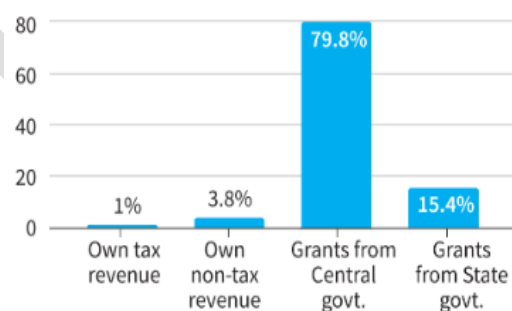
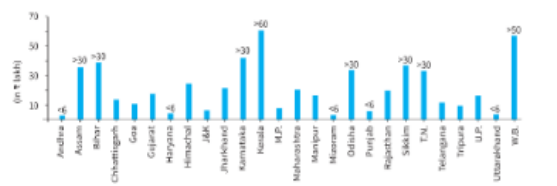


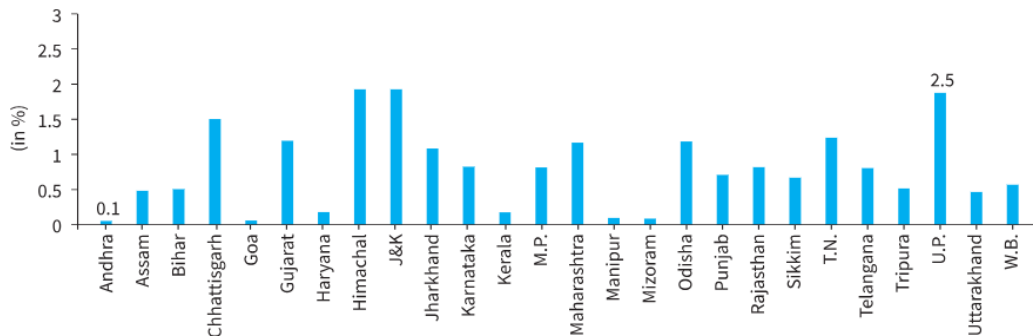
Chart 4 | The chart shows the average revenue per panchayat across States in 2022-23. Figures in ₹ lakh.



from State governments.

Revenue Per Panchayat

- Own tax revenue per panchayat: Rs 21,000.
- Non-tax revenue per panchayat: Rs 73,000.
- Grants from the Central government: Approximately Rs 17 lakh per panchayat.
- State government grants: Over Rs 3.25 lakh per panchayat.
- State Revenue Share and Inter-State Disparities



Panchayats' Share in State Revenue

- Minimal in some states, e.g., 0.1% in Andhra Pradesh and 2.5% in Uttar Pradesh.
- Wide variations in average revenue earned per panchayat among states.

Need for Panchayats to Achieve Self-Sufficiency

Panchayats earn only 1% of revenue through taxes, with 80% from the Centre and 15% from States.

- Despite 30 years of devolution initiatives, revenue raised by panchayats remains meager.

Disparities Across States

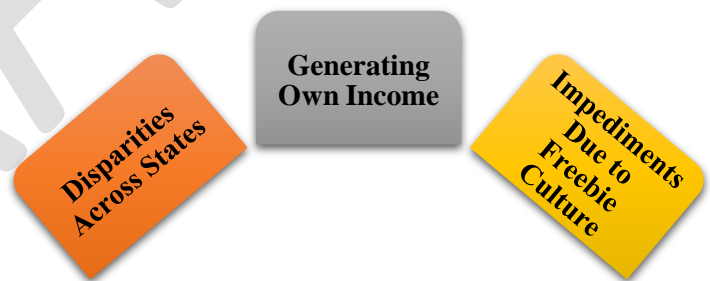
- Some states have excelled in devolution, while others lag behind.
- Gram panchayats lack tax collection authority in several states, leading to uneven revenue distribution.

General Aversion Towards Generating Own Income

- Panchayats show less interest in collecting Own Source of Revenue (OSR) due to increased Central Finance Commission grants.
- States' incentivization policies are sparingly implemented, leading to a decline in tax collection.

Impediments Due to Freebie Culture

- Society's "freebie culture" hinders tax payment, impacting resource mobilization.
- Elected representatives fear negative popularity changes if taxes are imposed.



Suggestions for Boosting Financial Resources of PRIs

State Acts detail tax and non-tax revenue that panchayats can collect. Major Own Source of Revenue (OSR) areas include property tax, cess on land revenue, and user charges.

**Establishing
Conducive
Environment**

**Diversifying
Sources for
Non-Tax
Revenues**

**Leveraging
Local
Resources**

**Fostering
Partnerships**

Recommendations of RBI

**Educating
Elected
Representatives
and Public**

Establishing Conducive Environment

- Panchayats should create a favorable environment for taxation by implementing appropriate financial regulations.
- Decisions on tax and non-tax bases, rates, periodic revisions, exemptions, and effective tax management are crucial.

Diversifying Sources for Non-Tax Revenues

- Non-tax revenue potential includes fees, rent, income from investments, sales, hire charges, and innovative projects.
- Exploration of income from rural business hubs, commercial ventures, renewable energy, carbon credits, CSR funds, and donations.

Leveraging Local Resources

- Gram sabhas play a vital role in leveraging local resources for revenue generation.
- Involvement in planning, decision-making, and implementation of initiatives for agriculture, tourism, and small-scale industries.

Fostering Partnerships

- Transparent financial management and inclusive participation ensure accountability and community trust.
- Gram sabhas should promote entrepreneurship and foster partnerships for effective revenue generation.

Recommendations of RBI

- Promote decentralization and empower local leaders and officials.
- Emphasize measures to enhance financial autonomy and sustainability of Panchayati Raj.
- Adopt transparent budgeting, fiscal discipline, community involvement, staff training, and rigorous monitoring and evaluation.

Educating Elected Representatives and Public

- Educate elected representatives and the public on the importance of raising revenue for self-governing panchayats.
- Minimize dependency on grants through dedicated efforts at all governance tiers.

Shumang Leela & Suspension of Agreement (SoO)

Why in News?

In what could have been an anti-climax to a melodramatic Shumang Leela act (a traditional form of theatre in Manipur), 38 Meitei legislators took a six-point public oath-taking at the Kangla Fort, Imphal, on January 24.

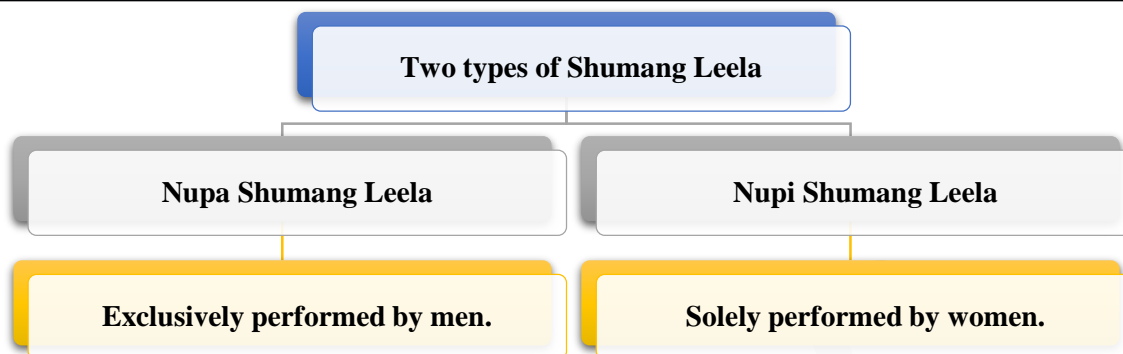
Key Highlight

- The six-points oath called upon the Centre to do the following: abrogate the tripartite Suspension of Agreement (SoO) that it signed with the State and Kuki-Zomi-Hmar militants since 2008; implement the National Register of Citizens but using 1951 as the base year; construct a border-fence across the India-Myanmar border; replace the Assam Rifles with other central paramilitary forces; delete 'Kuki' from the Scheduled Tribe list, and relocate 'Kuki refugees' in Manipur to Mizoram.
- If these were implemented, they would not only further expose the vulnerability of the Kuki-Zomi-Hmar groups but would also effectively erase their long-standing protective discrimination benefits.
- In hindsight, had the above points been played as themes of a Shumang Leela act to showcase what could have transpired in the real world, patrons of Shumang Leela would have been sorely disappointed by the inversion of its conventional themes, wherein brotherhood, tolerance and justice, among others, are sacrificed at the altar of collective self-love and perceived sense of insecurity.
- Clearly, the legislators lost Tagore's dream of 'clear stream of reason' and a fearless mind which should have animated their public action even as they allowed themselves to be consumed by the burning passion to protect the interests of the 'Sanamahi' and Meitei 'community'.
- That this reflection and reasoned public action were missing from the legislators' public action became apparent as the six-points oath failed to mention 'disarmament', which was one of the four resolutions passed earlier by the Assembly.
- This is glaring given that almost half of the 6,000 automatic rifles and over five lakh rounds of live ammunitions from various police armouries that were handed over to ragtag mobs are reportedly still with the Arambai Tenggol, the armed militia under whose diktat and supervision this oath-taking event was held.
- This, and the fact that much of the arms and ammunition continue to be in the hands of armed militants across the divide, continue to be a key structural cause of this violence.
- Given the extensive reports of Arambais being involved in violent attacks against several Kuki-Zomi-Hmar villages, the legislators' decision to publicly partake in the Arambais agenda only reinforces the partisan image and the role of the Meitei legislators in Manipur's violence.
- There may have been applause following the Arambai Tenggol's triumphant shout of 'Manipur na yai phare (Manipur has done well)' in Kangla as they retreated to their camps in motor cavalcades after this event, but far from securing the interests of the Meiteis and protecting Manipur's territorial integrity, there are signs of a sense of insecurity.
- If one is to go by the hostile responses on social media, this event has also sharpened the emotional, demographic and territorial divide between the Kuki-Zomi-Hmar and Meitei.
- The immediate fallout of this was evident during the event as three legislators, who included Meghachandra, the President of Congress Pradesh Committee, were physically assaulted by the Arambais for attributing the violence to misrule by the Bharatiya Janata Party in the State.
- The muzzling of dissent and violent intolerance stems from this. That the Arambai Tenggol brooks no dissent and might unleash terror was also evident when its cadres vandalised the residences of human rights activist Babloo Loitangbam and a retired police official, Thounaojam Brinda, when they implicated the Arambai Tenggol for its role in this cycle of violence.
- By giving in to the diktat of the Arambai Tenggol and Korounganba Khuman, its commander-in-chief (out of fear of being labelled 'enemy' and 'traitor' of the Meitei 'community'), the Meitei legislators have abandoned their primary constitutional duty and oath to protect India's Constitution.
- This dramatic event is also remarkable for its symbolic and iterative significance.

- That an armed militia chose Kangla Fort as the site for public oath-taking demonstrates its determination to not only revive the glorious past of Kangleipak (the local name for Meitei Kingdom) from its symbolic and traditional seat of power, but also project this as a fulcrum to revive Meitei indigenous tradition, culture, and religion (Sanamahi).
- The event is also significant for another reason — that elected representatives of a democratic state, whose primary oath of allegiance is to the Indian Constitution, are very pliable and can be blackmailed under duress to capitulate to the partisan communal agenda of an unelected, and armed militant group.
- That elected legislators could be overshadowed in a democratic and constitutional state is disturbing as it strikes at the very root of the legitimacy of the Indian state.
- The fact that this event was organised to convey a strong political message to New Delhi is clear as it happened within days of backroom attempts by a three-member team of the Union Ministry of Home Affairs (headed by A.K. Mishra, a retired police officer and an interlocutor with Kuki-Zomi-Hmar SoO groups in Manipur), to persuade the Arambai Tenggol to either cancel or postpone the event.
- In its ambition to upstage the 38-odd Meitei legislators (plus the Chief Minister who later signed the pledge) as the bearers of democratic legitimacy, the Arambai Tenggol and this oath reinforced the communal and partisan agenda/interest of large segments of Meitei non-state actors and their legislators in targeting the ‘Kuki’ as the problematic ‘other’.
- Although the Arambai Tenggol is largely seen as a private militia (started and sustained under the patronage of Leisemba Sanajaoba, the titular king of Manipur, and the powers-that-be), it also represents a calibrated organisational attempt to revive Meitei indigenous culture, tradition and religion (Sanamahi).
- Much like the radicalisation of youths in Punjab in the 1980s under Bhindranwale’s Damdami Taksal, the Arambai Tenggol has succeeded in reorienting many unemployed Meitei youth to the cause of a sovereign Kangleipak under the veneer of reviving Meitei’s fast-vanishing indigenous religion, traditions and cultures such as traditional martial arts that focus on the use of sword, and a horse-mount dart as a weapon. In doing so, the Arambai Tenggol has galvanised popular interest and support in quick time.
- However, given that it operates in an insurgent space where the ‘radical’ agenda and interest of a motley of non-state actors including armed groups which espouse a sovereign Kangleipak intersect and often either coalesce or reinforce one another, the Arambai Tenggol is susceptible to manipulation and control by powerful social forces and political actors.
- It is precisely here that one should be wary of the Janus-faced Arambai Tenggol. Allowing the mighty Indian state to capitulate to this armed militia, or other powerful social forces, just because it is amenable to cultural and nationalist appropriation by some vested parties in their electoral pursuit cannot be used as a ruse to denude what the eminent sociologist Michael Mann in a different context calls the ‘infrastructural power’ of the state — that is, the autonomous power to regulate state-society relations. Otherwise, this public event could turn out to be India’s Bhindranwale moment again.

What is Shumang Leela?

- Traditional form of theatre in Manipur with unique gender role reversals.
- Male actors play female roles, and female artists portray male characters in female theatre groups.
- Originated as a comedic genre for royalty, it has transformed into a potent medium for mass education, entertainment, and relaxation.
- In Nupi Shabis, men take on all female roles in the plays.
- Believed to have roots in Lai Haraoba, a ritual of the Meitei community in Manipur.
- Plays serve the purpose of educating the public on social, political, and economic issues.



Kangla Fort

- Kangla Fort stands as a significant historic and archaeological site in the heart of Imphal, the capital city of Manipur.
- Traditionally, it was the seat of power for the Meetei rulers of Manipur until 1891.
- The old Govindajee Temple, situated adjacent to Kangla Fort, is the largest Vaishnav Hindu temple in Imphal.
- The temple is in close proximity to the palace of the former rulers of the Manipur Kingdom.
- The outer and inner moats, along with other relics, vividly showcase Manipur's rich art and architectural heritage.



Suspension of Operations (SoO) Agreement

Ceasefire Agreement (2008) Overview

Kuki Insurgent Groups under SoO Agreement

Kukiland Territorial Council

- **Ceasefire Agreement (2008) Overview**
 - Aimed at initiating political dialogue with Kuki insurgent groups and ending violence.
 - Signatories: Centre, Manipur Government, Kuki National Organisation (KNO), United People's Front (UPF).
 - 25 groups included (17 under KNO, 8 under UPF).
- **Kuki Insurgent Groups under SoO Agreement:** Nearly 30 groups in Manipur, 25 under the Suspension of Operations (SoO) Agreement.
- **Kukiland Territorial Council:** Shift from demanding a separate state to advocating for a territorial council with financial and administrative autonomy.

Terms of SoO Agreement

Tenure

Rehabilitation Package

Current Status

Tenure

- Initially one year, extendable based on implementation progress.
- Extensions granted by the Government annually, amid threats of breaching the agreement by Kuki outfits.
- Joint Monitoring Group (JMG) oversees implementation.
- No operations allowed by security forces or underground groups.
- Militant cadres confined to designated camps, arms stored under strict security measures.
- Responsibilities outlined for insurgents: Adherence to Indian Constitution, laws, and territorial integrity; prohibition of atrocities and extortion.

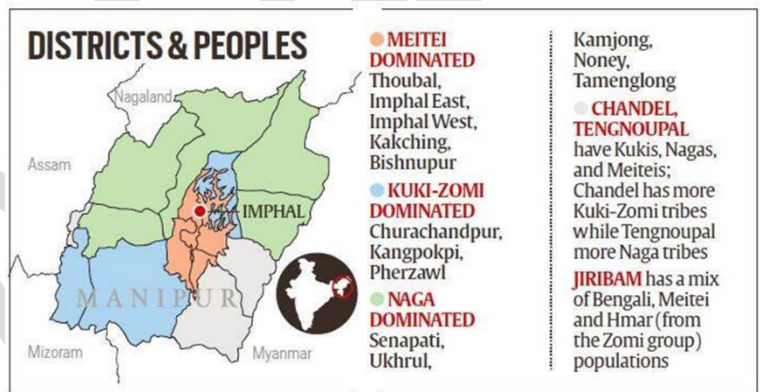
Rehabilitation Package: UG cadres in designated camps receive a monthly stipend of Rs 5000.

Current Status

- Manipur government decides to withdraw from SoO agreement with Kuki National Army (KNA) and Zomi Revolutionary Army (ZRA).
- Allegations of their involvement in inciting agitation among forest encroachers cited as the reason for withdrawal.

Who are Kukis?

- The Kukis are a diverse ethnic group residing in the northeastern regions of India, specifically Manipur, Mizoram, and Assam, as well as parts of Bangladesh and Myanmar, primarily in hilly areas.
- In Manipur, the Kukis constitute around 30% of the total population and coexist with the Naga tribes, leading to historical conflicts related to territorial claims.
- The Naga-Kuki clashes stem from overlapping territories, with some Kuki areas coinciding with the envisioned Naga homeland of Greater Nagaland or Nagalim.
- Apart from the Kukis and Nagas, the Meiteis, who are non-tribal Vaishnavite Hindus, reside in the valley region of Manipur.
- The Kuki insurgency has its roots in the post-independence period when Manipur acceded to India, and internal autonomy was promised but not fully realized until 1972.
- The imposition of the Armed Forces Special Powers Act (AFSPA) in 1980 intensified the conflict, with allegations of excesses by the army.
- During the 1980s, the Kuki insurgency gained momentum with the formation of the Kuki National Organisation (KNO) and its military wing, the Kuki National Army (KNA).
- Ethnic clashes between Nagas and Kukis in the early 1990s led to the formation of various Kuki insurgent groups, resulting in significant casualties.
- Despite a reduction in clashes in recent decades, lingering tensions between the Naga and Kuki ethnic groups persist.



Delisting some Kuki-Zomi tribes

- The Manipur High Court directed the State government to recommend the inclusion of Meiteis in the Scheduled Tribes (ST) list to the Centre.
- The primary reason for the Meiteis' demand for ST status is their inability to own land in forested hill districts, designated for ST landownership.



- The ethnic conflict between valley-based Meitei people and hills-based Kuki-Zo (ST) communities ignited in 2023, prompted by the Manipur High Court's directive.
- The Centre requested the Manipur Government to review a representation advocating the removal of specific Kuki and Zomi tribes from Manipur's ST list.
- The Chief Minister of Manipur mentioned the possibility of forming a special committee to address the issue.
- The representation challenging the ST list was sent by the National Secretary of the Republican Party of India (Athawale) in Manipur.

Key points from the representation

Significance of the representation

Analysis of the representation

Key points from the representation

- The representation argued for the inclusion of Meiteis in the ST list by proposing the exclusion of certain Kuki and Zomi tribes.
- It objected to three specific entries in Manipur's ST list: "Any Mizo (Lushai) Tribes," "Zou Tribes," and "Any Kuki Tribes."
- The main argument for excluding these entries is their alleged lack of "indigenous" status in Manipur, with no mention in pre-Independence Censuses.
- The representation claimed that the ambiguity of "Any Mizo (Lushai) Tribes" and "Any Kuki Tribes" in the ST list has facilitated illegal immigrants from Myanmar and Bangladesh in wrongly availing ST benefits in India.

Significance of the representation

- This marks the first instance of the Meitei community advocating for their ST inclusion while contesting the eligibility of specific Kuki and Zomi tribes.
- The move could potentially impact the criteria for defining STs, which have remained unchanged since the introduction of the Lokur Commission's recommendations in 1965.

Analysis of the representation

- The claim that the contested communities were not residing in Manipur during the 1950 Constitution (Scheduled Tribes) list publication is debunked.
- The 1950 list included three tribes for Manipur — "Any Kuki Tribe," "Any Lushai Tribe," and "Any Naga Tribe," encompassing respective sub-tribes.
- No empirical evidence currently supports the assertion that the presence of these tribes' names in the ST list facilitated organized illegal immigration into Manipur. The representation's claim that the entries were not specifically recommended by the First Backward Classes Commission is contradicted by the Commission's recommendation for individual tribe names in the ST list.
- The 1956 revision of Manipur's ST list included 29 entries with individual tribe names, retaining "Any Mizo (Lushai) Tribe" and including the tribe "Zou."

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Scheduled Tribe (ST)

Definition

Article 366 (25) of the Constitution of India defines Scheduled Tribes as tribes or tribal communities identified under Article 342.



Identification Process

Article 342(1)

The President, in consultation with the Governor, can specify tribes or tribal communities as Scheduled Tribes through public notification

Article 342(2)

Parliament has the authority to include or exclude communities from the Scheduled Tribes list.

Criteria for Specification

Primitiveness, geographical isolation, shyness of contact, and social, educational & economic backwardness distinguish Scheduled Tribes from other communities.



Inclusion Procedure

- Proposal originates from the State or Union Territory government.
- Sent to the Union Tribal Affairs Ministry.
- Ministry forwards it to the Office of the Registrar General of India (ORGI).
- If ORGI approves, the proposal goes to the National Commission for Scheduled Tribes (NCST).
- The concurrence of these institutions is required before forwarding the proposal to the Cabinet for amending the Constitution (Scheduled Tribes) Order, 1950.

- The Lokur Commission addressed the debate by categorizing tribes as larger groups with sub-tribes, aiming to reconcile the inclusion of whole tribe names or specific tribe names in the ST list.

Scheduled Tribes List

- It is a constitutional document that recognizes the rights and privileges of certain communities in India that are considered to be historically disadvantaged and marginalized.
- The list is not static but can be amended by the Parliament of India under Article 342 of the Constitution.

Who should be allowed to "add, subtract, or modify" the Scheduled Tribes List?

- This question has been a matter of debate and controversy for decades, as different stakeholders have different views and interests on the issue.

Important Commissions

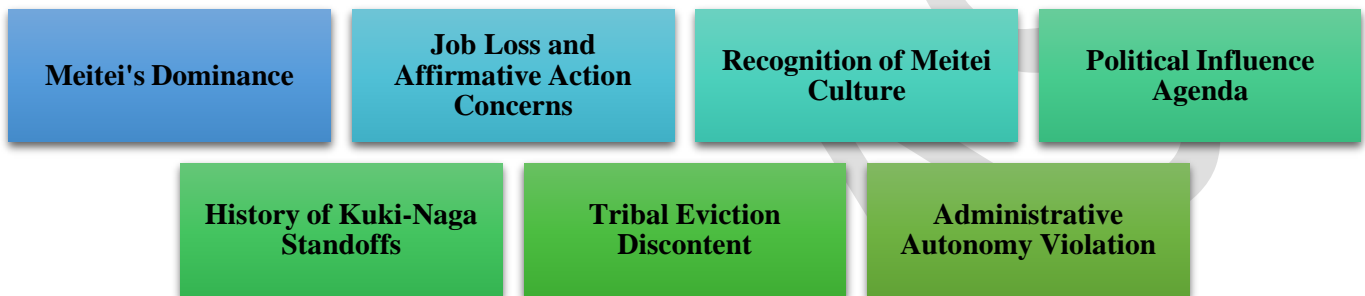
Commission	Establishment and Chairman	Mandate and Recommendations	Submission Date
First Backward Class Commission	Established by Presidential Order on Jan 29, 1953, under the Chairmanship of Shri Kaka Kalelkar (Kaka Kalelkar Commission)	Submitted a report on March 30, 1955	March 30, 1955
Lokur Committee (1965)	Criteria for defining a community as a tribe: indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the community at large	Provided criteria for defining tribes; focused on primitive traits, distinctive culture, geographical isolation, and shyness of contact with the larger community	-
Bhuria Commission (2002-04)	Constituted in 1995 to recommend provisions for the extension of panchayat raj to Scheduled Areas; recommended inclusion of villages (yet to be implemented)	Recommendations included provisions for extending panchayat raj to Scheduled Areas, including specific villages, pending implementation by the President of India	-
Xaxa Committee (2013)	Mandated to examine the socio-economic, educational, and health status of tribal communities and recommend intervention measures	Submitted a report in May 2014; focused on assessing and improving the socio-economic, educational, and health status of tribal communities, providing recommendations for intervention measures	May 2014

Why does the Meitei Community want ST Status?

- The Meitei community, represented by the Scheduled Tribes Demand Committee of Manipur (STDCM), has been advocating for Scheduled Tribe (ST) status since 2012.
- Their request is motivated by the desire for constitutional safeguards to protect their culture, language, and identity.
- The Meiteis contend that they were acknowledged as a tribe prior to Manipur's merger with India in 1949, asserting that their tribal identity eroded post-merger.

- Exclusion from the ST list has left the Meitei community feeling marginalized and devoid of constitutional protections.
- The STDCM emphasizes that the Meitei/Meetei people have experienced gradual marginalization in their ancestral land.
- Census data reveals a decline in their population share from 59% in 1951 to 44% in 2011, reinforcing their sense of vulnerability.
- Granting ST status is seen by the Meitei community as a crucial step to preserve their ancestral land, uphold traditions, culture, and language, and shield themselves against external influences.

Why are Other Tribal Groups in Manipur opposing the Demand of Meiteis?



- **Meitei's Dominance:** The Meitei community, with a majority in population and political representation, resides mainly in the valley where most Assembly constituencies are located.
- **Job Loss and Affirmative Action Concerns:** Other Scheduled Tribe (ST) communities fear that granting ST status to the Meiteis may lead to job losses and competition for affirmative action benefits.
- **Recognition of Meitei Culture:** The Meitei language is already listed in the 8th Schedule of the Constitution.
- Some sections of the Meitei community fall under Scheduled Castes (SC) or Other Backward Classes (OBC), providing specific opportunities.
- **Political Influence Agenda:** Concerns exist that the Meitei community's push for ST status aims to gain political influence, diverting attention from the political demands of other tribal groups like the Kukis and Nagas.
- **History of Kuki-Naga Standoffs:** The Kukis, encompassing multiple tribes in the Northeast, have a history of violent conflicts with the Nagas over trade and cultural dominance, resulting in torched villages and civilian casualties.
- **Tribal Eviction Discontent:** Discontent arises from state government notices labeling 38 villages in the Churachandpur-Khoupum Protected Forest area as "illegal settlements" and residents as "encroachers." Eviction drives initiated by the government have led to clashes.
- **Administrative Autonomy Violation:** Kuki groups argue that the survey and eviction violate Article 371C, which grants administrative autonomy to tribal-dominated hill areas in Manipur.